Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8400 in astronomical counting style is the year 8401 BCE in historical counting style. -8400 Feb 02 i 21:23 30°R∽ min. Earth dist. -8394 Apr 05 j 05:14 12°Ω01'33 29.21933 AU 10°**Ω**37'59 -8400 Mar 22 j 08:00 28°952'42 2°40'52 -8394 Jun 24 j 06:14 direct opposition -8400 Mar 22 j 03:05 28°553'02 29.24823 AU -8394 Sep 19 j 10:53 12°**Ω**31'25 min. Earth dist. evening set -8400 Jun 10 j 12:17 27°9629'28 direct -8400 Sep 06 j 04:52 -8394 Oct 04 j 11:37 13°**Q**05'20 2°20'00 evening set 29°523'24 conjunction 13°**Ω**05'20 2°20'27 -8394 Oct 04 j 11:38 minimum elong -8394 Oct 04 j 20:28 conjunction -8400 Sep 21 j 04:29 29°957'13 2°30'03 max. Earth dist. 13°**Ω**06'10 31.21337 AU -8400 Sep 21 j 04:29 -8394 Oct 19 j 14:08 minimum elong 29°957'13 2°30'34 morning rise 13°**Ω**39'25 -8400 Sep 21 j 09:20 max. Earth dist. 29°557'40 31.24441 AU -8394 Nov 30 j 20:23 15°Ω -8400 Sep 22 j 09:54  $0^{\circ}\Omega$ retrograde -8393 Jan 17 j 08:28 15°**Ω**36′02 morning rise -8400 Oct 06 j 04:50 0°**Ω**31′06 -8393 Mar 07 j 21:52 15°RΩ retrograde -8399 Jan 03 j 09:45  $2^{\circ}\Omega 26'58$ opposition -8393 Apr 08 j 03:42 14°Ω12'26 2°28'20 opposition -8399 Mar 24 j 21:09 1°**Ω**03'43 2°39'45 min. Earth dist. -8393 Apr 07 j 17:29 14°**Ω**13'07 29.21083 AU min. Earth dist. -8399 Mar 24 j 16:10 1°**Ω**04'03 29.24482 AU direct -8393 Jun 26 j 15:49 12°**Ω**49'30 -8399 May 08 j 15:24 30°R55 evening set -8393 Sep 21 j 19:50 14°**Ω**42'49 direct -8399 Jun 12 j 23:42 29°9540'34 -8393 Sep 29 j 11:51 15°**Ω** -8399 Jul 17 j 03:51  $0^{\circ}\Omega$ evening set -8399 Sep 08 j 13:46 1°**Ω**34'26 conjunction -8393 Oct 06 j 21:02 15°**Ω**16'46 2°17'36 minimum elong -8393 Oct 06 j 21:03 15°Ω16'46 2°18'02 conjunction -8399 Sep 23 j 13:30 2°Ω08'15 2°28'54 max. Earth dist. -8393 Oct 07 j 07:35 15°**Ω**17'46 31.20449 AU minimum elong -8399 Sep 23 j 13:30 2°**Ω**08'15 2°29'24 morning rise -8393 Oct 21 j 23:52 15°**Ω**50′53 max. Earth dist. -8399 Sep 23 j 19:13 2°Ω08'47 31.24118 AU retrograde -8392 Jan 19 i 19:50 17°**Ω**47'35 morning rise -8399 Oct 08 j 14:08 2°**Ω**42'10 opposition -8392 Apr 09 j 16:49 16°Ω23'51 2°25'41 retrograde -8398 Jan 05 i 20:40 4°**Ω**38'10 min. Earth dist. -8392 Apr 09 j 06:09 16°Ω24'35 29.20164 AU -8398 Mar 27 i 09:57 3°Ω14'54 2°38'25 -8392 Jun 28 i 04:13 15°Ω00'55 opposition direct -8398 Mar 27 j 03:01 3°**Ω**15'23 29.24144 AU -8392 Sep 23 j 04:47 16°**Ω**54'06 min. Earth dist. evening set -8398 Jun 15 j 11:13 1°**Ω**51'49 direct -8398 Sep 10 j 22:45 3°**Ω**45'37 -8392 Oct 08 j 06:15 17°**Ω**28'04 2°15'01 conjunction evening set -8392 Oct 08 j 06:16 17°Ω28'04 2°15'26 minimum elong -8398 Sep 25 j 22:35 4°Ω19'28 2°27'33 -8392 Oct 08 j 17:07 17°**Ω**29'06 31.19539 AU conjunction max. Earth dist. -8392 Oct 23 j 09:41 -8398 Sep 25 j 22:35 4°Ω19'28 2°28'03  $18^{\circ}\Omega_{0}2'14$ minimum elong morning rise 4°**Ω**20'04 31.23757 AU -8391 Jan 21 j 09:40 19°**Ω**59'00 -8398 Sep 26 j 04:52 max. Earth dist. retrograde -8398 Oct 10 j 23:33 4°**Ω**53'25 -8391 Apr 12 j 05:47 18°**Ω**35'10 2°22'48 morning rise opposition -8397 Jan 08 j 07:47 6°**Ω**49'34 -8391 Apr 11 j 17:26 18°**Ω**36'00 29.19257 AU retrograde min. Earth dist. 5°**Ω**26'16 2°36'51 -8397 Mar 29 j 23:10 -8391 Jun 30 j 15:57 opposition direct 17°**Ω**12'12 -8391 Sep 25 j 13:48 min. Earth dist. -8397 Mar 29 j 16:24 5°**Ω**26'43 29.23758 AU evening set 19°**Ω**05'17 direct -8397 Jun 17 j 21:30 4°**Ω**03'15 evening set -8397 Sep 13 j 07:36 5°**Ω**56′58 conjunction -8391 Oct 10 j 15:39 19°**Ω**39'17 2°12'14 minimum elong -8391 Oct 10 j 15:40 19°**Ω**39'17 2°12'37 conjunction -8397 Sep 28 j 07:43 6°Ω30'50 2°25'58 max. Earth dist. -8391 Oct 11 j 03:56 19°**Ω**40'27 31.18648 AU -8397 Sep 28 j 07:43 6°Ω30'50 2°26'26 morning rise -8391 Oct 25 j 19:32 20°**Ω**13'29 minimum elong -8397 Sep 28 j 15:26 6°**Ω**31'34 31.23335 AU -8390 Jan 23 j 21:03 22°Ω10'20 max. Earth dist. retrograde -8397 Oct 13 j 08:53  $7^{\circ}\Omega04'49$ -8390 Apr 14 j 18:39 20°**Ω**46'24 2°19'44 morning rise opposition -8396 Jan 10 j 19:11 9°**Ω**01′06 -8390 Apr 14 j 06:16 20°**Ω**47'14 29.18401 AU retrograde min. Earth dist. -8396 Mar 31 j 12:19 7°**Ω**37'45 2°35'03 -8390 Jul 03 j 03:07 19°**Ω**23'27 opposition direct min. Earth dist. -8396 Mar 31 i 03:53 7°**Ω**38'19 29.23275 AU evening set -8390 Sep 27 i 22:47 21° $\Omega$ 16'26

direct -8396 Jun 19 i 08:53 6°Ω14'47 evening set -8396 Sep 14 i 16:47 8°**Ω**08'26 conjunction -8390 Oct 13 i 01:03 21°Ω50'27 2°09'15 minimum elong -8390 Oct 13 i 01:04 21°Ω50'27 2°09'39 -8396 Sep 29 j 16:58 8°Ω42'18 2°24'11 max. Earth dist. -8390 Oct 13 i 14:26 21° $\Omega$ 51'43 31.17850 AU conjunction -8396 Sep 29 j 16:58 8°Ω42'18 2°24'40 -8390 Oct 28 j 05:26 22°Ω24'42 minimum elong morning rise -8396 Sep 30 j 00:32 8°**Ω**43'01 31.22797 AU -8389 Jan 26 j 08:49 24°Ω21'38 max. Earth dist. retrograde -8396 Oct 14 j 18:39 9°**Ω**16′20 -8389 Apr 17 j 07:31 22°**Ω**57'37 2°16'26 morning rise opposition retrograde -8395 Jan 12 j 07:45 11°**Ω**12'45 min. Earth dist. -8389 Apr 16 j 16:55 22°Ω58'37 29.17644 AU opposition -8395 Apr 03 j 01:30 9°**Ω**49'20 2°33'02 direct -8389 Jul 05 j 15:02 21°**Ω**34'42 min. Earth dist. -8395 Apr 02 j 17:04 9°**Ω**49'54 29.22678 AU evening set -8389 Sep 30 j 07:43 23°**Ω**27'36 8°**Ω**26′24 -8395 Jun 21 j 18:48 direct -8395 Sep 17 j 01:47 10°**Ω**19'56 -8389 Oct 15 j 10:20 24°Ω01'39 2°06'05 evening set conjunction -8389 Oct 15 j 10:21 minimum elong 24°**Ω**01'39 2°06'27 -8395 Oct 02 j 02:24 10°**Ω**53'50 2°22'12 -8389 Oct 16 j 00:25 24°**Ω**02'59 31.17146 AU conjunction max. Earth dist. -8395 Oct 02 j 02:25 24°**Ω**35'57 minimum elong 10°**Ω**53′50 2°22′39 morning rise -8389 Oct 30 j 15:20 max. Earth dist. -8395 Oct 02 j 11:38 10°**Ω**54'42 31.22133 AU retrograde -8388 Jan 28 j 20:36 26°**£**33′00 morning rise -8395 Oct 17 j 04:20 11°**Ω**27'53 opposition -8388 Apr 18 j 20:34 25°Ω08'56 2°12'57 retrograde -8394 Jan 14 j 19:18 13°**Ω**24'25 min. Earth dist. -8388 Apr 18 j 05:52 25°**Ω**09'55 29.16990 AU opposition -8394 Apr 05 j 14:36 12°**Ω**00'55 2°30'48 direct -8388 Jul 07 j 01:34 23°**Ω**46′03

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8388 in astronomical counting style is the year 8389 BCE in historical counting style. -8388 Oct 01 j 16:44  $25^{\circ}\Omega$ 38'52 max. Earth dist. -8382 Oct 31 i 02:40 9° m 26'43 31.12609 AU evening set -8382 Nov 14 j 16:51 9° m 59'35 morning rise -8388 Oct 16 j 19:57 26°Ω12'58 2°02'44 -8381 Feb 13 j 13:49 retrograde 11° m 57'26 conjunction -8388 Oct 16 j 19:58 -8381 May 05 j 14:47 26°Ω12'58 2°03'07 10° m 33'04 1°43'19 minimum elong opposition -8381 May 04 j 20:01 -8388 Oct 17 j 11:47 max. Earth dist. 26°**Ω**14'28 31.16547 AU min. Earth dist. 10° m/34'21 29.12219 AU -8388 Nov 01 j 01:25 -8381 Jul 23 j 03:26 morning rise 26°**Ω**47'18 direct 9° m 10'29 -8381 Oct 17 j 10:52 retrograde -8387 Jan 30 j 08:17 28°**Ω**44'29 evening set 11° Mp 02'55 opposition -8387 Apr 21 j 09:19 27°**Ω**20'22 2°09'16 min. Earth dist. -8387 Apr 20 j 16:47 27°**Ω**21'30 29.16413 AU conjunction -8381 Nov 01 j 17:44 11° **m** 37'20 1°34'26 direct -8387 Jul 09 j 12:55 25°**Ω**57'33 minimum elong -8381 Nov 01 j 17:45 11°M)37'20 1°34'40 evening set -8387 Oct 04 j 01:57 27°**Ω**50′19 max. Earth dist. -8381 Nov 02 j 13:30 11° Mp 39'12 31.11600 AU -8381 Nov 17 j 03:44 morning rise 12° m/ 12'03 -8387 Oct 19 j 05:29 conjunction 28°**Ω**24'27 1°59'12 retrograde -8380 Feb 16 j 02:49 14° m 09'57 minimum elong -8387 Oct 19 j 05:30 28°**Ω**24'27 1°59'32 min. Earth dist. -8380 May 06 j 07:20 12° Mp 46'53 29.11153 AU max. Earth dist. -8387 Oct 19 j 21:19 28°**Ω**25'57 31.16003 AU opposition -8380 May 07 j 03:35 12° Mp 45'30 1°38'25 morning rise -8387 Nov 03 j 11:43 28°**Ω**58'51 direct -8380 Jul 24 j 16:02 11° Mp 22'54 -8387 Dec 03 j 17:59 evening set -8380 Oct 18 j 20:39 13° m 15'14 retrograde -8386 Feb 01 j 20:49 0° m 56'09 -8386 Apr 06 j 09:48 30°RΩ conjunction -8380 Nov 03 j 04:02 13° m/49'42 1°29'47 13°**m** 49'42 opposition -8386 Apr 23 j 22:16 29°**Ω**32'01 2°05'23 minimum elong -8380 Nov 03 j 04:02 1°30'01 min. Earth dist. -8386 Apr 23 j 05:36 29°**Ω**33'09 29.15882 AU max. Earth dist. -8380 Nov 03 j 23:49 13° m 51'34 31.10508 AU direct -8386 Jul 11 j 22:11 28°**Ω**09'16 morning rise -8380 Nov 18 i 14:49 14° m 24'29 -8386 Oct 05 i 13:40 0° m retrograde -8379 Feb 17 i 15:39 16° M 22'26 evening set -8386 Oct 06 j 11:03 0° m 01'58 opposition -8379 May 09 i 16:16 14° m 57'53 1°33'23 min. Earth dist. -8379 May 08 j 20:32 14° m 59'14 29.10049 AU -8386 Oct 21 j 15:13 0° m 36'09 1°55'29 -8379 Jul 27 j 03:18 13° m 35'15 conjunction direct -8386 Oct 21 j 15:14 0° m 36'09 1°55'49 -8379 Oct 21 j 06:19 15° m 27'30 evening set minimum elong -8386 Oct 22 j 08:57 0° Mp 37'50 31.15474 AU max. Earth dist. 1° m 10'36 -8379 Nov 05 j 14:27 16° Mp 02'01 1°25'01 -8386 Nov 05 j 21:51 conjunction morning rise -8385 Feb 04 j 08:22  $3^{\circ}$  m 08'02-8379 Nov 05 j 14:28 16° m 02'01 1°25'12 retrograde minimum elong -8385 Apr 26 j 11:10 -8379 Nov 06 j 11:42 1° m 43'53 2°01'19 max. Earth dist. 16° Mp 04'01 31.09416 AU opposition -8379 Nov 21 j 01:48 min. Earth dist. -8385 Apr 25 j 17:31 1° Mp 45'05 29.15330 AU 16° Mp 36'50 morning rise -8378 Feb 20 j 03:21 -8385 Jul 14 j 08:54  $0^{\circ}$  **M** 21'1218° Mp 34'50 direct retrograde 17° m 11'39 29.08963 AU -8385 Oct 08 j 20:31 2° m 13'51 -8378 May 11 j 07:31 evening set min. Earth dist. -8378 May 12 j 04:50 17° m 10'12 1°28'12 opposition 15° Mp 47′32 -8385 Oct 24 j 01:01 2° m/48'05 1°51'35 conjunction direct -8378 Jul 29 j 15:35 17° **m** 39'43 minimum elong -8385 Oct 24 j 01:02 2° m/48'05 1°51'53 evening set -8378 Oct 23 j 16:06 max. Earth dist. -8385 Oct 24 j 18:23 2° m 49'43 31.14916 AU morning rise -8385 Nov 08 j 08:26 3°m/22'35 conjunction -8378 Nov 08 j 00:38 18° Mp 14'16 1°20'07 retrograde -8384 Feb 06 j 22:24 5° m 20'09 minimum elong -8378 Nov 08 j 00:39 18° Mp 14'16 1°20'18 -8384 Apr 27 j 05:50 3°M 57'12 29.14737 AU max. Earth dist. -8378 Nov 08 j 21:43 18° Mp 16'15 31.08366 AU min. Earth dist. -8384 Apr 28 j 00:07 3° m 55'58 1°57'04 -8378 Nov 23 j 12:50 18° m/49'09 opposition morning rise -8384 Jul 15 j 17:40 2°m/33'19 -8377 Feb 22 j 15:00 20° Mp 47'13 direct retrograde -8384 Oct 10 j 05:56 4° m 25'56 -8377 May 14 j 17:30 19° m/22'29 1°22'54 evening set opposition min. Earth dist. -8377 May 13 j 20:08 19° m 23'57 29.07960 AU 5° m 00'13 1°47'32 conjunction -8384 Oct 25 j 11:06 direct -8377 Aug 01 j 01:16 17° m 59'49 minimum elong -8384 Oct 25 j 11:06 5° m 00'13 1°47'50 evening set -8377 Oct 26 j 01:51 19° m 51'56 max. Earth dist. -8384 Oct 26 i 05:49 5° m 01'59 31.14273 AU morning rise -8384 Nov 09 j 19:03 5° m 34'46 conjunction -8377 Nov 10 j 11:11 20° m 26'32 1°15'06 -8383 Feb 08 j 10:44 7° m 32'27 minimum elong -8377 Nov 10 i 11:12 20° m 26'32 1°15'15 retrograde -8383 Apr 30 j 13:04 6° m 08'14 1°52'39 max. Earth dist. -8377 Nov 11 j 10:09 20° m 28'42 31.07414 AU opposition min. Earth dist. -8383 Apr 29 j 18:47 6° Mp 09'28 29.14028 AU -8377 Nov 25 j 23:55 21° m 01'28 morning rise 22° m 59'36 -8383 Jul 18 j 05:21 4° m 45'38 -8376 Feb 25 j 01:48 direct retrograde evening set -8383 Oct 12 j 15:39 6° Mp 38'12 min. Earth dist. -8376 May 15 j 07:35 21° Mp 36'20 29.07051 AU opposition -8376 May 16 j 05:59 21°M 34'48 1°17'28 conjunction -8383 Oct 27 j 21:17 7° m 12'31 1°43'19 direct -8376 Aug 02 j 12:12  $20^{\circ}$  M 12'08-8383 Oct 27 j 21:18 minimum elong 7° m 12'31 1°43'34 evening set -8376 Oct 27 j 11:49 22° Mp 04'12 -8383 Oct 28 j 15:45 max. Earth dist. 7° Mp 14'16 31.13513 AU 7° Tp 47'08 -8376 Nov 11 j 21:40 22° m/38'50 1°09'57 morning rise -8383 Nov 12 j 05:57 conjunction -8376 Nov 11 j 21:41 retrograde -8382 Feb 11 j 01:39 9° m 44'54 minimum elong 22° m 38'50 1°10'06 min. Earth dist. -8382 May 02 j 06:29 8° Mp 21'56 29.13192 AU max. Earth dist. -8376 Nov 12 j 20:19 22° m 40'59 31.06569 AU opposition -8382 May 03 j 01:48 8° m 20'37 1°48'03 morning rise -8376 Nov 27 j 11:17 23° m 13'50 direct -8382 Jul 20 j 16:35 6° Mp 58'02 retrograde -8375 Feb 26 j 15:44 25° m 12'02 evening set -8382 Oct 15 j 01:19  $8^{\circ}$  My 50'33opposition -8375 May 18 j 18:31 23° Mp 47'11 1°11'55

min. Earth dist.

evening set

direct

-8382 Oct 30 j 07:32

-8382 Oct 30 j 07:33

conjunction

minimum elong

9° m 24'55 1°38'57

9° m 24'55 1°39'13

-8375 May 17 j 19:26

-8375 Aug 04 j 21:11

-8375 Oct 29 j 21:50

23° m 48'46 29.06250 AU

22°M 24'32

24° m 16'34

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Earth dist. -8374 May 20 j 07:39 -8368 Nov 29 j 14:58 opposition -8374 May 21 j 06:54 25° m 59'42 1°06'15 conjunction 10°**£**22'05 0°25'38 -8368 Nov 29 j 14:59 direct -8374 Aug 07 j 08:11  $24^{\circ}$  My 37'04minimum elong 10°**£**22'05 0°25'37 -8368 Nov 30 j 16:43 evening set -8374 Nov 01 j 08:00  $26^{\circ}$  Mp 29'05max. Earth dist. 10°**£**24'30 30.99798 AU morning rise -8368 Dec 15 j 09:57 10°**♀**57'31 conjunction -8374 Nov 16 j 19:08 27° Mp 03'49 0°59'22 retrograde -8367 Mar 16 j 23:26 12°**£**56'10 -8374 Nov 16 j 19:09 -8367 Jun 05 j 21:32 minimum elong 27° m 03'50 0°59'28 opposition 11°**≏**30'57 0°24'13 -8374 Nov 17 j 19:14 max. Earth dist. 27° Mp 06'06 31.05106 AU min. Earth dist. -8367 Jun 04 j 21:20 11°**೨**32'38 28.99253 AU morning rise -8374 Dec 02 j 10:05 27° m 38'56 direct -8367 Aug 22 j 14:10 10°**£**08'14 retrograde -8373 Mar 03 j 17:48 29° m 37'17 evening set -8367 Nov 16 j 10:57 12°**♀**00'08 opposition -8373 May 23 j 19:21 28° Mp 12'23 1°00'29 min. Earth dist. -8373 May 22 j 19:00 28° Mp 14'03 29.04820 AU conjunction -8367 Dec 02 j 02:27 12°**♀**35'13 0°19'50 direct -8373 Aug 09 j 18:19 26° m 49'46 minimum elong -8367 Dec 02 j 02:27 12°**♀**35'13 0°19'46 evening set -8373 Nov 03 j 18:14 28° m 41'46 max. Earth dist. -8367 Dec 03 j 03:21 12°**♀**37'33 30.98649 AU morning rise -8367 Dec 17 j 22:11 13°**♀**10'41 conjunction -8373 Nov 19 j 06:00 29° m 16'34 0°53'55 retrograde -8366 Mar 19 j 12:49 15°**♀**09'22 minimum elong -8373 Nov 19 j 06:01 29° m 16'34 0°53'59 min. Earth dist. -8366 Jun 07 i 09:12 13°**£**45'46 28.98121 AU max. Earth dist. -8373 Nov 20 j 06:48 29° m 18'54 31.04414 AU opposition -8366 Jun 08 i 09:34 13°**≏**44'04 0°17'59 morning rise -8373 Dec 04 j 21:40 29° m 51'44 direct -8366 Aug 24 i 23:48 12°**₽**21'18 -8373 Dec 08 j 16:18 0∘∙თ evening set -8366 Nov 18 j 21:57 14°**£**13'11 -8372 Mar 05 j 06:16 1°**♀**50'10 retrograde -8372 May 24 j 08:19 -8366 Dec 04 j 14:08 14°**£**48'19 0°14'01 min. Earth dist. 0°**2**26'51 29.04114 AU conjunction opposition -8372 May 25 j 07:55 0°**£**25'14 0°54'37 -8366 Dec 04 j 14:08 14°**£**48'19 0°13'57 minimum elong -8372 Jun 09 j 20:19 -8366 Dec 04 j 10:49 30°R M behind sun begin 14°**£**48'01 29° m 02'38 -8372 Aug 11 j 04:22 -8366 Dec 04 j 17:27 14°**Ω**48'37 direct behind sun end -8372 Oct 09 j 08:13 -8366 Dec 05 j 16:09 0∘∙ max. Earth dist. 14°**♀**50'45 30.97540 AU -8372 Nov 05 j 04:45 0°**£**54'38 -8366 Dec 20 j 10:23 15°**£**23′50 evening set morning rise -8365 Mar 21 j 23:33 17°**£**22'32 retrograde -8372 Nov 20 j 17:14 1°**2**29'28 0°48'24 -8365 Jun 10 j 21:35 15°**⊆**57'10 0°11'44 conjunction opposition -8372 Nov 20 j 17:15 -8365 Jun 09 j 21:15 15°**♀**58'52 28.97056 AU minimum elong 1°**£**29'29 0°48'27 min. Earth dist. -8372 Nov 21 j 18:25 max. Earth dist. 1°**2**31'51 31.03696 AU direct -8365 Aug 27 j 10:52 14°**♀**34'21 -8372 Dec 06 j 09:32 -8365 Nov 21 j 09:00 morning rise 2°**£**04'42 evening set 16°**2**26′15 retrograde -8371 Mar 07 j 20:46 4°**ഫ**03'12 opposition -8371 May 27 j 20:09 2°**2**38'14 0°48'40 conjunction -8365 Dec 07 j 01:46 17°**2**01'25 0°08'11 min. Earth dist. -8371 May 26 j 19:31 2°**೨**39'56 29.03351 AU minimum elong -8365 Dec 07 j 01:46 17°**≏**01'25 0°08'04 -8371 Aug 13 j 16:40 1°**£**15'38 behind sun begin -8365 Dec 06 j 19:59 17°**♀**00'53 direct -8371 Nov 07 j 15:32 3°**≏**07'38 behind sun end -8365 Dec 07 j 07:33 17°**♀**01'56 evening set max. Earth dist. -8365 Dec 08 j 03:38 17°**♀**03'51 30.96539 AU -8371 Nov 23 j 04:31 3°**△**42'32 0°42'48 -8365 Dec 22 j 22:42 17°**≏**36'59 conjunction morning rise -8371 Nov 23 j 04:31 3°**△**42'32 0°42'49 -8364 Mar 23 j 13:27 19°**♀**35'42 minimum elong retrograde -8371 Nov 24 i 05:09 max. Earth dist. 3°**2**44'51 31.02881 AU min. Earth dist. -8364 Jun 11 i 08:13 18°**2**12'03 28.96114 AU -8371 Dec 08 j 21:36 morning rise 4°**£**17'49 opposition -8364 Jun 12 i 09:30 18°**≏**10′18 0°05'28 retrograde -8370 Mar 10 j 10:45 6°**₽**16'23 direct -8364 Aug 28 j 20:56 16°**-**47′26 min. Earth dist. -8370 May 29 j 09:02 4°**2**53'00 29.02484 AU evening set -8364 Nov 22 j 20:19 18°**♀**39'22 -8370 May 30 i 08:41 4°**£**51'22 0°42'38 opposition -8370 Aug 16 j 03:42 3°**£**28'46 conjunction -8364 Dec 08 i 13:39 19°**2**14'34 0°02'20 direct -8370 Nov 10 j 02:07 5°**♀**20'45 -8364 Dec 08 i 13:39 19°**£**14'34 0°02'13 evening set minimum elong -8364 Dec 08 j 07:09 19°**£**13'59 behind sun begin conjunction -8370 Nov 25 j 15:53 5°**£**55'42 0°37'07 behind sun end -8364 Dec 08 j 20:08 19°**£**15′09 minimum elong -8370 Nov 25 j 15:53 5°**£**55'42 0°37'09 max. Earth dist. -8364 Dec 09 j 16:03 19°**£**17'03 30.95650 AU 19°**≏**50'11 max. Earth dist. -8370 Nov 26 j 17:24 5°**£**58'06 31.01959 AU morning rise -8364 Dec 24 j 11:11 -8370 Dec 11 j 09:29 6°£31'01 retrograde -8363 Mar 26 j 01:26 21°**₽**48'56 morning rise -8369 Mar 12 j 23:21 8°**₽**29'38 -8363 Apr 29 j 11:50 retrograde desc. node 21°**♀**30'37 -8369 Jun 01 j 21:03 -8363 Jun 14 j 21:20 20°**2**23'30 -0°00'49 opposition 7°**₽**04'34 0°36'33 opposition -8363 Jun 13 j 20:45 20° £25'13 28.95295 AU min. Earth dist. -8369 May 31 j 20:28 7°**♀**06'16 29.01491 AU min. Earth dist. 19°**≏**00'37 direct -8369 Aug 18 j 16:17 5°**£**41'57 direct -8363 Aug 31 j 06:22 evening set -8369 Nov 12 j 13:05 7°**£**33'54 evening set -8363 Nov 25 j 07:37 20°**£**52'35 conjunction -8369 Nov 28 j 03:19 8°**2**08'53 0°31'24 conjunction -8363 Dec 11 j 01:37 21°**2**27'50 -0°03'41 minimum elong -8369 Nov 28 j 03:19 8°**2**08'54 0°31'23 minimum elong -8363 Dec 11 j 01:36 21°**≏**27'50 0°03'50 max. Earth dist. -8369 Nov 29 j 03:52 8°**£**11'12 31.00919 AU behind sun begin -8363 Dec 10 j 19:10 21°**♀**27'16 -8369 Dec 13 j 21:46 8°**£**44'17 behind sun end -8363 Dec 11 j 08:02 morning rise 21°**£**28'25

-	omena of Neptune f		_	` //			page 4
Attention, astronom	ical year style is used: Th	e year -8363 i	n astronomical cou	unting style is the year	8364 BCE in historical	counting style.	
max. Earth dist.	-8363 Dec 12 j 04:30	21° <b>ჲ</b> 30′22	30.94905 AU	max. Earth dist.	-8357 Dec 26 j 06:21	4° <b>ጤ</b> 53'39	30.91334 AU
morning rise	-8363 Dec 26 j 23:40	22° <b>ჲ</b> 03'30		morning rise	-8356 Jan 10 j 05:22	5°M27'06	
retrograde	-8362 Mar 28 j 16:03	24° <b>ഫ</b> 02'17		retrograde	-8356 Apr 10 j 22:57	7° <b>M</b> 26'02	
min. Earth dist.	-8362 Jun 16 j 07:20	22° <b>₽</b> 38'38	28.94608 AU	min. Earth dist.	-8356 Jun 29 j 08:30	6° <b>M</b> 02'14	28.90989 AU
opposition	-8362 Jun 17 j 09:08	22° <b>≏</b> 36'51	-0°07'06	opposition	-8356 Jun 30 j 07:56	6°M00'36	-0°44'22
direct	-8362 Sep 02 j 18:44	21° <b>≏</b> 13'57		direct	-8356 Sep 15 j 13:51	4°M37'36	
evening set	-8362 Nov 27 j 19:00	23° <b>≏</b> 05'58		evening set	-8356 Dec 10 j 19:37	6°M29'56	
conjunction	-8362 Dec 13 j 13:25	23° <b>≏</b> 41'16	-0°09'32	conjunction	-8356 Dec 26 j 17:13	7° <b>M</b> 05'27	-0°44'16
minimum elong	-8362 Dec 13 j 13:25	23° <b>≏</b> 41'16	0°09'41	minimum elong	-8356 Dec 26 j 17:12	7° <b>M</b> 05'27	0°44'32
behind sun begin	-8362 Dec 13 j 08:04	23° <b>≙</b> 40'47		max. Earth dist.	-8356 Dec 27 j 18:14	7° <b>M</b> 07'48	30.90539 AU
behind sun end	-8362 Dec 13 j 18:46	23° <b>≏</b> 41'45		morning rise	-8355 Jan 11 j 18:51	7° <b>M</b> 41'22	
max. Earth dist.	-8362 Dec 14 j 16:01	23° <b>≙</b> 43'46	30.94267 AU	retrograde	-8355 Apr 13 j 12:42	9° <b>™</b> 40'17	
morning rise	-8362 Dec 29 j 12:09	24° <b>≏</b> 16'58		opposition	-8355 Jul 02 j 19:26	8°M14'48	-0°50'25
retrograde	-8361 Mar 31 j 06:11	26° <b>≙</b> 15'48		min. Earth dist.	-8355 Jul 01 j 19:50	8°M16'27	28.90165 AU
opposition	-8361 Jun 19 j 21:06	24° <b>₽</b> 50′22	-0°13'23	direct	-8355 Sep 18 j 00:14	6°M51'43	
min. Earth dist.	-8361 Jun 18 j 20:11	24° <b>≏</b> 52'06	28.94023 AU	evening set	-8355 Dec 13 j 08:08	8°M44'06	
direct	-8361 Sep 05 j 05:31	23° <b>م</b> 27'29					
evening set	-8361 Nov 30 j 06:35	25° <b>≙</b> 19'33		conjunction	-8355 Dec 29 j 06:10	9° <b>ጤ</b> 19'39	-0°49'53
				minimum elong	-8355 Dec 29 j 06:10	9° <b>ጤ</b> 19'39	0°50'11
conjunction	-8361 Dec 16 j 01:44	25° <b>≙</b> 54'54	-0°15'23	max. Earth dist.	-8355 Dec 30 j 07:07	9° <b>™</b> 21'59	30.89687 AU
minimum elong	-8361 Dec 16 j 01:43	25° <b>≏</b> 54'54	0°15'34	morning rise	-8354 Jan 14 j 08:12	9°M55'35	
behind sun begin	-8361 Dec 16 j 00:14	25° <b>≏</b> 54'46		retrograde	-8354 Apr 15 j 23:58	11° <b>M</b> 54'27	
behind sun end	-8361 Dec 16 j 03:13	25° <b>≏</b> 55'02		min. Earth dist.	-8354 Jul 04 j 08:41		28.89320 AU
max. Earth dist.	-8361 Dec 17 j 05:15		30.93722 AU	opposition	-8354 Jul 05 j 07:03	10° <b>M</b> 28'55	
morning rise	-8360 Jan 01 j 00:52	26° <b>ჲ</b> 30'38		direct	-8354 Sep 20 j 10:15	9° <b>™</b> 05'45	
retrograde	-8360 Apr 01 j 19:26	28° <b>ჲ</b> 29'31		evening set	-8354 Dec 15 j 20:30	10°M58'10	
min. Earth dist.	-8360 Jun 20 j 07:03		28.93495 AU				
opposition	-8360 Jun 21 j 08:45	27° <b>Ω</b> 04'06		conjunction	-8354 Dec 31 j 19:04	11° <b>M</b> 33'45	-0°55'25
direct	-8360 Sep 06 j 17:42	25° <b>Ω</b> 41'13		minimum elong	-8354 Dec 31 j 19:03	11°MJ33'44	
evening set	-8360 Dec 01 j 18:34	27° <b>₽</b> 33'21		max. Earth dist.	-8353 Jan 01 j 20:00		30.88862 AU
<i>8</i>	, , , , , , , , , , , , , , , , , , ,			morning rise	-8353 Jan 16 j 21:28	12° <b>M</b> ₀09'42	
conjunction	-8360 Dec 17 j 14:05	28° <b>ჲ</b> 08'44	-0°21'14	retrograde	-8353 Apr 18 j 13:24	14°ML08'32	
minimum elong	-8360 Dec 17 j 14:04	28° <b>ഫ</b> 08'44		opposition	-8353 Jul 07 j 18:28	12°M42'58	-1°02'16
max. Earth dist.	-8360 Dec 18 j 16:29		30.93202 AU	min. Earth dist.	-8353 Jul 06 j 19:23		28.88526 AU
morning rise	-8359 Jan 02 j 13:55	28° <b>₽</b> 44'31	50.55202110	direct	-8353 Sep 22 j 22:57	11°ML19'42	20.00020110
morning rise	-8359 Feb 10 j 14:12	0°M		evening set	-8353 Dec 18 j 09:15	13°M12'10	
retrograde	-8359 Apr 04 j 09:34	0°M43'26		evening sec	0303 200 10 10 9	13 11012 10	
retrograde	-8359 May 28 j 14:53	30° <b>₽₽</b>		conjunction	-8352 Jan 03 j 08:07	13° <b>M</b> 47'46	-1°00'52
opposition	-8359 Jun 23 j 20:37	29° <b>₽</b> 18'01	-0°25'53	minimum elong	-8352 Jan 03 j 08:06	13°M47'46	
min. Earth dist.	-8359 Jun 22 j 19:53		28.92979 AU	max. Earth dist.	-8352 Jan 04 j 08:20		30.88097 AU
direct	-8359 Sep 09 j 03:56	27° <b>♀</b> 55'09	20.92979110	morning rise	-8352 Jan 19 j 10:59	14°M23'45	30.00077710
evening set	-8359 Dec 04 j 06:31	29° <b>₽</b> 47'20		morning risc	-8352 Feb 05 j 16:33	15°M	
e venning see	-8359 Dec 09 j 23:41	0°M		retrograde	-8352 Apr 20 j 02:07	16°M22'33	
	0557 BCC 07 J 25.11	O IIV		renograde	-8352 Jul 07 j 10:19	15°RM	
conjunction	-8359 Dec 20 j 02:41	0°M22'46	-0°27'03	min. Earth dist.	-8352 Jul 08 j 07:58		28.87827 AU
minimum elong	-8359 Dec 20 j 02:40	0°M22'46		opposition	-8352 Jul 09 j 05:49	14°ML56'57	
max. Earth dist.	-8359 Dec 21 j 05:57		30.92656 AU	direct	-8352 Sep 24 j 09:34	13°MJ33'37	1 00 03
morning rise	-8358 Jan 05 j 02:48	0°M58'35	2020110		-8352 Dec 07 j 15:01	15°M	
retrograde	-8358 Apr 06 j 22:36	2°M57'32		evening set	-8352 Dec 19 j 21:57	15°M26'09	
min. Earth dist.	-8358 Jun 25 j 07:39		28.92401 AU	evening sec	0332 Bec 17 j 21.37	13 1102009	
opposition	-8358 Jun 26 j 08:20	1°M32'08		conjunction	-8351 Jan 04 j 21:23	16° <b>M</b> L01'47	-1°06'14
direct	-8358 Sep 11 j 16:12	0°M09'14	0 32 00	minimum elong	-8351 Jan 04 j 21:22	16°ML01'47	
evening set	-8358 Dec 06 j 18:49	2°M01'29		max. Earth dist.	-8351 Jan 05 j 22:11		30.87455 AU
evening set	-8338 Dec 00 j 18.49	2 11601 29		morning rise	-8351 Jan 21 j 00:27	16°MJ37'47	30.87433 AU
conjunction	-8358 Dec 22 j 15:20	2°M36'57	0°32'51	retrograde	-8351 Apr 22 j 15:30	18°M36'33	
minimum elong	-8358 Dec 22 j 15:20	2°M36'57		opposition	-8351 Apr 22 j 13:30 -8351 Jul 11 j 17:05	17°ML10'56	-1°13'44
max. Earth dist.	-8358 Dec 22 j 13:20 -8358 Dec 23 j 17:08		30.92045 AU	min. Earth dist.	-8351 Jul 10 j 18:29		28.87250 AU
morning rise	-8357 Jan 07 j 16:06	3°M12'49	50.72043 AU	direct	-8351 Sep 26 j 22:04	17 IIC1231 15°ML47'33	20.07230 AU
retrograde		5°M11'46		evening set	-8351 Sep 26 j 22:04 -8351 Dec 22 j 10:48	15°11647'33	
•	-8357 Apr 09 j 12:08		0038116	evening set	-0331 Dec 22 J 10:48	17 HG4010	
opposition	-8357 Jun 28 j 20:09	3°M46'21			0250 1 07:10.20	100M 15140	1011120
min. Earth dist.	-8357 Jun 27 j 19:55		28.91751 AU	conjunction	-8350 Jan 07 j 10:26 -8350 Jan 07 j 10:26	18°M 15'49	
direct	-8357 Sep 14 j 02:27	2°M23'25		minimum elong		18°M 15'49	
evening set	-8357 Dec 09 j 07:05	4° <b>™</b> 15'42		max. Earth dist.	-8350 Jan 08 j 10:06		30.86939 AU
:	9257 D 25:011:	40 <b>m</b> = 1115	0020125	morning rise	-8350 Jan 23 j 13:57	18°M51'50	
conjunction	-8357 Dec 25 j 04:14	4°M51'12		retrograde	-8350 Apr 25 j 05:38	20°M50'36	20.00010.444
minimum elong	-8357 Dec 25 j 04:14	4° <b>ጤ</b> 51'12	0 3631	min. Earth dist.	-8350 Jul 13 j 06:39	19 HG2631	28.86819 AU

Dlanatary Dhane	omana of Nantuna f	From 8400	through 7909	(IJT) Astrodion	st AG 18-Feb-2025	14.22	2000 5
•	-		-		8351 BCE in historical c		page 5
opposition	-8350 Jul 14 j 04:26	19°M24'59		conjunction	-8343 Jan 23 j 11:04	3° <b>₹</b> 58'57	-1°45'00
direct	-8350 Sep 29 j 08:44	18°M01'34	1 17 10	minimum elong	-8343 Jan 23 j 11:03	3° <b>∡</b> 58′57	
evening set	-8350 Dec 24 j 23:39	19°M54'17		max. Earth dist.	-8343 Jan 24 j 06:25		30.85094 AU
evening sec	0330 <b>Dec</b> 211 23.37	17 1105117		morning rise	-8343 Feb 08 j 16:11	4° <b>∡</b> °35'04	30.03091710
conjunction	-8349 Jan 09 j 23:50	20°M29'59	-1°16'40	retrograde	-8343 May 11 j 00:05	6° <b>х</b> 33'41	
minimum elong	-8349 Jan 09 j 23:50	20°M29'59		opposition	-8343 Jul 29 j 11:00	5° <b>∡</b> 08'24	-1°54'37
max. Earth dist.	-8349 Jan 11 j 00:27		30.86569 AU	min. Earth dist.	-8343 Jul 28 j 18:13		28.84990 AU
morning rise	-8349 Jan 26 j 03:29	21°M06'01		direct	-8343 Oct 14 j 14:15	3° <b>∡</b> ⁴44'45	
retrograde	-8349 Apr 27 j 18:57	23°M04'45		evening set	-8342 Jan 09 j 22:49	5° <b>∡</b> 38'19	
opposition	-8349 Jul 16 j 15:37	21°M39'11	-1°24'46				
min. Earth dist.	-8349 Jul 15 j 17:48	21°M40'43	28.86512 AU	conjunction	-8342 Jan 26 j 01:12	6° <b>⊀</b> 14'09	-1°49'13
direct	-8349 Oct 01 j 21:13	$20^{\circ}$ M $_15'45$		minimum elong	-8342 Jan 26 j 01:12	6° <b>х</b> 14′09	1°49'41
evening set	-8349 Dec 27 j 12:50	22°M08'35		max. Earth dist.	-8342 Jan 26 j 20:22	6° <b>∡</b> 15'56	30.84625 AU
				morning rise	-8342 Feb 11 j 06:21	6° <b>₹</b> 50'15	
conjunction	-8348 Jan 12 j 13:16	22°M44'18	-1°21'43	retrograde	-8342 May 13 j 13:16	8° <b>₰</b> ¹48'48	
minimum elong	-8348 Jan 12 j 13:15	22°M44'18	1°22'07	opposition	-8342 Jul 31 j 22:01	7° <b>∡</b> °23'31	-1°59'02
max. Earth dist.	-8348 Jan 13 j 12:28	22°M46'28	30.86319 AU	min. Earth dist.	-8342 Jul 31 j 05:07	7° <b>∡</b> °24'43	28.84498 AU
morning rise	-8348 Jan 28 j 17:23	23°M20'21		direct	-8342 Oct 17 j 03:07	5° <b>₹</b> 59'46	
retrograde	-8348 Apr 29 j 08:45	25°M19′06		evening set	-8341 Jan 12 j 12:52	7° <b>∡</b> 53′26	
min. Earth dist.	-8348 Jul 17 j 05:32	23°M55'05	28.86313 AU				
opposition	-8348 Jul 18 j 02:54	23°M53'35	-1°30'06	conjunction	-8341 Jan 28 j 15:20	8° <b>∡</b> ¹29'16	
direct	-8348 Oct 03 j 07:40	22°M30'08		minimum elong	-8341 Jan 28 j 15:19	8° <b>₹</b> 29'16	
evening set	-8348 Dec 29 j 02:09	24°M23'06		max. Earth dist.	-8341 Jan 29 j 08:43		30.84120 AU
				morning rise	-8341 Feb 13 j 20:47	9° <b>∡</b> ¹05'23	
conjunction	-8347 Jan 14 j 03:00	24°M58'50		retrograde	-8341 May 16 j 03:02	11° <b>∡</b> 03'50	
minimum elong	-8347 Jan 14 j 03:00	24°M58'50		opposition	-8341 Aug 03 j 09:02	9° <b>∡</b> 38'32	
max. Earth dist.	-8347 Jan 15 j 02:36		30.86134 AU	min. Earth dist.	-8341 Aug 02 j 17:32		28.84013 AU
morning rise	-8347 Jan 30 j 07:13	25° <b>™</b> 34'55		direct	-8341 Oct 19 j 14:49	8° <b>≯</b> 14'40	
retrograde	-8347 May 01 j 20:30	27°M33'38		evening set	-8340 Jan 15 j 02:48	10° <b>∡</b> *08′26	
opposition	-8347 Jul 20 j 14:02	26°M08'12				_	
min. Earth dist.	-8347 Jul 19 j 17:37		28.86149 AU	conjunction	-8340 Jan 31 j 05:42	10° <b>√</b> 44'17	
direct	-8347 Oct 05 j 18:50	24°M44'45		minimum elong	-8340 Jan 31 j 05:42	10° <b>∡</b> ¹44'17	
evening set	-8347 Dec 31 j 15:41	26° <b>™</b> 37'51		max. Earth dist.	-8340 Jan 31 j 23:30		30.83645 AU
		m		morning rise	-8340 Feb 16 j 11:07	11° <b>₹</b> 20'24	
conjunction	-8346 Jan 16 j 16:47	27°M13'37		retrograde	-8340 May 17 j 15:55	13° <b>∡</b> 18'45	2005110
minimum elong	-8346 Jan 16 j 16:47	27°M13'37		opposition	-8340 Aug 04 j 19:56	11° 🗷 53'26	
max. Earth dist.	-8346 Jan 17 j 15:01		30.859/8 AU	min. Earth dist.	-8340 Aug 04 j 04:46		28.83569 AU
morning rise	-8346 Feb 01 j 21:19	27°M49'42		direct	-8340 Oct 21 j 04:39	10° <b>₹</b> 29'29	
retrograde	-8346 May 04 j 11:13	29°M48'26	20 05000 ATT	evening set	-8339 Jan 16 j 16:56	12° <b>≯</b> 23'21	
min. Earth dist.	-8346 Jul 22 j 04:52 -8346 Jul 23 j 01:15	28°M23'03	28.85989 AU	aaniumatian	9220 Eab 01 : 10:52	120.750112	2000140
opposition direct	•	26°M59'35	-1 40 22	conjunction minimum elong	-8339 Feb 01 j 19:53 -8339 Feb 01 j 19:52	12° <b>∡</b> 759'12 12° <b>∡</b> 759'12	
evening set	-8346 Oct 08 j 05:01 -8345 Jan 03 j 05:15	28°M52'49		max. Earth dist.	-8339 Feb 01 j 19.32 -8339 Feb 02 j 11:55		30.83239 AU
evening set	-6343 Jan 03 J 03.13	20 11632 49		morning rise	-8339 Feb 02 j 11:33	13° <b>x</b> *0042 13° <b>x</b> *35'19	30.83239 AU
conjunction	-8345 Jan 19 j 06:40	29°M28'36	-1°36'07	retrograde	-8339 May 20 j 05:17	15° <b>×</b> 33'19	
minimum elong	-8345 Jan 19 j 06:39	29°M28'36		opposition	-8339 Aug 07 j 06:45	13 <b>₹</b> 33 3 <b>₹</b> 14° <b>₹</b> 08'16	-2°11'09
max. Earth dist.	-8345 Jan 20 j 04:27		30.85772 AU	min. Earth dist.	-8339 Aug 06 j 16:11		28.83231 AU
max. Earth dist.	-8345 Feb 02 j 08:00	0° <b>⊼</b> ¹	30.03772710	direct	-8339 Oct 23 j 15:50	12° <b>х</b> 44'14	20.03231710
morning rise	-8345 Feb 04 j 11:22	0° <b>∡</b> 104'42		evening set	-8338 Jan 19 j 06:56	14° <b>₹</b> 38'11	
retrograde	-8345 May 06 j 22:33	2°×703'25					
opposition	-8345 Jul 25 j 12:37	0° <b>∡</b> 738'05	-1°45'17	conjunction	-8338 Feb 04 j 10:13	15° <b>∡</b> 14'03	-2°04'19
min. Earth dist.	-8345 Jul 24 j 17:59		28.85753 AU	minimum elong	-8338 Feb 04 j 10:12	15° <b>∡</b> 14'03	
	-8345 Aug 17 j 20:00	30°RML		max. Earth dist.	-8338 Feb 05 j 02:38		30.82948 AU
direct	-8345 Oct 10 j 14:55	29°M14'35		morning rise	-8338 Feb 20 j 15:47	15° <b>∡</b> 750'10	
	-8345 Dec 02 j 00:57	0° <b>∡</b> ¹		retrograde	-8338 May 22 j 17:41	17° <b>∡</b> ¹48'19	
evening set	-8344 Jan 05 j 19:04	1° <b>∡</b> '07'57		opposition	-8338 Aug 09 j 17:37	16° <b>₹</b> 23'03	-2°14'47
-	, , , , , , , , , , , , , , , , , , ,			min. Earth dist.	-8338 Aug 09 j 03:50		28.83015 AU
conjunction	-8344 Jan 21 j 20:52	1° <b>∡</b> ¹43'44	-1°40'38	direct	-8338 Oct 26 j 04:10	14° <b>∡</b> ¹58'57	
minimum elong	-8344 Jan 21 j 20:51	1° <b>∡</b> ′43'44	1°41'05	evening set	-8337 Jan 21 j 20:57	16° <b>₹</b> 53'00	
max. Earth dist.	-8344 Jan 22 j 17:42		30.85490 AU	-	, and the second		
morning rise	-8344 Feb 07 j 01:45	2° <b>∡</b> 19'51		conjunction	-8337 Feb 07 j 00:23	17° <b>∡</b> ¹28'53	-2°07'38
retrograde	-8344 May 08 j 11:47	4° <b>∡</b> 18'31		minimum elong	-8337 Feb 07 j 00:22	17° <b>∡</b> °28'53	2°08'09
opposition	-8344 Jul 26 j 23:42	2° <b>∡</b> ¹53'14	-1°50'02	max. Earth dist.	-8337 Feb 07 j 15:24	17° <b>∡</b> ³30′17	30.82807 AU
min. Earth dist.	-8344 Jul 26 j 05:03	2° <b>∡</b> ¹54'33	28.85420 AU	morning rise	-8337 Feb 23 j 06:10	18° <b>∡</b> °04'59	
direct	-8344 Oct 12 j 03:41	1° <b>∡</b> ¹29'40		retrograde	-8337 May 25 j 07:56	20° <b>₹</b> 03'04	
evening set	-8343 Jan 07 j 09:05	3° <b>₹</b> 23′08		opposition	-8337 Aug 12 j 04:24	18° <b>∡</b> ³37'49	-2°18'14
				min. Earth dist.	-8337 Aug 11 j 14:29	18° <b>∡</b> ³38'49	28.82948 AU

•	omena of Neptune f		-				page 6
	nical year style is used: Th	-	in astronomical co				
direct	-8337 Oct 28 j 15:29	17° <b>∡</b> 13'39		minimum elong	-8330 Feb 23 j 07:04	3° <b>る</b> 14'48	2°25'41
evening set	-8336 Jan 24 j 11:12	19° <b>₹</b> 07'50		max. Earth dist.	-8330 Feb 23 j 14:39		30.83364 AU
				morning rise	-8330 Mar 11 j 12:54	3° <b>る</b> 50'52	
conjunction	-8336 Feb 09 j 14:51	19° <b>∡</b> ⁴43'44		retrograde	-8330 Jun 09 j 23:31	5° <b>る</b> 48'20	
minimum elong	-8336 Feb 09 j 14:51	19° <b>∡</b> ⁴43'44	2°11'16	opposition	-8330 Aug 27 j 07:41	4° <b>る</b> 23'32	-2°36'08
max. Earth dist.	-8336 Feb 10 j 05:41	19° <b>∡</b> ¹45′07	30.82790 AU	min. Earth dist.	-8330 Aug 27 j 00:46	4° <b>る</b> 24'01	28.83526 AU
morning rise	-8336 Feb 25 j 20:37	20° <b>х</b> 19′50		direct	-8330 Nov 13 j 01:27	2° <b>る</b> 58'59	
retrograde	-8336 May 26 j 18:41	22° <b>∡</b> 17'50		evening set	-8329 Feb 09 j 17:09	4° <b>る</b> 54'05	
opposition	-8336 Aug 13 j 15:10	20° <b>₹</b> 52'39	-2°21'28				
min. Earth dist.	-8336 Aug 13 j 02:48	20° <b>₹</b> 53'32	28.82998 AU	conjunction	-8329 Feb 25 j 21:55	5° <b>පි</b> 30'01	-2°26'46
direct	-8336 Oct 30 j 02:00	19° <b>∡</b> 28'27		minimum elong	-8329 Feb 25 j 21:55	5° <b>ට</b> 30'01	2°27'20
evening set	-8335 Jan 26 j 01:31	21° <b>₹</b> '22'46		max. Earth dist.	-8329 Feb 26 j 05:25	5° <b>る</b> 30'43	30.83279 AU
8				morning rise	-8329 Mar 14 j 03:36	6° <b>ප</b> 06'04	
conjunction	-8335 Feb 11 j 05:23	21° <b>х</b> 58'40	-2°13'40	retrograde	-8329 Jun 12 j 12:02	8° <b>る</b> 03'23	
minimum elong	-8335 Feb 11 j 05:22	21°×758'40		opposition	-8329 Aug 29 j 18:22	6° <b>る</b> 38'37	-2°37'47
max. Earth dist.	-8335 Feb 11 j 19:22		30.82897 AU	min. Earth dist.	-8329 Aug 29 j 12:46		28.83430 AU
morning rise	-8335 Feb 27 j 11:11	22° <b>x</b> <sup>7</sup> 34'46	30.02077 AC	direct	-8329 Nov 15 j 14:50	5°る13'59	20.03430 AO
•	•	24° × 34'40				7° <b>る</b> 09'11	
retrograde	-8335 May 29 j 07:41		2024/20	evening set	-8328 Feb 12 j 07:56	/ 00911	
opposition	-8335 Aug 16 j 01:52	23°×707'36			0220 F.L. 20 : 12 42	70 <b>7</b> 45107	2020111
min. Earth dist.	-8335 Aug 15 j 13:20		28.83145 AU	conjunction	-8328 Feb 28 j 12:42	7°る45'07	
direct	-8335 Nov 01 j 14:02	21° <b>х</b> 43'21		minimum elong	-8328 Feb 28 j 12:42	7° <b>る</b> 45'07	
evening set	-8334 Jan 28 j 15:51	23° <b>∡</b> ³37'48		max. Earth dist.	-8328 Feb 28 j 18:10		30.83195 AU
		_		morning rise	-8328 Mar 15 j 18:29	8° <b>る</b> 21'09	
conjunction	-8334 Feb 13 j 19:46	24° <b>∡</b> 13'43		retrograde	-8328 Jun 14 j 01:44	10°る18'20	
minimum elong	-8334 Feb 13 j 19:46	24° <b>∡</b> 13'43	2°16'56	opposition	-8328 Aug 31 j 04:47	8° <b>る</b> 53'36	
max. Earth dist.	-8334 Feb 14 j 08:40	24° <b>҂</b> 14'55	30.83058 AU	min. Earth dist.	-8328 Aug 30 j 23:26		28.83369 AU
morning rise	-8334 Mar 02 j 01:37	24° <b>√</b> 49'49		direct	-8328 Nov 17 j 03:13	7° <b>る</b> 28'52	
retrograde	-8334 May 31 j 19:42	26° <b>₰</b> 47'40		evening set	-8327 Feb 13 j 22:34	9° <b>る</b> 24'09	
opposition	-8334 Aug 18 j 12:44	25° <b>х</b> 22′39	-2°27'16				
min. Earth dist.	-8334 Aug 18 j 02:02	25° <b>х</b> 23′25	28.83332 AU	conjunction	-8327 Mar 02 j 03:31	10° <b>⋜</b> 00'06	-2°29'23
direct	-8334 Nov 03 j 23:49	23° <b>₹</b> 58'23		minimum elong	-8327 Mar 02 j 03:30	10° <b>පි</b> 00'06	2°29'56
evening set	-8333 Jan 31 j 06:22	25° <b>₹</b> 52'59		max. Earth dist.	-8327 Mar 02 j 08:42	10° <b>පි</b> 00'35	30.83155 AU
	-			morning rise	-8327 Mar 18 j 09:07	10° <b>පි</b> 36'08	
conjunction	-8333 Feb 16 j 10:34	26° <b>₹</b> 28'54	-2°18'54	retrograde	-8327 Jun 16 j 12:25	12° <b>る</b> 33'10	
minimum elong	-8333 Feb 16 j 10:33	26° <b>₹</b> 28'54		opposition	-8327 Sep 02 j 15:25	11° <b>る</b> 08'28	-2°40'19
max. Earth dist.	-8333 Feb 16 j 22:56		30.83239 AU	min. Earth dist.	-8327 Sep 02 j 11:41		28.83382 AU
morning rise	-8333 Mar 04 j 16:20	27° <b>₹</b> 04'59	30.03237110	direct	-8327 Nov 19 j 14:38	9° <b>ප</b> 43'39	20.03302110
retrograde	-8333 Jun 03 j 08:24	29° <b>₹</b> 02'46		evening set	-8326 Feb 16 j 12:59	11°る39'02	
opposition	-8333 Aug 20 j 23:22	27° 🗷 37'50	2°20'50	evening set	-0320100 10 112.37	11 03702	
min. Earth dist.	-8333 Aug 20 j 23:22		28.83493 AU	conjunction	-8326 Mar 04 j 18:01	12° <b>る</b> 14'59	2°30'21
direct	-8333 Nov 06 j 12:31	26° <b>₹</b> 13'30	20.03493 AU	minimum elong	-8326 Mar 04 j 18:01	12° <b>る</b> 14'59	
	•			_			30.83229 AU
evening set	-8332 Feb 02 j 21:10	28° <b>₹</b> 08'15		max. Earth dist.	-8326 Mar 04 j 22:11		30.83229 AU
	0222 F. J. 10 : 01 22	200 74411	2021111	morning rise	-8326 Mar 20 j 23:37	12°る51'00	
conjunction	-8332 Feb 19 j 01:22	28° 🗷 44'11		retrograde	-8326 Jun 19 j 01:09	14°る47'54	2041114
minimum elong	-8332 Feb 19 j 01:22	28° <b>∡</b> ′44′11		opposition	-8326 Sep 05 j 01:50	13°る23'15	
max. Earth dist.	-8332 Feb 19 j 11:32		30.83362 AU	min. Earth dist.	-8326 Sep 04 j 21:50		28.83520 AU
morning rise	-8332 Mar 06 j 07:16	29° <b>₹</b> 20'16		direct	-8326 Nov 22 j 02:59	11°る58'22	
	-8332 Mar 25 j 09:03	0°る		evening set	-8325 Feb 19 j 03:36	13° <b>る</b> 53'51	
retrograde	-8332 Jun 04 j 21:27	1° <b>る</b> 17'58				_	
	-8332 Aug 18 j 08:53	30°₽ <b>✓</b>		conjunction	-8325 Mar 07 j 08:41	14° <b>る</b> 29'48	
opposition	-8332 Aug 22 j 10:16	29° <b>₹</b> 53'05	-2°32'10	minimum elong	-8325 Mar 07 j 08:41	14° <b>る</b> 29'48	2°31'38
min. Earth dist.	-8332 Aug 22 j 01:29	29° <b>х</b> 53′42	28.83588 AU	max. Earth dist.	-8325 Mar 07 j 11:59		30.83430 AU
direct	-8332 Nov 08 j 00:05	28° <b>₹</b> 28'41		morning rise	-8325 Mar 23 j 14:14	15° <b>る</b> 05'48	
	-8331 Jan 24 j 09:54	0°る		retrograde	-8325 Jun 21 j 12:35	17° <b>る</b> 02'35	
evening set	-8331 Feb 04 j 11:49	0° <b>る</b> 23'34		opposition	-8325 Sep 07 j 12:18	15° <b>る</b> 38'00	-2°41'53
				min. Earth dist.	-8325 Sep 07 j 09:56	15° <b>る</b> 38'10	28.83806 AU
conjunction	-8331 Feb 20 j 16:19	0° <b>る</b> 59'30	-2°23'16	direct	-8325 Nov 24 j 12:27	14° <b>る</b> 13'03	
minimum elong	-8331 Feb 20 j 16:18	0° <b>そ</b> 59'30		evening set	-8324 Feb 21 j 18:11	16° <b>る</b> 08'39	
max. Earth dist.	-8331 Feb 21 j 02:15		30.83403 AU	Č	,		
morning rise	-8331 Mar 08 j 22:00	1° <b>る</b> 35'34		conjunction	-8324 Mar 08 j 23:28	16° <b>る</b> 44'36	-2°31'35
retrograde	-8331 Jun 07 j 09:53	3° <b>ට</b> 33'10		minimum elong	-8324 Mar 08 j 23:28	16° <b>පි</b> 44'36	
opposition	-8331 Aug 24 j 20:59	2°る08'20	-2°34'16	max. Earth dist.	-8324 Mar 09 j 02:21		30.83796 AU
min. Earth dist.	-8331 Aug 24 j 13:01		28.83583 AU	morning rise	-8324 Mar 25 j 04:53	10 34432 17°る20'36	50.057,0710
direct	-8331 Nov 10 j 13:51	2 008 34 0°る43'52	20.03303 AU	retrograde	-8324 Jun 22 j 23:53	17 <b>3</b> 2030	
evening set	-8330 Feb 07 j 02:37	0 343 32 2° <b>る</b> 38'52		opposition	-8324 Sep 08 j 22:44	19 <b>3</b> 1713	-20/2/18
evening set	0550100 0/102.5/	2 <b>U</b> 3632		min. Earth dist.	-8324 Sep 08 j 20:09		28.84238 AU
conjunction	-8330 Feb 23 j 07:04	3° <b>ට</b> 14'48	2025100	direct	-8324 Sep 08 j 20:09 -8324 Nov 26 j 01:17	17°63236 16° <b>る</b> 27'46	20.0 <del>1</del> 230 AU
conjunction	-0550 reu 25 j U/.U4	5 01448	-2 23 00	direct	-0324 NOV 20 J U1.1/	10 02/40	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8323 in astronomical counting style is the year 8324 BCE in historical counting style. -8323 Feb 23 j 08:48 18°る23'30 conjunction -8317 Mar 26 i 06:35 2°≈29'39 -2°28'37 evening set minimum elong -8317 Mar 26 j 06:36 2°≈29'39 2°29'07 -8323 Mar 11 j 14:00 18°る59'26 -2°31'51 -8317 Mar 26 j 01:01 2°≈29'08 30.87798 AU max. Earth dist. conjunction -8317 Apr 11 j 11:21 -8323 Mar 11 j 14:00 18°る59'26 2°32'24 3°≈05'32 minimum elong morning rise -8323 Mar 11 j 15:18 -8317 Jul 09 j 15:01 max. Earth dist. 18°る59'34 30.84295 AU retrograde 5°≈01'15 -8323 Mar 27 j 19:25 -8317 Sep 25 j 00:12 morning rise 19°**る**35'25 opposition 3°≈37'19 -2°38'15 min. Earth dist. -8317 Sep 25 j 04:41 retrograde -8323 Jun 25 j 11:33 21°る31'58 3°≈37'00 28.88195 AU opposition -8323 Sep 11 j 09:14 20°る07'34 -2°42'28 direct -8317 Dec 12 j 17:01 2°≈12'04 min. Earth dist. -8323 Sep 11 j 07:58 20°る07'39 28.84808 AU evening set -8316 Mar 11 j 15:43 4°≈08'28 direct -8323 Nov 28 j 12:14 18°る42'33 evening set -8322 Feb 25 j 23:20 20°る38'25 conjunction -8316 Mar 27 j 21:21 4°≈44'25 -2°27'17 -8316 Mar 27 j 21:22 minimum elong 4°≈44'25 2°27'46 -8316 Mar 27 j 14:42 conjunction -8322 Mar 14 j 04:46 21°る14'22 -2°31'53 max. Earth dist. 4°≈43'48 30.88188 AU minimum elong -8322 Mar 14 j 04:46 21°る14'22 2°32'25 morning rise -8316 Apr 13 j 01:56 5°≈20'17 max. Earth dist. -8322 Mar 14 j 06:11 21°る14'30 30.84917 AU retrograde -8316 Jul 11 j 01:57 7°≈15'50 opposition morning rise -8322 Mar 30 j 09:57 21°る50'20 -8316 Sep 26 j 10:47 5°≈51'56 -2°36'42 retrograde -8322 Jun 27 j 23:24 23°る46'46 min. Earth dist. -8316 Sep 26 j 17:12 5°≈51'29 28.88585 AU opposition -8322 Sep 13 j 19:37 22°る22'28 -2°42'22 -8316 Dec 14 j 03:50 4°≈26'36 min. Earth dist. -8322 Sep 13 j 18:59 22°る22'31 28.85457 AU evening set -8315 Mar 14 j 06:07 6°≈23'03 direct -8322 Dec 01 j 01:05 20°る57'27 evening set -8321 Feb 28 j 14:04 22°る53'26 conjunction -8315 Mar 30 j 11:49 6°≈58'59 -2°25'44 minimum elong -8315 Mar 30 j 11:50 6°≈59'00 2°26'13 conjunction -8321 Mar 16 j 19:25 23°る29'23 -2°31'42 max. Earth dist. -8315 Mar 30 i 04:29 6°≈58'18 30.88593 AU minimum elong -8321 Mar 16 j 19:26 23°**る**29'23 2°32'14 morning rise -8315 Apr 15 j 16:14 7°≈34'51 max. Earth dist. -8321 Mar 16 j 18:40 23°る29'19 30.85591 AU retrograde -8315 Jul 13 j 12:36 9°≈30'12 -8321 Apr 02 j 00:42 24°る05'21 -8315 Sep 28 j 21:08 8°≈06'21 -2°34'56 morning rise opposition -8321 Jun 30 j 12:47 26°る01'40 -8315 Sep 29 j 03:32 8°≈05'54 28.88999 AU retrograde min. Earth dist. opposition -8321 Sep 16 j 06:08 24°る37'28 -2°42'02 -8315 Dec 16 j 17:24 6°≈40'57 direct -8321 Sep 16 j 06:31 24°る37'27 28.86137 AU -8314 Mar 16 j 20:36 min. Earth dist. evening set 8°≈37'26 -8321 Dec 03 j 12:19 direct 23°**る**12'26 -8320 Mar 02 j 04:48 -8314 Apr 02 j 02:12 25°**る**08'32 conjunction 9°≈13'23 -2°23'57 evening set -8314 Apr 02 j 02:13 minimum elong 9°≈13'23 2°24'25 -8320 Mar 18 j 10:22 25°る44'30 -2°31'16 -8314 Apr 01 j 17:19 conjunction max. Earth dist. 9°≈12'33 30.89044 AU -8314 Apr 18 j 06:33 -8320 Mar 18 j 10:22 25°る44'30 2°31'46 9°≈49'13 minimum elong morning rise -8320 Mar 18 j 09:28 25°る44'25 30.86247 AU -8314 Jul 15 j 23:24 max. Earth dist. retrograde 11°≈44'24 -8320 Apr 03 j 15:20 26°**る**20'26 -8314 Oct 01 j 07:30 10°≈20'36 -2°32'55 morning rise opposition -8320 Jul 02 j 01:07 28°**る**16'38 -8314 Oct 01 j 15:12 retrograde min. Earth dist. 10°≈20'03 28.89503 AU opposition -8320 Sep 17 j 16:39 26°る52'32 -2°41'27 direct -8314 Dec 19 j 04:06 8°≈55'07 min. Earth dist. -8320 Sep 17 j 18:33 26°る52'24 28.86762 AU evening set -8313 Mar 19 j 10:52 10°≈51'40 direct -8320 Dec 05 j 02:21 25°る27'27 -8319 Mar 04 j 19:40 27°る23'40 conjunction -8313 Apr 04 j 16:38 11°≈27'36 -2°21'58 evening set -8313 Apr 04 j 16:39 11°≈27'36 2°22'26 minimum elong -8319 Mar 21 j 01:08 27°る59'37 -2°30'36 max. Earth dist. -8313 Apr 04 j 07:51 11°≈26'47 30.89603 AU conjunction -8319 Mar 21 j 01:08 27°る59'37 2°31'07 -8313 Apr 20 j 20:44 12°≈03'25 minimum elong morning rise -8319 Mar 20 j 21:50 27°る59'19 30.86844 AU -8313 Jul 18 j 10:08 max. Earth dist. retrograde 13°≈58'27 -8319 Apr 06 i 06:09 -8313 Oct 03 i 17:55 morning rise 28°る35'33 opposition 12°≈34'43 -2°30'41 -8319 May 21 j 19:38 0°≈ min. Earth dist. -8313 Oct 04 i 02:02 12°≈34'08 28.90107 AU -8319 Jul 04 i 14:31 retrograde 0°≈31'36 direct -8313 Dec 21 i 16:51 11°≈09'11 -8319 Aug 17 j 23:09 30°Rる evening set -8312 Mar 21 j 01:17 13°≈05'48 -8319 Sep 20 i 03:14 29°る07'34 -2°40'38 opposition min. Earth dist. -8319 Sep 20 i 05:31 29°る07'24 28.87320 AU conjunction -8312 Apr 06 i 06:52 13°≈41'44 -2°19'46 direct -8319 Dec 07 j 15:28 27°る42'27 minimum elong -8312 Apr 06 i 06:52 13°≈41'44 2°20'12 max. Earth dist. -8318 Mar 07 j 10:14 29°る38'44 -8312 Apr 05 j 20:17 13°≈40'45 30.90279 AU evening set -8318 Mar 17 j 01:51 -8312 Apr 22 j 10:55 0°≈ morning rise 14°≈17'32 -8312 May 13 j 00:37 15°**≈** -8312 Jul 19 j 22:06 conjunction -8318 Mar 23 j 15:51 0°≈14'42 -2°29'43 retrograde 16°≈12'25 -8312 Sep 28 j 13:33 minimum elong -8318 Mar 23 j 15:51 0°≈14'42 2°30'13 15°R≈ -8318 Mar 23 j 12:01 0°≈14'20 30.87354 AU -8312 Oct 05 j 04:18 max. Earth dist. opposition 14°≈48'45 -2°28'13 -8318 Apr 08 j 20:37 0°≈50'36 min. Earth dist. -8312 Oct 05 j 12:56 14°≈48'08 28.90854 AU morning rise -8318 Jul 07 j 01:48 -8312 Dec 23 j 04:09 retrograde 2°≈46'30 direct 13°≈23'12 opposition -8318 Sep 22 j 13:53 1°≈22'32 -2°39'33 -8311 Mar 14 j 07:20 15°≈ min. Earth dist. -8318 Sep 22 j 18:10 1°≈22'13 28.87787 AU evening set -8311 Mar 23 j 15:27 15°≈19'54 -8318 Nov 27 j 12:56 30°Ŗる direct -8318 Dec 10 j 03:44 29°る57'21 conjunction -8311 Apr 08 j 21:11 15°≈55'49 -2°17'21 -8318 Dec 22 j 15:57 0°≈ minimum elong -8311 Apr 08 j 21:12 15°≈55'49 2°17'48 -8317 Mar 10 j 00:58 max. Earth dist. -8311 Apr 08 j 11:04 15°≈54'53 30.91096 AU evening set 1°≈53'41 -8311 Apr 25 j 00:53 morning rise 16°≈31'36

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8311 in astronomical counting style is the year 8312 BCE in historical counting style. -8311 Jul 22 j 09:20 18°**≈**26'22 evening set -8304 Apr 08 j 18:35 0°¥59'52 retrograde opposition -8311 Oct 07 j 14:48 17°≈02'48 -2°25'31 -8311 Oct 08 j 00:26 17°≈02'07 28.91726 AU -8304 Apr 24 j 23:47 1°**H**35'46 -1°54'53 min. Earth dist. conjunction -8304 Apr 24 j 23:48 -8311 Dec 25 j 17:45 15°≈37'16 1°**H**35'46 1°55'12 direct minimum elong -8304 Apr 24 j 06:20 -8310 Mar 26 j 05:36 1°**)** 34′08 30.97234 AU evening set 17°≈34'02 max. Earth dist. -8304 May 11 j 02:02 morning rise 2°**H**11'26 -8304 Aug 06 j 17:56 conjunction -8310 Apr 11 j 11:09 18°≈09'57 -2°14'44 retrograde 4° \(\frac{1}{2}\) 05'15 -8310 Apr 11 j 11:10 18°≈09'57 2°15'08 -8304 Oct 22 j 16:41 2°\(\pm\)42'19 -2°00'47 minimum elong opposition -8310 Apr 10 j 23:14 2°**升**41'12 28.97658 AU max. Earth dist. 18°≈08'51 30.92038 AU min. Earth dist. -8304 Oct 23 j 08:34 morning rise -8310 Apr 27 j 14:54 18°≈45'43 direct -8303 Jan 10 j 08:26 1°**)** 16'43 retrograde -8310 Jul 24 j 22:14 20°≈40'22 evening set -8303 Apr 11 j 08:32 3°**¥**13′50 -8310 Oct 10 j 01:10 opposition 19°≈16'55 -2°22'36 -8303 Apr 27 j 13:26 min. Earth dist. -8310 Oct 10 j 10:49 19°≈16'14 28.92702 AU conjunction 3°**)** 49'43 -1°50'57 direct -8310 Dec 28 j 06:28 17°≈51'23 minimum elong -8303 Apr 27 j 13:27 3°**)**49'43 1°51'16 evening set -8309 Mar 28 j 19:49 19°≈48'15 max. Earth dist. -8303 Apr 26 j 18:06 3°**升**47'55 30.97821 AU morning rise -8303 May 13 j 15:34 4° #25'22 conjunction -8309 Apr 14 j 01:27 20°≈24'11 -2°11'54 retrograde -8303 Aug 09 j 04:33 6°¥19'02 minimum elong -8309 Apr 14 j 01:28 20°≈24'11 2°12'19 opposition -8303 Oct 25 j 03:13 4°**¥**56'07 -1°56'30 max. Earth dist. -8309 Apr 13 j 13:28 20°≈23'04 30.93040 AU min. Earth dist. -8303 Oct 25 j 19:46 4°**)** 54'57 28.98240 AU morning rise -8309 Apr 30 j 04:51 20°≈59'56 -8302 Jan 12 j 20:11 3°\ 30'27 retrograde -8309 Jul 27 j 09:37 22°≈54'28 evening set -8302 Apr 13 j 22:01 5°**¥**27'34 opposition -8309 Oct 12 j 11:39 21°≈31'08 -2°19'28 max. Earth dist. -8302 Apr 29 i 08:07 6°¥01'40 30.98406 AU min. Earth dist. -8309 Oct 12 j 23:08 21°≈30'19 28.93709 AU direct -8309 Dec 30 j 18:36 20°≈05'38 conjunction -8302 Apr 30 i 02:58 6°\circ 03'26 -1°46'52 evening set -8308 Mar 30 j 10:10 22°≈02'35 -8302 Apr 30 i 02:59 6°\circ 03'26 1°47'08 minimum elong -8302 May 16 j 04:43 6°\ 39'03 morning rise -8308 Apr 15 j 15:39 22°≈38'31 -2°08'52 -8302 Aug 11 j 14:02 8° ¥ 32'34 conjunction retrograde -8308 Apr 15 j 15:40 -8302 Oct 27 j 13:50 7°\mathbf{H}09'40 -1°52'03 22°\impa38'31 2°09'15 opposition minimum elong -8308 Apr 15 j 02:02 -8302 Oct 28 j 07:27 7°**升**08'25 28.98824 AU max. Earth dist. 22°≈37'15 30.94053 AU min. Earth dist. -8308 May 01 j 18:57 -8301 Jan 15 j 09:47 5° **)** 43'57 morning rise 23°≈14'15 direct -8308 Jul 28 j 23:18 25°≈08'39 7°**)**(41'03 -8301 Apr 16 j 11:44 retrograde evening set -8308 Oct 13 j 22:11 23°≈45'26 -2°16'07 opposition min. Earth dist. -8301 May 02 j 16:19 8°¥16'54 -1°42'37 -8308 Oct 14 j 09:42 23°≈44'37 28.94690 AU conjunction -8301 May 02 j 16:20 -8307 Jan 01 j 08:07 22°≈19'57 8°\;\;\)16'54 1°42'53 direct minimum elong -8301 May 01 j 19:46 -8307 Apr 02 j 00:18 8° **★**14'59 30.99030 AU evening set 24°≈16′59 max. Earth dist. -8301 May 18 j 17:57 8°**¥**52'30 morning rise -8307 Apr 18 j 05:43 -8301 Aug 14 j 01:48 conjunction 24°≈52'54 -2°05'39 retrograde 10°\ 45'51 minimum elong -8307 Apr 18 j 05:44 24°≈52'54 2°06'01 opposition -8301 Oct 30 j 00:15 9°\ 22'59 -1°47'26 max. Earth dist. -8307 Apr 17 j 15:17 24°≈51'33 30.94995 AU min. Earth dist. -8301 Oct 30 j 17:37 9°**升**21'45 28.99483 AU morning rise -8307 May 04 j 08:42 25°≈28'37 direct -8300 Jan 17 j 22:09 7°**)** 57'13 retrograde -8307 Jul 31 j 10:21 27°≈22'55 -8300 Apr 18 j 01:11 9° ¥ 54'20 evening set -8307 Oct 16 j 08:55 25°≈59'47 -2°12'34 max. Earth dist. -8300 May 03 j 09:36 10°¥28'17 30.99738 AU opposition -8307 Oct 16 j 22:23 25°≈58'50 28.95590 AU min. Earth dist. -8306 Jan 03 j 19:21 24°≈34'18 -8300 May 04 j 05:43 10°**)** 30′10 -1°38′14 direct conjunction -8306 Apr 04 j 14:28 -8300 May 04 j 05:44 10°**₭**30'10 1°38'28 evening set 26°≈31'23 minimum elong -8300 May 20 j 06:52 11°**)** 05'43 morning rise -8306 Apr 20 j 19:49 27°≈07'17 -2°02'14 conjunction retrograde -8300 Aug 15 j 12:08 12°\ 58'56 -8306 Apr 20 j 19:50 minimum elong 27°≈07'18 2°02'35 opposition -8300 Oct 31 i 10:59 11°\ 36'06 -1°42'39 -8306 Apr 20 j 04:22 11°**)** 34'48 29.00244 AU max. Earth dist. 27°≈05'51 30.95851 AU min. Earth dist. -8300 Nov 01 i 05:37 -8306 May 06 i 22:37 27°≈43'00 direct -8299 Jan 19 i 11:00 10°¥10'20 morning rise -8306 Aug 02 j 21:06 29°≈37'08 -8299 Apr 20 j 14:28 12°₩07'26 retrograde evening set -8306 Oct 18 j 19:23 28°≈14'06 -2°08'50 opposition -8306 Oct 19 j 09:05 28°≈13'08 28.96376 AU -8299 May 06 j 18:41 12°\day{43'15} -1°33'42 min. Earth dist. conjunction direct -8305 Jan 06 j 09:04 26°≈48'35 minimum elong -8299 May 06 j 18:41 12°\(\)43'15 1°33'56 evening set -8305 Apr 07 j 04:39 28°≈45'42 max. Earth dist. -8299 May 05 j 21:34 12°**)** 41'17 31.00576 AU morning rise -8299 May 22 j 19:39 13°**¥**18'47 conjunction -8305 Apr 23 j 09:51 29°≈21'36 -1°58'39 retrograde -8299 Aug 18 j 00:41 15°**₩**11'53 -8305 Apr 23 j 09:52 -8299 Nov 02 j 21:31 13°\(\)49'06 -1°37'44 minimum elong 29°≈21'36 1°59'00 opposition -8305 Apr 22 j 16:37 -8299 Nov 03 j 15:30 13°**¥**47′50 29.01134 AU max. Earth dist. 29°≈20'00 30.96587 AU min. Earth dist. -8305 May 09 j 12:28 29°≈57'17 -8298 Jan 22 j 01:11 12°**)**23'19 morning rise direct 0°**)**€ -8305 May 10 j 18:26 evening set -8298 Apr 23 j 03:45 14°**)** 20'27 retrograde -8305 Aug 05 j 07:59 1°**X**51'17 max. Earth dist. -8298 May 08 j 10:40 14°**¥**54'17 31.01530 AU opposition -8305 Oct 21 j 06:04 0° **★**28'18 -2°04'54 min. Earth dist. -8305 Oct 21 j 21:17 0°**升**27'13 28.97062 AU conjunction -8298 May 09 j 07:48 14° **★** 56'14 -1°29'01 -8305 Nov 07 j 05:57 30°R≈ minimum elong -8298 May 09 j 07:49 14°**)** 56'14 1°29'13 direct -8304 Jan 08 j 19:48 29°≈02'45 -8298 May 25 j 08:21 15°**)**(31'45 morning rise -8304 Mar 09 j 17:10 0°**)**€ -8298 Aug 20 j 11:04 17°**)** 24'44 retrograde

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8298 in astronomical counting style is the year 8299 BCE in historical counting style. -8298 Nov 05 i 08:04 16°**)** €02'02 -1°32'40 max. Earth dist. -8291 May 24 j 00:12 0°**Υ**24'26 31.08072 AU opposition -8298 Nov 06 i 03:27 16°**¥**00'40 29.02142 AU min. Earth dist. -8297 Jan 24 j 12:57 14°\ 36'17 conjunction -8291 May 25 j 01:15  $0^{\circ}$ Y26'45  $-0^{\circ}$ 53'02 direct -8297 Apr 25 j 17:03 -8291 May 25 j 01:15 0°Y26'45 0°53'06 16°**)**€33'26 evening set minimum elong -8291 Jun 09 j 23:01 1°Y02'05 morning rise 2°**Y**54'26 -8297 May 11 j 20:51 -8291 Sep 04 j 12:12 conjunction 17°**)**€09'12 -1°24'13 retrograde -8297 May 11 j 20:52 -8291 Nov 20 j 11:59 1° Y 32'10 -0° 53'49 minimum elong 17°**米**09′12 1°24′24 opposition -8297 May 10 j 23:21 17°**光**07′12 31.02593 AU 1°**Y**30'32 29.08446 AU max. Earth dist. min. Earth dist. -8291 Nov 21 j 11:36 0°**Y**06'32 morning rise -8297 May 27 j 21:07 17°**)** 44'41 direct -8290 Feb 09 j 02:44 2°**Y**03'41 19°**)** 37′34 retrograde -8297 Aug 22 j 22:04 evening set -8290 May 11 j 12:06 opposition -8297 Nov 07 j 18:42 18°**升**14'58 -1°27'27 max. Earth dist. -8290 May 26 j 11:19 2°**Y**36'52 31.08710 AU 18°**升**13'37 29.03213 AU min. Earth dist. -8297 Nov 08 j 13:47 2°**Y**39'18 -0°47'32 direct -8296 Jan 27 j 02:24 16°**)** 49′15 conjunction -8290 May 27 j 13:28 evening set -8296 Apr 27 j 06:18 18°**)** 46′26 minimum elong -8290 May 27 j 13:29 2°**Y**39'18 0°47'34 max. Earth dist. -8296 May 12 j 11:15 19°**¥**20′06 31.03679 AU morning rise -8290 Jun 12 j 10:58 3°Υ14'34 retrograde -8290 Sep 07 j 00:08 5°Y06'50 conjunction -8296 May 13 j 09:45 19°¥22'11 -1°19'16 opposition -8290 Nov 22 j 22:39 3°Y44'35 -0°47'54 minimum elong -8296 May 13 j 09:45 19°**升**22'11 1°19'26 min. Earth dist. -8290 Nov 23 j 21:43 3°Υ42'59 29.09066 AU morning rise -8296 May 29 j 09:38 19°**)** 57'39 direct -8289 Feb 11 j 17:02 2°Y18'55 retrograde -8296 Aug 24 j 09:15 21°\ 50'27 evening set -8289 May 14 j 00:39 4°Υ16'03 opposition -8296 Nov 09 j 05:30 20°**)** €27'56 -1°22'06 max. Earth dist. -8289 May 28 j 23:41 4°Υ49'13 31.09334 AU min. Earth dist. -8296 Nov 10 j 01:39 20°\(\frac{1}{2}26'31 \quad 29.04301 \text{ AU} direct -8295 Jan 28 j 13:16 19°**)**€02'15 conjunction -8289 May 30 j 01:41 4°Υ51'38 -0°41'59 evening set -8295 Apr 29 j 19:26 20°¥59'27 minimum elong -8289 May 30 i 01:41 4°Υ51'38 0°42'00 morning rise -8289 Jun 14 j 22:36 5°Y26'53 -8295 May 15 j 22:41 21°\(\dagger)35'12 -1°14'13 -8289 Sep 09 j 10:08 7°**Y**19′04 conjunction retrograde -8295 May 15 j 22:42 21°\H35'12 1°14'22 -8289 Nov 25 j 09:41 5°Y56'49 -0°41'56 opposition minimum elong -8295 May 15 j 00:18 21°**∺**33'07 31.04752 AU -8289 Nov 26 j 09:54 5°Υ55'08 29.09715 AU max. Earth dist. min. Earth dist. -8295 May 31 j 22:08 -8288 Feb 14 j 05:17 4°Y31'08 22°**升**10′38 direct morning rise -8295 Aug 26 j 19:02 24°**米**03′21 evening set -8288 May 15 j 12:58 6°Y28'14 retrograde 22°**)** 40′55 -1°16′39 -8295 Nov 11 j 16:18 -8288 May 30 j 11:34 7°Υ01'22 31.10020 AU max. Earth dist. opposition -8295 Nov 12 j 12:58 min. Earth dist. 22°**升**39'28 29.05329 AU -8288 May 31 j 13:30 7° Y 03'47 -0°36'22 -8294 Jan 31 j 01:51 21°**)** 15'17 conjunction direct -8294 May 02 j 08:35 23°**)** 12′29 -8288 May 31 j 13:30 7°**Υ**'03'47 0°36'22 evening set minimum elong -8294 May 17 j 11:18 23° ¥ 45'58 31.05741 AU -8288 Jun 16 j 09:58 7°**Y**38'59 max. Earth dist. morning rise -8288 Sep 10 j 20:31 9°**Y**31′05 retrograde -8294 May 18 j 11:23 23°\dagger48'13 -1°09'04 -8288 Nov 26 j 20:36 8°Υ08'52 -0°35'54 conjunction opposition minimum elong -8294 May 18 j 11:24 23°\dagger48'13 1°09'10 min. Earth dist. -8288 Nov 27 j 20:01 8°**Y**07'14 29.10434 AU morning rise -8294 Jun 03 j 10:35 24°**)** 23'37 direct -8287 Feb 15 j 19:13 6°Y43'12 evening set retrograde -8294 Aug 29 j 05:39 26°**¥**16′15 -8287 May 18 j 01:13 8°Y40'16 -8294 Nov 14 j 03:09 24°**¥**53'53 -1°11'05 max. Earth dist. -8287 Jun 01 j 22:58 9°Υ13'20 31.10795 AU opposition min. Earth dist. -8294 Nov 15 j 00:23 24°**升**52'24 29.06268 AU -8293 Feb 02 j 13:14 23°**¥**28'15 -8287 Jun 03 j 01:15 9°Y15'46 -0°30'43 direct conjunction -8293 May 04 j 21:38 25°**¥**25′28 -8287 Jun 03 j 01:15 9°Y15'47 0°30'42 evening set minimum elong -8293 May 20 j 00:32 25°**)** 58'58 31.06621 AU -8287 Jun 18 j 21:14 9°Y50'56 max. Earth dist. morning rise retrograde -8287 Sep 13 i 07:38 -8293 May 21 i 00:15 conjunction 26° \(\frac{1}{11}\) -1°03'48 opposition -8287 Nov 29 i 07:33 10°Υ20'47 -0°29'50 10°**Y**19'08 29.11281 AU minimum elong -8293 May 21 j 00:16 26°\dagger01'11 1°03'54 min. Earth dist. -8287 Nov 30 i 07:21 -8293 Jun 05 i 22:52 8°Y55'09 morning rise 26°\ 36'33 direct -8286 Feb 18 i 06:49 -8293 Aug 31 j 14:47 28°¥29'06 evening set -8286 May 20 j 13:16 10°**Y**52′12 retrograde -8293 Nov 16 i 14:05 27°\ 06'47 -1°05'24 max. Earth dist. -8286 Jun 04 j 11:28 11°**Υ**25'18 31.11708 AU opposition min. Earth dist. -8293 Nov 17 j 12:30 27°**升**05'13 29.07079 AU -8292 Feb 05 j 01:57 25°**)**(41'10 -8286 Jun 05 j 12:57 11°Y27'40 -0°25'01 direct conjunction 11°**Y**'27'40 0°24'58 evening set -8292 May 06 j 10:44 27°**)** € 38'22 minimum elong -8286 Jun 05 j 12:57 12°**Y**02'48 max. Earth dist. -8292 May 21 j 11:22 28°**升**11'40 31.07392 AU morning rise -8286 Jun 21 j 08:23 -8286 Sep 15 j 16:37 retrograde 13°Y54'48 conjunction -8292 May 22 j 12:50 28°¥14'03 -0°58'27 opposition -8286 Dec 01 j 18:34 12°**Y**32'40 -0°23'43 -8292 May 22 j 12:50 28°**)** 14'03 0°58'32 min. Earth dist. -8286 Dec 02 j 18:11 12°**Y**31'01 29.12236 AU minimum elong -8292 Jun 07 j 11:11 28°**)** 49'24 -8285 Feb 20 j 19:56 11° **Y**07'04 morning rise direct  $0^{\circ}\Upsilon$ -8292 Jul 14 j 00:32 -8285 May 23 j 01:28 13°Y04'06 evening set 0°Y41'51 -8285 Jun 06 j 22:08 13°**Y**37'06 31.12722 AU retrograde -8292 Sep 02 j 02:23 max. Earth dist. -8292 Oct 23 j 19:34 30°**₹** opposition -8292 Nov 18 j 00:59 29°\(\)\(\)19'34\(\)-0°59'39 conjunction -8285 Jun 08 j 00:28 13°**Y**39'33 -0°19'16 min. Earth dist. -8292 Nov 18 j 23:09 29°**₭**18'01 29.07801 AU minimum elong -8285 Jun 08 j 00:28 13°**Y**39'33 0°19'13 direct -8291 Feb 06 j 13:40 27°**)** 53'56 morning rise -8285 Jun 23 j 19:29 14°**Y**14'39 -8291 May 08 j 23:22 29°\ 51'07 -8285 Sep 18 j 02:36 16°**Y**06'36 evening set retrograde

-8285 Dec 04 j 05:36

opposition

14° **Y**44'32 -0° 17'34

-8291 May 13 j 00:43

 $0^{\circ}\Upsilon$ 

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8285 in astronomical counting style is the year 8286 BCE in historical counting style. 14°**Υ**42'55 29.13296 AU -8285 Dec 05 i 05:01 behind sun begin -8279 Jun 20 j 19:16 26°Y50'55 min. Earth dist. -8284 Feb 23 j 06:49 13°Y19'00 -8279 Jun 20 j 22:02 26°**Y**51′10 direct behind sun end -8284 May 24 j 13:27 15°Y16'02 -8279 Jun 19 j 18:17 26°Υ48'35 31.18415 AU max. Earth dist. evening set 15°**Ƴ**49'07 31.13812 AU max. Earth dist. -8284 Jun 08 j 10:57 27°**Y**25'55 -8279 Jul 06 j 12:12 morning rise -8279 Sep 30 j 16:48 29°Y17'47 retrograde 15°Υ51'27 -0°13'31 -8279 Dec 17 j 01:42 27°**Υ**55'56 conjunction -8284 Jun 09 j 12:06 opposition 0°19'34 27°**Y**54'15 29.18757 AU minimum elong -8284 Jun 09 j 12:06 15°**Υ**51'27 0°13'25 min. Earth dist. -8279 Dec 18 j 02:14 -8284 Jun 09 j 08:26 15°**Y**51′08 26°Y30'39 behind sun begin direct -8278 Mar 08 j 09:01 28°Y27'31 behind sun end -8284 Jun 09 j 15:45 15°**Y**51'47 evening set -8278 Jun 07 j 12:40 morning rise -8284 Jun 25 j 06:25 16°**Y**26'31 max. Earth dist. -8278 Jun 22 j 04:46 29°**Y**00′09 31.19006 AU retrograde -8284 Sep 19 j 11:19 18°**Y**18′28 -8284 Dec 05 j 16:53 -8278 Jun 23 j 07:41 29°**Υ**02'40 opposition 16°Υ56'28 -0°11'23 conjunction 0°21'15 -8278 Jun 23 j 07:40  $29^{\circ}$  $\Upsilon$ 02'40 min. Earth dist. -8284 Dec 06 j 16:55 16°**Y**54'48 29.14393 AU minimum elong 0°21'28 direct -8283 Feb 24 j 18:24 15°**Ƴ**31'00 morning rise -8278 Jul 08 j 22:40 29° Y 37'29 evening set -8283 May 27 j 01:25 17°**Y**28'02 -8278 Jul 19 j 11:22 0°8 retrograde -8278 Oct 03 j 04:08 1°829'20 conjunction -8283 Jun 11 j 23:21 18°**Y**03'24 -0°07'45 opposition -8278 Dec 19 j 13:13 0°**8**07'28 0°25'41 minimum elong -8283 Jun 11 j 23:21 18°**Y**03'24 0°07'38 min. Earth dist. -8278 Dec 20 j 14:15 0°**と**05'45 29.19319 AU behind sun begin -8283 Jun 11 j 17:28 18°Y02'53 -8278 Dec 24 j 02:01 30°RY behind sun end -8283 Jun 12 j 05:14 18°Y03'56 direct -8277 Mar 10 j 21:29 28° **Y**42'11 max. Earth dist. -8283 Jun 10 j 21:07 18°**Y**00'57 31.14912 AU -8277 May 22 j 06:51 0°8 morning rise -8283 Jun 27 j 17:19 18°Y38'26 -8277 Jun 10 j 00:05 0°838'59 evening set retrograde -8283 Sep 21 i 22:50 20° Y 30'22 opposition -8283 Dec 08 i 04:03 19°**Υ**'08'26 -0°05'11 conjunction -8277 Jun 25 j 18:32 1°814'06 0°26'57 min. Earth dist. -8283 Dec 09 j 03:27 19°**Υ**06'49 29.15476 AU -8277 Jun 25 j 18:32 1°**8**14'06 0°27'11 minimum elong -8282 Feb 27 j 05:10 17°Y43'02 -8277 Jun 24 j 16:30 1°811'40 31.19539 AU direct max. Earth dist. -8282 May 29 j 13:22 19°**Y**40′03 -8277 Jul 11 j 08:51 1°848'52 evening set morning rise -8282 Jun 13 j 09:20 20°Υ13'00 31.15952 AU -8277 Oct 05 j 12:50 3°840'41 max. Earth dist. retrograde -8277 Dec 22 j 00:47 opposition 2°818'48 0°31'46 20°Y15'23 -0°01'57 -8282 Jun 14 j 10:53 -8277 Dec 23 j 01:36 2°817'06 29.19831 AU conjunction min. Earth dist. 20°**Y**15′23 -8282 Jun 14 j 10:53 0°01'48 direct -8276 Mar 12 j 11:27 0°**8**53'32 minimum elong -8282 Jun 14 j 04:23 20°**Y**14'48 -8276 Jun 11 j 11:31 2°**8**50'16 behind sun begin evening set -8282 Jun 14 j 17:23 20°**Y**15′58 max. Earth dist. -8276 Jun 26 j 02:29 3°**8**22'50 31.20055 AU behind sun end -8282 Jun 30 j 04:06 20°**Y**50′23 morning rise -8282 Sep 24 j 08:10 22°\dagger42'18 -8276 Jun 27 j 05:10 3°**8**25'19 0°32'37 retrograde conjunction -8282 Oct 12 j 07:49 -8276 Jun 27 j 05:10 3°**8**25'19 0°32'52 asc. node 22°\gamma36'50 minimum elong 4°800'03 opposition -8282 Dec 10 j 15:22 21°**Υ**20'25 0°01'01 morning rise -8276 Jul 12 j 18:59 min. Earth dist. -8282 Dec 11 j 16:03 21°Υ18'43 29.16472 AU retrograde -8276 Oct 06 j 22:56 5°**8**51'52 -8281 Mar 01 j 17:37 19°**Y**55′04 opposition -8276 Dec 23 j 12:21 4°**8**29'58 0°37'47 direct -8281 Jun 01 j 01:27 21°Y52'04 min. Earth dist. -8276 Dec 24 j 12:37 4°828'18 29.20377 AU evening set -8275 Mar 14 j 22:50 3°**8**04'42 direct -8281 Jun 16 j 22:13 22°**Y**'27'22 0°03'59 -8275 Jun 13 j 22:30 5°801'23 conjunction evening set -8281 Jun 16 j 22:14 22°**Y**27'22 minimum elong 0°04'08 -8281 Jun 16 j 15:50 22°**Y**26'47 -8275 Jun 29 j 15:41 5°836'24 0°38'14 behind sun begin conjunction -8281 Jun 17 j 04:38 22°Y27'56 -8275 Jun 29 j 15:40 behind sun end minimum elong 5°**8**36'24 0°38'30 -8281 Jun 15 i 19:45 22°**Υ**24'53 31.16899 AU max. Earth dist. max. Earth dist. -8275 Jun 28 i 14:36 5°834'03 31.20619 AU morning rise -8281 Jul 02 j 15:01 23°Y02'19 morning rise -8275 Jul 15 i 04:45 6°811'04 retrograde -8281 Sep 26 i 19:50 24°Y54'13 retrograde -8275 Oct 09 i 07:11 8°802'54 opposition -8281 Dec 13 i 02:46 23°Y32'22 0°07'13 opposition -8275 Dec 26 i 00:01 6°841'00 0°43'45 min. Earth dist. -8281 Dec 14 i 02:44 23°Υ30'43 29.17355 AU min. Earth dist. -8275 Dec 27 j 00:25 6°839'19 29.20977 AU direct -8280 Mar 03 j 06:53 22°Y07'03 direct -8274 Mar 17 j 11:04 5°815'46 -8280 Jun 02 j 13:14 24°Y04'01 -8274 Jun 16 j 09:44 7°812'24 evening set evening set -8280 Jun 17 j 07:10 24°**Υ**36'48 31.17711 AU max. Earth dist. -8274 Jul 01 j 00:26 7°**8**44'58 31.21265 AU max. Earth dist. 24°**Y**'39'16 0°09'45 conjunction -8280 Jun 18 j 09:29 conjunction -8274 Jul 02 j 02:03 7°**8**47'22 0°43'47 minimum elong -8280 Jun 18 j 09:29 24°**Y**39'16 0°09'55 minimum elong -8274 Jul 02 j 02:03 7°**8**47'22 0°44'04 -8274 Jul 17 j 14:40 8°822'00 -8280 Jun 18 j 04:13 24° Y 38' 48 behind sun begin morning rise -8280 Jun 18 j 14:45 24° **Y**39'44 -8274 Oct 11 j 18:06 10°813'51 behind sun end retrograde -8280 Jul 04 j 01:34 25°**Y**14'10 -8274 Dec 28 j 11:27 8°**8**51'58 0°49'40 morning rise opposition 27°**Y**06′04 8°850'23 29.21676 AU retrograde -8280 Sep 28 j 06:05 min. Earth dist. -8274 Dec 29 j 10:30 7°**8**26'48 opposition -8280 Dec 14 j 14:22 25°**Y**44'13 0°13'24 direct -8273 Mar 19 j 21:56 min. Earth dist. -8280 Dec 15 j 15:29 25°**Y**42'30 29.18115 AU evening set -8273 Jun 18 j 20:43 9°**8**23'24 direct -8279 Mar 05 j 18:35 24°Y18'56 evening set -8279 Jun 05 j 01:01 26°**Y**15'51 conjunction -8273 Jul 04 j 12:31 9°**8**58'19 0°49'16 minimum elong -8273 Jul 04 j 12:30 9°**8**58'19 0°49'34 -8279 Jun 20 j 20:39 26°**Y**'51'03 0°15'31 -8273 Jul 03 j 12:17 9°856'03 31.22003 AU conjunction max. Earth dist. -8279 Jun 20 j 20:39 26°Υ51'03 0°15'41 -8273 Jul 20 j 00:20 10°832'55 minimum elong morning rise

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11 Attention, astronomical year style is used: The year -8273 in astronomical counting style is the year 8274 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	e year -8273 in ast	ronomical cour	nting style is the year	8274 BCE in historical	counting style.	
retrograde	-8273 Oct 14 j 03:16	12° <b>8</b> 24'49		evening set	-8266 Jul 04 j 00:22	24° <b>8</b> 42'19	
opposition	-8273 Dec 30 j 23:17	11° <b>8</b> 02'58 0°5	55'30				
min. Earth dist.	-8273 Dec 31 j 22:50	11° <b>8</b> 01'21 29.2	22459 AU	conjunction	-8266 Jul 19 j 11:22	25° <b>8</b> 16'54	1°25'17
direct	-8272 Mar 21 j 09:36	9° <b>8</b> 37'53		minimum elong	-8266 Jul 19 j 11:22	25° <b>8</b> 16'54	1°25'42
evening set	-8272 Jun 20 j 07:37	11° <b>8</b> 34'27		max. Earth dist.	-8266 Jul 18 j 13:34	25° <b>8</b> 14'51	31.26430 AU
				morning rise	-8266 Aug 03 j 18:54	25° <b>8</b> 51'13	
conjunction	-8272 Jul 05 j 22:37	12° <b>8</b> 09'20 0°5	54'41	retrograde	-8266 Oct 29 j 05:36	27° <b>8</b> 43'35	
minimum elong	-8272 Jul 05 j 22:37	12° <b>8</b> 09'20 0°5	55'00	opposition	-8265 Jan 15 j 11:22	26° <b>8</b> 21'48	1°33'37
max. Earth dist.	-8272 Jul 04 j 22:21	12° <b>8</b> 07'03 31.2	22823 AU	min. Earth dist.	-8265 Jan 16 j 09:09		29.26619 AU
morning rise	-8272 Jul 21 j 09:58	12° <b>8</b> 43'53		direct	-8265 Apr 07 j 00:56	24° <b>8</b> 57'09	
retrograde	-8272 Oct 15 j 14:45	14° <b>8</b> 35'51		evening set	-8265 Jul 06 j 10:59	26° <b>8</b> 53'27	
opposition	-8271 Jan 01 j 11:02	13° <b>8</b> 14'03 1°0	01'15				
min. Earth dist.	-8271 Jan 02 j 09:11	13° <b>8</b> 12'32 29.2		conjunction	-8265 Jul 21 j 21:09	27° <b>8</b> 27'59	1°29'59
direct	-8271 Mar 23 j 21:22	11° <b>8</b> 49'03	20200110	minimum elong	-8265 Jul 21 j 21:08	27° <b>8</b> 27'59	
evening set	-8271 Jun 22 j 18:30	13° <b>8</b> 45'37		max. Earth dist.	-8265 Jul 20 j 22:48	_	31.26606 AU
max. Earth dist.	-8271 Jul 07 j 09:20	14° <b>8</b> 18'14 31.2	23653 ATT	morning rise	-8265 Aug 06 j 04:16	28° <b>8</b> 02'15	31.20000710
max. Latur dist.	-02/13u1 0/j 0/.20	14 01014 31.2	23033 AO	retrograde	-8265 Oct 31 j 16:27	29° <b>8</b> 54'40	
conjunction	-8271 Jul 08 j 08:54	14° <b>8</b> 20'27 1°0	00'02	opposition	-8264 Jan 17 j 23:34	28° <b>8</b> 32'50	1020124
minimum elong	-8271 Jul 08 j 08:53		00'22	min. Earth dist.	-8264 Jan 18 j 19:59	_	29.26766 AU
_	,	_	00 22		,		29.20700 AU
morning rise	-8271 Jul 23 j 19:33	14° <b>8</b> 54'58		direct	-8264 Apr 08 j 12:49	27° <b>8</b> 08'11	
	-8271 Jul 26 j 02:46	15° <b>8</b>		evening set	-8264 Jul 07 j 21:08	29° <b>8</b> 04'23	21 26716 444
retrograde	-8271 Oct 18 j 01:22	16° <b>8</b> 47'01	\	max. Earth dist.	-8264 Jul 22 j 09:52	29° <b>O</b> 36'54	31.26716 AU
opposition	-8270 Jan 03 j 22:49	15° <b>8</b> 25'15 1°0			006471 00:0647	2001 120152	102.422
min. Earth dist.	-8270 Jan 04 j 21:43	15° <b>8</b> 23'41 29.2	24127 AU	conjunction	-8264 Jul 23 j 06:47	29° <b>8</b> 38'52	1°34'33
	-8270 Jan 19 j 14:26	15° <b>₹</b> 8		minimum elong	-8264 Jul 23 j 06:46	29° <b>8</b> 38'52	1°35'00
direct	-8270 Mar 26 j 07:42	14° <b>8</b> 00'20			-8264 Aug 01 j 15:52	$\Pi^{\circ 0}$	
	-8270 May 28 j 00:08	15° <b>8</b>		morning rise	-8264 Aug 07 j 13:12	0° <b>Ⅱ</b> 13'06	
evening set	-8270 Jun 25 j 05:24	15° <b>8</b> 56'54		retrograde	-8264 Nov 02 j 00:39	2° <b>Ⅱ</b> 05'34	
				opposition	-8263 Jan 19 j 11:55	0°Ⅱ43'40	
conjunction	-8270 Jul 10 j 19:06	_	05'17	min. Earth dist.	-8263 Jan 20 j 08:42		29.26877 AU
minimum elong	-8270 Jul 10 j 19:05	16° <b>8</b> 31'40 1°0	)5'39		-8263 Feb 16 j 16:06	30° <b>₹</b> 8	
max. Earth dist.	-8270 Jul 09 j 20:00	16° <b>8</b> 29'30 31.2	24455 AU	direct	-8263 Apr 11 j 00:37	29° <b>8</b> 19'01	
morning rise	-8270 Jul 26 j 05:10	17° <b>8</b> 06'09			-8263 Jun 01 j 04:50	$\Pi$ $\circ 0$	
retrograde	-8270 Oct 20 j 12:36	18° <b>8</b> 58'16		evening set	-8263 Jul 10 j 07:24	1° <b>Ⅱ</b> 15′08	
opposition	-8269 Jan 06 j 10:46	17° <b>8</b> 36'33 1°1	12'29				
min. Earth dist.	-8269 Jan 07 j 08:42	17° <b>8</b> 35'03 29.2	24882 AU	conjunction	-8263 Jul 25 j 16:17	1° <b>Ⅱ</b> 49'33	1°38'59
direct	-8269 Mar 28 j 21:50	16° <b>8</b> 11'43		minimum elong	-8263 Jul 25 j 16:16	1° <b>Ⅱ</b> 49'33	1°39'26
evening set	-8269 Jun 27 j 16:16	18° <b>8</b> 08'16		max. Earth dist.	-8263 Jul 24 j 19:38	1° <b>Ⅱ</b> 47'37	31.26833 AU
max. Earth dist.	-8269 Jul 12 j 05:49	18° <b>8</b> 40'48 31.2	25147 AU	morning rise	-8263 Aug 09 j 22:16	2° <b>Ⅲ</b> 23'44	
	-			retrograde	-8263 Nov 04 j 11:03	4° <b>Ⅱ</b> 16′15	
conjunction	-8269 Jul 13 j 05:12	18° <b>8</b> 42'59 1°1	10'27	opposition	-8262 Jan 21 j 23:55	2° <b>Ⅱ</b> 54'18	1°48'02
minimum elong	-8269 Jul 13 j 05:11	18° <b>8</b> 42'59 1°1	10'49	min. Earth dist.	-8262 Jan 22 j 18:58	2° <b>Ⅱ</b> 53'01	29.27017 AU
morning rise	-8269 Jul 28 j 14:39	19° <b>8</b> 17'26		direct	-8262 Apr 13 j 11:59	1° <b>Ⅱ</b> 29'40	
retrograde	-8269 Oct 23 j 01:03	21° <b>8</b> 09'38		evening set	-8262 Jul 12 j 17:31	3° <b>Ⅱ</b> 25'42	
opposition	-8268 Jan 08 j 22:54	19° <b>8</b> 47'55 1°1	17'56	max. Earth dist.	-8262 Jul 27 j 06:08		31.26993 AU
min. Earth dist.	-8268 Jan 09 j 21:03	19° <b>8</b> 46'24 29.2			<b>,</b>		
direct	-8268 Mar 30 j 10:03	18° <b>8</b> 23'09		conjunction	-8262 Jul 28 j 01:48	4° <b>Ⅱ</b> 00'05	1°43'16
evening set	-8268 Jun 29 j 03:03	20° <b>8</b> 19'40		minimum elong	-8262 Jul 28 j 01:47	4° <b>Ⅱ</b> 00'05	1°43'44
e renning see	0200 tan 25 j 05.05	20 015 .0		morning rise	-8262 Aug 12 j 07:10	4° <b>∏</b> 34'14	1 .5
conjunction	-8268 Jul 14 j 15:24	20° <b>8</b> 54'21 1°1	15'31	retrograde	-8262 Nov 06 j 21:25	6° <b>Ⅱ</b> 26'49	
minimum elong	-8268 Jul 14 j 15:23	20° <b>8</b> 54'21 1°1		opposition	-8261 Jan 24 j 12:16	5° <b>Ⅱ</b> 04'49	1°52'32
max. Earth dist.	-8268 Jul 13 j 17:01	20° <b>8</b> 52'15 31.2		min. Earth dist.	-8261 Jan 25 j 07:24		29.27235 AU
morning rise	-8268 Jul 30 j 00:08	21° <b>8</b> 28'44	23721 AU	direct	-8261 Apr 15 j 22:21	3° <b>∏</b> 40′13	29.21233 AU
•							
retrograde	-8268 Oct 24 j 10:14	23° <b>8</b> 21'00	22117	evening set	-8261 Jul 15 j 03:29	5° <b>Ⅱ</b> 36'11	
opposition	-8267 Jan 10 j 11:05	21° <b>8</b> 59'18 1°2		. ,.	0261 1 1 20 : 11 07	60 <b>T</b> 10120	1047124
min. Earth dist.	-8267 Jan 11 j 08:57	21° <b>8</b> 57'48 29.2	26032 AU	conjunction	-8261 Jul 30 j 11:07	6° <b>Ⅱ</b> 10'30	
direct	-8267 Apr 01 j 23:37	20° <b>8</b> 34'35		minimum elong	-8261 Jul 30 j 11:06	6° <b>Ⅱ</b> 10'30	
evening set	-8267 Jul 01 j 13:47	22° <b>8</b> 31'02	26146 177	max. Earth dist.	-8261 Jul 29 j 16:43		31.27253 AU
max. Earth dist.	-8267 Jul 16 j 02:09	23° <b>8</b> 03'30 31.2	20146 AU	morning rise	-8261 Aug 14 j 15:56	6° <b>Ⅱ</b> 44'37	
	00/07 1 15:11	000120	2012	retrograde	-8261 Nov 09 j 08:14	8° <b>Ⅱ</b> 37'18	1050:
conjunction	-8267 Jul 17 j 01:19	23° <b>8</b> 05'40 1°2		opposition	-8260 Jan 27 j 00:35	7° <b>Ⅱ</b> 15'16	
minimum elong	-8267 Jul 17 j 01:18		20'51	min. Earth dist.	-8260 Jan 27 j 17:58		29.27537 AU
morning rise	-8267 Aug 01 j 09:37	23° <b>8</b> 40'02		direct	-8260 Apr 17 j 11:50	5° <b>Ⅱ</b> 50'43	
retrograde	-8267 Oct 26 j 20:58	25° <b>8</b> 32'21		evening set	-8260 Jul 16 j 13:29	7° <b>Ⅱ</b> 46'38	
opposition	-8266 Jan 12 j 23:12	24° <b>8</b> 10'37 1°2					
min. Earth dist.	-8266 Jan 13 j 20:38	24° <b>8</b> 09'09 29.2	26397 AU	conjunction	-8260 Jul 31 j 20:26	8° <b>Ⅱ</b> 20'55	1°51'23
direct	-8266 Apr 04 j 11:37	22° <b>8</b> 45'56		minimum elong	-8260 Jul 31 j 20:25	8° <b>Ⅱ</b> 20'55	1°51'52

I full ctury I fictiv	omena or reptune r	rom -8400	through -7898	3 (UT), Astrodien:	st AG 18-Feb-2025	14:23,	page 12
•	-		•		8261 BCE in historical c		
max. Earth dist.	-8260 Jul 31 j 02:20	-	31.27594 AU	conjunction	-8253 Aug 16 j 13:06	23° <b>II</b> 35'53	2°14'31
morning rise	-8260 Aug 16 j 00:49	8° <b>Ⅱ</b> 54'59		minimum elong	-8253 Aug 16 j 13:05	23° <b>II</b> 35'53	
retrograde	-8260 Nov 10 j 20:40	10° <b>∏</b> 47'47		max. Earth dist.	-8253 Aug 15 j 23:59		31.28994 AU
opposition	-8259 Jan 28 j 12:55	9° <b>П</b> 25'45	2001/03	morning rise	-8253 Aug 31 j 14:27	24° <b>∏</b> 09'47	31.20/)4/10
			29.27931 AU	-		26° <b>Ⅱ</b> 03'25	
min. Earth dist.	-8259 Jan 29 j 05:51		29.27931 AU	retrograde	-8253 Nov 26 j 21:54		2025107
direct	-8259 Apr 19 j 22:36	8° <b>Ⅱ</b> 01'16		opposition	-8252 Feb 14 j 05:23	24° <b>Ⅱ</b> 41'13	
evening set	-8259 Jul 18 j 23:15	9° <b>Ⅱ</b> 57'08		min. Earth dist.	-8252 Feb 14 j 18:13		29.29072 AU
				direct	-8252 May 05 j 08:51	23° <b>Ⅱ</b> 17'11	
conjunction	-8259 Aug 03 j 05:44	10° <b>Ⅱ</b> 31′23	1°55'13	evening set	-8252 Aug 02 j 19:29	25° <b>Ⅱ</b> 12'37	
minimum elong	-8259 Aug 03 j 05:43	10° <b>Ⅲ</b> 31′23	1°55'43				
max. Earth dist.	-8259 Aug 02 j 13:21	10° <b>Ⅱ</b> 29'50	31.28002 AU	conjunction	-8252 Aug 17 j 22:13	25° <b>Ⅱ</b> 46'36	2°17'05
morning rise	-8259 Aug 18 j 09:32	11° <b>Ⅲ</b> 05′26		minimum elong	-8252 Aug 17 j 22:13	25° <b>Ⅱ</b> 46'36	2°17'37
retrograde	-8259 Nov 13 j 06:16	12° <b>Ⅱ</b> 58′20		max. Earth dist.	-8252 Aug 17 j 10:22	25° <b>Ⅱ</b> 45'29	31.28781 AU
opposition	-8258 Jan 31 j 01:20	11° <b>Ⅲ</b> 36′18	2°05'03	morning rise	-8252 Sep 01 j 23:14	26° <b>Ⅲ</b> 20′28	
min. Earth dist.	-8258 Jan 31 j 17:26		29.28340 AU	retrograde	-8252 Nov 28 j 08:53	28° <b>Ⅱ</b> 14'12	
direct	-8258 Apr 22 j 11:27	10° <b>I</b> I11'55	27.203.0110	opposition	-8251 Feb 15 j 18:01	26° <b>I</b> I51'56	2°27'45
evening set	-8258 Jul 21 j 09:11	10 <b>Ⅱ</b> 11 35		min. Earth dist.	-8251 Feb 16 j 05:16		29.28832 AU
evening set	-0230 Jul 21 J 09.11	12 110/43			-8251 May 07 j 21:53	25° <b>I</b> 27'55	29.20032 AU
	0250 4 05:14.54	100T 41157	1050150	direct	, ,		
conjunction	-8258 Aug 05 j 14:54	12° <b>Ⅱ</b> 41'57	1°58'52	evening set	-8251 Aug 05 j 04:53	27° <b>Ⅱ</b> 23'15	
minimum elong	-8258 Aug 05 j 14:53	12° <b>Ⅱ</b> 41'57				_	
max. Earth dist.	-8258 Aug 04 j 22:16		31.28402 AU	conjunction	-8251 Aug 20 j 07:06	27° <b>Ⅱ</b> 57'13	
morning rise	-8258 Aug 20 j 18:21	13° <b>Ⅱ</b> 15'58		minimum elong	-8251 Aug 20 j 07:06	27° <b>Ⅱ</b> 57'13	2°20'00
retrograde	-8258 Nov 15 j 17:59	15° <b>Ⅱ</b> 09'00		max. Earth dist.	-8251 Aug 19 j 19:26	27° <b>Ⅱ</b> 56′06	31.28526 AU
opposition	-8257 Feb 02 j 13:45	13° <b>Ⅱ</b> 46′58	2°08'52	morning rise	-8251 Sep 04 j 07:57	28° <b>Ⅲ</b> 31′04	
min. Earth dist.	-8257 Feb 03 j 04:58	13° <b>Ⅱ</b> 45'56	29.28734 AU		-8251 Oct 23 j 03:02	$0$ $\circ$ $\odot$	
direct	-8257 Apr 24 j 23:03	12° <b>Ⅲ</b> 22'40		retrograde	-8251 Nov 30 j 21:35	0°924'54	
evening set	-8257 Jul 23 j 19:00	14° <b>Ⅱ</b> 18′28		S	-8250 Jan 10 j 00:01	30°R <b>Ⅱ</b>	
max. Earth dist.	-8257 Aug 07 j 09:25		31.28753 AU	opposition	-8250 Feb 18 j 06:47	29° <b>I</b> I02'33	2°30'11
man. Darm dist.	0207 1148 07 3 07.20		31.20,03110	min. Earth dist.	-8250 Feb 18 j 17:27		29.28599 AU
conjunction	-8257 Aug 08 j 00:17	14° <b>∏</b> 52'38	2002121	direct	-8250 May 10 j 08:07	27° <b>II</b> 38'33	27.20377 110
	• •				, ,		
minimum elong	-8257 Aug 08 j 00:17	14° <b>Ⅱ</b> 52'38	2°02′52	evening set	-8250 Aug 07 j 14:05	29° <b>Ⅱ</b> 33'47	
morning rise	-8257 Aug 23 j 03:07	15° <b>Ⅱ</b> 26'37			-8250 Aug 19 j 06:20	$0$ $\circ$	
retrograde	-8257 Nov 18 j 03:46	17° <b>Ⅱ</b> 19'46					
opposition	-8256 Feb 05 j 02:30	15° <b>Ⅱ</b> 57'45		conjunction	-8250 Aug 22 j 16:01	0° <b>©</b> 07'43	2°21'37
min. Earth dist.	-8256 Feb 05 j 17:42		29.29047 AU	minimum elong	-8250 Aug 22 j 16:01	0° <b>9</b> 07'43	2°22'10
direct	-8256 Apr 26 j 12:05	14° <b>Ⅲ</b> 33'32		max. Earth dist.	-8250 Aug 22 j 06:22	0° <b>ട്ട</b> 06'48	31.28304 AU
evening set	-8256 Jul 25 j 04:49	16° <b>Ⅱ</b> 29'16		morning rise	-8250 Sep 06 j 16:25	0°941'33	
				retrograde	-8250 Dec 03 j 07:06	2° <b>©</b> 35'30	
conjunction	-8256 Aug 09 j 09:24	17° <b>Ⅲ</b> 03′24	2°05'40	opposition	0040 F.1. 00:10.00		
minimum elong				оррознион	-8249 Feb 20 j 19:33	1°913'04	2°32'24
max. Earth dist.	-8256 Aug 09 j 09:23	17° <b>Ⅱ</b> 03'24	2°06'11		-8249 Feb 20 j 19:33 -8249 Feb 21 j 04:57		
	-8256 Aug 09 j 09:23	17° <b>Ⅱ</b> 03'24 17° <b>Ⅱ</b> 01'58		min. Earth dist.	-8249 Feb 21 j 04:57	1° <b>©</b> 12'26	2°32'24 29.28408 AU
morning rise	-8256 Aug 08 j 18:15	17° <b>Ⅲ</b> 01'58	2°06'11 31.29012 AU	min. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20	1°©12′26 30°R∏	
morning rise	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58	17° <b>Ⅱ</b> 01'58 17° <b>Ⅱ</b> 37'22			-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43	1°\$12'26 30°R∏ 29°∏49'07	
retrograde	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16	17°Щ01'58 17°Щ37'22 19°Щ30'39	31.29012 AU	min. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47	1°\$12'26 30°R∏ 29°∏49'07 0°\$	
retrograde opposition	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06	17°Щ01'58 17°Щ37'22 19°Щ30'39 18°Щ08'36	31.29012 AU 2°15'57	min. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43	1°\$12'26 30°R∏ 29°∏49'07	
retrograde opposition min. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50	17°Д01'58 17°Д37'22 19°Д30'39 18°Д08'36 18°Д07'41	31.29012 AU	min. Earth dist. direct evening set	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26	1°S12'26 30°R.II 29°II49'07 0°S 1°S44'16	29.28408 AU
retrograde opposition min. Earth dist. direct	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39	17° Д01'58 17° Д37'22 19° Д30'39 18° Д08'36 18° Д07'41 16° Д44'27	31.29012 AU 2°15'57	min. Earth dist. direct evening set conjunction	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10	29.28408 AU 2°23'36
retrograde opposition min. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50	17°Д01'58 17°Д37'22 19°Д30'39 18°Д08'36 18°Д07'41	31.29012 AU 2°15'57	min. Earth dist.  direct evening set  conjunction minimum elong	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48	1°S12'26 30°R II 29° II 49'07 0°S 1°S44'16 2°S18'10 2°S18'10	29.28408 AU 2°23'36 2°24'08
retrograde opposition min. Earth dist. direct evening set	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35	17°П01'58 17°П37'22 19°П30'39 18°П08'36 18°П07'41 16°П44'27 18°П40'08	31.29012 AU 2°15'57 29.29253 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong max. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16	29.28408 AU 2°23'36
retrograde opposition min. Earth dist. direct evening set conjunction	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46	17°Д01'58 17°Д37'22 19°Д30'39 18°Д08'36 18°Д07'41 16°Д44'27 18°Д40'08	31.29012 AU 2°15'57 29.29253 AU 2°08'48	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16 2°S51'59	29.28408 AU 2°23'36 2°24'08
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14	31.29012 AU 2°15'57 29.29253 AU 2°08'48 2°09'19	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16 2°S51'59 4°S46'03	29.28408 AU 2°23'36 2°24'08 31.28161 AU
retrograde opposition min. Earth dist. direct evening set conjunction	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14	31.29012 AU 2°15'57 29.29253 AU 2°08'48	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16 2°S51'59	29.28408 AU 2°23'36 2°24'08 31.28161 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14	31.29012 AU 2°15'57 29.29253 AU 2°08'48 2°09'19	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S17'16 2°S51'59 4°S46'03 3°S23'34	29.28408 AU 2°23'36 2°24'08 31.28161 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 14'14 19° П 12'55	31.29012 AU 2°15'57 29.29253 AU 2°08'48 2°09'19	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S17'16 2°S51'59 4°S46'03 3°S23'34	2°23'36 2°24'08 31.28161 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 14'14 19° П 12'55 19° П 48'10	31.29012 AU 2°15'57 29.29253 AU 2°08'48 2°09'19 31.29137 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14	1°\$12'26 30°\$II 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03	29.28408 AU  2°23'36 2°24'08 31.28161 AU  2°34'24
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 12'55 19° П 48'10 21° П 41'35 20° П 19'30	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16 2°S51'59 4°S46'03 3°S23'34 3°S23'03 1°S59'40	29.28408 AU  2°23'36 2°24'08 31.28161 AU  2°34'24
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 12'55 19° П 48'10 21° П 41'35 20° П 19'30 20° П 18'32	31.29012 AU 2°15'57 29.29253 AU 2°08'48 2°09'19 31.29137 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Reb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27	1°S12'26 30°RII 29°II49'07 0°S 1°S44'16 2°S18'10 2°S18'10 2°S17'16 2°S51'59 4°S46'03 3°S23'34 3°S23'03 1°S59'40 3°S54'45	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11	17° П01'58 17° П37'22 19° П30'39 18° П08'36 18° П07'41 16° П44'27 18° П40'08 19° П14'14 19° П12'55 19° П48'10 21° П41'35 20° П18'32 18° П55'24	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27 -8248 Aug 26 j 09:40	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'34 3°\$59'40 3°\$554'45	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 12'55 19° П 48'10 21° П 41'35 20° П 19'30 20° П 18'32	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40	1°512'26 30°R II 29° II 49'07 0°5 1°544'16 2°518'10 2°517'16 2°551'59 4°546'03 3°523'34 3°523'03 1°559'40 3°554'45 4°528'38 4°528'38	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25	17° По1'58 17° П37'22 19° П30'39 18° П08'36 18° П07'41 16° П44'27 18° П40'08 19° П14'14 19° П12'55 19° П48'10 21° П41'35 20° П18'32 18° П55'24 20° П51'01	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 02:25	1°912'26 30°R II 29° II 49'07 0°9 1°944'16 2°918'10 2°917'16 2°951'59 4°946'03 3°923'34 3°923'03 1°959'40 3°954'45 4°928'38 4°927'57	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25	17° По1'58 17° П37'22 19° П30'39 18° П08'36 18° П07'41 16° П44'27 18° П40'08 19° П14'14 19° П12'55 19° П48'10 21° П41'35 20° П18'32 18° П55'24 20° П51'01	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 02:25 -8248 Sep 10 j 09:38	1°912'26 30°RII 29°II49'07 0°9 1°944'16 2°918'10 2°917'16 2°951'59 4°946'03 3°923'34 3°923'03 1°959'40 3°954'45 4°928'38 4°927'57 5°902'26	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:01	17° По1'58 17° П37'22 19° П30'39 18° П08'36 18° П07'41 16° П44'27 18° П40'08 19° П14'14 19° П12'55 19° П48'10 21° П41'35 20° П18'32 18° П55'24 20° П51'01 21° П25'05 21° П25'05	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU  2°11'45 2°12'16	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Sep 10 j 09:38 -8248 Dec 07 j 06:06	1°\$12'26 30°\$ II 29° II 49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$22'57 5°\$02'26 6°\$56'38	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12	17° По1'58 17° П37'22 19° П30'39 18° П08'36 18° П07'41 16° П44'27 18° П40'08 19° П14'14 19° П12'55 19° П48'10 21° П41'35 20° П18'32 18° П55'24 20° П51'01 21° П25'05 21° П25'05 21° П23'46	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Sep 10 j 09:38 -8248 Dec 07 j 06:06 -8247 Feb 24 j 21:14	1°\$12'26 30°\$ II 29° II 49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$22'57 5°\$02'26 6°\$56'38 5°\$34'07	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12 -8254 Aug 29 j 05:44	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 12'55 19° П 48'10 21° П 41'35 20° П 19'30 20° П 18'32 18° П 55'24 20° П 51'01 21° П 25'05 21° П 25'05 21° П 23'46 21° П 58'59	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU  2°11'45 2°12'16	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Pec 07 j 06:06 -8247 Feb 24 j 21:14 -8247 Feb 25 j 04:34	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$27'57 5°\$02'26 6°\$56'38 5°\$34'07 5°\$33'37	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12	17° \(\Pi\)01'58 17° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)07'41 16° \(\Pi\)44'27 18° \(\Pi\)40'08 19° \(\Pi\)14'14 19° \(\Pi\)14'14 19° \(\Pi\)14'14 19° \(\Pi\)14'15 19° \(\Pi\)48'10 21° \(\Pi\)48'10 20° \(\Pi\)18'32 18° \(\Pi\)55'24 20° \(\Pi\)51'01 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'30 23° \(\Pi\)52'30	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12  29.29318 AU  2°11'45  2°12'16  31.29134 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Sep 10 j 09:38 -8248 Dec 07 j 06:06 -8247 Feb 24 j 21:14	1°\$12'26 30°\$ II 29° II 49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$22'57 5°\$02'26 6°\$56'38 5°\$34'07	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Nov 22 j 00:14 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12 -8254 Aug 29 j 05:44	17° П 01'58 17° П 37'22 19° П 30'39 18° П 08'36 18° П 07'41 16° П 44'27 18° П 40'08 19° П 14'14 19° П 12'55 19° П 48'10 21° П 41'35 20° П 19'30 20° П 18'32 18° П 55'24 20° П 51'01 21° П 25'05 21° П 25'05 21° П 23'46 21° П 58'59	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12  29.29318 AU  2°11'45  2°12'16  31.29134 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 11 j 08:27  -8248 Aug 26 j 09:40 -8248 Pec 07 j 06:06 -8247 Feb 24 j 21:14 -8247 Feb 25 j 04:34	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$27'57 5°\$02'26 6°\$56'38 5°\$34'07 5°\$33'37	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct evening set	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Aug 26 j 20:48 -8255 Aug 26 j 20:48 -8255 Feb 09 j 03:46 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12 -8254 Aug 29 j 05:44 -8254 Nov 24 j 11:06	17° \(\Pi\)01'58 17° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)08'36 18° \(\Pi\)07'41 16° \(\Pi\)44'27 18° \(\Pi\)40'08 19° \(\Pi\)14'14 19° \(\Pi\)12'55 19° \(\Pi\)48'10 21° \(\Pi\)48'10 20° \(\Pi\)18'32 18° \(\Pi\)55'24 20° \(\Pi\)51'01 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'46 21° \(\Pi\)58'59 23° \(\Pi\)52'30 22° \(\Pi\)30'23	31.29012 AU  2°15'57  29.29253 AU  2°08'48  2°09'19  31.29137 AU  2°19'12  29.29318 AU  2°11'45  2°12'16  31.29134 AU	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:38 -8248 Dec 07 j 06:06 -8247 Feb 24 j 21:14 -8247 Feb 25 j 04:34 -8247 May 16 j 21:25	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'03 1°\$59'40 3°\$54'45 4°\$28'38 4°\$28'38 4°\$28'38 4°\$27'57 5°\$02'26 6°\$56'38 5°\$34'07 5°\$33'37 4°\$10'18	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8254 Feb 09 j 03:46 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 13 j 14:12 -8254 Aug 29 j 05:44 -8254 Nov 24 j 11:06 -8253 Feb 11 j 16:28	17° \(\Pi\)01'58 17° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)08'36 18° \(\Pi\)07'41 16° \(\Pi\)44'27 18° \(\Pi\)40'08 19° \(\Pi\)14'14 19° \(\Pi\)12'55 19° \(\Pi\)48'10 21° \(\Pi\)48'10 20° \(\Pi\)18'32 18° \(\Pi\)55'24 20° \(\Pi\)51'01 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'46 21° \(\Pi\)58'59 23° \(\Pi\)52'30 22° \(\Pi\)30'23	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU  2°11'45 2°12'16 31.29134 AU  2°22'15	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26  -8249 Aug 25 j 00:48 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:40 -8248 Aug 26 j 09:38 -8248 Dec 07 j 06:06 -8247 Feb 24 j 21:14 -8247 Feb 25 j 04:34 -8247 May 16 j 21:25	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'34 3°\$524'45 4°\$28'38 4°\$28'38 4°\$28'38 4°\$27'57 5°\$02'26 6°\$56'38 5°\$34'07 5°\$33'37 4°\$10'18 6°\$05'18	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10
retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8256 Aug 08 j 18:15 -8256 Aug 24 j 11:58 -8256 Nov 19 j 15:16 -8255 Feb 06 j 15:06 -8255 Feb 07 j 04:50 -8255 Apr 28 j 23:39 -8255 Jul 27 j 14:35 -8255 Aug 11 j 18:46 -8255 Aug 11 j 18:45 -8255 Aug 11 j 04:47 -8255 Aug 26 j 20:48 -8255 Aug 26 j 20:48 -8255 Aug 26 j 20:48 -8254 Feb 09 j 03:46 -8254 Feb 09 j 17:59 -8254 May 01 j 11:11 -8254 Jul 30 j 00:25 -8254 Aug 14 j 04:01 -8254 Aug 14 j 04:00 -8254 Aug 13 j 14:12 -8254 Aug 29 j 05:44 -8254 Nov 24 j 11:06 -8253 Feb 11 j 16:28 -8253 Feb 12 j 05:03	17° \(\Pi\)01'58 17° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)30'39 18° \(\Pi\)08'36 18° \(\Pi\)07'41 16° \(\Pi\)44'27 18° \(\Pi\)40'08 19° \(\Pi\)14'14 19° \(\Pi\)12'55 19° \(\Pi\)48'10 21° \(\Pi\)48'10 20° \(\Pi\)18'32 18° \(\Pi\)55'24 20° \(\Pi\)51'01 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'05 21° \(\Pi\)25'30 22° \(\Pi\)30'23 22° \(\Pi\)29'32	31.29012 AU  2°15'57 29.29253 AU  2°08'48 2°09'19 31.29137 AU  2°19'12 29.29318 AU  2°11'45 2°12'16 31.29134 AU  2°22'15	min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set  conjunction  minimum elong  max. Earth dist.  morning rise  retrograde  opposition  min. Earth dist.  direct  evening set	-8249 Feb 21 j 04:57 -8249 Apr 16 j 12:20 -8249 May 12 j 20:43 -8249 Jun 07 j 17:47 -8249 Aug 09 j 23:26 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 25 j 00:48 -8249 Aug 24 j 15:19 -8249 Sep 09 j 01:08 -8249 Dec 05 j 19:36 -8248 Feb 23 j 08:21 -8248 Feb 23 j 16:14 -8248 May 14 j 08:26 -8248 Aug 26 j 09:40 -8248 Teb 25 j 04:34 -8247 Feb 25 j 04:34 -8247 Ray 16 j 21:25 -8247 Aug 13 j 17:41	1°\$12'26 30°RII 29°II49'07 0°\$ 1°\$44'16 2°\$18'10 2°\$18'10 2°\$17'16 2°\$51'59 4°\$46'03 3°\$23'34 3°\$23'34 3°\$524'45 4°\$28'38 4°\$28'38 4°\$28'38 4°\$27'57 5°\$02'26 6°\$56'38 5°\$34'07 5°\$33'37 4°\$10'18 6°\$05'18	2°23'36 2°24'08 31.28161 AU 2°34'24 29.28328 AU 2°25'21 2°25'54 31.28120 AU 2°36'10 29.28330 AU

Planetary Pheno	omena of Neptune f	rom -8400	through -7898	3 (UT), Astrodien	st AG 18-Feb-2025	14:23,	page 13
Attention, astronom	nical year style is used: Th	e year -8247	in astronomical co	unting style is the year	r 8248 BCE in historical of	counting style.	
max. Earth dist.	-8247 Aug 28 j 11:29	6° <b>5</b> 38'30	31.28164 AU	conjunction	-8240 Sep 12 j 09:16	21° <b>©</b> 55'35	2°31'49
morning rise	-8247 Sep 12 j 18:25	7° <b>©</b> 12'58		minimum elong	-8240 Sep 12 j 09:17	21° <b>©</b> 55'35	2°32'21
retrograde	-8247 Dec 09 j 17:41	9° <b>©</b> 07'17		max. Earth dist.	-8240 Sep 12 j 07:48	21° <b>©</b> 55'27	31.27032 AU
opposition	-8246 Feb 27 j 09:52	7° <b>5</b> 944'46	2°37'43	morning rise	-8240 Sep 27 j 09:00	22° <b>5</b> 29'24	
min. Earth dist.	-8246 Feb 27 j 15:15	7° <b>5</b> 944'24	29.28401 AU	retrograde	-8240 Dec 25 j 01:31	24° <b>©</b> 24'39	
direct	-8246 May 19 j 08:29	6° <b>5</b> 21'01		opposition	-8239 Mar 15 j 05:28	23° <b>©</b> 01'46	2°42'10
evening set	-8246 Aug 16 j 02:48	8° <b>©</b> 15'58		min. Earth dist.	-8239 Mar 15 j 05:30	23° <b>©</b> 01'46	29.26944 AU
				direct	-8239 Jun 03 j 15:19	21° <b>©</b> 38'23	
conjunction	-8246 Aug 31 j 03:23	8° <b>5</b> 349'49	2°28'15	evening set	-8239 Aug 30 j 18:44	23° <b>©</b> 32'42	
minimum elong	-8246 Aug 31 j 03:23	8° <b>5</b> 349'49	2°28'48				
max. Earth dist.	-8246 Aug 30 j 21:58	8° <b>5</b> 349'18	31.28239 AU	conjunction	-8239 Sep 14 j 18:20	24° <b>©</b> 06'29	2°31'40
morning rise	-8246 Sep 15 j 03:05	9° <b>5</b> 23'37		minimum elong	-8239 Sep 14 j 18:20	24° <b>5</b> 06'29	2°32'11
retrograde	-8246 Dec 12 j 03:00	11° <b>©</b> 18'05		max. Earth dist.	-8239 Sep 14 j 18:43	24° <b>©</b> 06'31	31.26418 AU
opposition	-8245 Mar 01 j 22:56	9° <b>©</b> 55'33	2°39'03	morning rise	-8239 Sep 29 j 17:59	24°5540'18	
min. Earth dist.	-8245 Mar 02 j 04:20	9° <b>©</b> 55'11	29.28481 AU	retrograde	-8239 Dec 27 j 12:21	26° <b>©</b> 35'40	
direct	-8245 May 21 j 20:12	8° <b>5</b> 31'53		opposition	-8238 Mar 17 j 18:29	25° <b>©</b> 12'40	2°41'53
evening set	-8245 Aug 18 j 11:54	10° <b>5</b> 26'46		min. Earth dist.	-8238 Mar 17 j 18:13	25° <b>©</b> 12'41	29.26307 AU
				direct	-8238 Jun 06 j 04:02	23° <b>©</b> 49'18	
conjunction	-8245 Sep 02 j 12:10	11° <b>©</b> 00'36	2°29'23	evening set	-8238 Sep 02 j 03:43	25°543'30	
minimum elong	-8245 Sep 02 j 12:10	11° <b>©</b> 00'36	2°29'56				
max. Earth dist.	-8245 Sep 02 j 07:33	11° <b>©</b> 00'10	31.28312 AU	conjunction	-8238 Sep 17 j 03:11	26°517'17	2°31'17
morning rise	-8245 Sep 17 j 11:48	11° <b>©</b> 34'24		minimum elong	-8238 Sep 17 j 03:12	26°©17'17	2°31'48
retrograde	-8245 Dec 14 j 14:20	13° <b>©</b> 29'01		max. Earth dist.	-8238 Sep 17 j 03:57	26°©17'21	31.25790 AU
opposition	-8244 Mar 03 j 11:56	12° <b>©</b> 06'27	2°40'08	morning rise	-8238 Oct 02 j 03:06	26°©51'07	
min. Earth dist.	-8244 Mar 03 j 15:24	12° <b>©</b> 06'13	29.28525 AU	retrograde	-8238 Dec 30 j 00:24	28° <b>©</b> 46'34	
direct	-8244 May 23 j 07:44	10°5542'53		opposition	-8237 Mar 20 j 07:33	27° <b>©</b> 23'29	2°41'22
evening set	-8244 Aug 19 j 21:08	12° <b>©</b> 37'41		min. Earth dist.	-8237 Mar 20 j 05:12	27° <b>©</b> 23'39	29.25694 AU
				direct	-8237 Jun 08 j 15:25	26°500'08	
conjunction	-8244 Sep 03 j 21:10	13° <b>©</b> 11'30	2°30'18	evening set	-8237 Sep 04 j 12:30	27° <b>©</b> 54'14	
minimum elong	-8244 Sep 03 j 21:10	13° <b>©</b> 11'30	2°30'51				
max. Earth dist.	-8244 Sep 03 j 17:12	13° <b>©</b> 11'08	31.28308 AU	conjunction	-8237 Sep 19 j 12:03	28° <b>©</b> 28'01	2°30'41
morning rise	-8244 Sep 18 j 20:45	13° <b>5</b> 945'18		minimum elong	-8237 Sep 19 j 12:03	28° <b>©</b> 28'01	2°31'12
retrograde	-8244 Dec 16 j 01:37	15° <b>©</b> 40'05		max. Earth dist.	-8237 Sep 19 j 14:22	28° <b>5</b> 28'15	31.25195 AU
opposition	-8243 Mar 06 j 00:58	14° <b>©</b> 17'29	2°41'00	morning rise	-8237 Oct 04 j 12:04	29° <b>©</b> 01'53	
min. Earth dist.	-8243 Mar 06 j 04:43	14°9517'14	29.28484 AU		-8237 Nov 02 j 01:34	$0^{\circ}\Omega$	
direct	-8243 May 25 j 17:46	12° <b>©</b> 53'58		retrograde	-8236 Jan 01 j 10:19	0° <b>£</b> 57′27	
evening set	-8243 Aug 22 j 06:19	14° <b>5</b> 548'42			-8236 Mar 05 j 16:32	30° <b>₹</b> 🥯	
				opposition	-8236 Mar 21 j 20:45	29° <b>©</b> 34'17	2°40'37
conjunction	-8243 Sep 06 j 06:15	15° <b>5</b> 22'30	2°31'01	min. Earth dist.	-8236 Mar 21 j 18:09	29° <b>5</b> 34'28	29.25139 AU
minimum elong	-8243 Sep 06 j 06:15	15° <b>©</b> 22'30	2°31'33	direct	-8236 Jun 10 j 03:27	28° <b>©</b> 10'59	
max. Earth dist.	-8243 Sep 06 j 03:32	15° <b>©</b> 22'15	31.28204 AU		-8236 Sep 03 j 15:18	$0 {\circ} \Omega$	
morning rise	-8243 Sep 21 j 05:43	15° <b>©</b> 56'18		evening set	-8236 Sep 05 j 21:24	0° <b>Ω</b> 04'58	
retrograde	-8243 Dec 18 j 12:42	17° <b>©</b> 51'13					
opposition	-8242 Mar 08 j 14:01	16° <b>5</b> 28'34	2°41'38	conjunction	-8236 Sep 20 j 21:01	0° <b>Ω</b> 38'46	2°29'53
min. Earth dist.	-8242 Mar 08 j 16:17	16° <b>©</b> 28'25	29.28304 AU	minimum elong	-8236 Sep 20 j 21:02	0° <b>Ω</b> 38'46	
direct	-8242 May 28 j 05:52	15° <b>©</b> 05'07		max. Earth dist.	-8236 Sep 21 j 00:31	0° <b>Ω</b> 39'06	31.24692 AU
evening set	-8242 Aug 24 j 15:34	16° <b>©</b> 59'45		morning rise	-8236 Oct 05 j 21:15	1° <b>Ω</b> 12'39	
				retrograde	-8235 Jan 02 j 21:54	3° <b>Ω</b> 08′21	
conjunction	-8242 Sep 08 j 15:12	17° <b>©</b> 33'33	2°31'30	opposition	-8235 Mar 24 j 09:34	1° <b>Ω</b> 45′08	
minimum elong	-8242 Sep 08 j 15:12	17° <b>©</b> 33'33		min. Earth dist.	-8235 Mar 24 j 04:44		29.24672 AU
max. Earth dist.	-8242 Sep 08 j 12:18	17° <b>©</b> 33'17	31.27948 AU	direct	-8235 Jun 12 j 15:00	0° <b>Ω</b> 21'52	
morning rise	-8242 Sep 23 j 14:46	18° <b>5</b> 07'21		evening set	-8235 Sep 08 j 06:19	2° <b>Ω</b> 15'48	
retrograde	-8242 Dec 21 j 01:37	20° <b>©</b> 02'24					
opposition	-8241 Mar 11 j 03:13	18° <b>5</b> 39'41	2°42'03	conjunction	-8235 Sep 23 j 05:58	2° <b>Ω</b> 49'36	2°28'51
min. Earth dist.	-8241 Mar 11 j 05:10	18° <b>©</b> 39'33	29.27983 AU	minimum elong	-8235 Sep 23 j 05:59	2° <b>Ω</b> 49'36	
direct	-8241 May 30 j 15:22	17° <b>©</b> 16'16		max. Earth dist.	-8235 Sep 23 j 10:16	2° <b>Ω</b> 50'01	31.24263 AU
evening set	-8241 Aug 27 j 00:40	19° <b>©</b> 10'49		morning rise	-8235 Oct 08 j 06:30	3° <b>£</b> 23′31	
				retrograde	-8234 Jan 05 j 09:13	5° <b>Ω</b> 19'22	
conjunction	-8241 Sep 11 j 00:22	19° <b>5</b> 544'36	2°31'46	opposition	-8234 Mar 26 j 22:43	3° <b>Ω</b> 56′06	
minimum elong	-8241 Sep 11 j 00:22	19° <b>©</b> 44'36	2°32'18	min. Earth dist.	-8234 Mar 26 j 17:43		29.24281 AU
max. Earth dist.	-8241 Sep 10 j 23:07	19° <b>5</b> 544'29	31.27553 AU	direct	-8234 Jun 15 j 00:52	2° <b>Ω</b> 32'55	
morning rise	-8241 Sep 25 j 23:48	20°9518'24		evening set	-8234 Sep 10 j 15:02	4° <b>Ω</b> 26'46	
retrograde	-8241 Dec 23 j 12:11	22° <b>©</b> 13'34					
opposition	-8240 Mar 12 j 16:22	20°\$50'46	2°42'13	conjunction	-8234 Sep 25 j 14:55	5° <b>Ω</b> 00'35	2°27'36
min. Earth dist.	-8240 Mar 12 j 17:27		29.27513 AU	minimum elong	-8234 Sep 25 j 14:56	5° <b>Ω</b> 00'35	
direct	-8240 Jun 01 j 03:58	19° <b>©</b> 27'23		max. Earth dist.	-8234 Sep 25 j 21:05		31.23903 AU
evening set	-8240 Aug 28 j 09:47	21° <b>©</b> 21'48		morning rise	-8234 Oct 10 j 15:37	5° <b>Ω</b> 34'31	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 14 Attention, astronomical year style is used: The year -8233 in astronomical counting style is the year 8234 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	e year -8233 i	in astronomical co	unting style is the year	8234 BCE in historical of	counting style.	7.00
retrograde	-8233 Jan 07 j 20:18	7° <b>£</b> 30′31		evening set	-8227 Sep 25 j 06:31	19° <b>Ω</b> 47'27	
opposition	-8233 Mar 29 j 11:48	6° <b>Ω</b> 07'14	2°36'58				
min. Earth dist.	-8233 Mar 29 j 04:56	6° <b>Ω</b> 07'42	29.23925 AU	conjunction	-8227 Oct 10 j 08:12	20° <b>Ω</b> 21'27	2°13'01
direct	-8233 Jun 17 j 12:15	4° <b>Ω</b> 44'08		minimum elong	-8227 Oct 10 j 08:12	20° <b>Ω</b> 21'27	
evening set	-8233 Sep 13 j 00:02	6° <b>Ω</b> 37'55		max. Earth dist.	-8227 Oct 10 j 19:15		31.19614 AU
		_		morning rise	-8227 Oct 25 j 11:42	20° <b>Ω</b> 55'38	
conjunction	-8233 Sep 27 j 23:56	7° <b>Ω</b> 11'45		retrograde	-8226 Jan 23 j 12:27	22° <b>Ω</b> 52'28	
minimum elong	-8233 Sep 27 j 23:56	7° <b>Ω</b> 11'45		opposition	-8226 Apr 14 j 07:45	21° <b>Ω</b> 28'42	
max. Earth dist.	-8233 Sep 28 j 06:09		31.23558 AU	min. Earth dist.	-8226 Apr 13 j 19:35		29.19262 AU
morning rise	-8233 Oct 13 j 01:05	7° <b>Ω</b> 45'43		direct	-8226 Jul 02 j 19:11	20° <b>Ω</b> 05'49	
retrograde	-8232 Jan 10 j 09:37	9° <b>Ω</b> 41'53 8° <b>Ω</b> 18'34	2025110	evening set	-8226 Sep 27 j 15:30	21° <b>Ω</b> 58'57	
opposition min. Earth dist.	-8232 Mar 31 j 00:58 -8232 Mar 30 j 17:38		2 33 18 29.23578 AU	conjunction	-8226 Oct 12 j 17:26	22° <b>Ω</b> 32'58	2010/00
direct	-8232 Jun 18 j 20:32	6°Ω55'32	29.23378 AU	minimum elong	-8226 Oct 12 j 17:27	$22^{\circ} \Omega 32'59$	
evening set	-8232 Sep 14 j 08:53	8° <b>Ω</b> 49'15		max. Earth dist.	-8226 Oct 12 j 17:27		31.18584 AU
evening set	0232 Вер 14 ј 00.33	0 004713		morning rise	-8226 Oct 27 j 21:32	23° <b>Ω</b> 07'12	31.10304710
conjunction	-8232 Sep 29 j 09:10	9° <b>Ω</b> 23'07	2°24'28	retrograde	-8225 Jan 25 j 23:00	25° <b>Ω</b> 04'07	
minimum elong	-8232 Sep 29 j 09:11	9° <b>Ω</b> 23'07		opposition	-8225 Apr 16 j 20:54	23° <b>Ω</b> 40'13	2°17'27
max. Earth dist.	-8232 Sep 29 j 17:17		31.23188 AU	min. Earth dist.	-8225 Apr 16 j 08:49		29.18236 AU
morning rise	-8232 Oct 14 j 10:30	9° <b>Ω</b> 57'07		direct	-8225 Jul 05 j 05:42	22° <b>Ω</b> 17'20	
retrograde	-8231 Jan 11 j 20:59	11° <b>Q</b> 53′26		evening set	-8225 Sep 30 j 00:30	24° <b>Ω</b> 10′20	
opposition	-8231 Apr 02 j 14:06	10° <b>Q</b> 30′05	2°33'24	•			
min. Earth dist.	-8231 Apr 02 j 05:50	10° <b>Ω</b> 30'38	29.23162 AU	conjunction	-8225 Oct 15 j 02:59	24° <b>Ω</b> 44'23	2°07'05
direct	-8231 Jun 21 j 08:27	9° <b>Ω</b> 07'08		minimum elong	-8225 Oct 15 j 03:00	24° <b>Ω</b> 44'23	2°07'27
evening set	-8231 Sep 16 j 18:03	11° <b>Ω</b> 00'46		max. Earth dist.	-8225 Oct 15 j 16:22	24° <b>Ω</b> 45'39	31.17583 AU
				morning rise	-8225 Oct 30 j 07:29	25° <b>Ω</b> 18'39	
conjunction	-8231 Oct 01 j 18:22	11° <b>Ω</b> 34'40	2°22'35	retrograde	-8224 Jan 28 j 09:22	27° <b>Ω</b> 15'38	
minimum elong	-8231 Oct 01 j 18:22	11° <b>Ω</b> 34'40	2°23'02	opposition	-8224 Apr 18 j 09:44	25° <b>Ω</b> 51'38	2°14'04
max. Earth dist.	-8231 Oct 02 j 02:12		31.22733 AU	min. Earth dist.	-8224 Apr 17 j 19:50		29.17257 AU
morning rise	-8231 Oct 16 j 20:12	12° <b>Ω</b> 08'42		direct	-8224 Jul 06 j 17:36	24° <b>Ω</b> 28'44	
retrograde	-8230 Jan 14 j 11:27	14° <b>Ω</b> 05'08		evening set	-8224 Oct 01 j 09:37	26° <b>Ω</b> 21'37	
opposition	-8230 Apr 05 j 03:11	12° <b>Ω</b> 41'45				0	
min. Earth dist.	-8230 Apr 04 j 18:03		29.22651 AU	conjunction	-8224 Oct 16 j 12:23	26° <b>£</b> 55'42	
direct	-8230 Jun 23 j 18:51	11° <b>Ω</b> 18'51		minimum elong	-8224 Oct 16 j 12:24		
evening set	-8230 Sep 19 j 03:08	13° <b>Ω</b> 12′25		max. Earth dist.	-8224 Oct 17 j 01:47		31.16652 AU
i <b>4</b> :	9220 0-4 04:02:40	120 0 46120	2920120	morning rise	-8224 Oct 31 j 17:36		
conjunction	-8230 Oct 04 j 03:49			retrograde	-8223 Jan 29 j 22:00		2010/20
minimum elong max. Earth dist.	-8230 Oct 04 j 03:50 -8230 Oct 04 j 13:13			opposition min. Earth dist.	-8223 Apr 20 j 22:39 -8223 Apr 20 j 08:11	28° <b>Ω</b> 03'00	29.16376 AU
morning rise	-8230 Oct 04 j 15:15 -8230 Oct 19 j 05:54	$13^{\circ} \Omega^{4/14}$ $14^{\circ} \Omega^{20'24}$	31.22133 AU	direct	-8223 Apr 20 j 08:11 -8223 Jul 09 j 02:29	26° <b>Ω</b> 40'06	29.10370 AU
morning 1130	-8230 Nov 06 j 23:30	15°Ω		evening set	-8223 Oct 03 j 18:36	28° <b>Ω</b> 32'55	
retrograde	-8229 Jan 16 j 23:30	16° <b>Ω</b> 16'59		evening set	0223 Oct 03 j 10.30	20 003233	
retrograde	-8229 Apr 03 j 16:14	15°RΩ		conjunction	-8223 Oct 18 j 21:57	29° <b>Ω</b> 07'02	2°00'24
opposition	-8229 Apr 07 j 16:30	14° <b>£</b> 53'31	2°28'55	minimum elong	-8223 Oct 18 j 21:58	29° <b>Ω</b> 07'02	
min. Earth dist.	-8229 Apr 07 j 07:17		29.21998 AU	max. Earth dist.	-8223 Oct 19 j 13:26		31.15821 AU
direct	-8229 Jun 26 j 06:40	13° <b>Ω</b> 30′39		morning rise	-8223 Nov 03 j 03:33	29° <b>Ω</b> 41'23	
	-8229 Sep 10 j 08:03	15° <b>Ω</b>			-8223 Nov 11 j 17:06	0° <b>m</b> y	
evening set	-8229 Sep 21 j 12:15	15° <b>Ω</b> 24'08		retrograde	-8222 Feb 01 j 09:01	1°M 38'33	
				opposition	-8222 Apr 23 j 11:27	0° <b>m</b> 14′24	2°06'44
conjunction	-8229 Oct 06 j 13:10	15° <b>Ω</b> 58'04	2°18'12	min. Earth dist.	-8222 Apr 22 j 19:43	0° Mp 15′28	29.15584 AU
minimum elong	-8229 Oct 06 j 13:10	15° <b>Ω</b> 58′04	2°18'37		-8222 May 02 j 08:25	$30^{\circ}$ R $\Omega$	
max. Earth dist.	-8229 Oct 06 j 22:34		31.21444 AU	direct	-8222 Jul 11 j 14:10	28° <b>Ω</b> 51'32	
morning rise	-8229 Oct 21 j 15:46	16° <b>Ω</b> 32'11			-8222 Sep 14 j 22:56	0° <b>т</b> р	
retrograde	-8228 Jan 19 j 12:36	18° <b>Ω</b> 28'52		evening set	-8222 Oct 06 j 03:47	0° <b>™</b> 44'16	
opposition	-8228 Apr 09 j 05:41	17° <b>Ω</b> 05'19					
min. Earth dist.	-8228 Apr 08 j 18:59		29.21206 AU	conjunction	-8222 Oct 21 j 07:28	1° My 18'25	
direct	-8228 Jun 27 j 17:57	15° <b>Ω</b> 42'27		minimum elong	-8222 Oct 21 j 07:29	1° Mp 18'25	
evening set	-8228 Sep 22 j 21:25	17° <b>Ω</b> 35′50		max. Earth dist.	-8222 Oct 21 j 23:02		31.15097 AU
conjunction	9228 Oat 07:22:42	18° <b>Ω</b> 09'48	2°15'42	morning rise	-8222 Nov 05 j 13:49	1° Mp 52'49	
conjunction minimum elong	-8228 Oct 07 j 22:42 -8228 Oct 07 j 22:43	18° <b>λ</b> (09'48) 18° <b>Ω</b> (09'48)	2°15'42 2°16'07	retrograde min. Earth dist.	-8221 Feb 03 j 23:10 -8221 Apr 25 j 07:26	3° M 50'06 2° m 27'03	29.14902 AU
max. Earth dist.	-8228 Oct 07 j 22.43		31.20579 AU	opposition	-8221 Apr 25 j 07.26 -8221 Apr 26 j 00:21	2° My 25'54	
morning rise	-8228 Oct 08 j 08:35 -8228 Oct 23 j 01:45	$18^{\circ} \Omega 43'57$	51.205/7 AU	direct	-8221 Apr 20 j 00:21 -8221 Jul 13 j 23:29	1° Mp 03'04	2 02 7/
retrograde	-8227 Jan 20 j 23:50	20°Ω40'43		evening set	-8221 Oct 08 j 12:50	2° Mp 55'44	
opposition	-8227 Apr 11 j 18:46	19° <b>Ω</b> 17'04	2°23'35			.,,	
min. Earth dist.	-8227 Apr 11 j 08:26		29.20276 AU	conjunction	-8221 Oct 23 j 17:09	3° <b>m</b> 29'56	1°53'01
direct	-8227 Jun 30 j 06:35	17° <b>Ω</b> 54'12		minimum elong	-8221 Oct 23 j 17:09	3° m/29'56	
	v			J	,	•	

Memorias antibodis solution   Memorias and memorias	Planetary Pheno	omena of Neptune f	rom -8400	through -7898	3 (UT), Astrodien	st AG 18-Feb-2025	14:23,	page 15
	Attention, astronom	ical year style is used: Th	e year -8221	in astronomical co	unting style is the year	8222 BCE in historical c	ounting style.	
Proposition   \$220 for \$1   11   6   18   18   18   18   18   18	max. Earth dist.	-8221 Oct 24 j 10:32	3° <b>m</b> 31'35	31.14447 AU	conjunction	-8214 Nov 07 j 16:14	18° <b>m</b> 55'06	1°22'09
opposition         -8220 Apr 2 (p. 1818)         479-879 (p. 1816)         1788 (p. 1916)         -8214 (box 2) (p. 1916)         1798 (p. 1918)	morning rise	-8221 Nov 08 j 00:02	4° Mp 04'24		minimum elong	-8214 Nov 07 j 16:15	18° <b>m</b> 55'07	1°22'19
min mind         2020 Az 5 jalo         489 Pay 26 jalo         489 Pay 26 jalo         29 Pay 26 jalo         29 Pay 26 jalo         29 Pay 26 jalo         29 Pay 26 jalo         20 Pay 26 j	retrograde	-8220 Feb 06 j 11:10	6°Mp01'48		max. Earth dist.	-8214 Nov 08 j 13:32	18° <b>m</b> 57'07	31.08713 AU
imit mit mit differed         2220 par 26 j 2018         87 m y 27 m y 2	opposition	-8220 Apr 27 j 13:18	4° m/37'33	1°58'39	morning rise	-8214 Nov 23 j 03:44	19° <b>m</b> 29'58	
direct         4220 Al 15 Jul.         1914 Jul.         min. Earth dist.         2813 May 191002.         2070017 20702.<	min. Earth dist.	-8220 Apr 26 j 20:08	4° m) 38'43		=	-8213 Feb 22 i 02:46	21°m/28'01	
Second   S	direct				•	3		29.08241 AU
conjunction		·	-					
	8	<b>,</b> .			**	• •	-	
minimar elong   \$20.00 ct 25 joing   59 ml 179   1990   1900	conjunction	-8220 Oct 25 i 02:59	5°m41'38	1°49'03		3	-•	
max. Earth dist.         92.00 cet 25 jo.28.8         5°94.919         31.134.04         conquantion         82.13 Nov 10 jo.23.3         1°190.72         1°171.20           neturgated         8.219 feb 08 jol.15         8°19 140         minimam clong         82.13 Nov 10 jo.23.5         1°190.02         31.076.27 AU           orposition         4.219 p. 27 jol.10         6°19 40.24         1°54.00         9°18.00         8.213 Nov 10 jol.23         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.00         2°19.50         2°19.00         2°19.00         2°19.50         2°19.00	•	·	-		evening sec	0215 Oct 25 j 17.10	20 192233	
moning fise   \$20 Nov 9   10 33   6"   16 09   moning fise   \$21 Nov 10   10   23   2   19 07 27   17   17   17   17   18   18   18   1	_	·			conjunction	8213 Nov. 10 i 02:33	21°m07'27	1017113
intended         8.19 Feb 8.9 (0.11)         8.**Pi 149         max. Earth dist.         4.213 Nov. 10 (3.336)         2.19 Mor2 (3.24)         3.10 fee? 2.0 Jul. 17 (1.04)         3.10 fee? 3.10 morning rise         4.213 Nov. 10 (3.24)         2.19 Mor2 (3.24)         4.10 morning rise         4.212 Nov. 12 (1.01)         2.19 Nov. 12 (1.01)         4.19 More 12 (1.01)         4.10 More 12 (1.01)         4.10 More 12 (1.01)         4.10 More 12 (1.01)         4.10 More 12 (1.01)         4.11 More 12 (1.01)		·		31.13640 AU	v			
nin farth dist         3.91 Apr 2 9 (17.20) (**) 6 (**) 67.00 (**) 291.00 (**) 15.00 (**) 291.00 (**) 15.00 (*	•	·	-		Č	•		
opposition         -8,219 Jul 17,1042         5°P5 297 Jul 1752         15°P5 20 poposition of 221 2 May 1,219-32         22°P5 1772         22°P5 1772         29°P174 AU         20°P174 AU	•	·	-	20 12640 444		·		31.0/62/ AU
circenter         4219 Jul 17 j 20-d2         5°m 20-40         5°m 20-40         12 propose         2210 pct 12 j 20-39         7°m 19°E         conjunction         6212 Aug 03 joil 32         22°m 19°C 19°C 19°C 19°C 19°C 19°C 19°C 19°C					Č	•	-•	
Pereing set				1°54′20	•			
conjunction	direct				11	• •	-	
	evening set	-8219 Oct 12 j 07:39	7° Mp 19'15		min. Earth dist.		22° Mp 17'12	29.07174 AU
max. Earth dist.   \$219 Oct 27   125.6   7*mp\$373   14512   13207 AU   1320					direct	-8212 Aug 02 j 01:34	20° <b>m</b> 53'01	
max. Earth dist.	conjunction	-8219 Oct 27 j 12:55	7° <b>m</b> 53'33	1°44'56	evening set	-8212 Oct 27 j 03:41	22° <b>m</b> 45'09	
minimum close	minimum elong	-8219 Oct 27 j 12:56	7° <b>m</b> 53'33	1°45'12				
Perspande   Salls Feb 10   14 00   07mg 2545   9mg 0172   13mg 21485   2mg 0174	max. Earth dist.	-8219 Oct 28 j 07:21	7° <b>m</b> 55'17	31.13207 AU	conjunction	-8212 Nov 11 j 13:07	23° <b>m</b> 19'46	1°12'10
Perspande   Salls Feb 10   14 00   07mg 2545   9mg 0172   13mg 21485   2mg 0174	morning rise	-8219 Nov 11 j 21:07	8° mp 28'07		minimum elong	-8212 Nov 11 j 13:08	23° m 19'46	1°12'17
Poposition   Sa218 May 02 jul 245   9°m0127   1°49′S1   moming rise   Sa211 Feb 26 jo 330   23°mp 34′S   min. Earth dist.   Sa218 May 01 jul 2043   9°m0 127   min. Earth dist.   Sa218 May 11 jul 201823   3°mp 34′S   min. Earth dist.   Sa218 May 11 jul 201823   3°mp 34′S   min. Earth dist.   Sa218 May 11 jul 201823   3°mp 34′S   min. Earth dist.   Sa218 May 12 jul 201825   1°mp 575   1°mp 57	-	-8218 Feb 10 j 14:00	10° m) 25'45		max. Earth dist.	-8212 Nov 12 j 11:39	23°m/21'53	31.06587 AU
mine Larth dist.         4.2218 May 20 jo 82.33         7° 90 241         9° 190041         9° 190041         9° 19	•	•		1°49'51	morning rise	-8212 Nov 27 i 02:03		
Part	* *				-		-	
Perning set			-	27.12770110	•			29 06177 ATT
Conjunction   -8218 Oct   29 j 22:56   10 % 10 % 10 % 10 % 10 % 10 % 10 % 10		•				, ,	-•	
Position	evening set	-0210 Oct 14 j 17.03	9 III 31 19		• •	• •		1 14 19
minimum elong         -8218 Oct 29 j 22:57         10° m0539         1940'54         conjunction         -8211 Nov 13 j 23:38         25° m32'05         10° m070'8           max Earth dist.         -8218 Nov 14 j 07*43         10° m070'9         max Earth dist.         -8211 Nov 13 j 23:39         25° m32'05         10° 70°0           min. Earth dist.         -8217 May 04 j 08:30         11° m 15° m 15° v 29;12250 AU         max Earth dist.         -8211 Nov 14 j 22:29         25° m 34'14         31.05659 AU           min. Earth dist.         -8217 May 05 j 03:48         11° m 13'81         14° 45'12         retrograde         -8211 Nov 29 j 13:18         26° m070'3         10° 84'12           direct         -8217 May 05 j 03:48         11° m 13'81         14° 15'12         retrograde         -8210 Nov 29 j 04:02         26° m 070'3         10° 84'5           evening set         -8217 Oct 17 j 02:50         11° m 43'32         min. Earth dist.         -8210 May 20 j 02:02         26° m 10'22         10° 84'1         20° 90'30'2         10° 84'1         20° 90'30'2         10° 84'1         20° 90'30'2         10° 84'1         20° 90'30'2         20° 90'30'2         20° 90'30'2         10° 84'1         20° 90'30'2         20° 90'30'2         20° 90'30'2         20° 90'30'2         20° 90'30'2         20° 90'30'2         20° 90'30'2         20° 90'30'3	agniumation	9219 Oct 20:22.56	100 m 05/20	1940!40		• •		
max. Earth dist.         -8218 Oct 30 j 18:11         10°m07029         31.12525 AU         conjunction         -8211 Nov 13 j 23:38         25°m 32:05         1°0706           retrograde         -8217 Fb 13 j 30:39         10°m 40°l 17         max. Earth dist.         -8211 Nov 13 j 23:39         25°m 32:05         1°0706           min. Earth dist.         -8217 May 04 j 08:03         11°m 15°d         29.12250 AU         morning rise         -8211 Nov 14 j 22:02         25°m 50°d           direct         -8217 May 05 j 03:48         11°m 13'd         1°4512         retrograde         -8210 Fc 28 j 17°d         28°m 50°l 30           direct         -8217 Nov 1 j 09:00         10°m 43'32         -         min. Earth dist.         -8210 May 19 j 21:03         26°m 4201         290-5302 AU           conjunction         -8217 Nov 0 j 09:00         12°m 17'5         13°614         cerimin Earth dist.         -8210 Nov 16 j 10.00         22°m 17'8         13°614           max. Earth dist.         -8217 Nov 0 j 09-10         12°m 17'5         13°614         cerimin Earth dist.         -8210 Nov 16 j 10:00         27°m 44'27         10°144           max. Earth dist         -8217 Nov 0 j 19:00         12°m 17'5         13°620         10°m 17'2         10°14         10°14         10°m 14'2         10°14'4         10°14'4	•	·			evening set	-8211 Oct 29 j 13.37	24 IIJ 3 / 23	
morning rise	· ·	,				001137 10:00 00	250 2205	1005100
Petrograde   Re217 Feb   13 j 0.3.59   12 mg/m3802   max. Earth dist.   Re211 Nov 14 j 22:29   25 mg/m3414   31.05659 AU   mmin. Earth dist.   Re217 Nov 24 j 0.8.03   11 mg/m342   12 mg/m3402   retrograde   Re216 Nov 29 j 13:38   26 mg/m3402   26 mg/m3402   26 mg/m3402   26 mg/m3402   26 mg/m3402   26 mg/m3402   20 mg/m3402   26 mg/m				31.12525 AU			-•	
min. Earth dist.		·	-		2	•		
Opposition   -8217 May 05 j 03:48   11°m 13'41   14'51'2   retrograde   -8210 May 20 j 02:02   26°m 40'25   10'84'51   20'84'51	•	•	-		max. Earth dist.	-8211 Nov 14 j 22:29		31.05659 AU
crect conjunction   -8.217 Nov 01 j 09.00   2° m 170.25   1° m 170.25		-8217 May 04 j 08:03		29.12250 AU	morning rise	-8211 Nov 29 j 13:18	26° Mp 07′05	
Perning set   -8.217 Oct   7 j 0 2:50   11° m/43'3	opposition	-8217 May 05 j 03:48	11°Mp 13'41	1°45'12	retrograde	-8210 Feb 28 j 17:45	28° Mp 05'18	
Conjunction   -8217 Nov 01 j 09.09   12° m 1755   1°3614   evening set   -8210 Oct 31 j 23:32   2° m 10°45   1°40   12° m 1756   1°36′28   max. Earth dist.   -8217 Nov 01 j 09:10   12° m 1756   1°36′28   max. Earth dist.   -8217 Nov 02 j 04:16   12° m 19′44   31.11732 AU   morning rise   -8217 Nov 16 j 18:34   12° m 19′44   31.11732 AU   morning rise   -8216 Nov 16 j 18:34   12° m 19′44   31.11732 AU   morning rise   -8216 Nov 16 j 18:34   12° m 19′44   31.11732 AU   morning rise   -8216 Nov 16 j 18:34   12° m 19′42   10°144   10°149   10° m 18.11   10°	direct	-8217 Jul 22 j 20:35	9° <b>m</b> 51'03		opposition	-8210 May 20 j 20:20	26° Mp 40′25	1°08'45
conjunction         -8217 Nov 0 i j 09:09         12° № 1755         1°36′14         evening set         -8210 Oct 3 i j 23:32         27° № 0945         -8217 Nov 0 i j 09:10         12° № 1756         1°36′28         conjunction         -8210 Nov 16 j 10:08         27° № 4427         1°01′44           max. Earth dist.         -8217 Nov 0 16 j 18:43         12° № 52°37         minimum elong         -8210 Nov 16 j 10:09         27° № 4427         1°01′49           retrograde         -8216 Feb 15 j 15:38         14° № 50°28         minimum elong         -8210 Nov 17 j 09:47         27° № 4427         1°01′49           opposition         -8216 May 06 j 16:42         13° № 2721         29.11398 AU         morning rise         -8210 Doc 02 j 00:32         28° № 1931           direct         -8216 May 05 j 21:38         13° № 2721         29.11398 AU         retrograde         -8209 J an 28 j 22:33         0° №         10° № 1723         0° № 1749         10° 1449	evening set	-8217 Oct 17 j 02:50	11° <b>m</b> 43'32		min. Earth dist.	-8210 May 19 j 21:03	26° Mp 42'01	29.05302 AU
minimum elong         -8217 Nov 0 j 0 9:10         12° № 1756         1°36′28           max. Earth dist.         -8217 Nov 0 2 j 04:16         12° № 1944         31.11732 AU         conjunction         -8210 Nov 16 j 10:09         27° № 44'27         1°01'44           morning rise         -8216 Nov 16 j 10:09         27° № 44'27         1°01'49           retrograde         -8216 May 06 j 16:42         13° № 26'03         1°40'23         morning rise         -8210 Dec 0 j 0:032         28° № 19'13'         1°04'89 AU           min. Earth dist.         -8216 May 06 j 16:42         13° № 27'1         29.11398 AU         retrograde         -8209 Jan 28 j 22:33         0° £ 17'4         29.04837 AU           evening set         -8216 Oct 18 j 12:30         13° № 55'52					direct	-8210 Aug 06 j 22:16	25° m 17'42	
minimum elong         -8217 Nov 0 j 0 9:10         12° № 1756         1°36′28           max. Earth dist.         -8217 Nov 0 2 j 04:16         12° № 1944         31.11732 AU         conjunction         -8210 Nov 16 j 10:09         27° № 44'27         1°01'44           morning rise         -8216 Nov 16 j 10:09         27° № 44'27         1°01'49           retrograde         -8216 May 06 j 16:42         13° № 26'03         1°40'23         morning rise         -8210 Dec 0 j 0:032         28° № 19'13'         1°04'89 AU           min. Earth dist.         -8216 May 06 j 16:42         13° № 27'1         29.11398 AU         retrograde         -8209 Jan 28 j 22:33         0° £ 17'4         29.04837 AU           evening set         -8216 Oct 18 j 12:30         13° № 55'52	conjunction	-8217 Nov 01 j 09:09	12° m 17'55	1°36'14	evening set	-8210 Oct 31 j 23:32	27° mp 09'45	
max. Earth dist.         -8217 Nov 02 j 04:16         12°m j 944         3.11732 AU         conjunction         -8210 Nov 16 j 10:08         27°m 44'27         1°01'44           morning rise         -8217 Nov 16 j 18:43         12°m j 52'37         minimum elong         -8210 Nov 16 j 10:09         27°m 44'27         1°01'49           retrograde         -8216 Feb 15 j 15:38         14°m j 50'28         max. Earth dist.         -8210 Nov 16 j 10:08         27°m j 44'27         1°01'49           opposition         -8216 May 05 j 16:42         13°m j 20'21         29.11398 AU         -8209 Jan 28 j 22:33         0° \(\triangle \triangle \trian	minimum elong	-8217 Nov 01 j 09:10	12° m) 17'56	1°36'28	Č	,	•	
morning rise   -8217 Nov 16 j 18:43   12° \( \text{PS} \) 14   18   18   18   18   18   18   18	_		12° m 19'44	31.11732 AU	conjunction	-8210 Nov 16 i 10:08	27° m 44'27	1°01'44
retrograde	morning rise	•			·	•		
opposition         -8216 May 06 j 16:42         13° № 26'03         1'40'23         morning rise         -8210 Dec 02 j 00:32         28° № 19'3!         -820' Man 18 j 22:33         0° № 1           direct         -8216 Jul 24 j 06:46         12° № 03'27         retrograde         -8209 Mar 03 j 06:56         0° № 17'49         0° № 17'49           evening set         -8216 Oct 18 j 12:30         13° № 55'52         retrograde         -8209 Mar 03 j 06:56         28° № 54'27         29.04537 AU           conjunction         -8216 Nov 02 j 19:35         14° № 30'18         1'31'40         opposition         -8209 May 23 j 08:53         28° № 52'52         1°0'03'3           max. Earth dist.         -8216 Nov 02 j 19:35         14° № 30'18         1'31'40         opposition         -8209 May 23 j 08:53         28° № 52'52         1°0'03'3           max. Earth dist.         -8216 Nov 03 j 15:55         14° № 30'18         1'31'53         direct         -8209 Nov 19 j 09:43         27° № 30'11         1'0'0'0'3           morning rise         -8216 Nov 18 j 05:42         15° № 05'03         15° № 05'05'3         1'0'0'0'3         -8209 Nov 18 j 20:58         29° № 56'57         0°56'22           min. Earth dist.         -8215 May 09 j 05:28         15° № 05'05'3         15° № 05'05'3         1'0'16'0'3'4         1'0'16'0'3'4         1'	-				- C	•		
min. Earth dist.   -8216 May   05   21:38   13° mg 27'21   29.11398 AU   retrograde   -8209 Mar   23   22:33   0° ♣				1°40'23		3	-	31.010337110
direct					morning rise			
Part		, ,		2).113)0 AO	ratragrada			
minimum elong max. Earth dist.		-			retrograde	•		
conjunction	evening set	-0210 Oct 18 J 12:30	13 IIJ33'32		min Ftl- L'			20.04527.411
minimum elong max. Earth dist.	. ,.	001631 00:10.05	1.40 2 20110	1021140				
max. Earth dist.         -8216 Nov 03 j 15:55         14° tb/32'14         31.10827 AU         evening set         -8209 Nov 03 j 09:36         29° tb/22'11         -8209 Nov 03 j 09:36         29° tb/20'17         0° 56'22         -8209 Nov 18 j 20:58         29° tb/56'57         0° 56'27         0° 56'27         0° 56'27         0° 56'27         0° 56'27         0° 50'56'27         0° 50'56'27         0° 50'56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 56'27         0° 50'50'57         0° 50'50'50'57         0° 56'27         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'57         0° 50'50'55         0° 50'50'55         0° 50'50'55         0° 50'50'55	•	·	-			• •		1°03′03
morning rise	-	,				<b>C</b> 3		
retrograde				31.10827 AU	evening set	-8209 Nov 03 j 09:36	29° m) 22'11	
min. Earth dist.	morning rise	-8216 Nov 18 j 05:42	15° Mp 05'03					
opposition	retrograde	-8215 Feb 17 j 03:00	17° <b>m</b> 02'58		conjunction	-8209 Nov 18 j 20:58	-	0°56'22
direct	min. Earth dist.	-8215 May 08 j 09:15	15° <b>m</b> 39'53	29.10416 AU	minimum elong		29° <b>m</b> 56'57	0°56'27
evening set	opposition	-8215 May 09 j 05:28	15° <b>m</b> 38'30	1°35'26	max. Earth dist.	-8209 Nov 19 j 21:35	29° <b>m</b> 59'16	31.04139 AU
retrograde -8208 Mar 04 j 21:06 2° \(\omega\) 0°5716  conjunction -8215 Nov 05 j 05:47 16° \(\omega\) 42'43 1°26'59 opposition -8208 May 24 j 21:06 1° \(\omega\) 0°57'16  minimum elong -8215 Nov 05 j 05:48 16° \(\omega\) 42'43 1°27'10 min. Earth dist8208 May 23 j 20:33 1° \(\omega\) 0°57'08 29.03871 AU  max. Earth dist8215 Nov 06 j 01:29 16° \(\omega\) 44'35 31.09801 AU  morning rise -8215 Nov 20 j 16:45 17° \(\omega\) 17° \(\omega\) 17'3 1 direct -8208 Aug 10 j 21:28 29° \(\omega\) 42'47  retrograde -8214 Feb 19 j 15:57 19° \(\omega\) 15'31 1 evening set -8208 Nov 04 j 19:59 1° \(\omega\) 34'47  opposition -8214 May 11 j 18:16 17° \(\omega\) 50'52 1° 30'21 evening set -8208 Nov 04 j 19:59 1° \(\omega\) 34'47  min. Earth dist8214 May 10 j 22:09 17° \(\omega\) 52'19 29.09349 AU  direct -8214 Jul 29 j 04:13 16° \(\omega\) 28'19 \(\omega\) conjunction -8208 Nov 20 j 07:49 2° \(\omega\) 0° 50'55	direct	-8215 Jul 26 j 18:57	14° <b>m</b> 15'53			-8209 Nov 20 j 05:18	0∘ <b>ত</b>	
retrograde -8208 Mar 04 j 21:06 2° \(\omega\) 0°5716  conjunction -8215 Nov 05 j 05:47 16° \(\omega\) 42'43 1°26'59 opposition -8208 May 24 j 21:06 1° \(\omega\) 0°57'16  minimum elong -8215 Nov 05 j 05:48 16° \(\omega\) 42'43 1°27'10 min. Earth dist8208 May 23 j 20:33 1° \(\omega\) 0°57'08 29.03871 AU  max. Earth dist8215 Nov 06 j 01:29 16° \(\omega\) 44'35 31.09801 AU  morning rise -8215 Nov 20 j 16:45 17° \(\omega\) 17° \(\omega\) 17'3 1 direct -8208 Aug 10 j 21:28 29° \(\omega\) 42'47  retrograde -8214 Feb 19 j 15:57 19° \(\omega\) 15'31 1 evening set -8208 Nov 04 j 19:59 1° \(\omega\) 34'47  opposition -8214 May 11 j 18:16 17° \(\omega\) 50'52 1° 30'21 evening set -8208 Nov 04 j 19:59 1° \(\omega\) 34'47  min. Earth dist8214 May 10 j 22:09 17° \(\omega\) 52'19 29.09349 AU  direct -8214 Jul 29 j 04:13 16° \(\omega\) 28'19 \(\omega\) conjunction -8208 Nov 20 j 07:49 2° \(\omega\) 0° 50'55	evening set	-8215 Oct 20 j 22:18	16°M)08'14		morning rise	-8209 Dec 04 j 11:59	0° <b>ჲ</b> 32'04	
conjunction -8215 Nov 05 j 05:47 16° my42'43 1°26'59 opposition -8208 May 24 j 21:06 1° £05'27 0°57'16 minimum elong -8215 Nov 05 j 05:48 16° my42'43 1°27'10 min. Earth dist8208 May 23 j 20:33 1° £07'08 29.03871 AU max. Earth dist8215 Nov 06 j 01:29 16° my44'35 31.09801 AU -8208 Jul 09 j 11:35 30° km² retrograde -8215 Nov 20 j 16:45 17° my17'31 direct -8208 Aug 10 j 21:28 29° my42'47 retrograde -8214 Feb 19 j 15:57 19° my15'31 -8208 Sep 11 j 12:15 0° £0 conjunction -8214 May 11 j 18:16 17° my50'57 1°30'21 evening set -8208 Nov 04 j 19:59 1° £034'47 min. Earth dist8214 May 10 j 22:09 17° my52'19 29.09349 AU direct -8214 Jul 29 j 04:13 16° my28'19 conjunction -8208 Nov 20 j 07:49 2° £09'36 0° 50'55		-			retrograde	-8208 Mar 04 j 21:06	2° <b>₽</b> 30'25	
minimum elong	conjunction	-8215 Nov 05 i 05:47	16° m 42'43	1°26'59	•			0°57'16
max. Earth dist.		·				• •		
morning rise	_				July Mist.			
retrograde -8214 Feb 19 j 15:57 19° th 15'31 -8208 Sep 11 j 12:15 0° 丘 opposition -8214 May 11 j 18:16 17° th 50'57 1°30'21 evening set -8208 Nov 04 j 19:59 1°丘34'47 min. Earth dist8214 May 10 j 22:09 17° th 52'19 29.09349 AU direct -8214 Jul 29 j 04:13 16° th 28'19 conjunction -8208 Nov 20 j 07:49 2°丘09'36 0°50'55					direct		-	
opposition -8214 May 11 j 18:16 17° mp 50'57 1°30'21 evening set -8208 Nov 04 j 19:59 1° \(\Omega\)34'47 min. Earth dist8214 May 10 j 22:09 17° mp 52'19 29.09349 AU direct -8214 Jul 29 j 04:13 16° mp 28'19 conjunction -8208 Nov 20 j 07:49 2° \(\Omega\)09'36 0° 50'55	•		-		direct			
min. Earth dist8214 May 10 j 22:09 17° № 52'19 29.09349 AU direct -8214 Jul 29 j 04:13 16° № 28'19 conjunction -8208 Nov 20 j 07:49 2° № 09'36 0° 50'55	•			1°30'21	evening set			
direct -8214 Jul 29 j 04:13 16° Mp 28'19 conjunction -8208 Nov 20 j 07:49 2° ♣09'36 0° 50'55	**		-		evening set	0200 NOV 04 J 17.39	1 == 344/	
· · · · · · · · · · · · · · · · · · ·				47.07347 AU	agniumation	9209 Nov. 20 : 07:40	20 0 00127	0050155
evening set -6214 Oct 25 J 07.39 18 11 12 20 35 minimum elong -8208 Nov 20 J 07:50 2 2 209:36 0 50:58			-			3		
	evening set	-0214 OCL 23 J U/.39	10 Hy 2033		minimum eiong	-0200 INOV 20 J 07.30	∠ <b>=</b> 09 30	0 3030

Planetary Pheno	omena of Neptune f	From -8400	through -7898	B (UT), Astrodiens	st AG 18-Feb-2025	14:23,	page 16
•	nical year style is used: Th		-				
max. Earth dist.	-8208 Nov 21 j 08:21	2° <b>≏</b> 11'54	31.03506 AU	conjunction	-8201 Dec 06 j 16:09	17° <b>≏</b> 41'57	0°11'00
morning rise	-8208 Dec 05 j 23:40	2° <b>-</b> 44'47		minimum elong	-8201 Dec 06 j 16:09	17° <b>≏</b> 41'57	0°10'54
retrograde	-8207 Mar 07 j 09:39	4° <b>₽</b> 43'12		behind sun begin	-8201 Dec 06 j 11:13	17° <b>≏</b> 41'30	
min. Earth dist.	-8207 May 26 j 09:40	3° <b>≏</b> 19'51	29.03261 AU	behind sun end	-8201 Dec 06 j 21:04	17° <b>≏</b> 42'23	
opposition	-8207 May 27 j 09:35	3° <b>॒</b> 18'13	0°51'24	max. Earth dist.	-8201 Dec 07 j 17:45	17° <b>≏</b> 44'21	30.97854 AU
direct	-8207 Aug 13 j 07:30	1° <b>≏</b> 55'34		morning rise	-8201 Dec 22 j 12:34	18° <b>≏</b> 17'29	
evening set	-8207 Nov 07 j 06:14	3° <b>≏</b> 47'34		retrograde	-8200 Mar 23 j 03:10	20° <b>≏</b> 16'13	
				opposition	-8200 Jun 11 j 23:33	18° <b>≏</b> 50'54	0°08'30
conjunction	-8207 Nov 22 j 18:50	4° <b>≏</b> 22'25	0°45'23	min. Earth dist.	-8200 Jun 10 j 23:37	18° <b>≏</b> 52'34	28.97367 AU
minimum elong	-8207 Nov 22 j 18:51	4° <b>ഫ</b> 22'25	0°45'24	direct	-8200 Aug 28 j 11:45	17° <b>≏</b> 28'07	
max. Earth dist.	-8207 Nov 23 j 20:45	4° <b>₽</b> 24'52	31.02911 AU	evening set	-8200 Nov 22 j 11:08	19° <b>≙</b> 20'03	
morning rise	-8207 Dec 08 j 11:11	4° <b>م</b> 57'39		-	-		
retrograde	-8206 Mar 09 j 22:38	6° <b>Ω</b> 56'09		conjunction	-8200 Dec 08 j 04:03	19° <b>Ω</b> 55'14	0°05'11
opposition	-8206 May 29 j 21:53	5° <b>Ω</b> 31'09	0°45'26	minimum elong	-8200 Dec 08 j 04:02	19° <b>Ω</b> 55'14	0°05'03
min. Earth dist.	-8206 May 28 j 20:57	5° <b>Ω</b> 32'52	29.02653 AU	behind sun begin	-8200 Dec 07 j 21:44	19° <b>≏</b> 54'40	
direct	-8206 Aug 15 j 19:58	4° <b>ഫ</b> 08'32		behind sun end	-8200 Dec 08 j 10:21	19° <b>≏</b> 55'48	
evening set	-8206 Nov 09 j 16:56	6° <b>ჲ</b> 00'32		max. Earth dist.	-8200 Dec 09 j 06:11	19° <b>≏</b> 57'41	30.96831 AU
C	J			morning rise	-8200 Dec 24 j 00:59	20° <b>≏</b> 30'48	
conjunction	-8206 Nov 25 j 06:00	6° <b>₽</b> 35'26	0°39'46	retrograde	-8199 Mar 25 j 17:02	22° <b>ჲ</b> 29'32	
minimum elong	-8206 Nov 25 j 06:00	6° <b>₽</b> 35'26	0°39'46	min. Earth dist.	-8199 Jun 13 j 10:20		28.96370 AU
max. Earth dist.	-8206 Nov 26 j 07:04		31.02296 AU	opposition	-8199 Jun 14 j 11:29	21° <b>Ω</b> 04'11	0°02'15
morning rise	-8206 Dec 10 j 23:12	7° <b>Ω</b> 10'44		direct	-8199 Aug 30 j 23:46	19° <b>Ω</b> 41'20	
retrograde	-8205 Mar 12 j 12:26	9° <b>ഫ</b> 09'18		desc. node	-8199 Oct 24 j 03:15	20° <b>£</b> 30'08	
min. Earth dist.	-8205 May 31 j 09:52		29.02016 AU	evening set	-8199 Nov 24 j 22:24	20° <b>⊆</b> 30°08	
opposition	-8205 Jun 01 j 10:20	7° <b>-</b> 44'16	0°39'24	evening sec	01// 110 V 2 1 J 22:21	21 - 33 17	
direct	-8205 Aug 18 j 05:38	6° <b>£</b> 21'41	0 3724	conjunction	-8199 Dec 10 j 15:43	22° <b>ჲ</b> 08'30	-0°00'47
evening set	-8205 Nov 12 j 03:40	8° <b>£</b> 13'39		minimum elong	-8199 Dec 10 j 15:43	22° <b>⊆</b> 08'30	0°00'55
evening set	-6203 NOV 12 J 03.40	0 = 13 39		behind sun begin	-8199 Dec 10 j 19:14	22° <b>⊆</b> 08'30 22° <b>⊆</b> 07'55	0 00 33
conjunction	-8205 Nov 27 j 17:31	8° <b>≏</b> 48'37	0°34'06	behind sun end	-8199 Dec 10 j 09:14 -8199 Dec 10 j 22:12	22° <b>⊆</b> 07'33 22° <b>⊆</b> 09'05	
minimum elong	-8205 Nov 27 j 17:31	8° <b>≗</b> 48'37	0°34'05	max. Earth dist.	-8199 Dec 10 j 22:12		30.95869 AU
max. Earth dist.	•		31.01614 AU		-8199 Dec 26 j 13:21	22° <b>£</b> 10'33	30.93809 AU
	-8205 Nov 28 j 19:41	8 <del>22</del> 31 03 9° <b>Ω</b> 23'58	31.01014 AU	morning rise	,	24° <b>£</b> 44'07 24° <b>£</b> 42'53	
morning rise	-8205 Dec 13 j 11:14 -8204 Mar 13 j 23:37	9 <del>22</del> 23 38 11° <b>2</b> 22'36		retrograde	-8198 Mar 28 j 06:00	24 <b>≗</b> 42 33 23° <b>£</b> 17'28	0004!01
retrograde	3		0022110	opposition	-8198 Jun 16 j 23:32		28.95468 AU
opposition min. Earth dist.	-8204 Jun 02 j 22:42 -8204 Jun 01 j 22:02	9° <b>Ω</b> 57'32	29.01273 AU	min. Earth dist.	-8198 Jun 15 j 23:08 -8198 Sep 02 j 10:09	23° <b>2</b> 1910 21° <b>2</b> 54'36	28.93408 AU
	3	9 <b>≥</b> 3913 8° <b>♀</b> 34'57	29.012/3 AU	direct		21 <b>≥</b> 34 36 23° <b>♀</b> 46'34	
direct	-8204 Aug 19 j 17:28			evening set	-8198 Nov 27 j 09:44	23-240-34	
evening set	-8204 Nov 13 j 14:44	10° <b>≏</b> 26'55			0100 D 12:02 40	240 0 21150	0006120
	9204 NI 20 : 05-04	110001155	0020122	conjunction	-8198 Dec 13 j 03:48	24° <b>£</b> 21′50	
conjunction	-8204 Nov 29 j 05:04	11° <b>2</b> 01'55		minimum elong	-8198 Dec 13 j 03:47	24° <b>£</b> 21'50	0°06'49
minimum elong	-8204 Nov 29 j 05:05	11° <b>Ω</b> 01'55	0°28'19	behind sun begin	-8198 Dec 12 j 21:44	24° <b>£</b> 21'17	
max. Earth dist.	-8204 Nov 30 j 06:12		31.00822 AU	behind sun end	-8198 Dec 13 j 09:50	24° <b>Ω</b> 22'22	20.05025 444
morning rise	-8204 Dec 14 j 23:34	11° <b>Ω</b> 37'19		max. Earth dist.	-8198 Dec 14 j 06:50		30.95025 AU
retrograde	-8203 Mar 16 j 12:57	13° <b>Ω</b> 35'59	20.00420.441	morning rise	-8198 Dec 29 j 01:50	24° <b>£</b> 57'29	
min. Earth dist.	-8203 Jun 04 j 10:16		29.00420 AU	retrograde	-8197 Mar 30 j 19:54	26° <b>£</b> 56'16	20.04601.441
opposition	-8203 Jun 05 j 10:57	12° <b>Ω</b> 10'53	0°27'09	min. Earth dist.	-8197 Jun 18 j 09:56		28.94681 AU
direct	-8203 Aug 22 j 03:01	10° <b>Ω</b> 48'16		opposition	-8197 Jun 19 j 11:19	25° <b>Ω</b> 30'50	-0°10'16
evening set	-8203 Nov 16 j 01:44	12° <b>≏</b> 40'14		direct	-8197 Sep 04 j 22:56	24° <b>Ω</b> 07'58	
	0202 D 01:16:5	120 • 1	0022127	evening set	-8197 Nov 29 j 21:20	25° <b>£</b> 59'57	
conjunction	-8203 Dec 01 j 16:46	13° <b>Ω</b> 15'17	0°22'36		01075	260 2 2 2 2 2	0010100
minimum elong	-8203 Dec 01 j 16:46	13° <b>Ω</b> 15'17	0°22'33	conjunction	-8197 Dec 15 j 15:48	26° <b>£</b> 35'16	
max. Earth dist.	-8203 Dec 02 j 18:37		30.99906 AU	minimum elong	-8197 Dec 15 j 15:48	26° <b>Ω</b> 35'16	0°12'39
morning rise	-8203 Dec 17 j 11:49	13° <b>≏</b> 50'43		behind sun begin	-8197 Dec 15 j 11:41	26° <b>≏</b> 34'54	
retrograde	-8202 Mar 19 j 00:36	15° <b>≏</b> 49'25		behind sun end	-8197 Dec 15 j 19:55	26° <b>≏</b> 35'38	
opposition	-8202 Jun 07 j 23:18	14° <b>≏</b> 24'16	0°20'58	max. Earth dist.	-8197 Dec 16 j 17:58		30.94297 AU
min. Earth dist.	-8202 Jun 06 j 23:11		28.99447 AU	morning rise	-8197 Dec 31 j 14:37	27° <b>≏</b> 10'58	
direct	-8202 Aug 24 j 13:26	13° <b>≏</b> 01'36		retrograde	-8196 Apr 01 j 09:39	29° <b>≏</b> 09'48	
evening set	-8202 Nov 18 j 12:42	14° <b>≏</b> 53'33		opposition	-8196 Jun 20 j 23:15	27° <b>≏</b> 44'21	
				min. Earth dist.	-8196 Jun 19 j 22:18		28.94013 AU
conjunction	-8202 Dec 04 j 04:22	15° <b>≏</b> 28'38	0°16'48	direct	-8196 Sep 06 j 08:59	26° <b>≏</b> 21'28	
minimum elong	-8202 Dec 04 j 04:22	15° <b>≏</b> 28'38	0°16'43	evening set	-8196 Dec 01 j 08:57	28° <b>≏</b> 13'31	
max. Earth dist.	-8202 Dec 05 j 05:51		30.98908 AU				
morning rise	-8202 Dec 20 j 00:07	16° <b>≏</b> 04'07		conjunction	-8196 Dec 17 j 04:06	28° <b>≏</b> 48'51	-0°18'18
retrograde	-8201 Mar 21 j 14:34	18° <b>≏</b> 02'50		minimum elong	-8196 Dec 17 j 04:05	28° <b>≏</b> 48'51	0°18'31
min. Earth dist.	-8201 Jun 09 j 10:40	16° <b>≏</b> 39'20	28.98415 AU	max. Earth dist.	-8196 Dec 18 j 07:26	28° <b>≏</b> 51'26	30.93670 AU
opposition	-8201 Jun 10 j 11:30	16° <b>≏</b> 37'36	0°14'44	morning rise	-8195 Jan 02 j 03:14	29° <b>≏</b> 24'37	
direct	-8201 Aug 27 j 00:32	15° <b>≏</b> 14'53			-8195 Jan 18 j 21:36	$0^{\circ}$ M	
evening set	-8201 Nov 20 j 23:56	17° <b>≏</b> 06'49		retrograde	-8195 Apr 03 j 21:01	1°M23'28	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8195 in astronomical counting style is the year 8196 BCE in historical counting style. min. Earth dist. -8195 Jun 22 i 09:44 29°**£**59'48 28.93423 AU conjunction -8188 Jan 02 j 21:46 14°ML28'30 -0°57'59 -8195 Jun 22 j 06:46 minimum elong -8188 Jan 02 j 21:45 14°ML28'30 0°58'19 30°R <u>Ω</u> 29°**£**58'02 -0°22'45 -8195 Jun 23 j 10:57 max. Earth dist. -8188 Jan 03 j 22:44 14°ML30'51 30.89025 AU opposition -8195 Sep 08 j 20:40 -8188 Jan 16 j 23:20 direct 28°**£**35'09 15°M. 15°ML04'28 -8188 Jan 19 j 00:05 -8195 Nov 21 j 01:36 0°M morning rise -8195 Dec 03 j 20:48 -8188 Apr 19 j 17:33 evening set  $0^{\circ}$ M $_{2}7'16$ retrograde 17°M03'21 -8188 Jul 08 j 20:46 opposition 15°M37'50 -1°04'59 -8195 Dec 19 j 16:21 1°M02'39 -0°24'07 conjunction min. Earth dist. -8188 Jul 07 j 22:12 15°M39'25 28.88639 AU minimum elong -8195 Dec 19 j 16:21 1°ML02'39 0°24'20 -8188 Aug 01 j 03:22 15°RM max. Earth dist. -8195 Dec 20 j 18:46 1°ML05'08 30.93123 AU direct -8188 Sep 24 j 02:09 14°M14'37 morning rise -8194 Jan 04 j 16:09 1°M38'26 -8188 Nov 15 j 05:33 15°M -8194 Apr 06 j 10:44 -8188 Dec 19 j 11:59 retrograde  $3^{\circ}$ M $_{3}7'21$ evening set 16°ML07'09 -8194 Jun 25 j 22:45 opposition  $2^{\circ}$ M11'56  $-0^{\circ}28'57$ min. Earth dist. -8194 Jun 24 j 21:30 2°M13'41 28.92904 AU conjunction -8187 Jan 04 j 10:48 16°M42'46 -1°03'23 direct -8194 Sep 11 j 06:03  $0^{\circ}$ ML49'03 minimum elong -8187 Jan 04 j 10:47 16°M42'46 1°03'45 evening set -8194 Dec 06 j 08:42  $2^{\circ}$ MJ41'14 max. Earth dist. -8187 Jan 05 j 10:21 16°M44'58 30.88146 AU morning rise -8187 Jan 20 j 13:37 17°ML18'45 conjunction -8194 Dec 22 j 04:51 3°M16'40 -0°29'53 retrograde -8187 Apr 22 j 06:41 19°**™**17'35 min. Earth dist. minimum elong -8194 Dec 22 j 04:50 3°M16'40 0°30'09 -8187 Jul 10 j 10:30 17°M53'32 28.87799 AU max. Earth dist. -8194 Dec 23 j 07:58 3°M19'12 30.92601 AU opposition -8187 Jul 11 j 08:11 17°ML52'01 -1°10'41 morning rise -8193 Jan 07 j 05:03 3°M52'29 direct -8187 Sep 26 j 13:06 16°M28'42 retrograde -8193 Apr 08 j 22:50 5°M51'26 evening set -8187 Dec 22 i 00:41 18°M21'17 min. Earth dist. -8193 Jun 27 i 10:09 4°M27'45 28.92377 AU opposition -8193 Jun 28 i 10:34 4°M26'02 -0°35'07 conjunction -8186 Jan 07 i 00:03 18°ML56'55 -1°08'40 direct -8193 Sep 13 j 16:03 3°M03'09 -8186 Jan 07 i 00:03 18°ML56'55 1°09'02 minimum elong -8193 Dec 08 j 21:01 4°M55'25 max. Earth dist. -8186 Jan 08 j 00:28 18°M59'13 30.87336 AU evening set -8186 Jan 23 j 03:03 morning rise 19°M-32'56 -8193 Dec 24 j 17:39 5°ML30'52 -0°35'38 -8186 Apr 24 j 18:51 conjunction retrograde 21°M-31'43 -8193 Dec 24 j 17:39 -8186 Jul 13 j 19:28 5°M30'52 0°35'53 opposition 20°M06'06 -1°16'18 minimum elong -8193 Dec 25 j 19:58 -8186 Jul 12 j 21:43 max. Earth dist. 5°M33'21 30.92061 AU min. Earth dist. 20°M07'38 28.87043 AU -8186 Sep 29 j 01:29 -8192 Jan 09 j 18:22 6°M06'44 direct 18°M42'43 morning rise -8192 Apr 10 j 12:16 -8186 Dec 24 j 13:33 8°M05'42 evening set 20°M35'22 retrograde -8192 Jun 29 j 22:10 6°M40'19 -0°41'13 opposition -8192 Jun 28 j 21:31 6°M42'03 28.91807 AU -8185 Jan 09 j 13:13 21°M11'01 -1°13'51 min. Earth dist. conjunction -8192 Sep 15 j 02:57 -8185 Jan 09 j 13:12 direct 5°**™**17'24 minimum elong 21°ML11'01 1°14'15 -8192 Dec 10 j 09:30 -8185 Jan 10 j 12:25 evening set 7°**IL**09'45 max. Earth dist. 21°M13'12 30.86643 AU -8185 Jan 25 j 16:42 morning rise 21°M47'02 conjunction -8192 Dec 26 j 06:33 7°ML45'14 -0°41'19 retrograde -8185 Apr 27 j 08:59 23°M45'47 minimum elong -8192 Dec 26 j 06:32 7°ML45'14 0°41'36 min. Earth dist. -8185 Jul 15 j 09:06 22°M21'41 28.86426 AU max. Earth dist. -8192 Dec 27 j 08:24 7°ML47'40 30.91433 AU opposition -8185 Jul 16 j 06:46 22°M20'10 -1°21'47 morning rise -8191 Jan 11 j 07:43  $8^{\circ}$ ML21'08 direct -8185 Oct 01 j 12:13 20°M56'42 -8191 Apr 13 j 00:26 10°M20'07 -8185 Dec 27 j 02:33 22°M49'26 retrograde evening set -8191 Jul 01 j 10:46 8°M56'21 28.91138 AU min. Earth dist. -8191 Jul 02 j 10:00 8°ML54'43 -0°47'17 -8184 Jan 12 j 02:40 23°M25'07 -1°18'56 opposition conjunction -8191 Sep 17 j 13:34 7°M31'46 -8184 Jan 12 j 02:39 direct minimum elong 23°ML25'07 1°19'19 -8184 Jan 13 i 02:30 evening set -8191 Dec 12 j 21:50 9°M24'10 max. Earth dist. 23°M27'21 30.86078 AU morning rise -8184 Jan 28 i 06:19 24°ML01'09 -8191 Dec 28 i 19:28 9°M59'41 -0°46'57 conjunction retrograde -8184 Apr 28 j 20:20 25°M59'51 minimum elong -8191 Dec 28 i 19:27 9°M59'41 0°47'14 opposition -8184 Jul 17 i 17:55 24°MJ34'15 -1°27'09 max. Earth dist. -8191 Dec 29 j 21:05 10°ML02'06 30.90717 AU min. Earth dist. -8184 Jul 16 i 21:00 24°MJ35'43 28.85940 AU -8190 Jan 13 j 20:59 10°MJ35'36 direct -8184 Oct 02 j 22:56 23°M10'45 morning rise evening set -8190 Apr 15 j 14:20 12°MJ34'35 -8184 Dec 28 j 15:38 25°ML03'34 retrograde opposition -8190 Jul 04 j 21:41 11°M09'10 -0°53'16 min. Earth dist. -8190 Jul 03 j 21:55 11°ML10'50 28.90368 AU conjunction -8183 Jan 13 j 16:05 25°M39'16 -1°23'54 -8190 Sep 20 j 01:22 9°M-46'08 minimum elong -8183 Jan 13 j 16:04 25°M39'16 1°24'19 direct -8190 Dec 15 j 10:33 11°M38'35 max. Earth dist. -8183 Jan 14 j 15:09 25°M41'26 30.85669 AU evening set morning rise -8183 Jan 29 j 20:04 26°M15'19 -8190 Dec 31 j 08:30 12°M14'08 -0°52'31 -8183 May 01 j 09:26 28°M14'00 conjunction retrograde -8190 Dec 31 j 08:29 -8183 Jul 19 j 07:43 26°M49'56 28.85604 AU minimum elong 12°M14'08 0°52'50 min. Earth dist. -8189 Jan 01 j 08:59 -8183 Jul 20 j 05:06 max. Earth dist. 12°M16'26 30.89895 AU opposition 26°M48'26 -1°32'23 -8189 Jan 16 j 10:34 morning rise 12°M50'05 direct -8183 Oct 05 j 09:47 25°M24'54 retrograde -8189 Apr 18 j 03:34 14°M49'01 evening set -8183 Dec 31 j 04:42 27°M17'50 min. Earth dist. -8189 Jul 06 j 11:05 13°M25'06 28.89521 AU opposition -8189 Jul 07 j 09:20 13°M23'33 -0°59'10 conjunction -8182 Jan 16 j 05:27 27°M53'33 -1°28'44 direct -8189 Sep 22 j 12:26 12°M00'26 minimum elong -8182 Jan 16 j 05:27 27°ML53'33 1°29'09 -8189 Dec 17 j 23:10 13°M52'55 max. Earth dist. -8182 Jan 17 j 04:25 27°M55'42 30.85380 AU evening set -8182 Feb 01 j 09:42 28°M29'37 morning rise

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 18

•	nical year style is used: Th		-	* **			page 18
Attention, astronom	-8182 Mar 22 j 21:49	$0^{\circ}$	in astronomical co	min. Earth dist.	-8176 Aug 03 j 18:59		28.83841 AU
ratra ara da	-8182 May 03 j 21:08	0° <b>x</b> ¹28'18		direct	-8176 Oct 20 j 18:49	12 <b>x</b> ·33 20 11° <b>x</b> <sup>7</sup> 08'21	20.03041 AU
retrograde	-8182 Jun 15 j 14:40	30°RM		evening set	-8175 Jan 16 j 05:14	13°×'0821	
opposition	-8182 Jul 22 j 16:24	29°M02'46	1037'30	evening set	-01/3 Jan 10 J 03.14	13 × 02 09	
min. Earth dist.	-8182 Jul 21 j 20:17		28.85377 AU	conjunction	-8175 Feb 01 j 08:01	13° <b>∡</b> ³38′00	1°58'30
direct	-8182 Oct 07 j 19:46	27°M39'13	20.03377 AU	minimum elong	-8175 Feb 01 j 08:00	13° <b>x</b> 38'00	
evening set	-8181 Jan 02 j 18:02	29°M32'17		max. Earth dist.	-8175 Feb 02 j 01:34		30.83489 AU
evening set	-8181 Jan 15 j 05:27	0° <b>x</b> <sup>7</sup>		morning rise	-8175 Feb 17 j 13:21	14° 🖈 14'07	30.03407 AC
	-0101 Juli 13 J 03.27	0 ^		retrograde	-8175 May 19 j 18:47	16° <b>₹</b> 12'29	
conjunction	-8181 Jan 18 j 19:12	0° <b>₹</b> 08'02	-1°33'27	opposition	-8175 Aug 06 j 21:54	14° 🖈 12'2)	-2°08'43
minimum elong	-8181 Jan 18 j 19:12	0° <b>₹</b> '08'02		min. Earth dist.	-8175 Aug 06 j 07:09		28.83430 AU
max. Earth dist.	-8181 Jan 19 j 17:53		30.85197 AU	direct	-8175 Oct 23 j 06:38	13° <b>×</b> <sup>7</sup> 23'15	20.03 130 110
morning rise	-8181 Feb 03 j 23:39	0° <b>х</b> 10°05	30.03177710	evening set	-8174 Jan 18 j 19:07	15° <b>×</b> 17'08	
retrograde	-8181 May 06 j 11:00	2° <b>×</b> <sup>7</sup> 42'47		evening sec	017.0411 10 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	10 7. 17 00	
min. Earth dist.	-8181 Jul 24 j 06:52		28.85222 AU	conjunction	-8174 Feb 03 j 22:06	15° <b>₹</b> '52'59	-2°02'05
opposition	-8181 Jul 25 j 03:23	1° <b>х</b> 17'19		minimum elong	-8174 Feb 03 j 22:05	15° <b>₹</b> 52'59	
-PF	-8181 Sep 21 j 05:34	30°RM₀		max. Earth dist.	-8174 Feb 04 j 14:22		30.83105 AU
direct	-8181 Oct 10 j 06:56	29°M53'44		morning rise	-8174 Feb 20 j 03:39	16° <b>х</b> 29′06	
	-8181 Oct 29 j 06:30	0° <b>⊼</b> ¹		retrograde	-8174 May 22 j 07:47	18° <b>×</b> 27'22	
evening set	-8180 Jan 05 i 07:44	1° <b>х</b> 46′57		opposition	-8174 Aug 09 j 08:44	17° <b>₹</b> 02'05	-2°12'26
e venning see	0100 0011	17.1007		min. Earth dist.	-8174 Aug 08 j 17:55		28.83088 AU
conjunction	-8180 Jan 21 j 09:05	2° <b>×</b> 122'43	-1°38'01	direct	-8174 Oct 25 j 18:19	15° <b>∡</b> 38′03	20.03000110
minimum elong	-8180 Jan 21 j 09:04	2°×122'43		evening set	-8173 Jan 21 j 09:16	17°×32'01	
max. Earth dist.	-8180 Jan 22 j 06:31		30.85041 AU	evening sec	01/3 0411 21 1 05.10	1, 7. 52 01	
morning rise	-8180 Feb 06 j 13:49	2° <b>×</b> 758'49		conjunction	-8173 Feb 06 j 12:27	18° <b>∡</b> 07'53	-2°05'28
retrograde	-8180 May 08 j 00:01	4° <b>₹</b> 757'29		minimum elong	-8173 Feb 06 j 12:27	18° <b>х</b> 07'53	
opposition	-8180 Jul 26 j 14:39	3° <b>∡</b> ³32'04	-1°47'15	max. Earth dist.	-8173 Feb 07 j 04:21		30.82792 AU
min. Earth dist.	-8180 Jul 25 j 19:50		28.85077 AU	morning rise	-8173 Feb 22 j 18:03	18° <b>∡</b> ⁴44'00	
direct	-8180 Oct 11 j 17:36	2° <b>₹</b> 08'28		retrograde	-8173 May 24 j 19:14	20° <b>∡</b> ¹42'10	
evening set	-8179 Jan 06 j 21:20	4° <b>₹</b> 01'49		opposition	-8173 Aug 11 j 19:31	19° <b>∡</b> 16'54	-2°15'58
	v			min. Earth dist.	-8173 Aug 11 j 06:14	19° <b>√</b> 17'51	28.82844 AU
conjunction	-8179 Jan 22 j 23:06	4° <b>∡</b> ³37'37	-1°42'26	direct	-8173 Oct 28 j 04:30	17° <b>∡</b> 52'47	
minimum elong	-8179 Jan 22 j 23:05	4° <b>∡</b> ³37'37	1°42'54	evening set	-8172 Jan 23 j 23:24	19° <b>∡</b> ¹46'52	
max. Earth dist.	-8179 Jan 23 j 20:36	4° <b>∡</b> ³39'38	30.84870 AU				
morning rise	-8179 Feb 08 j 03:50	5° <b>∡</b> 13'43		conjunction	-8172 Feb 09 j 02:52	20° <b>≯</b> 22'44	-2°08'40
retrograde	-8179 May 10 j 13:59	7° <b>∡</b> 12'21		minimum elong	-8172 Feb 09 j 02:51	20° <b>х</b> 22′44	2°09'11
min. Earth dist.	-8179 Jul 28 j 06:58	5° <b>х</b> 48′20	28.84879 AU	max. Earth dist.	-8172 Feb 09 j 18:08	20° <b>х</b> 24'10	30.82613 AU
opposition	-8179 Jul 29 j 01:43	5° <b>х</b> 47′00	-1°51'54	morning rise	-8172 Feb 25 j 08:30	20° <b>∡</b> 58'51	
direct	-8179 Oct 14 j 06:58	4° <b>∡</b> ¹23'22		retrograde	-8172 May 26 j 08:03	22° <b>₹</b> 56'55	
evening set	-8178 Jan 09 j 11:16	6° <b>∡</b> 16'51		opposition	-8172 Aug 13 j 06:14	21° <b>х</b> 31'41	-2°19'17
				min. Earth dist.	-8172 Aug 12 j 16:27	21° <b>х</b> 32′40	28.82737 AU
conjunction	-8178 Jan 25 j 13:08	6° <b>х</b> 52′40	-1°46'42	direct	-8172 Oct 29 j 15:49	20° <b>х</b> 07′29	
minimum elong	-8178 Jan 25 j 13:07	6° <b>₰</b> 52'40	1°47'09	evening set	-8171 Jan 25 j 13:33	22° <b>҂</b> 01'41	
max. Earth dist.	-8178 Jan 26 j 08:37	6° <b>₹</b> 54'29	30.84630 AU				
morning rise	-8178 Feb 10 j 18:13	7° <b>∡</b> ¹28'46		conjunction	-8171 Feb 10 j 17:04	22° <b>҂</b> 37'34	-2°11'41
retrograde	-8178 May 13 j 03:39	9° <b>₹</b> 27'23		minimum elong	-8171 Feb 10 j 17:03	22° <b>₹</b> 37'34	2°12'13
opposition	-8178 Jul 31 j 12:56	8° <b>₹</b> 02'04	-1°56'23	max. Earth dist.	-8171 Feb 11 j 07:19	22° <b>₹</b> 38'54	30.82566 AU
min. Earth dist.	-8178 Jul 30 j 19:36		28.84611 AU	morning rise	-8171 Feb 26 j 22:48	23° <b>х</b> 13′40	
direct	-8178 Oct 16 j 17:57	6° <b>∡</b> ³38'22		retrograde	-8171 May 28 j 19:08	25° <b>х</b> 11′39	
evening set	-8177 Jan 12 j 01:06	8° <b>∡</b> 31'58		opposition	-8171 Aug 15 j 17:05	23° <b>∡</b> ¹46′28	
				min. Earth dist.	-8171 Aug 15 j 04:44		28.82779 AU
conjunction	-8177 Jan 28 j 03:27	9° <b>∡</b> 07'48		direct	-8171 Nov 01 j 02:47	22° <b>х</b> 22'13	
minimum elong	-8177 Jan 28 j 03:26	9° <b>∡</b> 07'48		evening set	-8170 Jan 28 j 03:42	24° <b>≯</b> 16'33	
max. Earth dist.	-8177 Jan 28 j 23:00		30.84309 AU				
morning rise	-8177 Feb 13 j 08:32	9° <b>∡</b> ¹43'55		conjunction	-8170 Feb 13 j 07:33	24° <b>≯</b> 52'26	
retrograde	-8177 May 15 j 16:53	11° <b>∡</b> 742'27		minimum elong	-8170 Feb 13 j 07:32	24° <b>₹</b> 52'26	
min. Earth dist.	-8177 Aug 02 j 07:20		28.84247 AU	max. Earth dist.	-8170 Feb 13 j 21:57		30.82680 AU
opposition	-8177 Aug 03 j 00:01	10° <b>∡</b> 17'09	-2°00'40	morning rise	-8170 Mar 01 j 13:13	25° <b>₹</b> 28'31	
direct	-8177 Oct 19 j 06:58	8° <b>∡</b> 53′24		retrograde	-8170 May 31 j 07:50	27° <b>₹</b> ¹26'26	
evening set	-8176 Jan 14 j 15:13	10° <b>х</b> 47′05		opposition	-8170 Aug 18 j 03:41	26° <b>₹</b> 01'19	
				min. Earth dist.	-8170 Aug 17 j 15:14		28.82957 AU
conjunction	-8176 Jan 30 j 17:40	11° <b>≯</b> 22'56		direct	-8170 Nov 03 j 15:30	24° <b>₹</b> 37'01	
minimum elong	-8176 Jan 30 j 17:40	11° <b>₹</b> 22'56		evening set	-8169 Jan 30 j 18:08	26° <b>х</b> 31′29	
max. Earth dist.	-8176 Jan 31 j 11:07		30.83914 AU				
morning rise	-8176 Feb 15 j 23:02	11° <b>₹</b> 59'03		conjunction	-8169 Feb 15 j 22:01	27° <b>₹</b> 07'23	
retrograde	-8176 May 17 j 07:40	13° <b>∡</b> 757'30		minimum elong	-8169 Feb 15 j 22:00	27° <b>₹</b> 07'23	2°17'38
opposition	-8176 Aug 04 j 10:56	12° <b>∡</b> ³32′12	-2°04'47	max. Earth dist.	-8169 Feb 16 j 10:40	27° <b>∡</b> ¹08'34	30.82912 AU

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8169 in astronomical counting style is the year 8170 BCE in historical counting style. -8169 Mar 04 i 03:54 27°**х** 43′28 direct -8163 Nov 19 i 03:35 10°る22'52 morning rise -8169 Jun 02 j 21:11 29°**х** 41′18 evening set -8162 Feb 16 j 00:48 12°る18'11 retrograde 28°**∡**16'16 -2°27'57 opposition -8169 Aug 20 j 14:29 -8169 Aug 20 j 03:20 28°**₹**17'04 28.83244 AU -8162 Mar 04 j 05:40 12°る54'07 -2°29'15 min. Earth dist. conjunction -8162 Mar 04 j 05:40 -8169 Nov 06 j 02:05 12°る54'07 2°29'47 direct 26°**₹**51'56 minimum elong -8168 Feb 02 j 08:34 28°**х** 46′33 -8162 Mar 04 j 10:18 12°る54'33 30.84105 AU evening set max. Earth dist. -8162 Mar 20 j 11:21 morning rise 13°る30'09 15°**る**27'11 -8168 Feb 18 j 12:46 29°**₹**22'28 -2°19'28 conjunction retrograde -8162 Jun 18 j 13:41 -8168 Feb 18 j 12:46 minimum elong 29°**₹**22'28 2°20'01 opposition -8162 Sep 04 j 17:24 14°る02'34 -2°40'06 29°**₹**23'40 30.83220 AU max. Earth dist. -8168 Feb 19 j 01:35 min. Earth dist. -8162 Sep 04 j 13:48 14°る02'49 28.84319 AU morning rise -8168 Mar 05 j 18:28 29° 🖍 58'33 direct -8162 Nov 21 j 14:46 12°る37'48 -8168 Mar 06 j 10:31 0°る -8161 Feb 18 j 15:25 14°る33'12 evening set -8168 Jun 04 j 10:12 retrograde 1°**る**56'17 opposition -8168 Aug 22 j 01:07 0°る31'21 -2°30'23 conjunction -8161 Mar 06 j 20:33 15°る09'09 -2°30'05 min. Earth dist. -8168 Aug 21 j 14:40 0°る32'05 28.83565 AU minimum elong -8161 Mar 06 j 20:33 15°**る**09'09 2°30'38 -8168 Sep 09 j 20:04 30°₹**⋌**7 max. Earth dist. -8161 Mar 07 j 00:48 15°る09'32 30.84133 AU morning rise direct -8168 Nov 07 j 15:15 29°**х** 07′00 -8161 Mar 23 j 02:06 15°る45'09 -8167 Jan 03 j 20:57 0°る retrograde -8161 Jun 21 j 01:37 17°る42'03 evening set -8167 Feb 03 j 23:15 1°る01'46 opposition -8161 Sep 07 j 03:53 16°る17'28 -2°40'53 min. Earth dist. -8161 Sep 07 j 00:24 16°る17'43 28.84371 AU conjunction -8167 Feb 20 j 03:26 1°る37'41 -2°21'39 direct -8161 Nov 24 j 03:38 14°る52'37 minimum elong -8167 Feb 20 i 03:25 1°る37'41 2°22'12 evening set -8160 Feb 21 i 06:09 16°る48'07 max. Earth dist. -8167 Feb 20 i 14:00 1°る38'40 30.83543 AU morning rise -8167 Mar 08 j 09:17 2°る13'45 conjunction -8160 Mar 08 i 11:12 17°る24'03 -2°30'42 retrograde -8167 Jun 07 j 00:56 4°る11'25 -8160 Mar 08 i 11:12 17°る24'03 2°31'14 minimum elong opposition -8167 Aug 24 j 11:53 2°る46'33 -2°32'36 max. Earth dist. -8160 Mar 08 j 13:41 17°る24'17 30.84224 AU -8167 Aug 24 j 02:17 2°る47'14 28.83885 AU -8160 Mar 24 j 16:47 18°る00'03 min. Earth dist. morning rise -8167 Nov 10 j 03:28 1°る22'10 -8160 Jun 22 j 13:35 19°る56'49 direct retrograde -8166 Feb 06 j 13:47 3°る17'04 -8160 Sep 08 j 14:24 18°る32'17 -2°41'25 opposition evening set -8160 Sep 08 j 12:09 18°る32'26 28.84529 AU min. Earth dist. -8166 Feb 22 j 18:14 3°る53'00 -2°23'37 -8160 Nov 25 j 14:13 conjunction 17°る07'21 direct 19°**る**02'58 -8166 Feb 22 j 18:14 -8159 Feb 22 j 20:39 minimum elong 3°る53'00 2°24'09 evening set -8166 Feb 23 j 04:37 max. Earth dist. 3°る53'58 30.83818 AU -8159 Mar 11 j 01:57 19°る38'54 -2°31'05 -8166 Mar 10 j 23:57 4°る29'04 morning rise conjunction -8166 Jun 09 j 12:42 6°**ප**26'38 -8159 Mar 11 j 01:57 19°る38'54 2°31'38 retrograde minimum elong 5°**る**01'50 -2°34'34 -8166 Aug 26 j 22:45 -8159 Mar 11 j 04:42 19°る39'09 30.84441 AU opposition max. Earth dist. 5°る02'24 28.84119 AU -8159 Mar 27 j 07:18 20°중14'53 min. Earth dist. -8166 Aug 26 j 14:46 morning rise direct -8166 Nov 12 j 15:52 3°**る**37'25 retrograde -8159 Jun 25 j 01:28 22°る11'31 evening set -8165 Feb 09 j 04:38 5°る32'26 opposition -8159 Sep 11 j 00:51 20°る47'02 -2°41'43 min. Earth dist. -8159 Sep 10 j 23:02 20°る47'10 28.84810 AU conjunction -8165 Feb 25 j 09:10 6°る08'22 -2°25'21 direct -8159 Nov 28 j 03:48 19°**る**22'03 -8165 Feb 25 j 09:10 6°る08'22 2°25'54 -8158 Feb 25 j 11:13 21°**る**17'46 minimum elong evening set max. Earth dist. -8165 Feb 25 j 17:24 6°る09'08 30.84009 AU -8165 Mar 13 j 14:59 6°**る**44'25 -8158 Mar 13 j 16:28 21°る53'43 -2°31'15 morning rise conjunction -8165 Jun 12 j 02:50 8°る41'52 -8158 Mar 13 j 16:28 21°る53'43 2°31'46 retrograde minimum elong 7°る17'08 -2°36'19 opposition -8165 Aug 29 i 09:24 max. Earth dist. -8158 Mar 13 i 17:14 21°る53'47 30.84799 AU -8165 Aug 29 i 01:54 min. Earth dist. 7°る17'40 28.84262 AU morning rise -8158 Mar 29 j 21:57 22°る29'41 direct -8165 Nov 15 j 04:12 5°る52'38 retrograde -8158 Jun 27 i 15:08 24°る26'12 23°**ට**01'47 -2°41'45 evening set -8164 Feb 11 j 19:28 7°る47'46 opposition -8158 Sep 13 j 11:19 min. Earth dist. -8158 Sep 13 i 10:00 23°る01'53 28.85241 AU -8164 Feb 28 i 00:10 8°중23'42 -2°26'53 direct -8158 Nov 30 j 16:25 21°る36'46 conjunction evening set -8164 Feb 28 i 00:09 8°중23'42 2°27'25 -8157 Feb 28 j 01:48 23°**る**32'36 minimum elong max. Earth dist. -8164 Feb 28 j 07:31 8°る24'24 30.84093 AU 8°**る**59'45 morning rise -8164 Mar 15 j 05:51 conjunction -8157 Mar 16 j 07:17 24°る08'33 -2°31'10 retrograde -8164 Jun 13 j 14:40 10°る57'05 minimum elong -8157 Mar 16 j 07:18 24°る08'33 2°31'41 opposition -8164 Aug 30 j 20:14 9°る32'23 -2°37'49 max. Earth dist. -8157 Mar 16 j 08:15 24°る08'39 30.85289 AU -8164 Aug 30 j 14:46 min. Earth dist. 9°る32'47 28.84311 AU morning rise -8157 Apr 01 j 12:31 24°る44'31 -8164 Nov 16 j 15:19 8°る07'49 -8157 Jun 30 j 02:31 26°る40'54 direct retrograde -8163 Feb 13 j 10:03 10°る03'02 -8157 Sep 15 j 21:45 25°る16'36 -2°41'32 evening set opposition -8157 Sep 15 j 21:44 25°る16'36 28.85784 AU min. Earth dist. -8163 Mar 01 j 14:53 10°る38'58 -2°28'10 23°**る**51'33 conjunction direct -8157 Dec 03 j 04:46 minimum elong -8163 Mar 01 j 14:53 10°る38'58 2°28'44 evening set -8156 Mar 01 j 16:33 25°**る**47'31 max. Earth dist. -8163 Mar 01 j 20:55 10°る39'32 30.84116 AU morning rise -8163 Mar 17 j 20:34 11°る15'00 conjunction -8156 Mar 17 j 21:58 26°**ප්**23'28 -2°30'52 retrograde -8163 Jun 16 j 03:09 13°**る**12'11 minimum elong -8156 Mar 17 j 21:59 26°る23'28 2°31'22 -8163 Sep 02 j 06:50 11°る47'32 -2°39'05 -8156 Mar 17 j 21:09 26°る23'24 30.85893 AU opposition max. Earth dist. min. Earth dist. -8163 Sep 02 j 01:21 11°る47'56 28.84312 AU -8156 Apr 03 j 03:15 26°る59'25 morning rise

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Attention, astronomical year style is used: The year -8156 in astronomical counting style is the year 8157 BCE in historical counting style.

		-		anning styre is the year	8157 BCE in historical c		
retrograde	-8156 Jul 01 j 17:01	28° <b>る</b> 55'41		evening set	-8149 Mar 18 j 23:05	11° <b>≈</b> 31'59	
opposition	-8156 Sep 17 j 08:12	27° <b>る</b> 31'29					
min. Earth dist.	-8156 Sep 17 j 08:20		28.86421 AU	conjunction	-8149 Apr 04 j 04:47	12° <b>≈</b> 07'56	-2°22'20
direct	-8156 Dec 04 j 17:27	26° <b>පි</b> 06'26		minimum elong	-8149 Apr 04 j 04:48	12° <b>≈</b> 07'56	2°22'47
evening set	-8155 Mar 04 j 07:03	28° <b>る</b> 02'31		max. Earth dist.	-8149 Apr 03 j 19:15	12° <b>≈</b> 07'03	30.89382 AU
				morning rise	-8149 Apr 20 j 09:15	12° <b>≈</b> 43'47	
conjunction	-8155 Mar 20 j 12:37	28° <b>る</b> 38'29	-2°30'19	retrograde	-8149 Jul 18 j 01:42	14° <b>≈</b> 38'58	
minimum elong	-8155 Mar 20 j 12:37	28° <b>る</b> 38'29	2°30'50	opposition	-8149 Oct 03 j 09:36	13° <b>≈</b> 15'12	-2°31'08
max. Earth dist.	-8155 Mar 20 j 11:27	28° <b>る</b> 38'22	30.86543 AU	min. Earth dist.	-8149 Oct 03 j 17:20	13° <b>≈</b> 14'39	28.89758 AU
morning rise	-8155 Apr 05 j 17:40	29° <b>る</b> 14'25		direct	-8149 Dec 21 j 06:38	11° <b>≈</b> 49'43	
-	-8155 Apr 27 j 21:33	0° <b>≈</b>		evening set	-8148 Mar 20 j 13:24	13° <b>≈</b> 46'17	
retrograde	-8155 Jul 04 j 05:00	1°≈10'35		•	•		
· ·	-8155 Sep 11 j 20:07	30°Ŗる		conjunction	-8148 Apr 05 j 19:15	14° <b>≈</b> 22'14	-2°20'15
opposition	-8155 Sep 19 j 18:47	29° <b>ප්</b> 46'28	-2°40'23	minimum elong	-8148 Apr 05 j 19:16	14° <b>≈</b> 22'14	2°20'41
min. Earth dist.	-8155 Sep 19 j 20:51	29°₹46'20	28.87077 AU	max. Earth dist.	-8148 Apr 05 j 09:57	14° <b>≈</b> 21'22	30.89777 AU
direct	-8155 Dec 07 j 05:02	28° <b>පි</b> 21'25		morning rise	-8148 Apr 21 j 23:24	14° <b>≈</b> 58'03	
	-8154 Feb 26 j 16:10	0° <b>≈</b>			-8148 Apr 22 j 20:56	15° <b>≈</b>	
evening set	-8154 Mar 06 j 21:48	0° <b>≈</b> 17'36		retrograde	-8148 Jul 19 j 12:14	16° <b>≈</b> 53'04	
e venning see	013 1 Mar 00 j 21.10	0.01730		opposition	-8148 Oct 04 j 20:06	15°≈29'20	-2°28'47
conjunction	-8154 Mar 23 j 03:24	0° <b>≈</b> 53'34	-2°29'33	min. Earth dist.	-8148 Oct 05 j 05:03		28.90188 AU
minimum elong	-8154 Mar 23 j 03:24	0°≈53'34		mm. Earth dist.	-8148 Oct 22 j 08:39	15°R≈	20.70100710
max. Earth dist.	-8154 Mar 23 j 00:40		30.87194 AU	direct	-8148 Dec 22 j 19:18	13 1,∞ 14°≈03'48	
morning rise	-8154 Apr 08 j 08:26	1°≈29'30	30.87194 AU	uncci	-8147 Feb 20 j 18:33	14 ≈03 48 15°≈	
•	-8154 Jul 06 j 17:33	3°≈25'31		avanina aat	-	15 ≈ 16°≈00'23	
retrograde	-8154 Sep 22 j 05:09	2°≈01'31	2020126	evening set	-8147 Mar 23 j 03:32	10 ≈00 23	
opposition					0147 4 00:00 14	16026110	2017157
min. Earth dist.	-8154 Sep 22 j 07:22		28.87696 AU	conjunction	-8147 Apr 08 j 09:14	16°≈36'19	
direct	-8154 Dec 09 j 17:45	0°≈36'25		minimum elong	-8147 Apr 08 j 09:15	16°≈36'19	
evening set	-8153 Mar 09 j 12:40	2° <b>≈</b> 32'43		max. Earth dist.	-8147 Apr 07 j 22:17		30.90270 AU
				morning rise	-8147 Apr 24 j 13:24	17°≈12'07	
conjunction	-8153 Mar 25 j 18:17	3°≈08'41		retrograde	-8147 Jul 22 j 01:29	19° <b>≈</b> 06'58	
minimum elong	-8153 Mar 25 j 18:17	3° <b>≈</b> 08'41	2°29'02	opposition	-8147 Oct 07 j 06:24	17° <b>≈</b> 43'17	
max. Earth dist.	-8153 Mar 25 j 14:01		30.87770 AU	min. Earth dist.	-8147 Oct 07 j 15:13		28.90739 AU
morning rise	-8153 Apr 10 j 23:10	3° <b>≈</b> 44'36		direct	-8147 Dec 25 j 08:50	16° <b>≈</b> 17'41	
retrograde	-8153 Jul 09 j 04:27	5° <b>≈</b> 40′29		evening set	-8146 Mar 25 j 17:40	18° <b>≈</b> 14′20	
opposition	-8153 Sep 24 j 15:50	4° <b>≈</b> 16'33					
min. Earth dist.	-8153 Sep 24 j 20:08	4° <b>≈</b> 16′15	28.88233 AU	conjunction	-8146 Apr 10 j 23:28	18° <b>≈</b> 50′16	
direct	-8153 Dec 12 j 04:51	2° <b>≈</b> 51'25		minimum elong	-8146 Apr 10 j 23:29	18° <b>≈</b> 50'16	2015151
	3				0140 Apr 10 j 23.23		
evening set	-8152 Mar 11 j 03:20	4° <b>≈</b> 47'47		max. Earth dist.	-8146 Apr 10 j 12:36		30.90887 AU
evening set		4° <b>≈</b> 47'47		C			
conjunction		4°≈47'47 5°≈23'45	-2°27'19	max. Earth dist. morning rise retrograde	-8146 Apr 10 j 12:36	18°≈49'16 19°≈26'03 21°≈20'45	30.90887 AU
-	-8152 Mar 11 j 03:20			max. Earth dist. morning rise	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19	18°≈49'16 19°≈26'03	30.90887 AU
conjunction	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03	5°≈23'45 5°≈23'45		max. Earth dist. morning rise retrograde	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07	30.90887 AU
conjunction minimum elong	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04	5°≈23'45 5°≈23'45	2°27'48	max. Earth dist. morning rise retrograde opposition	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07	30.90887 AU -2°23'26
conjunction minimum elong max. Earth dist.	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55	5°≈23'45 5°≈23'45 5°≈23'16	2°27'48	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23	30.90887 AU -2°23'26
conjunction minimum elong max. Earth dist. morning rise	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39	2°27'48 30.88264 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23 18°≈31'31	30.90887 AU -2°23'26
conjunction minimum elong max. Earth dist. morning rise retrograde	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30	2°27'48 30.88264 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23 18°≈31'31	30.90887 AU -2°23'26 28.91425 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30	2°27'48 30.88264 AU -2°36'49	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13	30.90887 AU -2°23'26 28.91425 AU -2°12'44
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10	2°27'48 30.88264 AU -2°36'49	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23 18°≈31'31 20°≈28'13 21°≈04'09 21°≈04'09	30.90887 AU -2°23'26 28.91425 AU -2°12'44
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17	2°27'48 30.88264 AU -2°36'49	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:36	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23 18°≈31'31 20°≈28'13 21°≈04'09 21°≈04'09	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17	2°27'48 30.88264 AU -2°36'49 28.88671 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:36 -8145 Apr 13 j 01:35	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13 21°×04'09 21°×04'09 21°×04'09	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:36 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13 21°×04'09 21°×04'09 21°×03'02 21°×39'54	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08 30.91659 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:36 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13 21°×04'09 21°×04'09 21°×39'54 23°×39'54 23°×34'27 22°×10'56	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08 30.91659 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13 21°×04'09 21°×04'09 21°×39'54 23°×39'54 23°×34'27 22°×10'56	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08 30.91659 AU -2°20'26
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise	-8152 Mar 11 j 03:20 -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'00	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13  21°×04'09 21°×04'09 21°×39'54 23°×34'27 22°×10'56 22°×10'14	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08 30.91659 AU -2°20'26
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 1°≈38'00 8°≈14'34	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13  21°×04'09 21°×04'09 21°×39'54 23°×34'27 22°×10'56 22°×10'14 20°×45'19	30.90887 AU -2°23'26 28.91425 AU -2°12'44 2°13'08 30.91659 AU -2°20'26
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 10°≈10'07 8°≈46'17	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Mar 29 j 21:54	18°≈49'16 19°≈26'03 21°≈20'45 19°≈57'07 19°≈56'23 18°≈31'31 20°≈28'13 21°≈04'09 21°≈04'09 21°≈03'02 21°≈39'54 23°≈34'27 22°≈10'156 22°≈10'14 20°≈45'19 22°≈42'05	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 10°≈10'07 8°≈46'17	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Apr 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33	18°×49'16 19°×26'03 21°×20'45 19°×57'07 19°×56'23 18°×31'31 20°×28'13  21°×04'09 21°×04'09 21°×39'54 23°×34'27 22°×10'56 22°×10'14 20°×45'19	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06 -8151 Dec 16 j 04:16	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈40'17 8°≈46'17 8°≈46'17 8°≈45'50 7°≈20'59	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Apr 28 j 07:52 -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:36 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:33	18° & 49'16 19° & 26'03 21° & 20'45 19° & 57'07 19° & 56'23 18° & 31'31 20° & 28'13  21° & 04'09 21° & 03'02 21° & 39'54 23° & 34'27 22° & 10'56 22° & 10'14 20° & 45'19 22° & 42'05  23° & 18'01 23° & 18'01	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 10°≈10'07 8°≈46'17 8°≈45'50	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Apr 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:36 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'56 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 18'01 23° ≈ 16'51	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'500 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20	5°≈23'45 5°≈23'16 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43  7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'50 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'56 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 19:06 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:20	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43  7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU -2°24'13 2°24'40	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12 24° ≈ 24'47	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU  -2°17'13
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 12:50 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:21 -8150 Apr 01 j 07:01	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43  7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Mar 29 j 21:54  -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:35 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37 -8144 Oct 14 j 01:02	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12 24° ≈ 24'47 24° ≈ 23'58	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 12:50 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:21 -8150 Apr 01 j 07:01 -8150 Apr 17 j 18:47	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43  7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'00 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27  9°≈53'25 9°≈53'25 9°≈52'44 10°≈29'17	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU -2°24'13 2°24'40	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Mar 29 j 21:54  -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37 -8144 Oct 14 j 01:02 -8144 Dec 31 j 21:10	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'56 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12 24° ≈ 24'47 24° ≈ 23'58 22° ≈ 59'11	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU  -2°17'13
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 12:50 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:21 -8150 Apr 01 j 07:01 -8150 Apr 17 j 18:47 -8150 Jul 15 j 13:28	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'00 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27 9°≈53'25 9°≈53'25 9°≈52'44 10°≈29'17 12°≈24'39	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU -2°24'13 2°24'40 30.89033 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Mar 29 j 21:54  -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:35 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37 -8144 Oct 14 j 01:02	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12 24° ≈ 24'47 24° ≈ 23'58	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU  -2°17'13
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 12:50 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:21 -8150 Apr 01 j 07:01 -8150 Apr 17 j 18:47 -8150 Jul 15 j 13:28 -8150 Sep 30 j 23:17	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'00 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27 9°≈53'25 9°≈53'25 9°≈52'44 10°≈29'17 12°≈24'39 11°≈00'51	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU -2°24'13 2°24'40 30.89033 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Apr 13 j 13:35 -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37	18° \$\approx 49'16 19° \$\approx 26'03 21° \$\approx 20'45 19° \$\approx 57'07 19° \$\approx 56'23 18° \$\approx 31'31 20° \$\approx 28'13 21° \$\approx 04'09 21° \$\approx 03'02 21° \$\approx 39'54 23° \$\approx 34'27 22° \$\approx 10'56 22° \$\approx 10'14 20° \$\approx 45'19 22° \$\approx 42'05 23° \$\approx 18'01 23° \$\approx 18'01 23° \$\approx 18'01 23° \$\approx 16'51 23° \$\approx 53'46 25° \$\approx 48'12 24° \$\approx 23'58 22° \$\approx 59'11 24° \$\approx 56'02	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU  -2°17'13 28.93202 AU
conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. direct evening set	-8152 Mar 11 j 03:20  -8152 Mar 27 j 09:03 -8152 Mar 27 j 09:04 -8152 Mar 27 j 03:55 -8152 Apr 12 j 13:46 -8152 Jul 10 j 16:24 -8152 Sep 26 j 02:20 -8152 Sep 26 j 07:01 -8152 Dec 13 j 17:24 -8151 Mar 13 j 18:04  -8151 Mar 29 j 23:42 -8151 Mar 29 j 23:42 -8151 Mar 29 j 16:32 -8151 Apr 15 j 04:22 -8151 Jul 13 j 03:08 -8151 Sep 28 j 12:50 -8151 Sep 28 j 12:50 -8151 Dec 16 j 04:16 -8150 Mar 16 j 08:29  -8150 Apr 01 j 14:20 -8150 Apr 01 j 14:21 -8150 Apr 01 j 07:01 -8150 Apr 17 j 18:47 -8150 Jul 15 j 13:28	5°≈23'45 5°≈23'45 5°≈23'16 5°≈59'39 7°≈55'22 6°≈31'30 6°≈31'10 5°≈06'17 7°≈02'43 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'40 7°≈38'00 8°≈14'34 10°≈10'07 8°≈46'17 8°≈45'50 7°≈20'59 9°≈17'27 9°≈53'25 9°≈53'25 9°≈52'44 10°≈29'17 12°≈24'39 11°≈00'51	2°27'48 30.88264 AU -2°36'49 28.88671 AU -2°25'53 2°26'21 30.88669 AU -2°35'09 28.89053 AU -2°24'13 2°24'40 30.89033 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set  conjunction min. Earth dist. direct evening rise retrograde opposition min. Earth dist. direct evening set	-8146 Apr 10 j 12:36 -8146 Apr 27 j 03:19 -8146 Jul 24 j 12:20 -8146 Oct 09 j 16:47 -8146 Oct 10 j 03:07 -8146 Dec 27 j 21:12 -8145 Mar 28 j 07:52  -8145 Apr 13 j 13:35 -8145 Apr 13 j 01:35 -8145 Apr 29 j 17:21 -8145 Jul 27 j 00:40 -8145 Oct 12 j 03:07 -8145 Oct 12 j 03:07 -8145 Oct 12 j 13:01 -8145 Dec 30 j 10:19 -8144 Mar 29 j 21:54  -8144 Apr 15 j 03:33 -8144 Apr 15 j 03:34 -8144 Apr 15 j 03:34 -8144 Apr 14 j 14:55 -8144 May 01 j 07:04 -8144 Jul 28 j 11:35 -8144 Oct 13 j 13:37 -8144 Oct 14 j 01:02 -8144 Dec 31 j 21:10	18° ≈ 49'16 19° ≈ 26'03 21° ≈ 20'45 19° ≈ 57'07 19° ≈ 56'23 18° ≈ 31'31 20° ≈ 28'13  21° ≈ 04'09 21° ≈ 03'02 21° ≈ 39'54 23° ≈ 34'27 22° ≈ 10'56 22° ≈ 10'14 20° ≈ 45'19 22° ≈ 42'05  23° ≈ 18'01 23° ≈ 18'01 23° ≈ 16'51 23° ≈ 53'46 25° ≈ 48'12 24° ≈ 24'47 24° ≈ 23'58 22° ≈ 59'11	30.90887 AU  -2°23'26 28.91425 AU  -2°12'44 2°13'08 30.91659 AU  -2°20'26 28.92254 AU  -2°09'50 2°10'13 30.92552 AU  -2°17'13 28.93202 AU  -2°06'43

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8143 in astronomical counting style is the year 8144 BCE in historical counting style. -8143 Apr 17 i 04:30 25°≈30'44 30.93553 AU retrograde -8137 Aug 13 i 17:13 11°\(\frac{1}{25}\)'11 max. Earth dist. opposition -8143 May 03 j 20:54 26°≈07'42 -8137 Oct 29 j 15:26 10°¥02'18 -1°49'15 morning rise -8143 Jul 30 j 23:27 min. Earth dist. -8137 Oct 30 j 09:14 10°¥01'03 28.99150 AU 28° 202'00 retrograde -8136 Jan 17 j 12:19 8°**)**€36'38 -8143 Oct 15 j 23:55 26°≈38'42 -2°13'47 direct opposition -8143 Oct 16 j 11:29 26°≈37'53 28.94212 AU -8136 Apr 17 j 13:24 10°**)** 33'45 min. Earth dist. evening set direct -8142 Jan 03 j 09:13 25°≈13'08 -8136 May 03 j 18:07 11°\(\dagger)09'36 -1°39'59 evening set -8142 Apr 04 j 02:04 27°≈10'04 conjunction minimum elong -8136 May 03 j 18:08 11°**X**09'36 1°40'13 conjunction -8142 Apr 20 j 07:33 27°≈45'59 -2°03'25 max. Earth dist. -8136 May 02 j 21:57 11°**米**07'44 30.99378 AU minimum elong -8142 Apr 20 j 07:34 27°**≈**45′59 2°03'46 morning rise -8136 May 19 j 19:46 11°**)**45'12 max. Earth dist. -8142 Apr 19 j 16:53 27°≈44'37 30.94576 AU retrograde -8136 Aug 15 j 05:07 13°**)** 38'34 -8142 May 06 j 10:44 -8136 Oct 31 j 01:56 morning rise 28°**≈**21'43 opposition 12°**升**15'44 -1°44'34 -8142 Jul 02 j 21:20 -8136 Oct 31 j 19:17 0°**)**€ min. Earth dist. 12° **★**14'30 28.99826 AU retrograde -8142 Aug 02 j 10:03 0°\ 15'55 direct -8135 Jan 19 j 02:10 10°**¥**50′01 -8142 Sep 02 j 06:35 30°R≈ evening set -8135 Apr 20 j 02:52 12° **)** 47'08 opposition -8142 Oct 18 j 10:28 28°≈52'44 -2°10'09 max. Earth dist. -8135 May 05 j 10:50 13°**₭**21'03 31.00082 AU min. Earth dist. -8142 Oct 18 j 23:24 28°≈51'49 28.95227 AU direct -8141 Jan 05 j 19:46 27°≈27'10 conjunction -8135 May 06 j 07:25 13°**¥**22'58 -1°35'32 29°**≈**24'10 evening set -8141 Apr 06 j 16:08 minimum elong -8135 May 06 j 07:26 13°**¥**22'58 morning rise -8135 May 22 j 08:42 13°**¥**58'32 conjunction -8141 Apr 22 j 21:39 0°¥00'05 -1°59'56 retrograde -8135 Aug 17 j 15:59 15°**)** 51'45 minimum elong -8141 Apr 22 j 21:40 0°\mathcal{H}00'06 2°00'15 opposition -8135 Nov 02 i 12:28 14°\(\)28'57 -1°39'45 max. Earth dist. -8141 Apr 22 i 06:52 29°≈58'43 30.95567 AU min. Earth dist. -8135 Nov 03 i 07:11 14°**)** 27'38 29.00573 AU -8141 Apr 22 j 20:40 0°**)**€ direct -8134 Jan 21 i 14:07 13°**¥**03′12 morning rise -8141 May 09 j 00:28 0°**)** 35'48 evening set -8134 Apr 22 j 16:12 15°**¥**00′19 -8141 Aug 04 j 20:02 2°\ 29'53 retrograde opposition -8141 Oct 20 j 21:02 1°**¥**06'48 -2°06'20 -8134 May 08 j 20:35 15°¥36'08 -1°30'57 conjunction -8141 Oct 21 j 10:50 1°**¥**05'50 28.96168 AU -8134 May 08 j 20:36 15°¥36'08 1°31'09 min. Earth dist. minimum elong -8141 Dec 05 j 02:32 -8134 May 07 j 23:45 15°**)** 34'11 31.00884 AU 30°R≈ max. Earth dist. -8140 Jan 08 j 08:59 -8134 May 24 j 21:35 direct 29°≈41'15 morning rise 16°**¥**11'40 18°**)**€04'44 -8140 Feb 11 j 08:45 0°**)**€ -8134 Aug 20 j 03:10 retrograde -8134 Nov 04 j 23:02 -8140 Apr 08 j 06:19 1°**H**38'18 16°**)** 41′59 -1°34′46 evening set opposition -8134 Nov 05 j 17:26 16°**)** 40'41 29.01410 AU min. Earth dist. -8140 Apr 24 j 11:33 2°\dagger14'13 -1°56'16 -8133 Jan 24 j 03:37 15°**₩**16'14 conjunction direct -8140 Apr 24 j 11:34 -8133 Apr 25 j 05:34 17°**₩** 13'20 minimum elong 2°\dagger 14'13 1°56'35 evening set -8140 Apr 23 j 18:33 -8133 May 10 j 11:51 17°**¥**47′07 31.01786 AU max. Earth dist. 2° **★**12'38 30.96475 AU max. Earth dist. -8140 May 10 j 14:16 morning rise 2°**)**49'55 retrograde -8140 Aug 06 j 08:08 4°\(\)43'52 conjunction -8133 May 11 j 09:36 17°**)** 49′08 -1°26′14 opposition -8140 Oct 22 j 07:39 3°**升**20'52 -2°02'19 minimum elong -8133 May 11 j 09:37 17°**)** 49′08 1°26′24 min. Earth dist. -8140 Oct 22 j 22:05 3°**升**19'51 28.97034 AU morning rise -8133 May 27 j 10:16 18°**¥**24'38 direct -8139 Jan 09 j 20:30 1°**¥**55'18 retrograde -8133 Aug 22 j 12:46 20°**光** 17'36 -8139 Apr 10 j 20:04 3°**¥**52'23 -8133 Nov 07 j 09:40 18°\ 54'54 -1°29'40 evening set opposition -8139 Apr 26 j 08:25 4°**)** €26'43 30.97293 AU min. Earth dist. -8133 Nov 08 j 04:48 18°**升**53'33 29.02378 AU max. Earth dist. -8132 Jan 26 j 14:39 17°**¥**29′09 direct -8139 Apr 27 j 01:22 4°**¥**28'17 -1°52'26 -8132 Apr 26 j 18:41 19°**¥**26′16 conjunction evening set -8139 Apr 27 j 01:23 minimum elong 4°\ 28'17 1°52'43 -8139 May 13 j 03:42 -8132 May 12 j 22:36 20°**)** €02'03 -1°21'23 morning rise 5°**)** 03'58 conjunction retrograde -8139 Aug 08 j 18:13 6°**)** 57'47 minimum elong -8132 May 12 j 22:37 20°\(\mathbf{t}\) 02'03 1°21'33 opposition -8139 Oct 24 j 18:20 5°\(\)34'50 -1°58'08 max. Earth dist. -8132 May 12 i 01:26 20°**)** €00'05 31.02821 AU min. Earth dist. -8139 Oct 25 i 10:17 5°₩33'43 28.97794 AU morning rise -8132 May 28 j 22:50 20°**₩**37'32 -8138 Jan 12 j 08:55 4°¥09'15 retrograde -8132 Aug 23 j 21:59 22°\ 30'22 direct -8138 Apr 13 j 10:04 6°**₩**06'22 -8132 Nov 08 j 20:21 21°\(\dagger)07'46 -1°24'25 evening set opposition min. Earth dist. -8132 Nov 09 j 15:43 21°**)** 66'24 29.03452 AU conjunction -8138 Apr 29 j 15:05 6°\(\)42'15 -1°48'26 direct -8131 Jan 28 j 03:11 19°\(\)42'03 minimum elong -8138 Apr 29 j 15:06 6°\(\)42'15 1°48'43 evening set -8131 Apr 29 j 07:47 21°**X**39'10 -8138 Apr 28 j 20:04 max. Earth dist. 6°**)**40′29 30.98029 AU -8138 May 15 j 17:20 7°**)** 17'54 conjunction -8131 May 15 j 11:17 22°\dagger14'56 -1°16'25 morning rise -8138 Aug 11 j 07:00 9°**₭**11'34 -8131 May 15 j 11:18 22°\ 14'56 1°16'33 retrograde minimum elong -8138 Oct 27 j 04:44 7°**)** 48'40 -1°53'46 -8131 May 14 j 12:43 22°¥12'50 31.03951 AU opposition max. Earth dist. -8138 Oct 27 j 20:49 7°**)** 47'32 28.98490 AU -8131 May 31 j 11:20 min. Earth dist. morning rise 22° **€** 50′23 6°**¥**23′02 direct -8137 Jan 14 j 23:10 retrograde -8131 Aug 26 j 09:31 24°**)** 43'09 evening set -8137 Apr 15 j 23:51 8°**¥**20′10 opposition -8131 Nov 11 j 07:00 23°**∺**20'37 -1°19'02 max. Earth dist. -8137 May 01 j 09:49 8°**¥**54'16 30.98704 AU min. Earth dist. -8131 Nov 12 j 02:29 23°**₭**19'15 29.04609 AU direct -8130 Jan 30 j 13:38 21°**)** 54'56 evening set conjunction -8137 May 02 j 04:50 8°**\**56'02 -1°44'17 -8130 May 01 j 20:50 23°\ 52'05 -8137 May 02 j 04:51 8°\\$56'02 1°44'32 max. Earth dist. -8130 May 17 j 02:11 24° **€** 25'47 31.05120 AU minimum elong -8137 May 18 j 06:39 9°**₭**31'39 morning rise

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8130 in astronomical counting style is the year 8131 BCE in historical counting style. opposition -8130 May 18 j 00:12 24°**)** 27'50 -1°11'20 -8124 Nov 26 j 11:28 8°Υ49'49 -0°38'41 conjunction -8130 May 18 j 00:13 24°\(\frac{1}{27}\)'50 1°11'27 min. Earth dist. -8124 Nov 27 j 11:25 8°**Y**48'09 29.10771 AU minimum elong -8130 Jun 02 j 23:42 25°¥03'16 -8123 Feb 15 j 07:25 7°**Y**24'14 direct morning rise -8123 May 17 j 14:41 9°Y21'19 -8130 Aug 28 j 18:48 26°\ 55'57 retrograde evening set -8130 Nov 13 j 17:44 opposition 25°**★**33'31 -1°13'33 -8130 Nov 14 j 14:29 -8123 Jun 02 j 15:19 9°Y56'52 -0°33'20 min. Earth dist. 25°**₭**32'04 29.05761 AU conjunction 9°**Υ**56'52 0°33'17 -8123 Jun 02 j 15:19 direct -8129 Feb 02 j 01:46 24°**)** 07'53 minimum elong 9°**Υ**54'28 31.11031 AU -8123 Jun 01 j 13:30 evening set -8129 May 04 j 10:04 26°**₩**05'03 max. Earth dist. morning rise -8123 Jun 18 j 11:45 10°**Y**32'04 12°**Y**24'10 conjunction -8129 May 20 j 12:56 26°**)** 40'46 -1°06'09 retrograde -8123 Sep 12 j 21:03  $11^{\circ}$  **Y** 02'01 -0°32'39 minimum elong -8129 May 20 j 12:56 26°\dagger40'46 1°06'14 opposition -8123 Nov 28 j 22:28 -8129 May 19 j 13:15 -8123 Nov 29 j 22:36 11°**Υ**00'20 29.11379 AU max. Earth dist. 26°**₭**38'34 31.06263 AU min. Earth dist. -8129 Jun 05 j 12:11 -8122 Feb 17 j 20:37 9°**Y**36′24 morning rise 27°**)** 16'11 direct retrograde -8129 Aug 31 j 06:56 29°**)** 08'47 evening set -8122 May 20 j 03:07 11°Y33'27 opposition -8129 Nov 16 j 04:36 27°\ 46'25 -1°07'57 max. Earth dist. -8122 Jun 04 j 00:10 12°**Υ**06'28 31.11664 AU min. Earth dist. -8129 Nov 17 j 01:10 27°**)** 44'59 29.06867 AU direct -8128 Feb 04 j 14:51 26°**¥**20'49 conjunction -8122 Jun 05 j 03:06 12°Υ08'58 -0°27'40 evening set -8128 May 05 j 22:58 28°¥18'01 minimum elong -8122 Jun 05 j 03:07 12°**Y**08′58 0°27'37 max. Earth dist. -8128 May 21 j 02:11 28° <del>) (</del>51'32 31.07317 AU morning rise -8122 Jun 20 j 23:09 12° Y 44' 08 retrograde -8122 Sep 15 j 07:54 14° Y 36'10 conjunction -8128 May 22 j 01:36 28°\£53'42 -1°00'52 opposition -8122 Dec 01 j 09:22 13°**Y**14'01 -0°26'35 minimum elong -8128 May 22 j 01:36 28°\;\;\;53'42 1°00'56 min. Earth dist. -8122 Dec 02 j 09:12 13°Υ12'22 29.12049 AU morning rise -8128 Jun 07 i 00:16 29°\ 29'05 direct -8121 Feb 20 i 07:12 11°Y48'25 -8128 Jun 21 i 16:57  $0^{\circ}$ evening set -8121 May 22 j 15:17 13°Y45'27 -8128 Sep 01 j 16:58 1°**Y**21'37 retrograde -8128 Nov 17 j 15:39 29°\\$59'20 -1°02'15 -8121 Jun 07 j 14:56 14°Υ20'55 -0°21'58 conjunction opposition -8128 Nov 17 j 05:59 minimum elong -8121 Jun 07 j 14:56 14°**Y**′20'55 0°21'54 30°**₹** min. Earth dist. -8128 Nov 18 j 13:52 29°**)** 57'47 29.07866 AU max. Earth dist. -8121 Jun 06 j 13:08 14°**Y**18'31 31.12376 AU -8127 Feb 06 j 03:12 28°**)**€33'45 -8121 Jun 23 j 10:17 14°Y56'03 direct morning rise -8127 Apr 23 j 18:33  $0^{\circ}\Upsilon$ -8121 Sep 17 j 16:12 16°**Y**48′01 retrograde -8127 May 08 j 12:01 0°Y30'56 -8121 Dec 03 j 20:34  $15^{\circ}$ **Y** $25'54 -0^{\circ}20'28$ opposition evening set -8121 Dec 04 j 20:57 min. Earth dist. 15°**Y**24'13 29.12808 AU -8127 May 24 j 14:11 1°Y06'36 -0°55'29 -8120 Feb 22 j 19:34 conjunction direct 14°**Y**00′20 15°**Y**57'19 -8127 May 24 j 14:11 1°Y06'36 0°55'32 -8120 May 24 j 03:20 minimum elong evening set -8127 May 23 j 13:30 1°**Υ**04'18 31.08265 AU -8120 Jun 07 j 23:38 16°**Y**30'17 31.13198 AU max. Earth dist. max. Earth dist. -8127 Jun 09 j 12:33 1°**Y**41'57 morning rise -8127 Sep 04 j 04:53 3°**Y**34'24 -8120 Jun 09 j 02:18 16°**Y**32'46 -0°16'15 retrograde conjunction opposition -8127 Nov 20 j 02:26 2°Y12'10 -0°56'28 minimum elong -8120 Jun 09 j 02:18 16°**Y**32'46 0°16'10 min. Earth dist. -8127 Nov 21 j 00:18 2°Υ10'38 29.08741 AU morning rise -8120 Jun 24 j 21:18 17°**Y**07'51 direct -8126 Feb 08 j 16:58 0°Y46'35 retrograde -8120 Sep 19 j 03:18 18°**Y**59'48 -8126 May 11 j 00:57 2°Y43'46 opposition -8120 Dec 05 j 07:35 17°**Y**37'43 -0°14'20 evening set max. Earth dist. -8126 May 26 j 01:34 3°Υ17'04 31.09076 AU min. Earth dist. -8120 Dec 06 j 07:01 17°**Y**36'06 29.13684 AU -8119 Feb 24 j 07:34 16°**Y**12'11 direct -8126 May 27 j 02:48 3°Y19'25 -0°50'02 -8119 May 26 j 15:18 18°**Y**09'10 conjunction evening set -8126 May 27 j 02:48 3°Υ19'25 0°50'05 minimum elong -8126 Jun 12 j 00:39 3°Y54'44 -8119 Jun 11 j 13:53 18°**Y**44'35 -0°10'31 morning rise conjunction 5°**Υ**47'05 -8119 Jun 11 j 13:53 retrograde -8126 Sep 06 i 15:57 minimum elong 18°**Y**44'35 0°10'24 4°Υ24'53 -0°50'36 18°**Y**44'08 opposition -8126 Nov 22 j 13:30 behind sun begin -8119 Jun 11 i 08:47 min. Earth dist. -8126 Nov 23 j 12:53 4°**Υ**23'15 29.09496 AU behind sun end -8119 Jun 11 j 19:00 18°Y45'02 direct -8125 Feb 11 i 05:38 2°Y59'19 max. Earth dist. -8119 Jun 10 i 12:14 18°**Y**42'11 31.14121 AU -8125 May 13 j 13:43 4°Y56'28 morning rise -8119 Jun 27 j 08:12 19°**Y**19'39 evening set -8119 Sep 21 j 12:47 21°Y11'34 retrograde -8125 May 29 j 15:08 5°Υ32'05 -0°44'31 -8119 Dec 07 j 18:39 19°**Y**49'33 -0°08'10 conjunction opposition -8119 Dec 08 j 19:07 19°**℃**47'51 29.14647 AU minimum elong -8125 May 29 j 15:09 5°**Υ**32'05 0°44'32 min. Earth dist. 18°**Y**24'04 max. Earth dist. -8125 May 28 j 13:33 5°**Υ**29'42 31.09787 AU direct -8118 Feb 26 j 18:23 20°**Y**21′04 -8125 Jun 14 j 12:33 6°**Y**07'21 evening set -8118 May 29 j 03:21 morning rise -8125 Sep 09 j 02:46 7°**Y**59'37 max. Earth dist. -8118 Jun 12 j 23:09 20°**Y**53'59 31.15120 AU retrograde -8125 Nov 25 j 00:29 6° Y 37'27 -0°44'40 opposition -8125 Nov 25 j 23:41 6°**Y**35'49 29.10150 AU -8118 Jun 14 j 01:19 20°Y56'25 -0°04'46 min. Earth dist. conjunction 5°**Y**11′52 -8118 Jun 14 j 01:18 20°**Y**56′25 0°04'39 direct -8124 Feb 13 j 19:58 minimum elong  $20^{\circ}$ Y55'51 7°**Y**09′00 -8118 Jun 13 j 18:56 evening set -8124 May 15 j 02:24 behind sun begin 20°Y56'59 max. Earth dist. -8124 May 30 j 00:49 7°**Y**42'06 31.10415 AU behind sun end -8118 Jun 14 j 07:39 morning rise -8118 Jun 29 j 19:11 21°**Y**31'27 conjunction -8124 May 31 j 03:20 7°**Y**44'34 -0°38'57 retrograde -8118 Sep 24 j 00:32 23°**Y**23′22 minimum elong -8124 May 31 j 03:20 7°**Y**44'34 0°38'57 opposition -8118 Dec 10 j 05:48 22°\bar{Y}01'24 -0°02'00 -8124 Jun 16 j 00:18 8°Y19'49 min. Earth dist. -8118 Dec 11 j 05:18 21°Υ59'47 29.15648 AU morning rise -8124 Sep 10 j 12:26 10°**Y**12′00 -8117 Mar 01 j 07:41 20°Y36'00 retrograde direct

Planetary Pheno Attention, astronom	ical year style is used: Th	-	n astronomical co				page 23
asc. node	-8117 Apr 07 j 21:32	20° <b>Y</b> 58'18		opposition	-8112 Dec 23 j 02:41		
evening set	-8117 May 31 j 15:13	22° <b>Y</b> '32'59		min. Earth dist.	-8112 Dec 24 j 03:56		29.19982 AU
max. Earth dist.	-8117 Jun 15 j 10:39	23° <b>Y</b> 05'54	31.16111 AU	direct	-8111 Mar 14 j 12:20		
				evening set	-8111 Jun 13 j 13:10		
conjunction	-8117 Jun 16 j 12:37	23° <b>Y</b> ′08'19	0°01'07	max. Earth dist.	-8111 Jun 28 j 03:52	6° <b>8</b> 16'03	31.20153 AU
minimum elong	-8117 Jun 16 j 12:37	23° <b>Y</b> ′08'19	0°01'17				
behind sun begin	-8117 Jun 16 j 06:07	23° <b>Y</b> '07'44		conjunction	-8111 Jun 29 j 06:45		
behind sun end	-8117 Jun 16 j 19:06	23° <b>Y</b> 08'54 23° <b>Y</b> 43'18		minimum elong	-8111 Jun 29 j 06:45		0°35'38
morning rise	-8117 Jul 02 j 05:50 -8117 Sep 26 j 12:02	25° <b>Y</b> 35'13		morning rise	-8111 Jul 14 j 20:32 -8111 Oct 08 j 23:26		
retrograde	-8117 Sep 26 j 12:02 -8117 Dec 12 j 17:12	23° γ 33°13 24° <b>Υ</b> 13'19	0°04'10	retrograde	-8111 Dec 25 j 14:01		0°40'41
opposition min. Earth dist.	-8117 Dec 12 j 17:12 -8117 Dec 13 j 17:43		29.16631 AU	opposition min. Earth dist.	-8111 Dec 25 j 14:01		29.20403 AU
direct	-8116 Mar 02 j 20:13	22° <b>Υ</b> 47'58	29.10031 AU	direct	-8110 Mar 16 j 23:53		29.20403 AU
evening set	-8116 Jun 02 j 03:06	24° <b>Υ</b> '44'58		evening set	-8110 Jun 16 j 00:21		
evening set	-0110 Juli 02 j 03.00	24   14 30		evening set	-0110 Juli 10 J 00.21	7 03437	
conjunction	-8116 Jun 17 j 23:55	25° <b>Y</b> 20′15	0°06'55	conjunction	-8110 Jul 01 j 17:25	8° <b>8</b> 29'40	0°40'55
minimum elong	-8116 Jun 17 j 23:55	25° <b>Y</b> 20′15	0°07'04	minimum elong	-8110 Jul 01 j 17:24		0°41'11
behind sun begin	-8116 Jun 17 j 17:55	25° <b>Y</b> 19'42		max. Earth dist.	-8110 Jun 30 j 15:42	8° <b>8</b> 27'15	31.20565 AU
behind sun end	-8116 Jun 18 j 05:54	25° <b>Y</b> ′20'47		morning rise	-8110 Jul 17 j 06:24	9° <b>8</b> 04'20	
max. Earth dist.	-8116 Jun 16 j 22:00	25° <b>Y</b> 17′50	31.17064 AU	retrograde	-8110 Oct 11 j 08:28		
morning rise	-8116 Jul 03 j 16:35	25° <b>Y</b> ′55'11		opposition	-8110 Dec 28 j 01:44	9° <b>8</b> 34'15	0°46'36
retrograde	-8116 Sep 27 j 22:56	27° <b>Y</b> '47'06		min. Earth dist.	-8110 Dec 29 j 02:44	_	29.20839 AU
opposition	-8116 Dec 14 j 04:31	26° <b>Y</b> 25′15	0°10'20	direct	-8109 Mar 19 j 10:48		
min. Earth dist.	-8116 Dec 15 j 04:37		29.17535 AU	evening set	-8109 Jun 18 j 11:24		
direct	-8115 Mar 05 j 10:24	24° <b>Ƴ</b> 59'57		max. Earth dist.	-8109 Jul 03 j 02:04	10° <b>8</b> 38'10	31.21032 AU
evening set	-8115 Jun 04 j 14:54	26° <b>Y</b> 56'55					
max. Earth dist.	-8115 Jun 19 j 08:24	27° <b>Y'</b> 29'40	31.17909 AU	conjunction	-8109 Jul 04 j 03:40		
				minimum elong	-8109 Jul 04 j 03:40		0°46'43
conjunction	-8115 Jun 20 j 11:04	27° <b>Y</b> 32'09	0°12'39	morning rise	-8109 Jul 19 j 16:09		
minimum elong	-8115 Jun 20 j 11:04	27° <b>Y</b> 32'09	0°12'51	retrograde	-8109 Oct 13 j 19:18		0050106
behind sun begin	-8115 Jun 20 j 07:03	27° <b>Y</b> 31'48 27° <b>Y</b> 32'31		opposition	-8109 Dec 30 j 13:21		
behind sun end	-8115 Jun 20 j 15:05	28° <b>Y</b> 07'04		min. Earth dist.	-8109 Dec 31 j 12:45		29.21347 AU
morning rise	-8115 Jul 06 j 03:12 -8115 Sep 30 j 09:14	28° \cdot 0704 29° \cdot 58' 58		direct	-8108 Mar 21 j 00:01		
retrograde opposition	-8115 Dec 16 j 15:59	29 1 38 38 28° <b>Y</b> 37'08	0°16'29	evening set	-8108 Jun 19 j 22:22	12 01027	
min. Earth dist.	-8115 Dec 10 j 15:39		29.18329 AU	conjunction	-8108 Jul 05 j 14:00	12° <b>8</b> 51'21	0°51'50
direct	-8114 Mar 07 j 21:47		2).1632) AO	minimum elong	-8108 Jul 05 j 13:59		
evening set	-8114 Jun 07 j 02:38	29° <b>Υ</b> '08'48		max. Earth dist.	-8108 Jul 04 j 13:06		31.21582 AU
o ronning sec	011.04 0, 1 02.30	27 1 00 10		morning rise	-8108 Jul 21 j 01:47		31.21002110
conjunction	-8114 Jun 22 j 22:16	29° <b>Ƴ</b> 44'00	0°18'23		-8108 Sep 12 j 23:44		
minimum elong	-8114 Jun 22 j 22:16	29° <b>Ƴ</b> 44'00					
max. Earth dist.			0°18'35	retrograde	-8108 Oct 15 j 06:20	15° <b>8</b> 17'49	
	-8114 Jun 21 j 20:18			retrograde	-8108 Oct 15 j 06:20 -8108 Nov 17 j 07:10		
	-		31.18633 AU	retrograde opposition		15° <b>₹</b> 8	0°58'11
morning rise	-8114 Jun 21 j 20:18	29° <b>Y</b> 41'35		C	-8108 Nov 17 j 07:10	15°R <b>と</b> 13° <b>と</b> 55'52	0°58'11 29.21970 AU
morning rise retrograde	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20	29° <b>Ƴ</b> 41'35 0° <b>႘</b>		opposition	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59	15°R <b>と</b> 13° <b>と</b> 55'52 13° <b>と</b> 54'15	
Č	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30	29° <b>Y</b> 41'35 0° <b>と</b> 0° <b>と</b> 18'52	31.18633 AU	opposition min. Earth dist.	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40	15°R8 13°855'52 13°854'15 12°830'42	
retrograde	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13	31.18633 AU	opposition min. Earth dist. direct	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50	
retrograde opposition	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jan 19 j 17:36	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y	31.18633 AU 0°22'36	opposition min. Earth dist. direct evening set	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50	29.21970 AU
retrograde opposition	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jan 19 j 17:36 -8113 Mar 10 j 11:57	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41	31.18633 AU 0°22'36	opposition min. Earth dist. direct evening set max. Earth dist.	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°8	29.21970 AU 31.22260 AU
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retrograde opposition min. Earth dist. direct evening set	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jan 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34	31.18633 AU 0°22'36 29.18980 AU	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:12 -8107 Jul 08 j 00:11	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05	29.21970 AU 31.22260 AU 0°57'11
retrograde opposition min. Earth dist. direct	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jan 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34	31.18633 AU 0°22'36	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38	29.21970 AU 31.22260 AU 0°57'11
retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y' 29°Y23'41 0°8 1°820'34 1°853'11	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33	29.21970 AU 31.22260 AU 0°57'11 0°57'31
retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09 -8113 Jun 25 j 09:16	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°853'11	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°RY 29°Y23'41 0°8 1°820'34 1°853'11 1°855'43	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07	29.21970 AU 31.22260 AU 0°57'11 0°57'31
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Apr 27 j 16:32 -8113 Jun 24 j 06:09 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°853'11 1°855'43 2°830'32	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Apr 27 j 16:32 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°853'11 1°855'43 1°855'43 2°830'32 4°822'24	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°8 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28 -8113 Dec 21 j 15:03	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°853'11 1°855'43 1°855'43 2°830'32 4°822'24 3°800'34	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19 0°28'41	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Apr 29 j 02:04	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33 15°8	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09  -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°853'11  1°855'43 2°830'32 4°822'24 3°800'34 2°858'53	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Jul 23 j 11:23 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Apr 29 j 02:04 -8106 Jun 24 j 20:04	15°R8 13°B55'52 13°B54'15 12°B30'42 14°B27'14 14°B59'50 15°B02'05 15°B02'05 15°B02'05 15°B36'38 17°B28'33 16°B06'39 16°B05'07 15°RB 14°B41'33 15°B 16°B38'04	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52 29.22688 AU
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09  -8113 Jun 25 j 09:16 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°853'11 1°855'43 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19 0°28'41	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Apr 29 j 02:04	15°R8 13°B55'52 13°B54'15 12°B30'42 14°B27'14 14°B59'50 15°B02'05 15°B02'05 15°B02'05 15°B36'38 17°B28'33 16°B06'39 16°B05'07 15°RB 14°B41'33 15°B 16°B38'04	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09  -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°853'11  1°855'43 2°830'32 4°822'24 3°800'34 2°858'53	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19 0°28'41	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Apr 29 j 02:04 -8106 Jul 09 j 10:12	15°R8 13°B55'52 13°B55'52 13°B55'52 13°B55'14 14°B27'14 14°B59'50 15°B02'05 15°B02'05 15°B36'38 17°B28'33 16°B06'39 16°B05'07 15°R8 14°B41'33 15°B 16°B38'04 17°B10'37	29.21970 AU 31.22260 AU 0°57'11 0°57'31 1°03'52 29.22688 AU 31.23017 AU
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09 -8113 Jun 25 j 09:16 -8113 Jul 11 j 00:12 -8113 Oct 05 j 05:28 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27 -8112 Jun 11 j 01:42	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°853'11 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20 3°832'09	31.18633 AU 0°22'36 29.18980 AU 31.19227 AU 0°24'05 0°24'19 0°28'41 29.19529 AU	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jun 22 j 09:12 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Jun 24 j 20:04 -8106 Jul 09 j 10:12	15°R8 13°B55'52 13°B55'52 13°B54'15 12°B30'42 14°B27'14 14°B59'50 15°B02'05 15°B02'05 15°B02'05 15°B36'38 17°B28'33 16°B06'39 16°B05'07 15°R8 14°B41'33 15°B 16°B38'04 17°B10'37	29.21970 AU  31.22260 AU  0°57'11 0°57'31  1°03'52 29.22688 AU  31.23017 AU 1°02'27
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 24 j 06:09 -8113 Jun 25 j 09:16 -8113 Jul 11 j 00:12 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27 -8112 Jun 11 j 01:42 -8112 Jun 26 j 20:06	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°855'43 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20 3°832'09	31.18633 AU  0°22'36 29.18980 AU  31.19227 AU  0°24'05 0°24'19  0°28'41 29.19529 AU  0°29'44	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Jul 23 j 11:23 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Apr 29 j 02:04 -8106 Jul 24 j 20:04 -8106 Jul 09 j 10:12 -8106 Jul 10 j 10:16 -8106 Jul 10 j 10:16	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33 15°8 16°838'04 17°810'37	29.21970 AU  31.22260 AU  0°57'11 0°57'31  1°03'52 29.22688 AU  31.23017 AU 1°02'27
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27 -8112 Jun 11 j 01:42 -8112 Jun 26 j 20:06 -8112 Jun 26 j 20:06	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20 3°832'09	31.18633 AU  0°22'36 29.18980 AU  31.19227 AU  0°24'05 0°24'19  0°28'41 29.19529 AU  0°29'44 0°29'59	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Jul 09 j 10:12 -8106 Jul 10 j 10:16 -8106 Jul 10 j 10:16 -8106 Jul 25 j 20:53	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33 15°8 16°838'04 17°810'37	29.21970 AU  31.22260 AU  0°57'11 0°57'31  1°03'52 29.22688 AU  31.23017 AU 1°02'27
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong max. Earth dist.	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27 -8112 Jun 11 j 01:42 -8112 Jun 26 j 20:06 -8112 Jun 26 j 20:06 -8112 Jun 25 j 18:06	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20 3°832'09 4°807'15 4°807'15 4°804'49	31.18633 AU  0°22'36 29.18980 AU  31.19227 AU  0°24'05 0°24'19  0°28'41 29.19529 AU  0°29'44	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Jul 24 j 20:04 -8106 Jul 09 j 10:12 -8106 Jul 10 j 10:16 -8106 Jul 25 j 20:53 -8106 Oct 20 j 03:40	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33 15°8 16°838'04 17°810'37 17°812'52 17°812'52 17°847'23 19°839'23	29.21970 AU  31.22260 AU  0°57'11 0°57'31  1°03'52 29.22688 AU  31.23017 AU  1°02'27 1°02'47
retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set  conjunction minimum elong	-8114 Jun 21 j 20:18 -8114 Jun 30 j 01:20 -8114 Jul 08 j 13:41 -8114 Oct 02 j 18:24 -8114 Dec 19 j 03:30 -8114 Dec 20 j 04:25 -8113 Jun 19 j 17:36 -8113 Mar 10 j 11:57 -8113 Apr 27 j 16:32 -8113 Jun 09 j 14:24 -8113 Jun 25 j 09:16 -8113 Jun 25 j 09:15 -8113 Jul 11 j 00:12 -8113 Dec 21 j 15:03 -8113 Dec 22 j 15:36 -8112 Mar 11 j 23:27 -8112 Jun 11 j 01:42 -8112 Jun 26 j 20:06 -8112 Jun 26 j 20:06	29°Y41'35 0°8 0°818'52 2°810'45 0°848'56 0°847'13 30°8Y 29°Y23'41 0°8 1°820'34 1°855'43 2°830'32 4°822'24 3°800'34 2°858'53 1°835'20 3°832'09	31.18633 AU  0°22'36 29.18980 AU  31.19227 AU  0°24'05 0°24'19  0°28'41 29.19529 AU  0°29'44 0°29'59	opposition min. Earth dist. direct evening set max. Earth dist.  conjunction minimum elong morning rise retrograde opposition min. Earth dist.  direct evening set max. Earth dist.  conjunction minimum elong morning rise	-8108 Nov 17 j 07:10 -8107 Jan 01 j 00:59 -8107 Jan 02 j 00:40 -8107 Mar 23 j 11:37 -8107 Jul 07 j 00:08 -8107 Jul 07 j 01:55 -8107 Jul 08 j 00:11 -8107 Jul 08 j 00:11 -8107 Jul 23 j 11:23 -8107 Oct 17 j 16:50 -8106 Jan 03 j 12:39 -8106 Jan 04 j 11:10 -8106 Feb 19 j 05:54 -8106 Mar 26 j 01:05 -8106 Jul 09 j 10:12 -8106 Jul 10 j 10:16 -8106 Jul 10 j 10:16 -8106 Jul 25 j 20:53	15°R8 13°855'52 13°854'15 12°830'42 14°827'14 14°859'50 15°802'05 15°802'05 15°836'38 17°828'33 16°806'39 16°805'07 15°R8 14°841'33 15°8 16°838'04 17°810'37 17°812'52 17°847'23 19°839'23 18°817'31	29.21970 AU  31.22260 AU  0°57'11 0°57'31  1°03'52 29.22688 AU  31.23017 AU 1°02'27

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 24 Attention, astronomical year style is used: The year -8105 in astronomical counting style is the year 8106 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -8105 i	in astronomical co	unting style is the year	r 8106 BCE in historical c	ounting style.	
direct	-8105 Mar 28 j 12:02	16° <b>8</b> 52'30		max. Earth dist.	-8099 Jul 24 j 10:49	2° <b>Ⅲ</b> 28'35	31.26977 AU
evening set	-8105 Jun 27 j 06:48	18° <b>8</b> 49'01					
-	-			conjunction	-8099 Jul 25 j 08:01	2° <b>Ⅱ</b> 30′35	1°36'23
conjunction	-8105 Jul 12 j 20:26	19° <b>8</b> 23'46	1°07'37	minimum elong	-8099 Jul 25 j 08:00	2° <b>Ⅱ</b> 30′35	1°36'51
minimum elong	-8105 Jul 12 j 20:26	19° <b>8</b> 23'46	1°08'00	morning rise	-8099 Aug 09 j 14:25	3° <b>Ⅱ</b> 04'49	
max. Earth dist.	-8105 Jul 11 j 21:51	19° <b>8</b> 21'39	31.23829 AU	retrograde	-8099 Nov 04 j 03:37	4° <b>Ⅱ</b> 57'20	
morning rise	-8105 Jul 28 j 06:19	19° <b>8</b> 58'14		opposition	-8098 Jan 21 j 13:10	3° <b>Ⅱ</b> 35′29	1°45'18
retrograde	-8105 Oct 22 j 13:23	21° <b>8</b> 50'18		min. Earth dist.	-8098 Jan 22 j 09:43		29.27173 AU
opposition	-8104 Jan 08 j 12:24	20° <b>8</b> 28'30	1°14'56	direct	-8098 Apr 12 j 23:20	2° <b>Ⅱ</b> 10'54	29.27170110
min. Earth dist.	-8104 Jan 09 j 10:25		29.24298 AU	evening set	-8098 Jul 12 j 08:43	4° <b>Ⅱ</b> 07'04	
direct	-8104 Mar 30 j 01:51	19° <b>8</b> 03'36	27.24270710	evening set	0070 Jul 12 j 00.43	4 1107 04	
evening set	-8104 Jun 28 j 17:31	21° <b>8</b> 00'05		conjunction	-8098 Jul 27 j 17:34	4° <b>∏</b> 41'29	1°40'44
max. Earth dist.	-8104 Jul 13 j 07:09		31.24623 AU	minimum elong	-8098 Jul 27 j 17:33	4° <b>Ⅱ</b> 41′29	
max. Lartii dist.	-010+3u1 13 j 07.07	21 03237	31.24023 AU	max. Earth dist.	-8098 Jul 26 j 21:22		31.27133 AU
conjunction	-8104 Jul 14 j 06:19	21° <b>8</b> 34'48	1012142	morning rise	-8098 Aug 11 j 23:22	5° <b>Ⅱ</b> 15'40	31.2/133 AU
minimum elong		21° <b>8</b> 34'48		-		7° <b>Ⅱ</b> 08'15	
_	-8104 Jul 14 j 06:18	21° <b>8</b> 09'13	1 13 03	retrograde	-8098 Nov 06 j 13:47 -8097 Jan 24 j 01:26	7 <b>П</b> 08 13 5° <b>П</b> 46'21	1940/52
morning rise	-8104 Jul 29 j 15:45			opposition			
retrograde	-8104 Oct 24 j 01:10	24° <b>8</b> 01'23	1020110	min. Earth dist.	-8097 Jan 24 j 20:44		29.27310 AU
opposition	-8103 Jan 10 j 00:20	22° <b>8</b> 39'36		direct	-8097 Apr 15 j 12:23	4° <b>Ⅱ</b> 21'45	
min. Earth dist.	-8103 Jan 10 j 21:37		29.25075 AU	evening set	-8097 Jul 14 j 18:54	6° <b>Ⅱ</b> 17'50	21 27260 444
direct	-8103 Apr 01 j 13:05	21° <b>8</b> 14'48		max. Earth dist.	-8097 Jul 29 j 06:54	6°Д50/19	31.27268 AU
evening set	-8103 Jul 01 j 04:12	23° <b>8</b> 11'16					
				conjunction	-8097 Jul 30 j 03:00	6° <b>Ⅱ</b> 52'13	1°44'56
conjunction	-8103 Jul 16 j 16:28			minimum elong	-8097 Jul 30 j 02:59	6° <b>Ⅱ</b> 52'13	1°45'25
minimum elong	-8103 Jul 16 j 16:27	23° <b>8</b> 45'56		morning rise	-8097 Aug 14 j 08:21	7° <b>Ⅱ</b> 26′21	
max. Earth dist.	-8103 Jul 15 j 18:35		31.25342 AU	retrograde	-8097 Nov 09 j 01:02	9° <b>Ⅱ</b> 19'00	
morning rise	-8103 Aug 01 j 01:06	24° <b>8</b> 20'19		opposition	-8096 Jan 26 j 13:47	7° <b>Ⅱ</b> 57'02	
retrograde	-8103 Oct 26 j 09:19	26° <b>8</b> 12'34		min. Earth dist.	-8096 Jan 27 j 08:36		29.27482 AU
opposition	-8102 Jan 12 j 12:21	24° <b>8</b> 50'49	1°25'34	direct	-8096 Apr 16 j 23:55	6° <b>Ⅲ</b> 32′28	
min. Earth dist.	-8102 Jan 13 j 10:11	24° <b>8</b> 49'20	29.25744 AU	evening set	-8096 Jul 16 j 04:45	8° <b>Ⅱ</b> 28′28	
direct	-8102 Apr 04 j 01:35	23° <b>8</b> 26'05					
evening set	-8102 Jul 03 j 15:02	25° <b>8</b> 22'31		conjunction	-8096 Jul 31 j 12:22	9° <b>Ⅱ</b> 02'47	1°48'58
max. Earth dist.	-8102 Jul 18 j 03:51	25° <b>8</b> 55'01	31.25950 AU	minimum elong	-8096 Jul 31 j 12:22	9° <b>Ⅱ</b> 02'47	1°49'26
				max. Earth dist.	-8096 Jul 30 j 18:11	9° <b>Ⅱ</b> 01'05	31.27457 AU
conjunction	-8102 Jul 19 j 02:26	25° <b>8</b> 57'09	1°22'33	morning rise	-8096 Aug 15 j 17:05	9° <b>Ⅱ</b> 36′54	
minimum elong	-8102 Jul 19 j 02:26	25° <b>8</b> 57'09	1°22'57	retrograde	-8096 Nov 10 j 11:04	11° <b>Ⅲ</b> 29'36	
morning rise	-8102 Aug 03 j 10:37	26° <b>8</b> 31'30		opposition	-8095 Jan 28 j 02:08	10° <b>Ⅱ</b> 07'36	1°58'30
retrograde	-8102 Oct 28 j 20:01	28° <b>8</b> 23'49		min. Earth dist.	-8095 Jan 28 j 20:05	10° <b>Ⅱ</b> 06′23	29.27707 AU
opposition	-8101 Jan 15 j 00:29	27° <b>8</b> 02'04	1°30'42	direct	-8095 Apr 19 j 14:13	8° <b>Ⅱ</b> 43'04	
min. Earth dist.	-8101 Jan 15 j 21:11	27° <b>8</b> 00'40	29.26293 AU	evening set	-8095 Jul 18 j 14:48	10° <b>Ⅲ</b> 39′00	
direct	-8101 Apr 06 j 12:46	25° <b>8</b> 37'24					
evening set	-8101 Jul 06 j 01:33	27° <b>8</b> 33'47		conjunction	-8095 Aug 02 j 21:38	11° <b>Ⅱ</b> 13'17	1°52'51
•	·			minimum elong	-8095 Aug 02 j 21:37	11° <b>Ⅱ</b> 13'17	1°53'21
conjunction	-8101 Jul 21 j 12:24	28° <b>8</b> 08'22	1°27'17	max. Earth dist.	-8095 Aug 02 j 03:17		31.27721 AU
minimum elong	-8101 Jul 21 j 12:23	28° <b>8</b> 08'22	1°27'43	morning rise	-8095 Aug 18 j 01:58	11° <b>Ⅱ</b> 47'21	
max. Earth dist.	-8101 Jul 20 j 14:51		31.26416 AU	retrograde	-8095 Nov 12 j 22:38	13° <b>Ⅱ</b> 40′09	
morning rise	-8101 Aug 05 j 19:50	28° <b>8</b> 42'40		opposition	-8094 Jan 30 j 14:21	12° <b>Ⅱ</b> 18′07	2°02'34
C	-8101 Sep 15 j 11:40	$\Pi^{\circ}0$		min. Earth dist.	-8094 Jan 31 j 06:55		29.28026 AU
retrograde	-8101 Oct 31 j 05:33	0° <b>Ⅱ</b> 35′04		direct	-8094 Apr 22 j 01:31	10° <b>Ⅲ</b> 53'39	
	-8101 Dec 18 j 01:22	30°R₩		evening set	-8094 Jul 21 j 00:39	12° <b>Ⅱ</b> 49'31	
opposition	-8100 Jan 17 j 12:50	29° <b>8</b> 13'19	1°35'43				
min. Earth dist.	-8100 Jan 18 j 10:18		29.26701 AU	conjunction	-8094 Aug 05 j 07:01	13° <b>Ⅱ</b> 23'45	1°56'35
direct	-8100 Apr 07 j 23:15	27° <b>8</b> 48'41	29.20701710	minimum elong	-8094 Aug 05 j 07:01	13° <b>Ⅲ</b> 23'45	
evening set	-8100 Jul 07 j 12:08	29° <b>8</b> 45'00		max. Earth dist.	-8094 Aug 04 j 14:38		31.28072 AU
evening set	-8100 Jul 14 j 06:12	0°П		morning rise	-8094 Aug 20 j 10:42	13° <b>I</b> I57'47	31.20072 AC
	-0100 Jul 14 J 00.12	υп		retrograde	-8094 Nov 15 j 07:09	15° <b>I</b> I50'42	
conjunction	-8100 Jul 22 j 22:14	0° <b>∏</b> 19'32	1031'54	opposition	-8093 Feb 02 j 02:55	13 <b>H</b> 3042 14° <b>H</b> 28'39	2006/28
·	-8100 Jul 22 j 22:14 -8100 Jul 22 j 22:13	0° <b>П</b> 1932		min. Earth dist.	-8093 Feb 02 j 02.33		2 00 28 29.28412 AU
minimum elong	3		31.26759 AU		•	14°Щ2/'33 13°Щ04'16	27.20412 AU
max. Earth dist.	-8100 Jul 22 j 00:40		51.20/39 AU	direct	-8093 Apr 24 j 14:09		
morning rise	-8100 Aug 07 j 05:12	0°∏53'48		evening set	-8093 Jul 23 j 10:27	15° <b>Ⅱ</b> 00'05	
retrograde	-8100 Nov 01 j 16:21	2° <b>∏</b> 46'15	1940/25		0002 4 07:1000	150 112 415	2000100
opposition	-8099 Jan 19 j 00:52	1° <b>∏</b> 24′28		conjunction	-8093 Aug 07 j 16:06	15° <b>Ⅱ</b> 34'17	
min. Earth dist.	-8099 Jan 19 j 20:59		29.26983 AU	minimum elong	-8093 Aug 07 j 16:05	15° <b>Ⅱ</b> 34'17	2°00'39
t' .	-8099 Apr 07 j 12:06	30°R8		max. Earth dist.	-8093 Aug 06 j 23:46		31.28483 AU
direct	-8099 Apr 10 j 12:16	29° <b>8</b> 59'51		morning rise	-8093 Aug 22 j 19:29	16° <b>Ⅱ</b> 08'17	
	-8099 Apr 13 j 12:37	0°П		retrograde	-8093 Nov 17 j 18:07	18° <b>Ⅱ</b> 01'19	201011
evening set	-8099 Jul 09 j 22:32	1° <b>Ⅱ</b> 56'06		opposition	-8092 Feb 04 j 15:24	16° <b>Ⅱ</b> 39'17	2~10'11

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 25								
Attention, astronom		-			8093 BCE in historical co	ounting style.		
min. Earth dist.	-8092 Feb 05 j 06:01	16° <b>Ⅱ</b> 38'17	29.28837 AU	conjunction	-8086 Aug 22 j 08:40	0° <b>©</b> 50'01	2°19'59	
direct	-8092 Apr 26 j 01:37	15° <b>Ⅱ</b> 14'58		minimum elong	-8086 Aug 22 j 08:39	0° <b>©</b> 50'01	2°20'30	
evening set	-8092 Jul 24 j 20:14	17° <b>Ⅱ</b> 10'44		max. Earth dist.	-8086 Aug 21 j 20:46	0° <b>©</b> 48'54	31.29107 AU	
max. Earth dist.	-8092 Aug 08 j 10:32	17° <b>Ⅱ</b> 43'30	31.28890 AU	morning rise	-8086 Sep 06 j 09:27	1° <b>5</b> 23'52		
				retrograde	-8086 Dec 03 j 00:41	3° <b>©</b> 17'45		
conjunction	-8092 Aug 09 j 01:25	17° <b>Ⅱ</b> 44'54	2°03'31	opposition	-8085 Feb 20 j 08:42	1° <b>©</b> 55'27	2°30'41	
minimum elong	-8092 Aug 09 j 01:25	17° <b>Ⅱ</b> 44'54	2°04'02	min. Earth dist.	-8085 Feb 20 j 19:05	1° <b>9</b> 54'46	29.29123 AU	
morning rise	-8092 Aug 24 j 04:15	18° <b>Ⅱ</b> 18'53		direct	-8085 May 12 j 11:08	0°531'32		
retrograde	-8092 Nov 19 j 04:04	20° <b>Ⅲ</b> 12′02		evening set	-8085 Aug 09 j 15:44	2°526'49		
opposition	-8091 Feb 06 j 03:56	18° <b>Ⅱ</b> 50′00	2°13'42	C	<b>G</b> 3			
min. Earth dist.	-8091 Feb 06 j 19:00		29.29235 AU	conjunction	-8085 Aug 24 j 17:38	3°900'44	2°22'02	
direct	-8091 Apr 28 j 12:16	17° <b>Ⅲ</b> 25'47	27.27200110	minimum elong	-8085 Aug 24 j 17:38	3°900'44	2°22'35	
evening set	-8091 Jul 27 j 06:05	19° <b>Ⅲ</b> 21'31		max. Earth dist.	-8085 Aug 24 j 07:39		31.28755 AU	
evening set	0071 Jul 27 J 00.05	1) 112131		morning rise	-8085 Sep 08 j 18:02	3°934'34	31.20733710	
agniumation	9001 Aug 11: 10:40	19° <b>Ⅲ</b> 55'38	2°06'44	Č	-8085 Dec 05 j 09:28	5°928'33		
conjunction	-8091 Aug 11 j 10:40	19 <b>Д</b> 33 38 19° <b>Д</b> 55'38	2°07'16	retrograde opposition	•		2°32'47	
minimum elong	-8091 Aug 11 j 10:40			11	-8084 Feb 22 j 21:38	4°506'11		
max. Earth dist.	-8091 Aug 10 j 20:12		31.29253 AU	min. Earth dist.	-8084 Feb 23 j 07:46		29.28768 AU	
morning rise	-8091 Aug 26 j 13:08	20° <b>Ⅲ</b> 29'36		direct	-8084 May 14 j 00:20	2° <b>©</b> 42'16		
retrograde	-8091 Nov 21 j 15:01	22° <b>Ⅲ</b> 22'52		evening set	-8084 Aug 11 j 01:08	4° <b>©</b> 37'27		
opposition	-8090 Feb 08 j 16:32	21° <b>Ⅱ</b> 00'51						
min. Earth dist.	-8090 Feb 09 j 05:58	20° <b>Ⅱ</b> 59'56	29.29551 AU	conjunction	-8084 Aug 26 j 02:32	5° <b>©</b> 11'21	2°23'54	
direct	-8090 May 01 j 00:20	19° <b>Ⅲ</b> 36'42		minimum elong	-8084 Aug 26 j 02:31	5° <b>©</b> 11'21	2°24'25	
evening set	-8090 Jul 29 j 15:51	21° <b>Ⅲ</b> 32'23		max. Earth dist.	-8084 Aug 25 j 16:49	5° <b>©</b> 10'26	31.28414 AU	
				morning rise	-8084 Sep 10 j 02:50	5° <b>©</b> 45'10		
conjunction	-8090 Aug 13 j 19:52	22° <b>Ⅱ</b> 06′28	2°09'46	retrograde	-8084 Dec 06 j 20:27	7° <b>9</b> 39'15		
minimum elong	-8090 Aug 13 j 19:52	22° <b>I</b> I06'28	2°10'17	opposition	-8083 Feb 24 j 10:12	6°9516'48	2°34'39	
max. Earth dist.	-8090 Aug 13 j 05:51		31.29498 AU	min. Earth dist.	-8083 Feb 24 j 18:21		29.28457 AU	
morning rise	-8090 Aug 28 j 21:54	22° <b>I</b> I40'24	31.27 .70 .10	direct	-8083 May 16 j 12:22	4°952'55	23.20.07.110	
retrograde	-8090 Nov 24 j 02:41	24° <b>I</b> I33'50		evening set	-8083 Aug 13 j 10:19	6°9348'01		
opposition	-8089 Feb 11 j 05:26	23° <b>Ⅱ</b> 11'46	2°20'10	evening set	00057146 15 1 10.17	0 34001		
min. Earth dist.	-8089 Feb 11 j 03.20		29.29748 AU	aamiumatiam	0002 Aug 20 : 11.20	796521154	2°25'33	
	•		29.29748 AU	conjunction	-8083 Aug 28 j 11:28	7°521'54		
direct	-8089 May 03 j 10:28	21° <b>Ⅱ</b> 47'42		minimum elong	-8083 Aug 28 j 11:27	7°521'54		
evening set	-8089 Aug 01 j 01:37	23° <b>Ⅱ</b> 43'19		max. Earth dist.	-8083 Aug 28 j 03:21		31.28125 AU	
		<b>.</b>		morning rise	-8083 Sep 12 j 11:28	7° <b>©</b> 55'42		
conjunction	-8089 Aug 16 j 05:12	24° <b>Ⅱ</b> 17'22	2°12'36	retrograde	-8083 Dec 09 j 06:26	9° <b>5</b> 49'54		
minimum elong	-8089 Aug 16 j 05:12	24° <b>Ⅱ</b> 17'22		opposition	-8082 Feb 26 j 23:08	8° <b>5</b> 27'24		
max. Earth dist.	-8089 Aug 15 j 16:14	24° <b>Ⅱ</b> 16′09	31.29620 AU	min. Earth dist.	-8082 Feb 27 j 07:09	8° <b>©</b> 26'52	29.28219 AU	
morning rise	-8089 Aug 31 j 06:48	24° <b>Ⅲ</b> 51'17		direct	-8082 May 18 j 23:32	7° <b>©</b> 03'34		
retrograde	-8089 Nov 26 j 13:30	26° <b>Ⅱ</b> 44′50		evening set	-8082 Aug 15 j 19:25	8° <b>9</b> 58'34		
opposition	-8088 Feb 13 j 18:13	25° <b>Ⅲ</b> 22'44	2°23'07					
min. Earth dist.	-8088 Feb 14 j 06:41	25° <b>Ⅲ</b> 21'54	29.29793 AU	conjunction	-8082 Aug 30 j 20:13	9° <b>©</b> 32'26	2°26'59	
direct	-8088 May 04 j 22:42	23° <b>Ⅲ</b> 58'44		minimum elong	-8082 Aug 30 j 20:13	9° <b>5</b> 32'26	2°27'31	
evening set	-8088 Aug 02 j 11:21	25° <b>Ⅱ</b> 54'17		max. Earth dist.	-8082 Aug 30 j 13:16	9° <b>5</b> 31'46	31.27936 AU	
Č	C J			morning rise	-8082 Sep 14 j 20:05	10°506'14		
conjunction	-8088 Aug 17 j 14:22	26° <b>Ⅲ</b> 28'18	2°15'15	retrograde	-8082 Dec 11 j 16:48	12°900'34		
minimum elong	-8088 Aug 17 j 14:21	26° <b>Ⅲ</b> 28'18		opposition	-8081 Mar 01 j 12:00	10°538'02	2°37'45	
max. Earth dist.	-8088 Aug 17 j 01:08		31.29583 AU	min. Earth dist.	-8081 Mar 01 j 17:42		29.28068 AU	
morning rise	-8088 Sep 01 j 15:45	27° <b>Ⅱ</b> 02'11	31.27303710	direct	-8081 May 21 j 11:15	9° <b>©</b> 14'15	27.20000710	
retrograde	-8088 Nov 28 j 01:45	28° <b>I</b> 55'51		evening set	-8081 Aug 18 j 04:33	11°909'11		
		27° <b>I</b> 33'43	2°25'51	evening set	-0001 Aug 10 J 04.55	11 30911		
opposition	-8087 Feb 15 j 07:03				0001 0 02 : 05 04	110642102	2020112	
min. Earth dist.	-8087 Feb 15 j 19:18		29.29692 AU	conjunction	-8081 Sep 02 j 05:04	11°5643'02	2°28'13	
direct	-8087 May 07 j 09:56	26°Ⅱ09'45		minimum elong	-8081 Sep 02 j 05:04	11°5643'02	2°28'46	
evening set	-8087 Aug 04 j 20:55	28° <b>Ⅱ</b> 05'13		max. Earth dist.	-8081 Sep 01 j 22:55		31.27818 AU	
				morning rise	-8081 Sep 17 j 04:51	12° <b>©</b> 16'50		
conjunction	-8087 Aug 19 j 23:38	28° <b>Ⅲ</b> 39'12	2°17'43	retrograde	-8081 Dec 14 j 04:17	14° <b>©</b> 11'19		
minimum elong	-8087 Aug 19 j 23:37	28° <b>Ⅲ</b> 39'12	2°18'15	opposition	-8080 Mar 03 j 00:55	12° <b>©</b> 48'44	2°38'57	
max. Earth dist.	-8087 Aug 19 j 12:02	28° <b>Ⅲ</b> 38′06	31.29402 AU	min. Earth dist.	-8080 Mar 03 j 06:23	12° <b>5</b> 48'22	29.27991 AU	
morning rise	-8087 Sep 04 j 00:32	29° <b>Ⅲ</b> 13′04		direct	-8080 May 22 j 20:19	11° <b>©</b> 25'03		
	-8087 Sep 26 j 14:27	$0$ $\circ$ $\odot$		evening set	-8080 Aug 19 j 13:32	13° <b>©</b> 19'54		
retrograde	-8087 Nov 30 j 12:28	1°906'50		-	- *			
-	-8086 Feb 08 j 06:19	30°R <b>Ⅱ</b>		conjunction	-8080 Sep 03 j 13:56	13° <b>©</b> 53'45	2°29'14	
opposition	-8086 Feb 17 j 19:51	29° <b>Ⅱ</b> 44'38	2°28'22	minimum elong	-8080 Sep 03 j 13:56	13°953'45		
min. Earth dist.	-8086 Feb 18 j 07:32		29.29443 AU	max. Earth dist.	-8080 Sep 03 j 09:29		31.27758 AU	
direct	-8086 May 09 j 23:52	28° <b>Ⅲ</b> 20'41		morning rise	-8080 Sep 03 j 03:23 -8080 Sep 18 j 13:34	14°927'32	21.2,700110	
anout	-8086 Jul 30 j 21:13	28 <b>म</b> 2041 0°छ		retrograde	-8080 Dec 15 j 15:14	14 <b>3</b> 27 32		
evening set	-8086 Aug 07 j 06:33	୦ ଓ 0°©16'04		opposition	-8079 Mar 05 j 13:49	16 \$322 11 14°\$59'34	2030155	
evening set	-0000 Aug 0/ J 00.33	U 2010 U4		11	-		2°39'33 29.27924 AU	
				min. Earth dist.	-8079 Mar 05 j 17:38	17 5007 19	47.41744 AU	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8079 in astronomical counting style is the year 8080 BCE in historical counting style. -8079 May 25 i 07:42 13°935'57 -8073 Oct 11 i 07:28  $0^{\circ}\Omega$ direct -8079 Aug 21 j 22:42 -8072 Jan 01 j 00:24 1°Ω39'58 15°930'45 retrograde evening set -8072 Mar 21 j 09:30 0°Ω16'52 2°40'18 opposition 16°504'34 2°30'03 -8079 Sep 05 j 22:43 0°**Ω**17'01 29.25069 AU min. Earth dist. -8072 Mar 21 j 07:20 conjunction -8079 Sep 05 j 22:43 minimum elong 16°904'34 2°30'35 -8072 Mar 31 j 21:44 30°R95 -8079 Sep 05 j 18:21 28°953'30 direct max. Earth dist. 16°504'10 31.27680 AU -8072 Jun 09 j 18:24 -8079 Sep 20 j 22:24 morning rise 16°938'23 -8072 Aug 13 j 16:02 0 $\circ$  $\Omega$ retrograde -8079 Dec 18 j 04:12 18°933'10 evening set -8072 Sep 05 j 14:09 0°**Ω**47'36 opposition -8078 Mar 08 j 02:51 17°**©**10'32 2°40'40 min. Earth dist. -8078 Mar 08 j 06:08 17°510'18 29.27836 AU conjunction -8072 Sep 20 j 13:45 1°**Ω**21'24 2°29'38 1°**Ω**21'24 2°30'07 direct -8078 May 27 j 18:07 15°5946'59 minimum elong -8072 Sep 20 j 13:45 -8072 Sep 20 j 15:24 evening set -8078 Aug 24 j 07:46 17°5541'43 max. Earth dist. 1°**Ω**21'34 31.24517 AU -8072 Oct 05 j 13:58 morning rise 1°**Ω**55'16 conjunction -8078 Sep 08 j 07:46 18°9515'32 2°30'38 retrograde -8071 Jan 02 j 11:32 3°**Ω**50′52 minimum elong -8078 Sep 08 j 07:46 18°**©**15'32 2°31'09 opposition -8071 Mar 23 j 22:37 2°**Ω**27'40 2°39'26 max. Earth dist. -8078 Sep 08 j 05:21 18°515'18 31.27555 AU min. Earth dist. -8071 Mar 23 j 20:11 2°**Ω**27'50 29.24389 AU morning rise -8078 Sep 23 j 07:14 18°9549'20 direct -8071 Jun 12 j 04:14 1° **Ω**04'19 retrograde -8078 Dec 20 j 16:01 20°5544'16 evening set -8071 Sep 07 j 22:54 2°**Ω**58'18 opposition -8077 Mar 10 j 16:00 19°9521'35 2°41'11 min. Earth dist. -8077 Mar 10 j 18:30 19°521'25 29.27665 AU conjunction -8071 Sep 22 j 22:39 3°**Ω**32'07 2°28'43 direct -8077 May 30 j 06:35 17°958'07 minimum elong -8071 Sep 22 j 22:40 3°**Ω**32'07 2°29'12 evening set -8077 Aug 26 j 16:57 19°952'46 max. Earth dist. -8071 Sep 23 i 02:15 3°Ω32'27 31.23867 AU morning rise -8071 Oct 07 i 22:55 4°Ω06'00 conjunction -8077 Sep 10 j 16:38 20°526'34 2°31'00 retrograde -8070 Jan 04 j 22:13 6°Ω01'42 -8077 Sep 10 j 16:39 20°526'34 2°31'32 opposition -8070 Mar 26 i 11:35 4°Ω38'26 2°38'20 minimum elong -8077 Sep 10 j 13:58 20°526'19 31.27336 AU -8070 Mar 26 j 07:13 4°**Ω**38'43 29.23771 AU max. Earth dist. min. Earth dist. -8077 Sep 25 j 16:18 -8070 Jun 14 j 15:53 3°Ω15'06 21°900'23 morning rise direct -8077 Dec 23 j 04:52 evening set -8070 Sep 10 j 07:50 5°**Ω**08'59 22°955'27 retrograde -8076 Mar 12 j 05:07 21°532'43 2°41'28 opposition -8076 Mar 12 j 06:26 -8070 Sep 25 j 07:32 5°**Ω**42'48 2°27'35 min. Earth dist. 21°932'38 29.27391 AU conjunction 20°909'17 -8070 Sep 25 j 07:32 -8076 May 31 j 17:00 5°Ω42'48 2°28'03 direct minimum elong 5°**Ω**43'10 31.23304 AU -8070 Sep 25 j 11:25 -8076 Aug 28 j 02:05 22°903'51 max. Earth dist. evening set -8070 Oct 10 j 08:12 6°**Ω**16'43 morning rise -8076 Sep 12 j 01:50 -8069 Jan 07 j 11:13 8°**Ω**12'34 conjunction 22°537'39 2°31'09 retrograde -8076 Sep 12 j 01:50 -8069 Mar 29 j 00:41 6°**Ω**49'13 2°37'01 minimum elong 22°537'39 2°31'40 opposition -8076 Sep 12 j 00:39 -8069 Mar 28 j 19:23 6°**Ω**49'34 29.23268 AU max. Earth dist. 22°537'33 31.26984 AU min. Earth dist. -8076 Sep 27 j 01:22 5°**Ω**25'57 morning rise 23°**©**11'28 direct -8069 Jun 17 j 01:32 retrograde -8076 Dec 24 j 15:13 25°906'39 evening set -8069 Sep 12 j 16:31 7°**Ω**19'45 -8075 Mar 14 j 18:11 23°5643'51 2°41'31 opposition min. Earth dist. -8075 Mar 14 j 19:30 23°5643'46 29.26968 AU conjunction -8069 Sep 27 j 16:33 7°**Ω**53'35 2°26'14 -8075 Jun 03 j 06:07 22°9520'28 minimum elong -8069 Sep 27 j 16:33 7°**Ω**53'35 2°26'43 direct -8075 Aug 30 j 11:18 24°9514'56 -8069 Sep 27 j 22:44 7° **Ω**54'10 31.22848 AU evening set max. Earth dist. -8069 Oct 12 j 17:21 8°**£**27'31 morning rise -8075 Sep 14 j 10:52 24°5548'44 2°31'06 -8068 Jan 09 j 23:05 10°**£**23′30 conjunction retrograde -8075 Sep 14 j 10:53 -8068 Mar 30 j 13:42 9°**Ω**00'07 2°35'28 minimum elong 24°5048'44 2°31'37 opposition -8075 Sep 14 i 09:45 max. Earth dist. 24°5548'37 31.26504 AU min. Earth dist. -8068 Mar 30 i 07:16 9°Ω00'33 29.22845 AU -8075 Sep 29 i 10:35 morning rise 25°9522'33 direct -8068 Jun 18 j 12:55 7°**Ω**36'55 9°**Ω**30'39 retrograde -8075 Dec 27 i 03:40 27°9517'50 evening set -8068 Sep 14 j 01:28 -8074 Mar 17 i 07:17 25°954'57 2°41'20 opposition min. Earth dist. -8074 Mar 17 i 06:55 25°554'59 29.26419 AU -8068 Sep 29 j 01:30 10°Ω04'30 2°24'41 conjunction -8074 Jun 05 j 18:37 24°931'35 -8068 Sep 29 i 01:30 10°Ω04'30 2°25'07 direct minimum elong -8074 Sep 01 j 20:15 26°925'56 -8068 Sep 29 j 07:47 10°Ω05'06 31.22472 AU evening set max. Earth dist. -8068 Oct 14 j 02:46 10°**Ω**38'28 morning rise -8074 Sep 16 j 19:51 conjunction 26°559'44 2°30'49 retrograde -8067 Jan 11 j 12:24 12°**Ω**34'36 minimum elong -8074 Sep 16 j 19:51 26°\$59'44 2°31'19 opposition -8067 Apr 02 j 02:34 11°Ω11'11 2°33'41 max. Earth dist. -8074 Sep 16 j 19:53 26°559'44 31.25893 AU min. Earth dist. -8067 Apr 01 j 18:40 11°**Ω**11'43 29.22493 AU -8067 Jun 20 j 22:16 -8074 Oct 01 j 19:38 27°533'34 9°**Ω**48'04 morning rise direct -8074 Dec 29 j 14:06 29°9528'58 -8067 Sep 16 j 10:19 11°**Ω**41'45 retrograde evening set opposition -8073 Mar 19 j 20:35 28°905'58 2°40'56 28°505'59 29.25766 AU -8067 Oct 01 j 10:40 12°**Ω**15'37 2°22'55 min. Earth dist. -8073 Mar 19 j 20:25 conjunction -8067 Oct 01 j 10:41 direct -8073 Jun 08 j 06:18 26°5942'37 minimum elong 12°**Ω**15'37 2°23'22 evening set -8073 Sep 04 j 05:14 28°936'50 max. Earth dist. -8067 Oct 01 j 18:45 12°**Ω**16'23 31.22132 AU morning rise -8067 Oct 16 j 12:09 12°**Ω**49'38 conjunction -8073 Sep 19 j 04:51 29°510'37 2°30'20 retrograde -8066 Jan 14 j 00:03 14°**Ω**45'54 minimum elong -8073 Sep 19 j 04:52 29°9510'37 2°30'51 opposition -8066 Apr 04 j 15:45 13°**Ω**22'28 2°31'41 -8073 Sep 19 j 05:57 29°510'44 31.25219 AU min. Earth dist. -8066 Apr 04 j 07:33 13°Ω23'01 29.22150 AU max. Earth dist. -8073 Oct 04 j 04:48 29°5544'29 -8066 Jun 23 j 10:38 11°**Ω**59'26 morning rise direct

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 27 Attention, astronomical year style is used: The year -8066 in astronomical counting style is the year 8067 BCE in historical counting style.

Attention, astronomical year style is used: The year -8066 in astronomical counting style is the year 8067 BCE in historical counting style.							
evening set	-8066 Sep 18 j 19:12	13° <b>Q</b> 53'03		max. Earth dist.	-8060 Oct 16 j 18:03	27° <b>Ω</b> 38'34	31.17602 AU
				morning rise	-8060 Oct 31 j 09:16	28° <b>Ω</b> 11'35	
conjunction	-8066 Oct 03 j 19:43	14° <b>Ω</b> 26′57			-8059 Jan 06 j 11:48	0° <b>m</b>	
minimum elong	-8066 Oct 03 j 19:43	14° <b>Ω</b> 26'57		retrograde	-8059 Jan 29 j 11:14	0° <b>m</b> 08'38	
max. Earth dist.	-8066 Oct 04 j 04:15		31.21794 AU		-8059 Feb 22 j 00:04	30°R <b>Ω</b>	
morning rise	-8066 Oct 18 j 21:38	15° <b>Ω</b> 00'59		opposition	-8059 Apr 20 j 11:32	28° <b>Ω</b> 44'42	
	-8066 Oct 18 j 10:55	15° <b>Ω</b>		min. Earth dist.	-8059 Apr 19 j 22:05		29.17265 AU
retrograde	-8065 Jan 16 j 14:03	16° <b>Ω</b> 57'25		direct	-8059 Jul 08 j 16:50	27° <b>Ω</b> 21'52	
opposition	-8065 Apr 07 j 04:52	15° <b>Ω</b> 33'57		evening set	-8059 Oct 03 j 11:08	29° <b>Ω</b> 14'48	
min. Earth dist.	-8065 Apr 06 j 18:54		29.21781 AU			_	
	-8065 Apr 28 j 18:47	15°R <b>Ω</b>		conjunction	-8059 Oct 18 j 14:04	29° <b>Ω</b> 48'54	
direct	-8065 Jun 25 j 22:32	14° <b>Ω</b> 11'00		minimum elong	-8059 Oct 18 j 14:05	29° <b>Ω</b> 48'54	
	-8065 Aug 19 j 20:15	15° <b>Ω</b>		max. Earth dist.	-8059 Oct 19 j 03:32		31.16653 AU
evening set	-8065 Sep 21 j 04:18	16° <b>Ω</b> 04'33			-8059 Oct 23 j 11:16	0° <b>m</b>	
		0		morning rise	-8059 Nov 02 j 19:25	0° m/23'13	
conjunction	-8065 Oct 06 j 05:05	16° <b>Ω</b> 38'29		retrograde	-8058 Feb 01 j 00:36	2° m/20'22	
minimum elong	-8065 Oct 06 j 05:05	16° <b>Ω</b> 38′29		min. Earth dist.	-8058 Apr 22 j 09:42		29.16341 AU
max. Earth dist.	-8065 Oct 06 j 14:35		31.21384 AU	opposition	-8058 Apr 23 j 00:32	0° m 56'19	2°08'02
morning rise	-8065 Oct 21 j 07:24	17° <b>Ω</b> 12'34			-8058 May 30 j 22:51	30°R <b>Ω</b>	
retrograde	-8064 Jan 19 j 01:31	19° <b>Ω</b> 09'08		direct	-8058 Jul 11 j 02:29	29° <b>€</b> 33'28	
opposition	-8064 Apr 08 j 18:00	17° <b>Ω</b> 45'38			-8058 Aug 19 j 22:36	0° <b>m</b>	
min. Earth dist.	-8064 Apr 08 j 08:28		29.21327 AU	evening set	-8058 Oct 05 j 20:08	1°Mp26'18	
direct	-8064 Jun 27 j 09:31	16° <b>Ω</b> 22'44					
evening set	-8064 Sep 22 j 13:25	18° <b>Ω</b> 16'13		conjunction	-8058 Oct 20 j 23:37	2° Mp 00'26	1°58'03
		0		minimum elong	-8058 Oct 20 j 23:38	~	1°58'20
conjunction	-8064 Oct 07 j 14:33	18° <b>Ω</b> 50'10		max. Earth dist.	-8058 Oct 21 j 14:50		31.15761 AU
minimum elong	-8064 Oct 07 j 14:34	18° <b>Ω</b> 50'10		morning rise	-8058 Nov 05 j 05:27	2° Mp 34'48	
max. Earth dist.	-8064 Oct 08 j 00:56		31.20881 AU	retrograde	-8057 Feb 03 j 12:38	4° m/32'02	2004111
morning rise	-8064 Oct 22 j 17:15	19° <b>Ω</b> 24'18		opposition	-8057 Apr 25 j 13:33	3° Mp 07'53	
retrograde	-8063 Jan 20 j 12:40	21° <b>Ω</b> 20'59	202421	min. Earth dist.	-8057 Apr 24 j 22:18		29.15488 AU
opposition	-8063 Apr 11 j 07:05	19° <b>Ω</b> 57′26		direct	-8057 Jul 13 j 14:36	1° Mp 45'03	
min. Earth dist.	-8063 Apr 10 j 19:53		29.20747 AU	evening set	-8057 Oct 08 j 05:22	3° Mp 37'47	
direct	-8063 Jun 29 j 21:40	18° <b>Ω</b> 34'36			0057.0 + 22 : 00 10	40 <b>m</b> . 1 1150	1054122
evening set	-8063 Sep 24 j 22:35	20° <b>Ω</b> 27'59		conjunction	-8057 Oct 23 j 09:18	4° Mp 11'58	
	9062 0-4 00 : 22.55	21° <b>Ω</b> 01'58	2012146	minimum elong	-8057 Oct 23 j 09:19	4° Mp 11'58	
conjunction	-8063 Oct 09 j 23:55			max. Earth dist.	-8057 Oct 24 j 01:08		31.14972 AU
minimum elong	-8063 Oct 09 j 23:55 -8063 Oct 10 j 10:16	21° <b>Ω</b> 01'58	31.20231 AU	morning rise	-8057 Nov 07 j 15:47	4° m) 46'23	
max. Earth dist.	,		31.20231 AU	retrograde	-8056 Feb 06 j 02:51 -8056 Apr 26 j 09:08	6° Mp 43'41	29.14739 AU
morning rise	-8063 Oct 25 j 03:09 -8062 Jan 23 j 00:28	$23^{\circ} \Omega 32'57$		min. Earth dist.		5° m) 19'29	
retrograde	-	23° <b>Ω</b> 09'19	2°21'29	opposition direct	-8056 Apr 27 j 02:14	~	2 00 10
opposition min. Earth dist.	-8062 Apr 13 j 20:24				-8056 Jul 15 j 01:50	3° My 56'39 5° My 49'20	
	-8062 Apr 13 j 09:26	22 <b>δ</b> <i>l</i> 10 04 20° <b>Ω</b> 46'30	29.20027 AU	evening set	-8056 Oct 09 j 14:37	3 11/4920	
direct evening set	-8062 Jul 02 j 07:53 -8062 Sep 27 j 07:42	20° <b>Ω</b> 39'47		conjunction	-8056 Oct 24 j 19:01	6° m 23′33	1°50'31
evening set	-8002 Sep 27 J 07.42	22 063941		minimum elong	-8056 Oct 24 j 19:02	6° m) 23'33	1°50'47
conjunction	-8062 Oct 12 j 09:33	23° <b>Ω</b> 13'48	2011100	max. Earth dist.	-8056 Oct 25 j 11:51		31.14265 AU
minimum elong	-8062 Oct 12 j 09:34	23°Ω13'48		morning rise	-8056 Nov 09 j 02:08	6° M) 58'02	31.14203 AU
max. Earth dist.	-8062 Oct 12 j 21:23		31.19454 AU	retrograde	-8055 Feb 07 j 14:38	8° My 55'26	
morning rise	-8062 Oct 12 j 21:23	23°Ω48'00	31.19434 AU	opposition	-8055 Apr 29 j 15:12	7° m <sub>0</sub> 31'10	1°55'57
retrograde	-8061 Jan 25 j 11:40	25°Ω44'55		min. Earth dist.	-8055 Apr 28 j 22:14		29.14068 AU
opposition	-8061 Apr 16 j 09:31	$24^{\circ}\Omega 21'12$	2°18'24	direct	-8055 Jul 17 j 12:25	6° My 08'24	29.14008 AU
min. Earth dist.	-8061 Apr 15 j 21:10		29.19175 AU	evening set	-8055 Oct 11 j 23:45	8° m) 01'00	
direct	-8061 Jul 04 j 19:57	$22^{\circ}\Omega58'23$	29.19173 AU	evening set	-8033 Oct 11 j 23.43	0 IIJ0100	
evening set	-8061 Sep 29 j 16:53	24°Ω51'33		conjunction	-8055 Oct 27 j 04:44	8° mp 35'16	1°46'30
evening set	-8001 Sep 29 J 10.33	24 <b>6(</b> 31 33		minimum elong	-8055 Oct 27 j 04:44	8° My 35'16	1°46'46
conjunction	-8061 Oct 14 j 18:59	25° <b>Ω</b> 25'35	2008102	max. Earth dist.	-8055 Oct 27 j 04:45		31.13638 AU
minimum elong	-8061 Oct 14 j 19:00	$25^{\circ}\Omega 25'36$		morning rise	-8055 Nov 11 j 12:24	9° Mp 09'48	31.13038 AU
max. Earth dist.	-8061 Oct 15 j 06:32		31.18561 AU	•	-8054 Feb 10 j 03:03	11° <b>m</b> )07'18	
max. Earth dist.	-8061 Oct 13 j 06:32	$25^{\circ} \Omega 59'51$	51.10301 AU	retrograde min. Earth dist.	-8054 May 01 j 09:14		29.13447 AU
retrograde	-8060 Jan 28 j 00:09	$25^{\circ} \Omega 56'50$		opposition	-8054 May 02 j 04:03	9° my 43'00	1°51'34
opposition	-8060 Jan 28 j 00:09 -8060 Apr 17 j 22:39	26° <b>Ω</b> 33'00	2°15'08	direct	-8054 May 02 j 04:03	8° Mg 20'17	1 31 34
min. Earth dist.			29.18241 AU		-8054 Jul 20 J 00:38 -8054 Oct 14 j 09:14	10° Mg 12'50	
direct	-8060 Apr 17 j 10:01 -8060 Jul 06 j 05:45	$25^{\circ} \Omega 10'11$	47.10441 AU	evening set	-0034 OCt 14 J 09:14	10 HJ 12'30	
evening set	-8060 Oct 01 j 01:57	$25^{\circ} \Omega 10^{\circ} 11$ $27^{\circ} \Omega 03' 13$		conjunction	-8054 Oct 29 j 14:37	10° <b>m</b> 47'09	1°42'19
evening set	-0000 001 01 101.3/	21 0603 13		minimum elong	-8054 Oct 29 j 14:37	10° my 47'09	1°42'19 1°42'33
conjunction	-8060 Oct 16 j 04:36	27° <b>Ω</b> 37'18	2°04'53	max. Earth dist.	-8054 Oct 29 j 14.38		31.13032 AU
minimum elong	-8060 Oct 16 j 04:36	$27^{\circ} \Omega 37'18$ $27^{\circ} \Omega 37'18$		max. Earth dist.	-8054 Nov 13 j 23:03	10° my 21'44	31.13034 AU
mmmum ciong	5000 Oct 10 j 04.57	21 0 CJ   10	2 03 12	morning risc	0057110V 15 J 25.05	11 III 21 44	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8053 in astronomical counting style is the year 8054 BCE in historical counting style. -8053 Feb 12 j 16:00 13° m 19'22 minimum elong -8047 Nov 13 i 15:18 26° m 14'07 1°09'17 retrograde opposition -8053 May 04 j 16:59 11° m 55'02 1°47'01 -8047 Nov 14 j 13:02 26° m 16'10 31.06592 AU max Earth dist -8053 May 03 j 22:26 11° M 56'18 29.12841 AU -8047 Nov 29 j 04:27 26° m 49'06 min. Earth dist. morning rise -8053 Jul 22 j 10:41 10° m 32'22 -8046 Feb 28 j 08:33 28° m/47'17 direct retrograde -8053 Oct 16 j 18:40 -8046 May 20 j 10:23 evening set 12° m 24'52 opposition 27° m 22'29 1°11'06 min. Earth dist. -8046 May 19 j 13:11 27° m 23'56 29.06085 AU -8046 Aug 06 j 14:06 conjunction -8053 Nov 01 j 00:46 12° m 59'13 1°37'59 direct 25° m 59'48 minimum elong -8053 Nov 01 j 00:47 12° m 59'13 1°38'13 evening set -8046 Oct 31 j 15:45 27° m 51'54  $13^{\circ}$  Mp 01'06 31.12416 AU max. Earth dist. -8053 Nov 01 j 20:33 morning rise -8053 Nov 16 j 09:43 13° m 33'52 conjunction -8046 Nov 16 j 01:59 28° m/26'34 1°03'59 retrograde -8052 Feb 15 j 03:37 15° m 31'36 minimum elong -8046 Nov 16 j 02:00  $28^{\circ}$  Mp 26'34  $1^{\circ}04'03$ -8046 Nov 17 j 00:53 min. Earth dist. -8052 May 05 j 10:02 14° Mp 08'36 29.12180 AU max. Earth dist. 28° Mp 28'44 31.05471 AU opposition -8052 May 06 j 05:47 14°Mp07'15 1°42'18 morning rise -8046 Dec 01 j 15:45 29° Mp 01'36 direct -8052 Jul 23 j 22:30 12° Mp 44'38 -8046 Dec 30 j 09:53 0∘**⊽** evening set -8052 Oct 18 j 04:28 14° Mp 37'06 retrograde -8045 Mar 02 j 21:51 0°**£**59'50 -8045 May 07 j 12:07 30°R, M) conjunction -8052 Nov 02 j 10:55 15° Mp 11'29 1°33'30 opposition -8045 May 22 j 22:44 29° M 34'57 1°05'30 minimum elong -8052 Nov 02 j 10:56 15° Mp 11'29 1°33'41 min. Earth dist. -8045 May 21 j 23:54 29° M 36'31 29.05000 AU max. Earth dist. -8052 Nov 03 j 06:08 15° Mp 13'18 31.11720 AU direct -8045 Aug 09 j 02:52 28° m 12'15 morning rise -8052 Nov 17 j 20:39 15° m 46'12 -8045 Nov 01 j 03:02 0∘**ত** retrograde -8051 Feb 16 j 16:23 17° Mp 44'03 evening set -8045 Nov 03 j 01:54 0°**ჲ**04'18 opposition -8051 May 08 j 18:38 16° m 19'39 1°37'26 min. Earth dist. -8051 May 07 j 22:56 16° m 21'00 29.11433 AU conjunction -8045 Nov 18 j 12:38 0°₽39'01 0°58'41 direct -8051 Jul 26 i 07:49 14° m 57'04 minimum elong -8045 Nov 18 j 12:38 0°₽39'01 0°58'45 evening set -8051 Oct 20 j 14:11 16° m 49'29 max. Earth dist. -8045 Nov 19 j 11:25 0°**2**41'10 31.04437 AU -8045 Dec 04 j 03:14 1°**£**14'07 morning rise -8051 Nov 04 j 21:22 17° m 23'55 1°28'53 -8044 Mar 04 j 11:32 3°**£**12'24 conjunction retrograde -8051 Nov 04 j 21:22 opposition -8044 May 24 j 11:14 1°**£**47'26 17° m 23'56 1°29'04 0°59'48 minimum elong -8051 Nov 05 j 18:01 -8044 May 23 j 12:40 1°**2**48'59 29.04026 AU max. Earth dist. 17° m 25'53 31.10914 AU min. Earth dist. -8051 Nov 20 j 07:36 -8044 Aug 10 j 13:34 0°**£**24'43 morning rise 17° m 58'41 direct retrograde -8050 Feb 19 j 03:55 -8044 Nov 04 j 11:55 2°**£**16'44 19° m 56'38 evening set min. Earth dist. -8050 May 10 j 11:28 18° Mg 33'33 29.10553 AU 2°**2**51'31 0°53'19 -8044 Nov 19 j 23:25 -8050 May 11 j 07:31 18° m/32'11 1°32'25 conjunction opposition -8050 Jul 28 j 18:35 17° m 09'37 -8044 Nov 19 j 23:25 direct minimum elong 2°**£**51'31 0°53'20 19°**m**01'59 -8050 Oct 23 j 00:03 -8044 Nov 20 j 23:51 evening set max. Earth dist. 2°**♀**53'49 31.03522 AU -8044 Dec 05 j 14:31 morning rise 3°**£**26'39 -8050 Nov 07 j 07:44 19° Mp 36'28 1°24'08 -8043 Mar 06 j 22:38 conjunction retrograde 5°**£**25′00 minimum elong -8050 Nov 07 j 07:45 19° m/36'28 1°24'17 opposition -8043 May 26 j 23:31 4°**£**00'00 0°54'00 max. Earth dist. -8050 Nov 08 j 03:47 19° m/38'22 31.09983 AU min. Earth dist. -8043 May 25 j 23:33 4°**೨**01'38 29.03160 AU morning rise -8050 Nov 22 j 18:49 20° m 11'17 direct -8043 Aug 13 j 01:29 2°**△**37'18 retrograde -8049 Feb 21 j 17:59 22° m 09'19 -8043 Nov 06 j 22:14 4°<u>₽</u>29'17 evening set -8049 May 13 j 20:24 20° Mp 44'48 1°27'16 opposition -8049 May 12 j 23:45 20° Mp 46'12 29.09548 AU -8043 Nov 22 j 10:10 5°**2**04'06 0°47'51 min. Earth dist. conjunction -8049 Jul 31 j 04:14 19° m 22'13 -8043 Nov 22 j 10:11 5°**2**04'06 0°47'52 direct minimum elong -8049 Oct 25 j 09:59 -8043 Nov 23 j 10:14 5°**2**06'22 31.02725 AU evening set 21° m 14'31 max. Earth dist. -8043 Dec 08 i 02:08 morning rise 5°**2**39'18 -8049 Nov 09 j 18:21 21° mo 49'03 1°19'15 conjunction retrograde -8042 Mar 09 j 11:16 7°**£**37'43 minimum elong -8049 Nov 09 j 18:22 21° mp 49'03 1°19'25 min. Earth dist. -8042 May 28 j 11:53 6° **2**14'20 29.02415 AU max. Earth dist. -8049 Nov 10 i 15:20 21° m 51'02 31.08915 AU opposition -8042 May 29 j 11:57 6°**£**12'40 0°48'06 -8049 Nov 25 i 06:04 22° m 23'55 direct -8042 Aug 15 j 10:54 4°₽50'00 morning rise -8048 Feb 24 j 06:13 24° m 22'01 -8042 Nov 09 j 08:28 6°**£**41'58 retrograde evening set -8048 May 15 j 09:03 22° m 57'24 1°22'00 opposition -8048 May 14 j 12:43 22° m 58'48 29.08420 AU conjunction -8042 Nov 24 j 21:12 7°**£**16'50 0°42'18 min. Earth dist. -8042 Nov 24 j 21:12 direct -8048 Aug 01 j 16:04 21° m 34'48 minimum elong 7°**£**16'50 0°42'17 -8048 Oct 26 j 19:56 7°**2**19'16 31.02020 AU evening set 23° m 27'02 max. Earth dist. -8042 Nov 25 j 22:55 -8042 Dec 10 j 13:43 7°**£**52'05 morning rise -8048 Nov 11 j 04:54 24° Mp 01'37 1°14'16 conjunction -8041 Mar 11 j 22:46 9° 150'35 retrograde -8048 Nov 11 j 04:55 -8041 May 30 j 23:49 8°**2**27'12 29.01731 AU minimum elong 24° m 01'37 1°14'23 min. Earth dist. -8048 Nov 12 j 02:00 -8041 Jun 01 j 00:18 8°**£**25'31 0°42'09 max. Earth dist. 24° m 03'36 31.07770 AU opposition 7°**≏**02'51 morning rise -8048 Nov 26 j 17:19 24° m 36'32 direct -8041 Aug 17 j 21:33 -8041 Nov 11 j 19:06 retrograde -8047 Feb 25 j 20:36 26° m 34'40 evening set 8°**£**54'49 -8047 May 17 j 21:40 25° Mp 09'58 1°16'37 opposition min. Earth dist. -8047 May 17 j 00:01 25° m 11'27 29.07247 AU conjunction -8041 Nov 27 j 08:21 9°**2**29'45 0°36'41 direct -8047 Aug 04 j 03:25 23° m/47'19 minimum elong -8041 Nov 27 j 08:21 9°**£**29'45 0°36'40 evening set -8047 Oct 29 j 05:47 25° m 39'29 max. Earth dist. -8041 Nov 28 j 09:32 9°**£**32'07 31.01367 AU -8041 Dec 13 j 01:39 10°**£**05'03 morning rise -8047 Nov 13 j 15:18 26° m 14'07 1°09'11 -8040 Mar 13 j 12:40 12°**♀**03'37 conjunction retrograde

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8040 in astronomical counting style is the year 8041 BCE in historical counting style. opposition -8040 Jun 01 j 11:33 10°**£**40'15 29.01083 AU -8034 Jun 16 j 13:40 23°**£**58'33 -0°00'58 min. Earth dist. -8040 Jun 02 j 12:29 10°**△**38'32 0°36'06 min. Earth dist. -8034 Jun 15 j 12:49 24°**2**00'17 28.95792 AU opposition -8040 Aug 19 j 07:01 9°**£**15'53 -8034 Sep 02 j 03:15 22°**♀**35'43 direct direct -8040 Nov 13 j 05:49 11°**♀**07'52 -8034 Nov 27 j 00:37 24°**£**27'39 evening set evening set -8040 Nov 28 j 19:42 -8034 Dec 12 j 18:00 conjunction 11°**£**42'50 0°31'01 conjunction 25°**£**02'53 -0°03'49 -8040 Nov 28 j 19:43 -8034 Dec 12 j 18:01 0°04'00 minimum elong 11°**≏**42'50 0°30'58 minimum elong 25°**♀**02'53 -8034 Dec 12 j 11:36 -8040 Nov 29 j 21:43 11°**≏**45'17 31.00705 AU max. Earth dist. behind sun begin 25°**2**02'18 morning rise -8040 Dec 14 j 13:35 12°**₽**18'12 behind sun end -8034 Dec 13 j 00:26 25°**£**03'27 retrograde -8039 Mar 16 j 00:23 14°**£**16'50 max. Earth dist. -8034 Dec 13 j 19:30 25° **2**05'16 30.95269 AU min. Earth dist. -8039 Jun 04 j 00:24 12°**♀**53'25 29.00402 AU morning rise -8034 Dec 28 j 15:44 25° € 38'31 opposition -8039 Jun 05 j 00:51 12°**≏**51'44 0°30'01 retrograde -8033 Mar 30 j 08:43 27°**♀**37'17 direct -8039 Aug 21 j 17:45 11°**≏**29'05 min. Earth dist. -8033 Jun 18 j 01:08 26°**2**13'32 28.94829 AU evening set -8039 Nov 15 j 16:35 13°**♀**21'04 opposition -8033 Jun 19 j 01:39 26°**≙**11'50 -0°07'12 direct -8033 Sep 04 j 13:32 24°**£**48'56 conjunction -8039 Dec 01 j 07:05 13°**2**56'05 0°25'18 evening set -8033 Nov 29 j 12:03 26°**♀**40'53 minimum elong -8039 Dec 01 j 07:05 13°**♀**56'05 0°25'14 max. Earth dist. -8039 Dec 02 j 08:56 13°**⊆**58'31 31.00005 AU conjunction -8033 Dec 15 j 06:08 27°**♀**16'09 -0°09'36 morning rise -8039 Dec 17 j 01:37 14°**₽**31'29 minimum elong -8033 Dec 15 j 06:08 27°**♀**16'09 0°09'47 retrograde -8038 Mar 18 j 14:46 16°**♀**30'11 behind sun begin -8033 Dec 15 j 00:49 27°**♀**15'40 min. Earth dist. -8038 Jun 06 j 11:51 15°**2**06'48 28.99655 AU behind sun end -8033 Dec 15 j 11:27 27°**£**16'38 opposition -8038 Jun 07 j 13:09 15°**♀**05'03 0°23'52 max. Earth dist. -8033 Dec 16 i 08:55 27°**♀**18'40 30.94342 AU direct -8038 Aug 24 j 04:17 13°**-**42'24 morning rise -8033 Dec 31 i 04:14 27°**£**51'49 evening set -8038 Nov 18 j 03:43 15°**♀**34'23 retrograde -8032 Mar 31 i 20:17 29°**£**50'35 opposition -8032 Jun 20 j 13:22 28° **2**5'06 -0°13'25 -8038 Dec 03 j 18:46 16°**♀**09'27 0°19'32 min. Earth dist. -8032 Jun 19 j 12:38 28° **2**26'50 28.93956 AU conjunction -8038 Dec 03 j 18:46 0°19'27 -8032 Sep 06 j 00:45 16°**♀**09'27 direct 27°**₽**02'10 minimum elong -8038 Dec 04 j 20:29 evening set -8032 Nov 30 j 23:37 28°**£**54'09 max. Earth dist. 16°**£**11'52 30.99201 AU -8038 Dec 19 j 13:59 16°**£**44'54 morning rise 29°**£**29'27 -0°15'24 -8037 Mar 21 j 03:30 -8032 Dec 16 j 18:08 retrograde 18°**-**43′38 conjunction -8037 Jun 09 j 01:19 -8032 Dec 16 j 18:08 min. Earth dist. 17°**£**20'08 28.98800 AU minimum elong 29°**₽**29'27 0°15'37 -8032 Dec 16 j 16:42 -8037 Jun 10 j 01:27 17°**£**18′27 0°17'41 behind sun begin 29°**2**29'20 opposition -8032 Dec 16 j 19:34 -8037 Aug 26 j 14:41 15°**£**55'46 behind sun end 29°**₽**29'35 direct -8037 Nov 20 j 14:50 max. Earth dist. -8032 Dec 17 j 20:16 29°**♀**31'55 30.93540 AU evening set 17°**♀**47'45 -8032 Dec 30 j 08:43 0°M -8037 Dec 06 j 06:38 18°**£**22'52 0°13'45 -8031 Jan 01 j 16:54 conjunction morning rise 0°M05'10 -8037 Dec 06 j 06:38 -8031 Apr 03 j 09:40 minimum elong 18°**≏**22'52 0°13'40 retrograde 2°M03'58 behind sun begin -8037 Dec 06 j 03:07 18°**£**22'33 min. Earth dist. -8031 Jun 21 j 23:58 0°M40'13 28.93227 AU behind sun end -8037 Dec 06 j 10:09 18°**≏**23'11 -8031 Jun 23 j 01:12  $0^{\circ}$ M38'27  $-0^{\circ}$ 19'37 opposition max. Earth dist. -8037 Dec 07 j 08:43 18°**£**25'19 30.98301 AU -8031 Jul 16 j 22:06 30°**₹**Ω morning rise -8037 Dec 22 j 02:23 18°**♀**58'22 direct -8031 Sep 08 j 10:34 29° 215'30 -8036 Mar 22 j 17:48 -8031 Oct 30 j 00:17 0°M retrograde 20°**£**57'06 -8036 Jun 11 j 13:34 19°**△**31'52 0°11'29 -8031 Dec 03 j 11:06 opposition evening set 1°ML07'31 -8036 Jun 10 j 12:34 19°**೨**33'36 28.97841 AU min. Earth dist. -8036 Aug 28 j 03:44 18°**♀**09'08 -8031 Dec 19 j 06:13 1°M42'52 -0°21'11 direct conjunction -8031 Dec 19 i 06:13 evening set -8036 Nov 22 j 02:03 20°**₽**01'06 minimum elong 1°M42'52 0°21'24 -8031 Dec 20 i 09:14 max. Earth dist. 1°ML45'24 30.92865 AU -8036 Dec 07 i 18:15 conjunction 20°**△**36'15 0°07'58 morning rise -8030 Jan 04 i 05:27 2°M18'37 minimum elong -8036 Dec 07 j 18:15 20°**♀**36'15 0°07'50 retrograde -8030 Apr 05 j 20:46 4° **ጤ**17'27 behind sun begin -8036 Dec 07 i 12:25 20°**£**35'44 opposition -8030 Jun 25 i 13:03 2°ML51'56 -0°25'48 behind sun end -8036 Dec 08 j 00:06 20°**£**36'47 min. Earth dist. -8030 Jun 24 j 12:14 2°ML53'40 28.92619 AU max. Earth dist. -8036 Dec 08 j 19:31 20°**△**38'38 30.97300 AU -8030 Sep 10 j 21:01 1°ML28'59 direct -8036 Dec 23 j 14:45 21°**₽**11'48 -8030 Dec 05 j 22:55 3°M21'04 morning rise evening set retrograde -8035 Mar 25 j 07:29 23°**♀**10'34 min. Earth dist. -8035 Jun 13 j 01:43 21°**£**46'55 28.96819 AU conjunction -8030 Dec 21 j 18:35 3°M56'27 -0°26'56 -8035 Jun 14 j 01:45 21°**Ω**45'15 0°05'16 minimum elong -8030 Dec 21 j 18:35 3°M56'27 0°27'11 opposition -8035 Aug 30 j 14:48 20°**£**22'27 max. Earth dist. -8030 Dec 22 j 21:25 3°M58'58 30.92326 AU direct -8035 Nov 24 j 13:14 -8029 Jan 06 j 18:21 evening set 22°**₽**14'24 morning rise 4°M32'14 -8029 Apr 08 j 10:58 retrograde 6°M31'06 -8035 Dec 10 j 06:12 0°02'09 -8029 Jun 26 j 23:00 conjunction 22°**₽**49'36 min. Earth dist. 5°ML07'24 28.92131 AU -8029 Jun 28 j 00:38 minimum elong -8035 Dec 10 j 06:12 22°**₽**49'36 0°02'00 opposition 5°ML05'36 -0°31'57 behind sun begin -8035 Dec 09 j 23:42 22°**₽**49'01 direct -8029 Sep 13 j 06:55 3°M42'38 behind sun end -8035 Dec 10 j 12:41 22°**♀**50'11 evening set -8029 Dec 08 j 10:57 5°M34'48 max. Earth dist. -8035 Dec 11 j 08:32 22°**♀**52'04 30.96272 AU morning rise -8035 Dec 26 j 03:08 23°**2**25'11 conjunction -8029 Dec 24 j 07:03 6°M10'14 -0°32'40 -8034 Mar 27 j 19:25 25°**♀**23'56 minimum elong -8029 Dec 24 j 07:03 6°M10'14 0°32'55 retrograde -8034 Apr 21 j 06:46 25°**♀**14'28 max. Earth dist. -8029 Dec 25 j 09:51 6°M12'45 30.91868 AU desc. node

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8028 in astronomical counting style is the year 8029 BCE in historical counting style. -8028 Jan 09 j 07:21 opposition 6°M46'03 -8022 Jul 13 i 10:17 20°M46'06 -1°13'14 morning rise 20°M47'40 28.88294 AU -8028 Apr 09 j 23:34 8°M44'58 -8022 Jul 12 j 12:04 retrograde min. Earth dist. -8028 Jun 28 j 11:57 -8022 Sep 28 j 15:24 min. Earth dist. 7°M21'13 28.91710 AU direct 19°M-22'53 7°M19'30 -0°38'03 -8022 Dec 24 j 03:03 -8028 Jun 29 j 12:26 evening set 21°M15'32 opposition direct -8028 Sep 14 j 16:42 5°M56'33 -8028 Dec 09 j 22:56 -8021 Jan 09 j 02:22 evening set 7°**IL**48'48 conjunction 21°M51'10 -1°11'01 -8021 Jan 09 j 02:22 minimum elong 21°M51'10 1°11'24 -8028 Dec 25 j 19:37 -8021 Jan 10 j 02:30 conjunction 8°M24'15 -0°38'21 max. Earth dist. 21°M53'26 30.87844 AU minimum elong -8028 Dec 25 j 19:36 8°M24'15 0°38'39 morning rise -8021 Jan 25 j 05:24 22°M27'11 max. Earth dist. -8028 Dec 26 j 22:48 8°M26'48 30.91468 AU retrograde -8021 Apr 26 j 20:45  $24^{\circ}$ M $_{2}6'01$ -8021 Jul 15 j 21:36 morning rise -8027 Jan 10 j 20:15 9°**™**00'07 opposition 23°ML00'30 -1°18'46 -8021 Jul 15 j 00:23 retrograde -8027 Apr 12 j 14:15 10°M59'04 min. Earth dist. 23°ML02'00 28.87552 AU -8027 Jun 30 j 22:54 min. Earth dist. 9°M35'23 28.91312 AU direct -8021 Oct 01 j 02:24 21°M37'12 opposition -8027 Jul 02 j 00:05 9°M33'38 -0°44'06 evening set -8021 Dec 26 j 16:03 23°M29'54 direct -8027 Sep 17 j 05:29 8°M10'40 evening set -8027 Dec 12 j 11:22 10°ML03'01 conjunction -8020 Jan 11 j 15:45 24°ML05'34 -1°16'08 minimum elong -8020 Jan 11 j 15:44 24°ML05'33 1°16'32 conjunction -8027 Dec 28 j 08:22 10°MJ38'31 -0°43'59 max. Earth dist. -8020 Jan 12 j 15:08 24°ML07'45 30.87133 AU minimum elong -8027 Dec 28 j 08:22 10°MJ38'31 0°44'17 morning rise -8020 Jan 27 j 19:07 24°M41'35 max. Earth dist. -8027 Dec 29 j 10:27 10°M40'57 30.91054 AU retrograde -8020 Apr 28 j 10:43 26°M40'22 morning rise -8026 Jan 13 j 09:35 11°M14'24 min. Earth dist. -8020 Jul 16 j 11:08 25°M16'21 28.86886 AU retrograde -8026 Apr 15 j 04:22 13°ML13'23 opposition -8020 Jul 17 i 08:53 25°M14'49 -1°24'11 opposition -8026 Jul 04 i 11:50 11°M47'58 -0°50'06 direct -8020 Oct 02 j 12:57 23°M51'26 min. Earth dist. -8026 Jul 03 j 12:03 11°M-49'38 28.90887 AU evening set -8020 Dec 28 j 05:01 25°M44'12 -8026 Sep 19 j 16:15 10°M25'00 direct -8026 Dec 14 j 23:51 -8019 Jan 13 j 04:59 26°ML19'52 -1°21'08 evening set 12°M17'25 conjunction -8019 Jan 13 j 04:58 minimum elong 26°M,19'52 1°21'33 -8026 Dec 30 j 21:31 12°M52'58 -0°49'33 -8019 Jan 14 j 04:10 conjunction max. Earth dist. 26°M22'03 30.86499 AU -8026 Dec 30 j 21:30 -8019 Jan 29 j 08:38 12°M52'58 0°49'53 morning rise 26°M55'54 minimum elong max. Earth dist. -8025 Jan 01 j 00:00 12°M55'27 30.90588 AU -8019 Apr 30 j 21:34 retrograde 28°M 54'39 -8025 Jan 15 j 23:00 opposition -8019 Jul 19 j 20:14 13°M28'53 27°M29'06 -1°29'28 morning rise -8025 Mar 06 j 21:31 -8019 Jul 18 j 23:43 15°M min. Earth dist. 27°M30'33 28.86323 AU -8025 Apr 17 j 17:42 15°M27'52 -8019 Oct 04 j 23:17 retrograde direct 26°M05'38 -8025 May 30 j 08:13 -8019 Dec 30 j 18:04 15°RM evening set 27°M58'29 -8025 Jul 06 j 23:30 opposition 14°ML02'28 -0°56'01 -8025 Jul 05 j 23:31 -8018 Jan 15 j 18:31 28°MJ34'10 -1°26'01 min. Earth dist. 14°ML04'09 28.90370 AU conjunction -8025 Sep 22 j 04:43 -8018 Jan 15 j 18:30 direct 12°M39'28 minimum elong 28°M34'10 1°26'26 evening set -8025 Dec 17 j 12:40 14°M31'58 max. Earth dist. -8018 Jan 16 j 17:50 28°M36'21 30.86000 AU -8025 Dec 30 j 02:31 15°M₀ morning rise -8018 Jan 31 j 22:23 29°M10'13 -8018 Feb 25 j 04:10 0°**∡**™ conjunction -8024 Jan 02 j 10:36 15°ML07'32 -0°55'03 retrograde -8018 May 03 j 10:53 1°×708'55 -8024 Jan 02 j 10:35 15°ML07'32 0°55'23 -8018 Jul 12 j 10:16 30°RM minimum elong -8024 Jan 03 j 11:21 15°ML09'51 30.90014 AU min. Earth dist. -8018 Jul 21 j 10:08 29°M44'52 28.85892 AU max. Earth dist. -8024 Jan 18 j 12:38 15°M43'29 -8018 Jul 22 j 07:18 29°M43'22 -1°34'37 morning rise opposition -8024 Apr 19 j 08:32 -8018 Oct 07 j 11:45 28°M19'50 retrograde 17°M42'27 direct opposition -8024 Jul 08 j 11:10 16°M17'02 -1°01'51 -8018 Dec 27 i 09:15 0°×7 min. Earth dist. -8024 Jul 07 j 12:12 16°M18'39 28.89753 AU evening set -8017 Jan 02 j 07:26 0°**х** 12'48 -8024 Sep 04 i 22:30 15°RM -8017 Jan 18 j 08:06 direct -8024 Sep 23 i 15:58 14°M53'59 conjunction 0°**х** 48'31 -1°30'46 -8024 Oct 12 j 04:25 15°M minimum elong -8017 Jan 18 i 08:05 0°**х** 48'31 1°31'12 -8024 Dec 19 j 01:22 16°M46'32 max. Earth dist. -8017 Jan 19 j 06:20 0° ₹ 50'36 30.85623 AU evening set -8017 Feb 03 j 12:21 1°**х** 24'34 morning rise -8023 Jan 03 j 23:53 17°M22'08 -1°00'28 -8017 May 05 j 23:55 3°×23'15 conjunction retrograde -8017 Jul 24 j 18:36 minimum elong -8023 Jan 03 j 23:52 17°M22'08 1°00'50 opposition 1°**₹**57'43 -1°39'37 1°**∡**759'08 28.85588 AU max. Earth dist. -8023 Jan 05 j 01:10 17°M24'31 30.89341 AU min. Earth dist. -8017 Jul 23 j 22:41 -8023 Jan 20 j 02:08 17°M58'06 direct -8017 Oct 09 j 22:08 0°**х** 34′09 morning rise -8023 Apr 21 j 20:54 19°M57'03 -8016 Jan 04 j 20:43 2°×27'13 retrograde evening set -8023 Jul 10 j 22:45  $18^{\circ}$ MJ31'36  $-1^{\circ}$ 07'36 opposition -8023 Jul 10 j 00:16 18°M33'11 28.89039 AU -8016 Jan 20 j 21:51 3°**х** 02'58 -1°35'23 min. Earth dist. conjunction -8016 Jan 20 j 21:50 direct -8023 Sep 26 j 04:24 17°M08'29 minimum elong 3°**尽**02'57 1°35'50 -8023 Dec 21 j 14:07 -8016 Jan 21 j 20:36 evening set 19°M01'04 max. Earth dist. 3°**∡**05'05 30.85367 AU morning rise -8016 Feb 06 j 02:08 3°×39'01 conjunction -8022 Jan 06 j 12:59 19°M36'42 -1°05'48 retrograde -8016 May 07 j 13:22 5°**х** 37'40 minimum elong -8022 Jan 06 j 12:58 19°M36'42 1°06'09 min. Earth dist. -8016 Jul 25 j 09:25 4° ₹ 13'37 28.85379 AU max. Earth dist. -8022 Jan 07 j 12:52 19°M38'56 30.88606 AU opposition -8016 Jul 26 j 05:38 4°**х** 12'12 -1°44'29 -8022 Jan 22 j 15:46 20°M12'41 -8016 Oct 11 j 10:34 2°**х** 48′36 morning rise direct -8022 Apr 24 j 10:01 22°M11'35 -8015 Jan 06 j 10:18 4°**∡**741'48 retrograde evening set

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8015 in astronomical counting style is the year 8016 BCE in historical counting style. -8015 Jan 22 j 11:34 5°**∡**17'33 -1°39'51 direct -8009 Oct 27 i 19:18 18°**х** 33′07 conjunction -8015 Jan 22 i 11:33 5°**х** 17'33 1°40'19 evening set -8008 Jan 23 j 12:15 20°**х** 27′08 minimum elong 5°**х** 19'32 30.85196 AU -8015 Jan 23 j 08:43 max. Earth dist. -8015 Feb 07 j 16:14 5°**х** 53′38 -8008 Feb 08 j 15:20 21°**x**<sup>1</sup>03'00 -2°06'35 conjunction morning rise -8008 Feb 08 j 15:19 -8015 May 10 j 04:21 7°**х** 52′16 21°**尽**03'00 2°07'07 retrograde minimum elong 21°**尽**04'24 30.83087 AU -8015 Jul 28 j 16:49 -8008 Feb 09 j 06:19 opposition 6°**х** 26′50 -1°49′11 max. Earth dist. 6°**≯**28'12 28.85248 AU -8008 Feb 24 j 20:55 min. Earth dist. -8015 Jul 27 j 21:37 morning rise 21°×39'06 -8008 May 25 j 20:35 23°×37'17 direct -8015 Oct 13 j 21:44 5°×703'13 retrograde -8014 Jan 08 j 23:51 evening set 6°**х** 56'33 opposition -8008 Aug 12 j 22:02 22° ₹ 12'04 -2°17'06 min. Earth dist. -8008 Aug 12 j 09:07 22°**✗**12'59 28.83064 AU conjunction -8014 Jan 25 j 01:35 7°**₹**32'21 -1°44'11 direct -8008 Oct 29 j 05:34 20°×747'57 -8014 Jan 25 j 01:34 -8007 Jan 25 j 02:18 22°**х¹**42′05 minimum elong 7°**₹**32'21 1°44'39 evening set -8014 Jan 25 j 23:13 max. Earth dist. 7°**҂**34'22 30.85064 AU morning rise -8014 Feb 10 j 06:17 8°**х¹**08′26 conjunction -8007 Feb 10 j 05:44 23°**∡**17'57 -2°09'40 retrograde -8014 May 12 j 17:08 10°**₹**07'03 minimum elong -8007 Feb 10 j 05:44 23°**҂**17'57 2°10'12 min. Earth dist. -8014 Jul 30 j 09:29 8°**≯**42'59 28.85112 AU max. Earth dist. -8007 Feb 10 j 20:54 23°**✗**19'22 30.82742 AU morning rise opposition -8014 Jul 31 j 03:58 8°**∡**'41'41 -1°53'43 -8007 Feb 26 j 11:16 23°×754'03 direct -8014 Oct 16 j 10:17 7°**∡**18′03 retrograde -8007 May 28 j 09:10 25°**₹**52'07 evening set -8013 Jan 11 j 13:51 9°**∡**11'31 opposition -8007 Aug 15 j 08:42 24°**₹**26'55 -2°20'18 min. Earth dist. -8007 Aug 14 j 19:37 24°**✗**27'51 28.82776 AU conjunction -8013 Jan 27 j 15:44 9°**∡**'47'19 -1°48'21 direct -8007 Oct 31 j 18:29 23°**₹**'02'42 minimum elong -8013 Jan 27 i 15:43 9°**∡**47'19 1°48'50 evening set -8006 Jan 27 j 16:30 24° **₹** 56'56 max. Earth dist. -8013 Jan 28 j 11:26 9°**х** 49'10 30.84909 AU morning rise -8013 Feb 12 i 20:45 10°**х** 23′26 conjunction -8006 Feb 12 i 19:59 25°**₹**32'49 -2°12'34 retrograde -8013 May 15 j 07:18 12°**х** 22′00 -8006 Feb 12 i 19:59 25°**х** 32'49 2°13'06 minimum elong opposition -8013 Aug 02 j 15:01 10°**∡**756'41 -1°58'05 max. Earth dist. -8006 Feb 13 i 09:24 25°**✗**34'04 30.82514 AU -8013 Aug 01 j 21:14 10°**₹**'57'57 28.84936 AU -8006 Mar 01 j 01:46 26°**х** 08′55 min. Earth dist. morning rise -8013 Oct 18 j 21:23 9°×33'01 -8006 May 30 j 23:05 28°**х** 06'54 direct retrograde -8012 Jan 14 j 03:52 11°**х** 26′37 -8006 Aug 17 j 19:29 opposition 26°**₹**41'42 -2°23'16 evening set 26°**∡**742'34 28.82629 AU -8006 Aug 17 j 07:22 min. Earth dist. 12°**∡**102'27 -1°52'21 -8012 Jan 30 j 06:05 -8006 Nov 03 j 06:30 conjunction 25° **₹**17'25 direct -8012 Jan 30 j 06:04 -8005 Jan 30 j 06:42 27°**х** 11′46 minimum elong 12°**₹**02'26 1°52'50 evening set -8012 Jan 31 j 01:31 max. Earth dist. 12°**尽**04'16 30.84675 AU -8005 Feb 15 j 10:32 -8012 Feb 15 j 11:07 12°**∡**³38'33 27°**₹**47'40 -2°15'15 morning rise conjunction 14°**∡**³37′04 -8012 May 16 j 19:19 -8005 Feb 15 j 10:32 27°**х** 47'39 2°15'47 retrograde minimum elong -8012 Aug 03 j 09:54 13°**✗**12'58 28.84662 AU -8005 Feb 16 j 00:26 27°**х** 48'57 30.82427 AU min. Earth dist. max. Earth dist. 28°**х¹**23'44 -8012 Aug 04 j 02:14 -8005 Mar 03 j 16:09 opposition 13°**∡**11'49 -2°02'16 morning rise direct -8012 Oct 20 j 08:44 11°**∡**′48′05 -8005 Apr 27 j 03:49 0°궁 -8011 Jan 15 j 17:47 13°**∡**'41'48 retrograde -8005 Jun 02 j 11:01 0°る21'38 evening set -8005 Jul 09 j 04:09 30°R.✓ conjunction -8011 Jan 31 j 20:14 14°**∡**17'38 -1°56'11 opposition -8005 Aug 20 j 06:06 28°**₹**156'29 -2°26'02 -8011 Jan 31 j 20:13 14°**∡**17'38 1°56'40 min. Earth dist. -8005 Aug 19 j 18:30 28°**≯**757′18 28.82618 AU minimum elong -8011 Feb 01 j 14:08 14°**✗**19'19 30.84358 AU -8005 Nov 05 j 19:30 27°**х** 32′08 max. Earth dist. direct -8011 Feb 17 j 01:28 14°**х** 53′45 -8004 Feb 01 j 21:02 29°**х** 26′37 morning rise evening set -8011 May 19 j 09:37 16°**₹**52'13 -8004 Feb 16 j 22:02 0°る retrograde 15°**₹**26'58 -2°06'16 opposition -8011 Aug 06 j 13:18 -8011 Aug 05 j 21:02 -8004 Feb 18 i 00:53 0°る02'30 -2°17'44 min. Earth dist. 15°**✗**28'07 28.84305 AU conjunction direct -8011 Oct 22 j 19:46 14°**х** 03′09 minimum elong -8004 Feb 18 i 00:53 0°る02'30 2°18'16 -8010 Jan 18 i 07:56 0°る03'39 30.82495 AU evening set 15°**х** 56′59 max. Earth dist. -8004 Feb 18 i 13:06 morning rise -8004 Mar 05 i 06:42 0°**云**38'35 -8010 Feb 03 i 10:37 16°**₹**32'50 -1°59'50 -8004 Jun 04 i 01:19 2°る36'23 conjunction retrograde -8010 Feb 03 i 10:36 16°**₹**32'50 2°00'20 -8004 Aug 21 j 16:47 1°る11'18 -2°28'35 minimum elong opposition -8010 Feb 04 j 03:38 16°**✗**34'25 30.83951 AU min. Earth dist. -8004 Aug 21 j 05:30 1°る12'06 28.82767 AU max. Earth dist. 17°**∡**¹08'57 -8004 Oct 10 i 08:52 morning rise -8010 Feb 19 j 15:58 30°R.✓ 29°**х** 46′55 retrograde -8010 May 21 j 20:00 19°**х** 07′19 direct -8004 Nov 07 j 06:51 -8010 Aug 08 j 09:56 17°**∡**′43′07 28.83882 AU min. Earth dist. -8004 Dec 04 j 22:11 0°궁 -8010 Aug 09 j 00:18 17°**х** 42'05 -2°10'05 evening set -8003 Feb 03 j 11:08 1°る41'31 opposition -8010 Oct 25 j 06:34 16°**∡**18'11 direct -8009 Jan 20 j 22:04 18°**∡**12′06 -8003 Feb 19 j 15:17 2°る17'25 -2°20'00 evening set conjunction -8003 Feb 19 j 15:17 2°る17'25 2°20'32 minimum elong -8009 Feb 06 j 01:05 18°**∡**¹47'58 -2°03'18 2°る18'35 30.82695 AU conjunction max. Earth dist. -8003 Feb 20 j 03:44 minimum elong -8009 Feb 06 j 01:05 18°**∡**'47'58 2°03'49 morning rise -8003 Mar 07 j 21:00 2°る53'30 max. Earth dist. -8009 Feb 06 j 17:27 18°**✗**′49′29 30.83518 AU retrograde -8003 Jun 06 j 13:53 4°る51'12 morning rise -8009 Feb 22 j 06:31 19°**х** 24′04 opposition -8003 Aug 24 j 03:31 3°**ප්**26'12 -2°30'53 retrograde -8009 May 24 j 08:42 21°×22'21 min. Earth dist. -8003 Aug 23 j 17:31 3°る26'55 28.83021 AU -8009 Aug 11 j 11:09 19°**≯**57'07 -2°13'42 -8003 Nov 09 j 19:00 2°る01'48 opposition direct

min. Earth dist.

-8009 Aug 10 j 20:39

19°**₹**'58'09 28.83449 AU

evening set

-8002 Feb 06 j 01:39

3°₹56'31

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Earth dist. -8002 Aug 26 j 04:06 morning rise -7995 Mar 26 j 19:10 20°る54'17 direct -8002 Nov 12 j 06:40 4°**ප**16'46 retrograde -7995 Jun 24 j 17:08 22°る51'01 -8001 Feb 08 j 16:20 evening set 6°る11'39 opposition -7995 Sep 10 j 16:22 21°る26'28 -2°40'53 min. Earth dist. -7995 Sep 10 j 13:51 21°る26'39 28.84558 AU conjunction -8001 Feb 24 j 20:43 6°る47'34 -2°23'54 direct -7995 Nov 27 j 18:34 20°**ප**01'31 -8001 Feb 24 j 20:43 -7994 Feb 24 j 22:59 21°る57'07 minimum elong 6°る47'34 2°24'26 evening set -8001 Feb 25 j 06:47 max. Earth dist. 6°る48'31 30.83320 AU morning rise -8001 Mar 13 j 02:28 7°る23'38 conjunction -7994 Mar 13 j 04:19 22°る33'03 -2°30'32 retrograde -8001 Jun 11 j 14:50 9°**ට**21'10 minimum elong -7994 Mar 13 j 04:20 22°る33'03 2°31'03 opposition -8001 Aug 29 j 00:48 7°る56'20 -2°34'49 max. Earth dist. -7994 Mar 13 j 06:47 22°る33'17 30.84456 AU min. Earth dist. -8001 Aug 28 j 16:53 7°る56'54 28.83675 AU morning rise -7994 Mar 29 j 09:45 23°る09'02 direct -8001 Nov 14 j 17:28 6°る31'52 retrograde -7994 Jun 27 j 05:07 25°る05'37 evening set -8000 Feb 11 j 06:56 8°る26'52 opposition -7994 Sep 13 j 02:46 23°る41'06 -2°41'03 min. Earth dist. -7994 Sep 13 j 01:37 23°る41'11 28.84801 AU conjunction -8000 Feb 27 j 11:29 9°る02'48 -2°25'31 direct -7994 Nov 30 j 07:36 22°る16'06 minimum elong -8000 Feb 27 i 11:29 9°る02'48 2°26'03 evening set -7993 Feb 27 i 13:38 24°る11'47 max. Earth dist. -8000 Feb 27 i 20:27 9°る03'38 30.83624 AU morning rise -8000 Mar 14 j 17:11 9°**ට**38'51 conjunction -7993 Mar 15 i 18:58 24°る47'44 -2°30'34 retrograde -8000 Jun 13 j 04:00 11°る36'17 -7993 Mar 15 i 18:59 24°る47'44 2°31'04 minimum elong -8000 Aug 30 j 11:26 10°る11'31 -2°36'25 max. Earth dist. -7993 Mar 15 i 19:47 24°る47'49 30.84771 AU opposition -8000 Aug 30 j 03:39 10°る12'05 28.83946 AU -7993 Apr 01 j 00:27 25°る23'42 min. Earth dist. morning rise -8000 Nov 16 j 05:45 8°る47'00 -7993 Jun 29 j 18:25 27°る20'09 direct retrograde -7999 Feb 12 j 21:43 10°る42'07 -7993 Sep 15 j 13:11 25°る55'42 -2°40'58 evening set opposition -7993 Sep 15 j 11:48 25°る55'48 28.85188 AU min. Earth dist. 11°る18'03 -2°26'55 -7999 Mar 01 j 02:19 -7993 Dec 02 j 20:10 conjunction 24°る30'39 direct -7999 Mar 01 j 02:19 -7992 Mar 01 j 04:03 11°る18'03 2°27'27 26°**る**26'26 minimum elong evening set -7999 Mar 01 j 09:32 max. Earth dist. 11°る18'44 30.83849 AU -7992 Mar 17 j 09:30 27°る02'23 -2°30'23 -7999 Mar 17 j 08:03 11°**る**54'06 morning rise conjunction -7999 Jun 15 j 15:36 13°**る**51'25 -7992 Mar 17 j 09:30 27°る02'23 2°30'53 retrograde minimum elong -7999 Sep 01 j 22:10 12°**ප්**26'43 -2°37'48 -7992 Mar 17 j 10:01 27°る02'26 30.85222 AU opposition max. Earth dist. 12°る27'08 28.84143 AU -7992 Apr 02 j 14:48 min. Earth dist. -7999 Sep 01 j 16:25 morning rise 27°**る**38'21 direct -7999 Nov 18 j 15:47 11°**る**02'07 retrograde -7992 Jul 01 j 05:21 29°る34'40 -7998 Feb 15 j 12:23 12°る57'20 opposition -7992 Sep 16 j 23:43 28°る10'19 -2°40'38 evening set min. Earth dist. -7992 Sep 16 j 23:55 28°る10'18 28.85718 AU conjunction -7998 Mar 03 j 17:17 13°る33'17 -2°28'05 direct -7992 Dec 04 j 07:16 26°る45'14 -7998 Mar 03 j 17:17 13°る33'17 2°28'38 -7991 Mar 03 j 18:34 28°る41'08 minimum elong evening set -7998 Mar 03 j 23:54 13°る33'54 30.84006 AU max. Earth dist. -7998 Mar 19 j 22:55 14°**る**09'19 -7991 Mar 20 j 00:06 29°る17'05 -2°29'57 morning rise conjunction -7998 Jun 18 j 03:23 16°る06'29 -7991 Mar 20 j 00:07 29°る17'05 2°30'27 retrograde minimum elong 14°る41'50 -2°38'56 -7991 Mar 19 i 23:44 opposition -7998 Sep 04 i 08:48 max. Earth dist. 29°る17'03 30.85835 AU 14°る42'13 28.84253 AU -7991 Apr 05 i 05:22 min. Earth dist. -7998 Sep 04 i 03:26 morning rise 29°る53'02 direct -7998 Nov 21 i 05:21 13°る17'09 -7991 Apr 08 i 10:48 0°≈ evening set -7997 Feb 18 j 03:16 15°る12'29 retrograde -7991 Jul 03 i 18:39 1°≈49'13 -7991 Sep 19 i 09:59 0°≈24'59 -2°40'03 opposition -7997 Mar 06 i 08:07 15°**ප්**48'25 -2°29'02 min. Earth dist. -7991 Sep 19 i 10:00 0°≈24'59 28.86386 AU conjunction -7997 Mar 06 i 08:07 15°る48'25 2°29'34 -7991 Oct 04 i 05:28 30°Rる minimum elong -7997 Mar 06 j 12:25 15°る48'49 30.84088 AU -7991 Dec 06 j 19:16 28°る59'53 max. Earth dist. direct morning rise -7997 Mar 22 j 13:49 16°**る**24'26 -7990 Feb 06 j 13:58 0°28 retrograde -7997 Jun 20 j 15:57 18°る21'28 evening set -7990 Mar 06 j 09:12 0°≈55'54 opposition -7997 Sep 06 j 19:22 16°る56'51 -2°39'49 min. Earth dist. -7997 Sep 06 j 15:26 16°る57'07 28.84330 AU conjunction -7990 Mar 22 j 14:47 1°≈31'52 -2°29'18 -7997 Nov 23 j 17:13 15°る32'04 -7990 Mar 22 j 14:47 1°≈31'52 2°29'49 direct minimum elong -7996 Feb 20 j 17:52 17°**る**27'29 -7990 Mar 22 j 13:14 evening set max. Earth dist. 1°≈31'43 30.86555 AU -7990 Apr 07 j 19:59 morning rise 2°≈07'48 -7996 Mar 07 j 23:00 18°**る**03'25 -2°29'46 -7990 Jul 06 j 05:48 conjunction retrograde 4°≈03'53 minimum elong -7996 Mar 07 j 23:00 18°る03'25 2°30'18 opposition -7990 Sep 21 j 20:31 2°≈39'46 -2°39'14 max. Earth dist. -7996 Mar 08 j 03:21 18°る03'50 30.84160 AU min. Earth dist. -7990 Sep 21 j 22:17 2°≈39'38 28.87149 AU morning rise -7996 Mar 24 j 04:30 18°**る**39'25 direct -7990 Dec 09 j 04:43 1°≈14'39 retrograde -7996 Jun 22 j 03:28 20°**ප**36'18 evening set -7989 Mar 08 j 23:48 3°≈10'48 -7996 Sep 08 j 05:54 19°る11'43 -2°40'28 opposition -7996 Sep 08 j 02:50 19°る11'56 28.84408 AU -7989 Mar 25 j 05:31 3°≈46'46 -2°28'25 min. Earth dist. conjunction

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Earth dist. -7989 Sep 24 j 09:00 4°≈54'31 28.87932 AU evening set -7982 Mar 25 j 05:48 18°≈54'38 direct -7989 Dec 11 j 18:03 3°≈29'33 5°≈25'49 evening set -7988 Mar 10 j 14:33 conjunction -7982 Apr 10 j 11:40 19°≈30'34 -2°16'06 19°**≈**30'34 2°16'30 minimum elong -7982 Apr 10 j 11:41 conjunction -7988 Mar 26 j 20:10 6°≈01'47 -2°27'19 max. Earth dist. -7982 Apr 10 j 00:46 19°≈29'34 30.91285 AU minimum elong -7988 Mar 26 j 20:11 6°≈01'47 2°27'48 morning rise -7982 Apr 26 j 15:52 20°≈06'23 -7982 Jul 24 j 05:12 max. Earth dist. -7988 Mar 26 j 16:02 6°≈01'24 30.88120 AU retrograde 22°≈01'13 -7982 Oct 09 j 08:22 morning rise -7988 Apr 12 j 01:11 6°≈37'42 opposition 20°≈37'37 -2°24'11 retrograde -7988 Jul 10 j 04:53 8°≈33'33 min. Earth dist. -7982 Oct 09 j 17:31 20°≈36'58 28.91693 AU opposition -7988 Sep 25 j 17:28 7°≈09'39 -2°36'52 direct -7982 Dec 27 j 11:41 19°≈12'06 min. Earth dist. -7988 Sep 25 j 21:00 7°≈09'24 28.88694 AU evening set -7981 Mar 27 j 20:04 21°≈08'45 direct -7988 Dec 13 j 04:57 5°≈44'31 evening set -7987 Mar 13 j 05:03 7°≈40'53 conjunction -7981 Apr 13 j 01:52 21°≈44'42 -2°13'30 minimum elong -7981 Apr 13 j 01:52 21°≈44'42 2°13'52 conjunction -7987 Mar 29 j 10:54 8°≈16'52 -2°25'59 max. Earth dist. -7981 Apr 12 j 14:06 21°≈43'36 30.91783 AU minimum elong -7987 Mar 29 j 10:55 8°≈16'52 2°26'25 morning rise -7981 Apr 29 j 05:50 22°≈20'29 max. Earth dist. -7987 Mar 29 i 06:32 8°≈16'27 30.88842 AU retrograde -7981 Jul 26 i 15:18 24°≈15'09 morning rise -7987 Apr 14 j 15:40 8°≈52'46 opposition -7981 Oct 11 i 18:50 22°≈51'36 -2°21'18 retrograde -7987 Jul 12 j 16:13 10°≈48'29 min. Earth dist. -7981 Oct 12 i 05:29 22°≈50'50 28.92248 AU -7987 Sep 28 j 04:03 9°≈24'40 -2°35'19 -7981 Dec 29 j 22:28 21°≈26'02 opposition direct -7987 Sep 28 j 08:45 9°≈24'20 28.89356 AU evening set -7980 Mar 29 j 10:09 23°≈22'43 min. Earth dist. -7987 Dec 15 j 17:38 7°≈59'30 direct -7986 Mar 15 j 19:52 9°≈55'57 -7980 Apr 14 j 16:00 23°≈58'39 -2°10'42 conjunction evening set -7980 Apr 14 j 16:00 23°≈58'39 2°11'04 minimum elong 10°≈31'55 -2°24'26 -7986 Apr 01 j 01:36 -7980 Apr 14 j 04:03 conjunction max. Earth dist. 23°≈57'32 30.92407 AU -7986 Apr 01 j 01:36 -7980 Apr 30 j 19:45 10°≈31'55 2°24'53 24°≈34'25 minimum elong morning rise -7986 Mar 31 j 18:42 -7980 Jul 28 j 01:43 max. Earth dist. 10°≈31'16 30.89460 AU 26°≈28'55 retrograde -7980 Oct 13 j 05:11 11°**≈**07'48 -7986 Apr 17 j 06:24 25°≈05'26 -2°18'12 morning rise opposition 25°≈04'41 28.92924 AU -7986 Jul 15 j 05:14 -7980 Oct 13 j 15:43 retrograde 13°≈03'22 min. Earth dist. -7986 Sep 30 j 14:31 -7980 Dec 31 j 11:47 opposition 11°**≈**39'37 -2°33'32 direct 23°≈39'50 -7986 Sep 30 j 20:07 -7979 Apr 01 j 00:12 min. Earth dist. 11°≈39'13 28.89923 AU evening set 25°≈36'34 direct -7986 Dec 18 j 06:18 10°≈14'24 evening set -7985 Mar 18 j 10:31 12°≈10'55 conjunction -7979 Apr 17 j 05:55 26°≈12'29 -2°07'42 minimum elong -7979 Apr 17 j 05:56 26°≈12'29 2°08'03 conjunction -7985 Apr 03 j 16:25 12°≈46'52 -2°22'40 max. Earth dist. -7979 Apr 16 j 16:28 26°≈11'14 30.93157 AU -7985 Apr 03 j 16:26 12°≈46'53 2°23'05 morning rise -7979 May 03 j 09:36 26°≈48'14 minimum elong -7985 Apr 03 j 09:18 12°≈46'13 30.89976 AU -7979 Jul 30 j 12:54 28°≈42'37 max. Earth dist. retrograde 13°**≈**22'44 -7985 Apr 19 j 20:55 -7979 Oct 15 j 15:37 27°≈19'12 -2°14'53 morning rise opposition -7985 Jun 14 j 22:55 -7979 Oct 16 j 03:02 15°≈ min. Earth dist. 27°≈18'23 28.93739 AU -7985 Jul 17 j 16:35 15°≈18'08 retrograde direct -7978 Jan 02 j 22:08 25°≈53'35 -7985 Aug 19 j 19:21 15°R≈ evening set -7978 Apr 03 j 14:13 27°≈50'22 -7985 Oct 03 i 01:10 opposition 13°≈54'26 -2°31'32 -7978 Apr 19 j 20:01 min. Earth dist. -7985 Oct 03 i 08:28 13°≈53'55 28.90391 AU conjunction 28°≈26'18 -2°04'31 direct -7985 Dec 20 i 20:23 12°≈29'09 minimum elong -7978 Apr 19 j 20:02 28°≈26'18 2°04'51 -7984 Mar 20 i 00:59 14°≈25'42 max. Earth dist. -7978 Apr 19 i 06:51 28°≈25'04 30.94036 AU evening set -7984 Apr 04 j 12:58 15°**≈** -7978 May 05 i 23:22 29°≈02'02 morning rise -7978 Jun 03 j 23:05 0°**₩** -7984 Apr 05 j 06:47 15°≈01'39 -2°20'41 -7978 Aug 01 j 23:12 0° ¥ 56'16 conjunction retrograde 15°≈01'39 2°21'07 -7978 Oct 01 j 21:22 minimum elong -7984 Apr 05 i 06:47 30°R≈ 29°≈32'58 -2°11'23 max. Earth dist. -7984 Apr 04 j 21:35 15°≈00'48 30.90426 AU opposition -7978 Oct 18 j 02:01 -7978 Oct 18 j 14:09 -7984 Apr 21 j 11:17 15°≈37'30 min. Earth dist. 29°≈32'06 28.94650 AU morning rise -7984 Jul 19 j 05:16 17°≈32'43 direct -7977 Jan 05 j 10:18 28°≈07'22 retrograde -7984 Oct 04 j 11:35 16°≈09'03 -2°29'18 -7977 Apr 04 j 05:24 0°**)**€ opposition -7984 Oct 04 j 18:59 0°**)**€04'14 min. Earth dist. 16°≈08'32 28.90815 AU evening set -7977 Apr 06 j 04:23 -7984 Nov 20 j 16:51 15°R≈ -7977 Apr 22 j 09:56 0°**)**40'09 -2°01'08 direct -7984 Dec 22 j 09:54 14°≈43'41 conjunction -7983 Jan 22 j 19:12 15°**≈** minimum elong -7977 Apr 22 j 09:57 0°**¥**40'09 2°01'27 evening set -7983 Mar 22 j 15:24 16°≈40'17 max. Earth dist. -7977 Apr 21 j 18:54 0° **★**38'45 30.95000 AU morning rise -7977 May 08 j 13:14 1°**升**15′52 conjunction -7983 Apr 07 j 21:18 17°≈16'14 -2°18'29 retrograde -7977 Aug 04 j 11:26 3°**₩**10′00 -7983 Apr 07 j 21:18 17°≈16'14 2°18'54 -7977 Oct 20 j 12:30 1° **\( 46'48 \) -2°07'40** minimum elong opposition max. Earth dist. -7983 Apr 07 j 11:37 -7977 Oct 21 j 01:02 1°**)** 45'55 28.95636 AU 17°≈15'20 30.90840 AU min. Earth dist.

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7976 in astronomical counting style is the year 7977 BCE in historical counting style. direct -7976 Jan 07 j 22:13 0°\(\frac{1}{13}\) retrograde -7970 Aug 19 i 17:49 18°**)**(45'45 opposition -7976 Apr 07 j 18:10 2°¥18'09 -7970 Nov 04 j 14:32 17° # 22'59 -1°36'46 evening set min. Earth dist. -7970 Nov 05 j 09:20 17°**)** €21'40 29.00871 AU 2°**)** 54'04 -1°57'34 -7969 Jan 23 j 15:03 15°**)** 57'16 -7976 Apr 23 j 23:47 conjunction direct -7976 Apr 23 j 23:48 2°**)** 54'04 1°57'53 -7969 Apr 24 j 18:26 17°**)** 54'22 minimum elong evening set -7976 Apr 23 j 09:05 max. Earth dist. 2°**₭**52'42 30.95991 AU -7969 May 10 j 22:55 18°**升**30′12 -1°28′08 -7976 May 10 j 02:42 morning rise 3°**¥**29'46 conjunction 5°**)**€23'48 -7976 Aug 05 j 22:10 -7969 May 10 j 22:56 retrograde minimum elong 18° **★**30'12 1°28'18 -7969 May 10 j 01:55 -7976 Oct 21 j 23:06 opposition 4°**)** €00'42 -2°03'46 max. Earth dist. 18°**¥**28'15 31.01093 AU min. Earth dist. -7976 Oct 22 j 13:12 3°**¥**59'42 28.96610 AU morning rise -7969 May 26 j 23:54 19°**₩**05'45 direct -7975 Jan 09 j 11:27 2° ¥ 35'08 retrograde -7969 Aug 22 j 02:48 20°**)** 58'48 -7969 Nov 07 j 01:12 evening set -7975 Apr 10 j 08:16 4°**)** 32′09 opposition 19°**¥**36′04 -1°31′45 -7969 Nov 07 j 20:27 19°**)** 34'43 29.01517 AU min. Earth dist. conjunction -7975 Apr 26 j 13:38 5°¥08'03 -1°53'50 direct -7968 Jan 26 j 03:39 18°¥10'20 minimum elong -7975 Apr 26 j 13:39 5°**)**€08'03 1°54'06 evening set -7968 Apr 26 j 07:36 20°**)**€07'24 max. Earth dist. -7975 Apr 25 j 20:56 5°**₭**06'30 30.96952 AU morning rise -7975 May 12 j 16:28 5°**)** 43′45 conjunction -7968 May 12 j 11:41 20°\(\frac{1}{43}'12\) -1°23'23 retrograde -7975 Aug 08 j 10:52 7°**)** € 37'40 minimum elong -7968 May 12 j 11:42 20°\day{43'12 1°23'32 opposition -7975 Oct 24 j 09:30 6°\(\)14'39 -1°59'40 max. Earth dist. -7968 May 11 j 13:17 20°**)** 41'07 31.01797 AU min. Earth dist. -7975 Oct 24 j 23:41 6°**)** 13'39 28.97527 AU morning rise -7968 May 28 j 12:30 21°**)** 18'44 4°**){**49'05 direct -7974 Jan 12 j 00:22 retrograde -7968 Aug 23 j 13:16 23°**)** 11'40 evening set -7974 Apr 12 j 22:16 6°**)**(46'10 opposition -7968 Nov 08 j 11:45 21° \(\pm\)48'57 -1°26'35 max. Earth dist. -7974 Apr 28 j 10:26 7°**升**20'28 30.97819 AU min. Earth dist. -7968 Nov 09 i 06:57 21°**)** 47'36 29.02278 AU direct -7967 Jan 27 i 15:28 20°\ 23'11 conjunction -7974 Apr 29 i 03:37 7°**)** 22'04 -1°49'56 -7967 Apr 28 j 20:41 22°\ 20'16 evening set -7974 Apr 29 j 03:38 7°**¥**22'04 1°50'12 max. Earth dist. -7967 May 14 j 03:06 22°\\$54'02 31.02619 AU minimum elong -7974 May 15 j 06:03 7° **X** 57'44 morning rise -7974 Aug 10 j 22:10 9° # 51'31 -7967 May 15 j 00:41 22°\ 56'03 -1°18'30 retrograde conjunction -7974 Oct 26 j 20:16 8°**¥**28'35 -1°55'24 -7967 May 15 j 00:41 minimum elong 22°\\$56'03 1°18'37 opposition -7974 Oct 27 j 12:23 -7967 May 31 j 00:58 min. Earth dist. 8°**升**27'27 28.98341 AU morning rise 23°**∺**31'32 -7967 Aug 25 j 22:30 -7973 Jan 14 j 13:01 7°**₩**03'02 retrograde 25°**)** 24'21 direct -7967 Nov 10 j 22:19 -7973 Apr 15 j 12:09 9°\00'08 24°**H**01'42 -1°21'19 evening set opposition min. Earth dist. -7967 Nov 11 j 18:30 24°**₭**00'17 29.03156 AU -7973 May 01 j 17:17 9°\;\;36'01 -1°45'52 -7966 Jan 30 j 03:49 conjunction direct 22°\ 35'56 -7973 May 01 j 17:18 9°**\**36'01 1°46'06 -7966 May 01 j 09:54 24°**)** 33'01 minimum elong evening set -7973 Apr 30 j 22:40 9°**₭**34'17 30.98592 AU max. Earth dist. -7973 May 17 j 19:32 -7966 May 17 j 13:27 25°**₭**08'47 -1°13'30 morning rise 10°**) 1**1′40 conjunction retrograde -7973 Aug 13 j 11:04 12°**₩**05'19 minimum elong -7966 May 17 j 13:28 25°¥08'47 1°13'38 -7973 Oct 29 j 06:51 10°¥42'27 -1°50'59 max. Earth dist. -7966 May 16 j 14:36 25°**₭**06'39 31.03577 AU opposition min. Earth dist. -7973 Oct 29 j 22:56 10°**)**41'19 28.99051 AU morning rise -7966 Jun 02 j 13:31 25°**)** 44'15 -7972 Jan 17 j 03:14 9°**升**16'52 retrograde -7966 Aug 28 j 10:24 27° **∺** 36'58 direct -7972 Apr 17 j 01:56 11°**)** 13'59 -7966 Nov 13 j 08:55 26°**)** 14′22 -1°15′55 evening set opposition -7972 May 02 j 11:22 11°**)** 48′02 30.99262 AU min. Earth dist. -7966 Nov 14 j 04:26 26°**₭**13'00 29.04167 AU max. Earth dist. -7965 Feb 01 j 15:51 24°**)** 48'38 direct -7972 May 03 j 06:55 11°**)**49'51 -1°41'38 -7965 May 03 j 22:46 26°**)** 45'44 conjunction evening set -7972 May 03 i 06:56 27°**)** 19'23 31.04641 AU minimum elong 11°**)**(49'51 1°41'53 max. Earth dist. -7965 May 19 i 03:45 -7972 May 19 j 08:51 morning rise 12°\ 25'29 retrograde -7972 Aug 14 j 21:01 14°**)** 18'59 conjunction -7965 May 20 j 02:08 27° **\**21'28 -1°08'24 opposition -7972 Oct 30 i 17:27 12°\ 56'10 -1°46'23 minimum elong -7965 May 20 j 02:08 27°**H**21'28 1°08'29 min. Earth dist. -7972 Oct 31 i 11:15 12°\ 54'54 28.99689 AU -7965 Jun 05 i 01:40 27° ¥ 56'54 morning rise -7971 Jan 18 j 14:41 11°**₩**30'32 -7965 Aug 30 j 21:03 29°\ 49'33 direct retrograde -7971 Apr 19 j 15:30 13°**¥**27'39 -7965 Nov 15 j 19:43 28°\H27'02 -1°10'24 evening set opposition min. Earth dist. -7965 Nov 16 j 16:33 28°\circ\tau25'34 29.05269 AU 14°**)** €03'31 -1°37'17 conjunction -7971 May 05 j 20:23 direct -7964 Feb 04 j 04:41 27° ¥ 01'20 minimum elong -7971 May 05 j 20:24 14°\(\)\(\)03'31 1°37'29 evening set -7964 May 05 j 11:46 28°**)** 58'27 -7971 May 05 j 00:24 max. Earth dist. 14°**₭**01'39 30.99883 AU -7964 May 21 j 14:43 29°**)** 34'10 -1°03'12 -7971 May 21 j 22:04 14°**)** 39'07 conjunction morning rise -7971 Aug 17 j 07:08 16°**)** € 32′28 -7964 May 21 j 14:43 29°\(\)34'10 1°03'16 retrograde minimum elong -7971 Nov 02 j 04:00 15°**₭**09'41 -1°41'39 -7964 May 20 j 15:31 29°**₭**32'00 31.05782 AU opposition max. Earth dist.  $0^{\circ}\Upsilon$ 15°**₭**08'25 29.00273 AU -7964 Jun 02 j 05:08 min. Earth dist. -7971 Nov 02 j 21:55 0°**Y**09'34 direct -7970 Jan 21 j 04:32 13°**)**(44'01 morning rise -7964 Jun 06 j 13:58 evening set -7970 Apr 22 j 05:07 15°**)**41'07 retrograde -7964 Sep 01 j 09:20 2°Y02'08 opposition -7964 Nov 17 j 06:17 0°**Υ**39'42 -1°04'47 conjunction -7970 May 08 j 09:42 16°**¥**16'58 -1°32'46 min. Earth dist. -7964 Nov 18 j 02:42 0°**Υ**38'17 29.06408 AU minimum elong -7970 May 08 j 09:43 16° **★** 16'58 1°32'58 -7964 Dec 11 j 20:34 30°**₹** -7970 May 07 j 12:15 16°**光**14'59 31.00468 AU -7963 Feb 05 j 18:40 29°**)** 14'03 max. Earth dist. direct -7970 May 24 j 11:07 16°**)** 52'33 -7963 Apr 01 j 04:20  $0^{\circ}\Upsilon$ morning rise

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Earth dist. -7963 Nov 20 j 15:02 morning rise -7956 Jun 24 j 11:48 19° **Y** 40' 43 direct -7962 Feb 08 j 06:16 1°**Y**26'47 retrograde -7956 Sep 18 j 18:30 evening set -7962 May 10 j 13:38 3°**Y**23'56 opposition -7956 Dec 04 j 22:03 18°**Y**18'36 -0°17'16 -7956 Dec 05 j 22:43 min. Earth dist. 18°**Υ**16'53 29.13082 AU 3°Y59'36 -0°52'30 -7955 Feb 23 j 20:46 conjunction -7962 May 26 j 15:54 direct 16°**Y**53′01 minimum elong -7962 May 26 j 15:54 3°**Y**59'36 0°52'32 evening set -7955 May 26 j 04:56 18°**Y**49'59 max. Earth dist. -7962 May 25 j 16:00 3°Υ57'23 31.07989 AU max. Earth dist. -7955 Jun 10 j 01:32 19°**Y**22'57 31.13446 AU morning rise -7962 Jun 11 j 14:13 4° Y 34' 57 retrograde -7962 Sep 06 j 06:25 6°Y27'21 conjunction -7955 Jun 11 j 03:57 19°Y25'25 -0°13'17 opposition -7962 Nov 22 j 04:05 5°**Υ**05'05 -0°53'16 minimum elong -7955 Jun 11 j 03:57 19°**Y**25′25 0°13'09 min. Earth dist. -7962 Nov 23 j 01:57 5°Υ03'33 29.08536 AU behind sun begin -7955 Jun 11 j 00:08 19°Y25'04 -7961 Feb 10 j 20:10 3°Y39'30 behind sun end -7955 Jun 11 j 07:46 19°**Y**25'45 evening set -7961 May 13 j 02:35 5°Y36'39 morning rise -7955 Jun 26 j 22:55 20°Y00'30 max. Earth dist. -7961 May 28 j 03:08 6°**Y**09'56 31.08960 AU retrograde -7955 Sep 21 i 06:08 21°Y52'25 opposition -7955 Dec 07 i 09:04 20°Y30'19 -0°11'09 conjunction -7961 May 29 i 04:21 6°Y12'17 -0°47'03 min. Earth dist. -7955 Dec 08 i 08:42 20°Υ28'41 29.13900 AU -7961 May 29 i 04:21 6°**Y**12'17 0°47'03 direct -7954 Feb 26 i 10:38 19°**Y**04'46 minimum elong -7961 Jun 14 j 02:16 6°**Y**47'36 -7954 May 28 j 16:55 21°Y01'44 morning rise evening set -7961 Sep 08 j 17:35 8°Y39'56 retrograde opposition -7961 Nov 24 j 15:06  $7^{\circ}$ **Y**17'42 -0°47'24 -7954 Jun 13 j 15:24 21°Y37'07 -0°07'34 conjunction 7°Υ16'08 29.09464 AU -7954 Jun 13 j 15:24 21°**Y**37'07 0°07'26 min. Earth dist. -7961 Nov 25 j 13:43 minimum elong -7960 Feb 13 j 07:18 5°Y52'08 -7954 Jun 13 j 09:27 21°Y36'35 behind sun begin direct -7960 May 14 j 15:09 7°**Υ**49'15 -7954 Jun 13 j 21:20 21°**Y**37'39 behind sun end evening set -7954 Jun 12 j 13:13 21°**Υ**'34'41 31.14313 AU max. Earth dist. -7960 May 30 j 16:39 8°Y24'52 -0°41'31 -7954 Jun 29 j 09:42 22°**Y**12′10 conjunction morning rise -7960 May 30 j 16:40 8°**Υ**24'52 0°41'31 -7954 Sep 23 j 16:14 24°\cdot\04'04 minimum elong retrograde -7960 May 29 j 15:47 8°**Y**22'33 31.09834 AU -7954 Dec 09 j 20:18 22°**Y**'42'01 -0°05'01 max. Earth dist. opposition -7960 Jun 15 j 14:01 9°**Y**00'09 -7954 Dec 10 j 20:35 22°**Υ**40'20 29.14829 AU morning rise min. Earth dist. -7960 Sep 10 j 02:21 10°**Y**52'24 -7953 Feb 28 j 22:02 21°Υ16'31 retrograde direct -7960 Nov 26 j 02:07 9°Y30'13 -0°41'28 evening set -7953 May 31 j 04:50 23°Y13'28 opposition min. Earth dist. -7960 Nov 27 j 01:24 9°**Υ**28'35 29.10269 AU max. Earth dist. -7953 Jun 15 j 01:11 23°Υ46'26 31.15298 AU -7959 Feb 14 j 20:30 8°Y04'38 direct 23°Y48'49 -0°01'49 -7959 May 17 j 03:54 10°**Y**01'44 conjunction -7953 Jun 16 j 02:48 evening set max. Earth dist. -7959 Jun 01 j 02:20 10°**Y**34'51 31.10600 AU -7953 Jun 16 j 02:47 23°**Y**48'49 0°01'40 minimum elong behind sun begin -7953 Jun 15 j 20:17 23°Y48'14 -7959 Jun 02 j 04:49 10°**Y**37'19 -0°35'57 -7953 Jun 16 j 09:16 23°**Y**49'24 conjunction behind sun end -7959 Jun 02 j 04:50 10°**Y**37'19 0°35'54 -7953 Jul 01 j 20:33 24°\bar{Y}23'49 minimum elong morning rise 11°Y12'34 26°**Y**15'42 morning rise -7959 Jun 18 i 01:51 retrograde -7953 Sep 26 i 02:55 -7953 Oct 07 i 14:44 26°**Y**13′25 retrograde -7959 Sep 12 j 12:36 13°**Y**′04'43 asc. node 11°\bar{Y}42'34 -0°35'28 24°**Y**'53'43 0°01'07 opposition -7959 Nov 28 j 12:56 opposition -7953 Dec 12 i 07:27 11°**Υ**40'56 29.10998 AU min. Earth dist. -7959 Nov 29 j 12:19 min. Earth dist. -7953 Dec 13 i 07:05 24°**Υ**52'05 29.15845 AU direct -7958 Feb 17 i 07:57 10°**Y**16′59 direct -7952 Mar 02 i 11:59 23°Y28'18 -7958 May 19 j 16:24 12°Y14'03 -7952 Jun 01 j 16:37 25°**Y**25'14 evening set evening set max. Earth dist. -7952 Jun 16 j 11:48 25°Υ58'07 31.16345 AU -7958 Jun 04 j 17:01 12°\bar{Y}49'36 -0°30'19 conjunction minimum elong -7958 Jun 04 i 17:02 12°**Υ**49'36 0°30'16 conjunction -7952 Jun 17 j 13:56 26°Υ00'33 0°04'03 max. Earth dist. -7958 Jun 03 j 15:19 12°**Y**47'13 31.11298 AU minimum elong -7952 Jun 17 j 13:56 26°**Y**′00′33 0°04'14 25°**Y**59'59 -7958 Jun 20 j 13:24 13°**Y**24'48 behind sun begin -7952 Jun 17 j 07:32 morning rise -7958 Sep 14 j 21:26 15°Y16'54 behind sun end -7952 Jun 17 j 20:20 26°**Y**01′08 retrograde -7958 Dec 01 j 00:04 13°Υ54'45 -0°29'26 -7952 Jul 03 j 07:13 26°Y35'32 opposition morning rise -7958 Dec 02 j 00:31 13°**Y**53'03 29.11671 AU -7952 Sep 27 j 14:29 28°Y27'25 min. Earth dist. retrograde 12°\bar{Y}29'10 -7952 Dec 13 j 18:42 27°**Y**05'30 0°07'15 direct -7957 Feb 19 j 20:00 opposition 14°**Y**26'12 -7952 Dec 14 j 18:31 27°**Y**03'51 29.16912 AU evening set -7957 May 22 j 04:42 min. Earth dist. max. Earth dist. -7957 Jun 06 j 01:55 14°**Y**59'12 31.11973 AU direct -7951 Mar 04 j 23:26 25°**Y**40′09 evening set -7951 Jun 04 j 04:24 27°**Y**37'06 conjunction -7957 Jun 07 j 04:41 15°**Υ**01'42 -0°24'40 max. Earth dist. -7951 Jun 18 j 23:59 28°**Y**10′01 31.17405 AU minimum elong -7957 Jun 07 j 04:41 15°**Υ**01'42 0°24'35 -7957 Jun 23 j 00:43 15°**Y**36'52 -7951 Jun 20 j 01:15 28°Y12'22 0°09'46 morning rise conjunction -7957 Sep 17 j 08:33 17°Y28'53 -7951 Jun 20 j 01:15 28°**Ƴ**12'22 0°09'58 retrograde minimum elong

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7951 in astronomical counting style is the year 7952 BCE in historical counting style. 28°**Y**11'54 morning rise -7951 Jun 19 i 20:00 -7945 Jul 19 i 07:56 11°**8**57'25 behind sun begin -7951 Jun 20 j 06:30 28°Y12'51 -7945 Oct 13 j 12:01 13°849'18 behind sun end retrograde -7951 Jul 05 j 17:49 28°**Y**47'18 -7945 Dec 30 j 03:32 12°**8**27'28 0°49'23 morning rise opposition 0°B -7951 Aug 12 j 13:53 min. Earth dist. -7945 Dec 31 j 04:28 12°**8**25'46 29.21852 AU -7951 Sep 29 j 23:06 -7944 Mar 20 j 12:04 11°**8**02'19 retrograde 0°**8**39'12 direct -7944 Jun 19 j 13:09 -7951 Nov 19 j 03:19 30°R℃ evening set 12°**8**58'58 29°Υ17'21 0°13'23 -7944 Jul 04 j 04:00 opposition -7951 Dec 16 j 06:01 max. Earth dist. 13°**8**31'31 31.21989 AU min. Earth dist. -7951 Dec 17 j 06:11 29°**Y**15'41 29.17944 AU -7950 Mar 07 j 12:36 27°Y52'04 direct conjunction -7944 Jul 05 j 05:25 13°**8**33'54 0°48'59 29° Y 49'01 -7944 Jul 05 j 05:25 evening set -7950 Jun 06 j 16:21 minimum elong 13°**8**33'54 0°49'19 -7950 Jun 11 j 16:10 0°8 morning rise -7944 Jul 20 j 17:46 14°**8**08'32 -7950 Jun 21 j 09:59 -7944 Aug 14 j 23:35 max. Earth dist. 0°**႘**21'47 31.18406 AU 15°8 -7944 Oct 14 j 22:23 16°800'24 retrograde conjunction -7950 Jun 22 j 12:24 0°824'15 0°15'29 -7944 Dec 18 j 10:03 15°R₩ minimum elong -7950 Jun 22 j 12:23 0°**8**24'15 0°15'42 opposition -7944 Dec 31 j 15:10 14°**8**38'33 0°55'10 behind sun begin -7950 Jun 22 j 11:01 0°824'08 min. Earth dist. -7943 Jan 01 j 15:15 14°**8**36'54 29.22232 AU behind sun end -7950 Jun 22 j 13:45 0°824'23 direct -7943 Mar 23 j 02:46 13°**8**13'24 morning rise -7950 Jul 08 j 04:30 0°859'09 -7943 Jun 17 j 09:47 15°8 retrograde -7950 Oct 02 j 09:26 2°851'03 evening set -7943 Jun 22 j 00:15 15°**8**09'59 opposition -7950 Dec 18 j 17:30 1°**8**29'15 0°19'30 min. Earth dist. -7950 Dec 19 j 17:21 1°**8**27'37 29.18908 AU conjunction -7943 Jul 07 j 15:43 15°**8**44'52 0°54'21 direct -7949 Mar 09 j 23:39 0°804'02 minimum elong -7943 Jul 07 i 15:43 15°**8**44'52 0°54'42 evening set -7949 Jun 09 j 03:55 2°800'57 max. Earth dist. -7943 Jul 06 i 14:02 15°842'28 31.22380 AU morning rise -7943 Jul 23 i 03:29 16°819'26 -7949 Jun 24 i 23:30 2°836'09 0°21'10 retrograde -7943 Oct 17 j 09:34 18°**8**11'20 conjunction -7949 Jun 24 j 23:30 2°836'09 0°21'25 -7942 Jan 03 j 02:48 16°849'26 1°00'51 minimum elong opposition -7949 Jun 23 j 22:06 2°833'47 31.19303 AU -7942 Jan 04 j 02:34 16°**8**47'49 29.22670 AU max. Earth dist. min. Earth dist. -7949 Jul 10 j 14:50 3°811'00 -7942 Mar 25 j 14:50 15°**8**24'18 direct morning rise -7949 Oct 04 j 18:23 5°802'55 -7942 Jun 24 j 11:07 17°**8**20'50 retrograde evening set 3°841'09 0°25'35 -7949 Dec 21 j 05:09 -7942 Jul 09 j 01:52 17°**8**53'25 31.22852 AU max. Earth dist. opposition -7949 Dec 22 j 05:59 3°**8**39'26 29.19742 AU min. Earth dist. -7942 Jul 10 j 02:01 17°**8**55'41 0°59'38 -7948 Mar 11 j 11:12 2°**8**15'59 conjunction direct -7942 Jul 10 j 02:01 17°**8**55'41 -7948 Jun 10 j 15:43 4°**8**12'52 0°59'59 evening set minimum elong -7948 Jun 25 j 08:00 4°**8**45'32 31.20071 AU -7942 Jul 25 j 13:02 18°**8**30'12 max. Earth dist. morning rise -7942 Oct 19 j 18:03 20°**8**22'07 retrograde -7948 Jun 26 j 10:30 4°**8**48'00 0°26'50 -7941 Jan 05 j 14:39 19°**8**00'14 1°06'28 conjunction opposition -7948 Jun 26 j 10:29 4°**8**48'00 0°27'05 -7941 Jan 06 j 13:59 18°**8**58'38 29.23186 AU minimum elong min. Earth dist. morning rise -7948 Jul 12 j 01:23 5°**8**22'50 direct -7941 Mar 28 j 04:07 17°**8**35'09 retrograde -7948 Oct 06 j 05:15 7°814'43 -7941 Jun 26 j 21:54 19°**8**31'38 evening set opposition -7948 Dec 22 j 16:31 5°**8**52'58 0°31'37 max. Earth dist. -7941 Jul 11 j 11:25 20°804'07 31.23419 AU min. Earth dist. -7948 Dec 23 j 16:35 5°**8**51'19 29.20443 AU -7947 Mar 13 j 22:57 4°827'49 -7941 Jul 12 j 11:58 20°806'25 1°04'50 direct conjunction -7947 Jun 13 j 03:18 6°824'40 -7941 Jul 12 j 11:58 20°**8**06'25 1°05'12 evening set minimum elong -7941 Jul 27 j 22:31 20°**8**40'54 morning rise -7947 Jun 28 j 21:35 6°859'46 0°32'28 -7941 Oct 22 j 04:28 22°**8**32'52 conjunction retrograde -7947 Jun 28 j 21:34 -7940 Jan 08 i 02:25 21°811'00 1°11'58 minimum elong 6°859'46 0°32'44 opposition max. Earth dist. -7947 Jun 27 i 19:35 6°857'20 31.20691 AU min. Earth dist. -7940 Jan 09 i 00:38 21°809'29 29.23808 AU morning rise -7947 Jul 14 i 11:42 7°**8**34'32 direct -7940 Mar 29 i 15:24 19°**8**45'58 retrograde -7947 Oct 08 i 14:49 9°826'26 evening set -7940 Jun 28 j 08:34 21°**8**42'26 -7947 Dec 25 j 04:15 8°804'40 0°37'36 opposition min. Earth dist. -7947 Dec 26 j 05:27 8°802'56 29.21003 AU -7940 Jul 13 j 22:07 22°**8**17'11 1°09'57 conjunction -7946 Mar 16 j 11:24 6°839'31 -7940 Jul 13 i 22:07 22°**8**17'11 1°10'19 direct minimum elong -7940 Jul 12 j 23:15 22°815'02 31.24069 AU evening set -7946 Jun 15 j 14:47 8°836'18 max. Earth dist. max. Earth dist. -7946 Jun 30 j 05:56 9°**8**08'53 31.21195 AU morning rise -7940 Jul 29 j 07:54 22°**8**51'38 retrograde -7940 Oct 23 j 13:25 24°**8**43'40 conjunction -7946 Jul 01 j 08:18 9°811'21 0°38'02 opposition -7939 Jan 09 j 14:10 23°**8**21'49 1°17'22 -7946 Jul 01 j 08:18 9°811'21 0°38'19 min. Earth dist. -7939 Jan 10 j 12:47 23°**8**20'16 29.24486 AU minimum elong -7946 Jul 16 j 21:54 9°846'04 -7939 Apr 01 j 02:52 21°**8**56'53 morning rise direct -7946 Oct 11 j 01:45 11°**8**37'58 -7939 Jun 30 j 19:21 23°**8**53'19 retrograde evening set -7946 Dec 27 j 15:52 10°816'10 0°43'32 -7939 Jul 15 j 08:52 24°**8**25'50 31.24763 AU opposition max. Earth dist. 10°**8**14'31 29.21452 AU min. Earth dist. -7946 Dec 28 j 16:06 direct -7945 Mar 19 j 00:32 8°**8**51'02 conjunction -7939 Jul 16 j 08:04 24°**8**28'01 1°14'57 evening set -7945 Jun 18 j 02:07 10°**8**47'45 minimum elong -7939 Jul 16 j 08:04 24°**8**28'01 1°15'21 morning rise -7939 Jul 31 j 17:24 25°**8**02'26 conjunction -7945 Jul 03 j 19:00 11°**8**22'44 0°43'33 retrograde -7939 Oct 26 j 00:23 26°**8**54'33 -7945 Jul 03 j 18:59 11°**8**22'44 0°43'51 -7938 Jan 12 j 02:05 25°832'45 1°22'40 minimum elong opposition max. Earth dist. -7945 Jul 02 j 16:47 11°**8**20'17 31.21603 AU -7938 Jan 12 j 23:15 25°**8**31'18 29.25181 AU min. Earth dist.

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 37 Attention, astronomical year style is used: The year -7938 in astronomical counting style is the year 7939 BCE in historical counting style.							
		-					1046122
direct	-7938 Apr 03 j 14:12	24° <b>8</b> 07'54		conjunction	-7932 Jul 31 j 04:37	9° <b>∏</b> 45'15	1°46'33
evening set	-7938 Jul 03 j 05:54	26° <b>8</b> 04'19		minimum elong	-7932 Jul 31 j 04:36	9° <b>∏</b> 45'15	1°47'02
conjunction	7020 1.1 10:10:02	26° <b>8</b> 38'58	1°19'51	morning rise	-7932 Aug 15 j 09:54 -7932 Nov 10 j 02:59	10° <b>Ⅲ</b> 19'23 12° <b>Ⅲ</b> 12'03	
minimum elong	-7938 Jul 18 j 18:02 -7938 Jul 18 j 18:01	26° <b>8</b> 38'58		retrograde opposition	-7932 Nov 10 J 02.39 -7931 Jan 27 j 15:34	12 <b>П</b> 12 03 10° <b>П</b> 50'07	1°55'57
max. Earth dist.	-7938 Jul 17 j 19:55	_	31.25429 AU	min. Earth dist.	-7931 Jan 28 j 10:19		29.27354 AU
morning rise	-7938 Aug 03 j 02:36	20 <b>8</b> 3034	31.23429 AU	direct	-7931 Apr 19 j 04:12	9° <b>I</b> I25'34	29.27334 AU
retrograde	-7938 Oct 28 j 10:19	29° <b>8</b> 05'34		evening set	-7931 Jul 18 j 06:36	11° <b>П</b> 21'36	
opposition	-7937 Jan 14 j 14:17	27° <b>8</b> 43'47	1°27'51	evening sec	7931 341 10 3 00.30	11 22150	
min. Earth dist.	-7937 Jan 15 j 12:08	_	29.25830 AU	conjunction	-7931 Aug 02 j 14:07	11° <b>Ⅱ</b> 55'55	1°50'30
direct	-7937 Apr 06 j 01:22	26° <b>8</b> 19'02		minimum elong	-7931 Aug 02 j 14:06	11° <b>II</b> 55'55	1°50'59
evening set	-7937 Jul 05 j 16:35	28° <b>8</b> 15'25		max. Earth dist.	-7931 Aug 01 j 19:28		31.27237 AU
max. Earth dist.	-7937 Jul 20 j 05:55		31.26036 AU	morning rise	-7931 Aug 17 j 18:43	12° <b>Ⅲ</b> 30′01	
	,			retrograde	-7931 Nov 12 j 12:09	14° <b>∏</b> 22'45	
conjunction	-7937 Jul 21 j 03:57	28° <b>8</b> 50'02	1°24'38	opposition	-7930 Jan 30 j 04:01	13° <b>Ⅱ</b> 00'45	2°00'05
minimum elong	-7937 Jul 21 j 03:56	28° <b>8</b> 50'02		min. Earth dist.	-7930 Jan 30 j 22:46	12° <b>Ⅱ</b> 59′29	29.27396 AU
morning rise	-7937 Aug 05 j 12:00	29° <b>8</b> 24'22		direct	-7930 Apr 21 j 16:55	11° <b>Ⅱ</b> 36′13	
	-7937 Aug 22 j 09:28	$\Pi^{\circ}0$		evening set	-7930 Jul 20 j 16:31	13° <b>Ⅲ</b> 32′10	
retrograde	-7937 Oct 30 j 21:35	1° <b>Ⅱ</b> 16'41		C	J		
	-7936 Jan 13 j 23:26	30° <b>₹</b> 8		conjunction	-7930 Aug 04 j 23:15	14° <b>Ⅱ</b> 06′26	1°54'17
opposition	-7936 Jan 17 j 02:18	29° <b>8</b> 54'55	1°32'53	minimum elong	-7930 Aug 04 j 23:14	14° <b>Ⅱ</b> 06′26	1°54'46
min. Earth dist.	-7936 Jan 17 j 22:56	29° <b>8</b> 53'31	29.26387 AU	max. Earth dist.	-7930 Aug 04 j 04:50	14° <b>∏</b> 04'42	31.27312 AU
direct	-7936 Apr 07 j 12:58	28° <b>8</b> 30'14		morning rise	-7930 Aug 20 j 03:28	14° <b>Ⅱ</b> 40′30	
	-7936 Jun 24 j 15:53	$\Pi^{\circ}0$		retrograde	-7930 Nov 14 j 22:13	16° <b>Ⅲ</b> 33'19	
evening set	-7936 Jul 07 j 03:10	0° <b>Ⅱ</b> 26'36		opposition	-7929 Feb 01 j 16:22	15° <b>Ⅱ</b> 11'16	2°04'03
				min. Earth dist.	-7929 Feb 02 j 09:03	15° <b>Ⅱ</b> 10′08	29.27520 AU
conjunction	-7936 Jul 22 j 13:51	1° <b>Ⅲ</b> 01'10	1°29'17	direct	-7929 Apr 24 j 04:43	13° <b>∐</b> 46'46	
minimum elong	-7936 Jul 22 j 13:51	1° <b>Ⅱ</b> 01'10	1°29'43	evening set	-7929 Jul 23 j 02:19	15° <b>Ⅱ</b> 42'37	
max. Earth dist.	-7936 Jul 21 j 16:00	0° <b>Ⅱ</b> 59'06	31.26519 AU				
morning rise	-7936 Aug 06 j 21:18	1° <b>Ⅲ</b> 35′28		conjunction	-7929 Aug 07 j 08:33	16° <b>Ⅱ</b> 16'51	1°57'54
retrograde	-7936 Nov 01 j 08:35	3° <b>Ⅲ</b> 27'52		minimum elong	-7929 Aug 07 j 08:33	16° <b>Ⅱ</b> 16'51	1°58'24
opposition	-7935 Jan 18 j 14:34	2° <b>Ⅱ</b> 06′06	1°37'48	max. Earth dist.	-7929 Aug 06 j 15:37	16° <b>Ⅱ</b> 15'16	31.27473 AU
min. Earth dist.	-7935 Jan 19 j 11:46	2° <b>Ⅲ</b> 04'40	29.26818 AU	morning rise	-7929 Aug 22 j 12:12	16° <b>Ⅱ</b> 50′53	
direct	-7935 Apr 09 j 23:59	0° <b>Ⅱ</b> 41′28		retrograde	-7929 Nov 17 j 07:23	18° <b>Ⅱ</b> 43'48	
evening set	-7935 Jul 09 j 13:41	2° <b>Ⅲ</b> 37'48		opposition	-7928 Feb 04 j 04:43	17° <b>Ⅱ</b> 21'43	2°07'49
				min. Earth dist.	-7928 Feb 04 j 21:26		29.27749 AU
conjunction	-7935 Jul 24 j 23:44	3° <b>Ⅱ</b> 12'19	1°33'49	direct	-7928 Apr 25 j 15:21	15° <b>Ⅱ</b> 57'16	
minimum elong	-7935 Jul 24 j 23:43	3° <b>Ⅱ</b> 12'18	1°34'16	evening set	-7928 Jul 24 j 12:06	17° <b>Ⅱ</b> 53′03	
max. Earth dist.	-7935 Jul 24 j 02:42	3° <b>Ⅱ</b> 10′20	31.26871 AU				
morning rise	-7935 Aug 09 j 06:32	3° <b>Ⅱ</b> 46'34		conjunction	-7928 Aug 08 j 17:44	18° <b>Ⅱ</b> 27'15	2°01'21
retrograde	-7935 Nov 03 j 19:40	5° <b>Ⅱ</b> 39'03		minimum elong	-7928 Aug 08 j 17:43	18° <b>Ⅱ</b> 27'15	2°01'52
opposition	-7934 Jan 21 j 02:48	4° <b>Ⅱ</b> 17'16		max. Earth dist.	-7928 Aug 08 j 01:36		31.27751 AU
min. Earth dist.	-7934 Jan 21 j 23:11		29.27096 AU	morning rise	-7928 Aug 23 j 20:59	19° <b>Ⅱ</b> 01'15	
direct	-7934 Apr 12 j 14:23	2° <b>∏</b> 52'40		retrograde	-7928 Nov 18 j 18:04	20° <b>∏</b> 54'16	
evening set	-7934 Jul 12 j 00:14	4° <b>Ⅱ</b> 48'57		opposition	-7927 Feb 05 j 17:03	19° <b>Ⅲ</b> 32'10	
				min. Earth dist.	-7927 Feb 06 j 07:50		29.28063 AU
conjunction	-7934 Jul 27 j 09:30	5° <b>Ⅱ</b> 23'25		direct	-7927 Apr 28 j 02:18	18° <b>Ⅱ</b> 07'48	
minimum elong	-7934 Jul 27 j 09:29	5° <b>∏</b> 23'25		evening set	-7927 Jul 26 j 21:47	20° <b>∏</b> 03'32	21 20000 411
max. Earth dist.	-7934 Jul 26 j 12:01		31.27081 AU	max. Earth dist.	-7927 Aug 10 j 11:26	20°Щ36°14	31.28090 AU
morning rise	-7934 Aug 11 j 15:50	5° <b>П</b> 57'38 7° <b>П</b> 50'11		:	7027 A 11:02:40	200Т27142	200.412.0
retrograde	-7934 Nov 06 j 07:48		1047!11	conjunction	-7927 Aug 11 j 02:49	20° <b>Ⅲ</b> 37'42 20° <b>Ⅲ</b> 37'42	
opposition min. Earth dist.	-7933 Jan 23 j 15:09	6° <b>Ⅱ</b> 28'21	29.27263 AU	minimum elong	-7927 Aug 11 j 02:48	20°Щ3/42 21°Щ11'40	2°05'09
	-7933 Jan 24 j 11:15	5° <b>П</b> 03'47	29.27203 AU	morning rise	-7927 Aug 26 j 05:37	21 H1140 23°H04'49	
direct	-7933 Apr 15 j 02:21	5 Д0347 6°Д59'59		retrograde opposition	-7927 Nov 21 j 05:23	23 $\Pi$ 04 49 21° $\Pi$ 42'43	2°14'50
evening set	-7933 Jul 14 j 10:21	0 Д3939		min. Earth dist.	-7926 Feb 08 j 05:38 -7926 Feb 08 j 20:21		29.28437 AU
agniumation	7022 Jul 20 ; 10:00	7° <b>∏</b> 34'24	1042120	direct	-	21 Щ41 43 20°Щ18'25	29.26437 AU
conjunction minimum elong	-7933 Jul 29 j 19:09 -7933 Jul 29 j 19:08	7° <b>П</b> 34'24		evening set	-7926 Apr 30 j 12:46 -7926 Jul 29 j 07:28	20 <b>П</b> 1823 22° <b>П</b> 14'07	
max. Earth dist.	-7933 Jul 29 j 19.08 -7933 Jul 28 j 23:08		31.27187 AU	evening set	1920 Jul 29 J 01.28	22 <b>11</b> 140/	
morning rise	-7933 Jul 28 j 23:08 -7933 Aug 14 j 00:49	7 <b>П</b> 3231 8° <b>П</b> 08'35	31.2/10/ AU	conjunction	-7926 Aug 13 j 12:02	22° <b>∏</b> 48'14	2°07'44
retrograde	-7933 Aug 14 J 00.49 -7933 Nov 08 j 16:27	10° <b>Д</b> 01'12		minimum elong	-7926 Aug 13 j 12:01	22° <b>∏</b> 48'14	
opposition	-7933 Nov 08 j 10.27 -7932 Jan 26 j 03:29	8° <b>П</b> 39'19		max. Earth dist.	-7926 Aug 13 j 12.01 -7926 Aug 12 j 22:12		31.28469 AU
min. Earth dist.	-7932 Jan 26 j 23:19		29.27324 AU	morning rise	-7926 Aug 28 j 14:21	23° <b>∏</b> 22'11	21.20107110
direct	-7932 Apr 16 j 15:43	7° <b>П</b> 14'46	27.27.321.710	retrograde	-7926 Nov 23 j 16:45	25° <b>Ⅱ</b> 15'28	
evening set	-7932 Jul 15 j 20:37	9° <b>П</b> 10'53		opposition	-7925 Feb 10 j 18:14	23° <b>П</b> 53'21	2°18'03
max. Earth dist.	-7932 Jul 30 j 08:07		31.27219 AU	min. Earth dist.	-7925 Feb 11 j 07:39		29.28806 AU
	2 2			direct	-7925 May 03 j 01:31	22° <b>∏</b> 29'09	

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7925 in astronomical counting style is the year 7926 BCE in historical counting style. -7925 Jul 31 j 17:07 24°**Ⅲ**24'48 max. Earth dist. -7919 Aug 27 i 18:36 8°502'48 31.28502 AU evening set -7919 Sep 12 j 04:02 8°937'29 morning rise -7925 Aug 15 j 21:03 24°II58'53 2°10'39 -7919 Dec 08 j 20:20 10°931'36 retrograde conjunction -7925 Aug 15 j 21:02 24°**II**58'53 2°11'11 -7918 Feb 26 j 11:56 9°509'10 2°34'50 minimum elong opposition -7925 Aug 15 j 07:07 24°**Д**57'34 31.28812 AU 9°508'37 29.28528 AU max. Earth dist. min. Earth dist. -7918 Feb 26 j 20:05 25°**Ⅲ**32'48 -7925 Aug 30 j 23:07 morning rise direct -7918 May 18 j 12:32 7°9545'18 -7925 Nov 26 j 05:24 retrograde 27°**Ⅲ**26′13 evening set -7918 Aug 15 j 11:39 9°9540'24 opposition -7924 Feb 13 j 06:54 26°**Ⅲ**04'06 2°21'04 min. Earth dist. -7924 Feb 13 j 19:46 26°**Ⅲ**03'14 29.29129 AU conjunction -7918 Aug 30 j 12:42 10°9514'17 2°25'39 direct -7924 May 04 j 12:05 24°**Ⅲ**39'59 minimum elong -7918 Aug 30 j 12:42 10°9514'17 2°26'11 evening set -7924 Aug 02 j 02:45 26°**Ⅲ**35'35 max. Earth dist. -7918 Aug 30 j 04:11 10°513'28 31.28179 AU -7918 Sep 14 j 12:48 morning rise 10°9548'05 -7918 Dec 11 j 07:44 conjunction -7924 Aug 17 j 06:20 27°**I**109'38 2°13'23 retrograde 12°5642'19 minimum elong -7924 Aug 17 j 06:20 27°**Ⅲ**09'38 2°13'54 opposition -7917 Mar 01 j 00:53 11°**©**19'49 2°36'22 max. Earth dist. -7924 Aug 16 j 18:00 27°**Д**08'28 31.29074 AU min. Earth dist. -7917 Mar 01 j 08:45 11°**©**19'17 29.28245 AU morning rise -7924 Sep 01 j 07:52 27°**Ⅱ**43'32 direct -7917 May 20 j 22:58 9°955'59 retrograde -7924 Nov 27 j 15:12 29°**Ⅲ**37'05 evening set -7917 Aug 17 j 20:42 11°950'59 opposition -7923 Feb 14 j 19:34 28°**Ⅲ**14'57 2°23'53 min. Earth dist. -7923 Feb 15 j 08:05 28°**Д**14'06 29.29332 AU conjunction -7917 Sep 01 j 21:35 12°9524'50 2°26'59 direct -7923 May 07 j 01:00 26°**I**I50'54 minimum elong -7917 Sep 01 j 21:35 12°9524'50 2°27'31 evening set -7923 Aug 04 j 12:34 28°**II**46'27 max. Earth dist. -7917 Sep 01 j 15:00 12°524'13 31.27924 AU morning rise -7917 Sep 16 i 21:26 12°958'39 conjunction -7923 Aug 19 j 15:29 29°II20'28 2°15'55 retrograde -7917 Dec 13 i 19:02 14°953'00 minimum elong -7923 Aug 19 j 15:29 29°II20'28 2°16'27 opposition -7916 Mar 02 i 13:44 13°930'26 2°37'41 max. Earth dist. -7923 Aug 19 j 02:42 29°**Ⅱ**19'15 31.29215 AU min. Earth dist. -7916 Mar 02 j 19:51 13°530'02 29.28023 AU -7923 Sep 03 j 16:50 29°**I**I54'21 -7916 May 22 j 11:03 12°906'39 morning rise direct -7923 Sep 06 j 06:29 0ಂತಾ -7916 Aug 19 j 05:55 14°901'35 evening set -7923 Nov 30 j 03:20 1°9548'01 retrograde -7922 Feb 17 j 08:25 -7916 Sep 03 j 06:23 0°925'51 2°26'30 conjunction 14°935'25 2°28'06 opposition -7922 Feb 17 j 19:46 0°525'05 29.29413 AU -7916 Sep 03 j 06:23 min. Earth dist. minimum elong 14°935'25 2°28'38 -7922 Mar 05 j 14:32 -7916 Sep 02 j 23:57 30°R∏ max. Earth dist. 14°534'49 31.27743 AU direct -7922 May 09 j 13:13 29°**Ⅲ**01'52 -7916 Sep 18 j 06:13 15°909'13 morning rise -7922 Jul 09 j 15:39 -7916 Dec 15 j 07:49 17°903'43 0°00 retrograde -7922 Aug 06 j 22:02 -7915 Mar 05 j 02:33 evening set 0°957'20 opposition 15°9541'07 2°38'46 -7915 Mar 05 j 07:37 15°540'46 29.27894 AU min. Earth dist. -7922 Aug 22 j 00:41 1°531'20 2°18'16 conjunction direct -7915 May 24 j 20:35 14°9517'24 -7922 Aug 22 j 00:40 minimum elong 1°9531'20 2°18'48 evening set -7915 Aug 21 j 14:56 16°9512'15 max. Earth dist. -7922 Aug 21 j 13:29 1°530'16 31.29211 AU morning rise -7922 Sep 06 j 01:34 2°9505'12 conjunction -7915 Sep 05 j 15:20 16°9546'05 2°29'01 retrograde -7922 Dec 02 j 13:31 3°958'59 minimum elong -7915 Sep 05 j 15:20 16°5946'05 2°29'32 -7921 Feb 19 j 21:26 2°536'46 2°28'54 max. Earth dist. -7915 Sep 05 j 11:04 16°5945'41 31.27648 AU opposition -7921 Feb 20 j 09:00 2°536'00 29.29342 AU -7915 Sep 20 j 14:55 17°9519'53 min. Earth dist. morning rise -7921 May 12 j 02:00 -7915 Dec 17 j 18:20 19°9514'31 direct 1°9512'50 retrograde -7921 Aug 09 j 07:41 3°9508'13 -7914 Mar 07 j 15:35 17°951'54 2°39'37 evening set opposition min. Earth dist. -7914 Mar 07 j 19:40 17°951'37 29.27822 AU conjunction -7921 Aug 24 i 09:49 3°542'11 2°20'25 direct -7914 May 27 i 08:59 16°9528'16 -7921 Aug 24 j 09:49 minimum elong 3°542'11 2°20'57 evening set -7914 Aug 23 j 24:00 18°9523'03 -7921 Aug 23 j 22:35 max. Earth dist. 3°541'07 31.29076 AU -7914 Sep 08 i 00:03 morning rise -7921 Sep 08 i 10:33 4°9516'02 conjunction 18°956'53 2°29'42 -7921 Dec 05 i 00:12 6°909'55 minimum elong -7914 Sep 08 i 00:03 18°956'53 2°30'14 retrograde -7920 Feb 22 j 10:06 4°947'39 2°31'06 max. Earth dist. -7914 Sep 07 j 19:54 18°956'29 31.27602 AU opposition min. Earth dist. -7920 Feb 22 j 20:01 4°546'59 29.29146 AU -7914 Sep 22 j 23:46 19°930'41 morning rise 3°523'44 -7914 Dec 20 j 07:39 21°925'28 direct -7920 May 13 j 13:55 retrograde evening set -7920 Aug 10 j 17:06 5°9519'02 opposition -7913 Mar 10 j 04:36 20°502'49 2°40'15 min. Earth dist. -7913 Mar 10 j 07:09 20°502'39 29.27784 AU conjunction -7920 Aug 25 j 18:56 5°952'58 2°22'22 direct -7913 May 29 j 20:52 18°939'16 -7920 Aug 25 j 18:56 minimum elong 5°952'58 2°22'54 -7913 Aug 26 j 09:03 20°934'00 evening set

-7920 Aug 25 j 08:44

-7920 Sep 09 j 19:22

-7920 Dec 06 j 09:46

-7919 Feb 23 j 23:04

-7919 Feb 24 j 09:13

-7919 May 16 j 01:07

-7919 Aug 13 j 02:22

-7919 Aug 28 j 03:49

-7919 Aug 28 j 03:49

max. Earth dist.

morning rise

retrograde

opposition

evening set

conjunction

minimum elong

direct

min. Earth dist.

5°952'00 31.28816 AU

6°957'47 29.28855 AU

6°558'28 2°33'04

8°903'40 2°24'07

8°903'40 2°24'39

conjunction

minimum elong

max. Earth dist.

min. Earth dist.

morning rise

retrograde

opposition

evening set

direct

6°9526'48

8°9520'48

5°934'34

7°929'45

-7913 Sep 10 j 09:05

-7913 Sep 10 j 09:05

-7913 Sep 10 j 06:46

-7913 Sep 25 j 08:39

-7913 Dec 22 j 18:53

-7912 Mar 11 j 17:35

-7912 Mar 11 j 20:09

-7912 May 31 j 08:53

-7912 Aug 27 j 18:15

21°907'50 2°30'11

22°513'54 2°40'38

21°907'36 31.27546 AU

22°513'43 29.27708 AU

2°30'42

21°**©**07'50

21°9541'38

23°936'34

20°950'26

22°9545'06

Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 39								
	ical year style is used: Th	-						
conjunction	-7912 Sep 11 j 18:03	23° <b>©</b> 18'55		max. Earth dist.	-7906 Sep 25 j 03:49		31.24195 AU	
minimum elong	-7912 Sep 11 j 18:03	23° <b>©</b> 18'55	2°30'57	morning rise	-7906 Oct 10 j 00:51	6° <b>Ω</b> 59'52		
max. Earth dist.	-7912 Sep 11 j 16:01	23° <b>©</b> 18'43	31.27441 AU	retrograde	-7905 Jan 07 j 01:31	8° <b>Ω</b> 55'38		
morning rise	-7912 Sep 26 j 17:43	23° <b>9</b> 52'44		opposition	-7905 Mar 28 j 13:46	7° <b>Ω</b> 32'24		
retrograde	-7912 Dec 24 j 06:09	25° <b>5</b> 47'48		min. Earth dist.	-7905 Mar 28 j 10:13		29.24002 AU	
opposition	-7911 Mar 14 j 06:38	24° <b>5</b> 25'06	2°40'48	direct	-7905 Jun 16 j 16:44	6° <b>Ω</b> 09'07		
min. Earth dist.	-7911 Mar 14 j 07:24	24° <b>©</b> 25'03	29.27554 AU	evening set	-7905 Sep 12 j 09:34	8° <b>Ω</b> 03'01		
direct	-7911 Jun 02 j 20:41	23° <b>©</b> 01'43						
evening set	-7911 Aug 30 j 03:20	24° <b>9</b> 56'19		conjunction	-7905 Sep 27 j 09:25	8° <b>Ω</b> 36'51		
				minimum elong	-7905 Sep 27 j 09:26	8° <b>Ω</b> 36'51		
conjunction	-7911 Sep 14 j 03:02	25° <b>©</b> 30'07	2°30'29	max. Earth dist.	-7905 Sep 27 j 12:58		31.23436 AU	
minimum elong	-7911 Sep 14 j 03:03	25° <b>©</b> 30'07	2°31'00	morning rise	-7905 Oct 12 j 10:13	9° <b>Ω</b> 10'46		
max. Earth dist.	-7911 Sep 14 j 01:56		31.27220 AU	retrograde	-7904 Jan 09 j 15:02	11° <b>Ω</b> 06′37		
morning rise	-7911 Sep 29 j 02:42	26° <b>©</b> 03'57		opposition	-7904 Mar 30 j 02:39	9° <b>Ω</b> 43'17		
retrograde	-7911 Dec 26 j 16:28	27° <b>©</b> 59'10		min. Earth dist.	-7904 Mar 29 j 21:28		29.23277 AU	
opposition	-7910 Mar 16 j 19:58	26° <b>©</b> 36'25	2°40'44	direct	-7904 Jun 18 j 03:49	8° <b>Ω</b> 20′01		
min. Earth dist.	-7910 Mar 16 j 21:00		29.27275 AU	evening set	-7904 Sep 13 j 18:25	10° <b>Ω</b> 13'50		
direct	-7910 Jun 05 j 08:17	25° <b>©</b> 13'06						
evening set	-7910 Sep 01 j 12:31	27° <b>©</b> 07'35		conjunction	-7904 Sep 28 j 18:31	10° <b>Ω</b> 47'41	2°24'49	
				minimum elong	-7904 Sep 28 j 18:31	10° <b>Ω</b> 47'41		
conjunction	-7910 Sep 16 j 12:12	27° <b>©</b> 41'24	2°30'19	max. Earth dist.	-7904 Sep 28 j 23:58		31.22745 AU	
minimum elong	-7910 Sep 16 j 12:12	27° <b>5</b> 641'24		morning rise	-7904 Oct 13 j 19:28	11° <b>Ω</b> 21'37		
max. Earth dist.	-7910 Sep 16 j 11:57		31.26877 AU	retrograde	-7903 Jan 11 j 02:20	13° <b>Ω</b> 17'36		
morning rise	-7910 Oct 01 j 11:54	28° <b>©</b> 15'14		opposition	-7903 Apr 01 j 15:48	11° <b>Ω</b> 54'11	2°33'53	
	-7910 Dec 03 j 20:57	$0^{\circ}\Omega$		min. Earth dist.	-7903 Apr 01 j 10:12		29.22629 AU	
retrograde	-7910 Dec 29 j 03:45	0° <b>Ω</b> 10'35		direct	-7903 Jun 20 j 15:23	10° <b>Ω</b> 30'58		
	-7909 Jan 24 j 01:36	30° <b>₹</b> ∽		evening set	-7903 Sep 16 j 03:12	12° <b>Ω</b> 24'41		
opposition	-7909 Mar 19 j 09:04	28° <b>©</b> 47'46	2°40'26			_		
min. Earth dist.	-7909 Mar 19 j 08:23		29.26850 AU	conjunction	-7903 Oct 01 j 03:25	12° <b>Ω</b> 58'32		
direct	-7909 Jun 07 j 20:13	27° <b>©</b> 24'28		minimum elong	-7903 Oct 01 j 03:25	12° <b>Ω</b> 58'32		
evening set	-7909 Sep 03 j 21:42	29° <b>©</b> 18'52		max. Earth dist.	-7903 Oct 01 j 09:43		31.22157 AU	
				morning rise	-7903 Oct 16 j 04:45	13° <b>Ω</b> 32'31		
conjunction	-7909 Sep 18 j 21:18	29° <b>©</b> 52'40	2°29'56	_	-7903 Dec 02 j 11:05	15° <b>Ω</b>		
minimum elong	-7909 Sep 18 j 21:18	29°S52'40	2°30'25	retrograde	-7902 Jan 13 j 14:25	15° <b>Ω</b> 28'37		
max. Earth dist.	-7909 Sep 18 j 21:09		31.26372 AU		-7902 Feb 26 j 06:03	15°R <b>Ω</b>		
	-7909 Sep 22 j 02:33	0°N		opposition	-7902 Apr 04 j 04:51	14° <b>Ω</b> 05'09		
morning rise	-7909 Oct 03 j 21:14	0° <b>Ω</b> 26'32		min. Earth dist.	-7902 Apr 03 j 21:01		29.22077 AU	
retrograde	-7909 Dec 31 j 15:13	2° <b>Ω</b> 21'59	2020154	direct	-7902 Jun 23 j 03:02	12° <b>Ω</b> 41'59		
opposition	-7908 Mar 20 j 22:19	0° <b>Ω</b> 59'05		evening set	-7902 Sep 18 j 12:05	14° <b>£</b> 35'38		
min. Earth dist.	-7908 Mar 20 j 21:49		29.26274 AU		-7902 Sep 29 j 08:10	15° <b>Ω</b>		
T'	-7908 Apr 30 j 12:23	30°₹©			7002 0 4 02 12 21	150 00001	2021117	
direct	-7908 Jun 09 j 06:37	29° <b>©</b> 35'49		conjunction	-7902 Oct 03 j 12:31	15° <b>Ω</b> 09'31		
. ,	-7908 Jul 17 j 15:02	0°Ω		minimum elong	-7902 Oct 03 j 12:31	15° <b>Ω</b> 09'31		
evening set	-7908 Sep 05 j 06:42	1° <b>Ω</b> 30′05		max. Earth dist.	-7902 Oct 03 j 19:57		31.21640 AU	
	7000 G 20:06 27	20 002152	2020120	morning rise	-7902 Oct 18 j 14:13	15° <b>Ω</b> 43'32		
conjunction	-7908 Sep 20 j 06:27	2° <b>Ω</b> 03'53		retrograde	-7901 Jan 16 j 01:39	17° <b>Ω</b> 39'46	2020152	
minimum elong	-7908 Sep 20 j 06:27	2° <b>Ω</b> 03'53	2°29'48 31.25728 AU	opposition min. Earth dist.	-7901 Apr 06 j 17:57	16° <b>Ω</b> 16'16	29.21591 AU	
max. Earth dist.	-7908 Sep 20 j 07:53		31.23/28 AU	min. Earth dist.	-7901 Apr 06 j 10:04		29.21591 AU	
morning rise	-7908 Oct 05 j 06:24	2° <b>Ω</b> 37'45		J: 4	-7901 Jun 05 j 01:39	15°RΩ		
retrograde	-7907 Jan 02 j 01:56	4° <b>Ω</b> 33'19	2020100	direct	-7901 Jun 25 j 14:11	14° <b>Ω</b> 53'11		
opposition	-7907 Mar 23 j 11:24	3° <b>Ω</b> 10'19		avanina aat	-7901 Jul 15 j 16:33	15° <b>Ω</b>		
min. Earth dist.	-7907 Mar 23 j 09:34 -7907 Jun 11 j 18:32	1°Ω47'02	29.25559 AU	evening set	-7901 Sep 20 j 20:56	16° <b>Ω</b> 46'45		
direct					7001 0-4 05 : 21.41	179 020140	2010112	
evening set	-7907 Sep 07 j 15:48	3° <b>Ω</b> 41'11		conjunction	-7901 Oct 05 j 21:41	17° <b>Ω</b> 20'40 17° <b>Ω</b> 20'40		
agniumation	7007 Can 22: 15:25	40 <b>O</b> 1 5100	2020121	minimum elong	-7901 Oct 05 j 21:42		31.21182 AU	
conjunction	-7907 Sep 22 j 15:25	4°Ω15'00		max. Earth dist.	-7901 Oct 06 j 06:29		31.21182 AU	
minimum elong max. Earth dist.	-7907 Sep 22 j 15:26	4°Ω15'00	2°28'59 31.24979 AU	morning rise	-7901 Oct 20 j 23:44 -7900 Jan 18 j 13:33	17° <b>Ω</b> 54'43 19° <b>Ω</b> 51'06		
	-7907 Sep 22 j 16:44	4°Ω48'53	31.447/7 AU	retrograde	-	19° <b>∂</b> <i>ℓ</i> 51′06 18° <b>Ω</b> 27′34	2027121	
morning rise	-7907 Oct 07 j 15:45			opposition	-7900 Apr 08 j 06:57			
retrograde	-7906 Jan 04 j 14:44	6° <b>Ω</b> 44'32	2020110	min. Earth dist.	-7900 Apr 07 j 21:06	18°8€28'14 17° <b>Ω</b> 04'33	29.21124 AU	
opposition	-7906 Mar 26 j 00:37	5° <b>Ω</b> 21'25	2°38°10 29.24789 AU	direct	-7900 Jun 27 j 01:51	1/°δ (04'33 18° <b>Ω</b> 58'03		
min. Earth dist.	-7906 Mar 25 j 22:01	3° <b>Ω</b> 58'08	47.44/07 AU	evening set	-7900 Sep 22 j 05:56	10 063803		
direct	-7906 Jun 14 j 04:06	5° <b>Ω</b> 52'09		conjunction	-7900 Oct. 07: 06:40	19° <b>Ω</b> 31'59	2016/56	
evening set	-7906 Sep 10 j 00:34	3 863209		conjunction minimum elong	-7900 Oct 07 j 06:48 -7900 Oct 07 j 06:49	19° <b>Ω</b> 31'59		
conjunction	-7906 Sep 25 j 00:27	6° <b>Ω</b> 25'58	2027:20	max. Earth dist.	-7900 Oct 07 j 06:49		31.20708 AU	
minimum elong	-7906 Sep 25 j 00:27	6° <b>Ω</b> 25'58		morning rise	-7900 Oct 07 j 13:33 -7900 Oct 22 j 09:20	20°Ω06'05	31.20/00 AU	
	7700 bop 25 j 00.27	0 <b>0 6</b> 23 30	2 21 31	morning 1150	, , 555 GGC 22 J 09.20	20 000000		

## Planetary Phenomena of Neptune from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 40

Attention, astronomical year style is used: The year -7899 in astronomical counting style is the year 7900 BCE in historical counting style.

direct -7899 Jun 29 j 11:36 19° $\Omega$ 16'08 evening set -7899 Sep 24 j 14:56 21° $\Omega$ 09'33

morning rise  $\,$  -7899 Oct  $\,$  24 j 19:03  $\,$  22°  $\!\Omega$  17'40