Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12400 in astronomical counting style is the year 12401 BCE in historical counting style. -12400 Jan 02 i 07:37 0°M min. Earth dist. -12396 Dec 18 i 17:03 1° γ 36'55 4.33001 AU -12400 Jan 08 j 13:46 -12396 Dec 31 j 16:40 30°R₩ 1°M25'45 evening set -12395 Feb 18 j 09:11 26° \ 43'52 direct conjunction -12400 Jan 22 j 06:43 4°M 35'15 -1°42'07 -12395 Apr 07 j 08:33 0°**Υ** -12400 Jan 22 j 06:39 4°M235'13 1°42'31 -12395 Jun 24 j 17:09 14°**Y**45'57 minimum elong evening set -12400 Jan 23 j 02:11 -12395 Jul 06 j 06:01 17°**Υ**21'29 max. Earth dist. 4°**M**.46'30 6.10459 AU max. Earth dist. 6.31979 AU -12400 Feb 05 j 00:14 morning rise 7°**M**44'54 -12395 Jul 07 j 03:51 17°**Y**33'47 -12400 Mar 08 j 18:46 15° M conjunction 1°31'22 -12395 Jul $07 \text{ j } 03:46 \ 17^{\circ} \Upsilon 33'44$ retrograde -12400 Jun 11 j 13:26 26°M 58'09 minimum elong 1°31'35 opposition -12400 Aug 09 j 11:50 21°M 55'48 -2°36'17 morning rise -12395 Jul 19 j 12:53 20°**Υ**20'55 min. Earth dist. -12400 Aug 09 j 03:25 21°M 58'41 4.13386 AU -12395 Sep 03 j 15:56 0°8 -12400 Oct 07 j 16:47 16°ML52'57 -12395 Nov 19 j 19:43 8°**8**04'00 direct retrograde -12399 Jan 16 j 21:53 0°**∡**¹ opposition -12394 Jan 20 j 06:10 3°**8**11'01 2°30'43 evening set -12399 Feb 13 j 07:12 6°**х** 02′20 min. Earth dist. -12394 Jan 20 j 19:20 3°806'52 4.30255 AU -12394 Feb 16 j 16:22 30°R**Y** conjunction -12399 Feb 26 j 22:43 9° ₹08'32 -1°38'46 direct -12394 Mar 23 j 04:16 28°**Υ**15'17 minimum elong -12399 Feb 26 j 22:46 9°**∡**08'34 1°39'27 -12394 Apr 26 j 10:15 0°8 max. Earth dist. -12399 Feb 27 j 04:22 9°**∡**11'45 6.16638 AU -12394 Jul 20 j 06:01 15°8 morning rise -12399 Mar 12 j 12:29 12° ₹ 13'45 evening set -12394 Jul 25 j 19:46 16°**8**15'17 -12399 Jun 24 j 03:33 0°궁 retrograde -12399 Jul 14 j 23:03 0°る42'57 conjunction -12394 Aug 07 j 03:39 19°**8**03'30 -12399 Aug 04 i 14:43 30°R ⊀ minimum elong -12394 Aug 07 i 03:38 19°**8**03'30 1°47'06 opposition -12399 Sep 11 i 20:29 25° ₹ 44'18 -2°04'40 max. Earth dist. -12394 Aug 06 j 14:04 18°**8**55'45 6.27462 AU min. Earth dist. -12399 Sep 11 i 22:22 25° 743'40 4.20349 AU morning rise -12394 Aug 19 j 12:01 21°**8**52'01 direct -12399 Nov 11 j 06:06 20° ₹ 40'04 -12394 Sep 26 j 04:50 0°**Ⅱ** -12398 Feb 03 i 07:41 0°る -12394 Dec 23 j 14:30 10°**Д**09'58 retrograde -12398 Mar 20 j 14:31 9°る32'57 opposition -12393 Feb 23 j 06:55 5°**I**I14'13 2°30'21 evening set -12393 Feb 23 j 11:47 5°**I**I2'40 4.24306 AU min. Earth dist. -12398 Apr 03 j 01:37 12°₹34'32 -1°02'16 -12393 Apr 25 j 05:49 0°**Ц**20'39 conjunction direct -12398 Apr 03 j 01:43 12°る34'35 1°03'02 -12393 Aug 26 j 11:00 18°**Д**27'16 minimum elong evening set -12398 Apr 02 j 14:23 12°**궁**28'12 6.23887 AU max. Earth dist. -12398 Apr 16 j 09:51 15°**⋜**34'32 -12393 Sep 07 j 23:36 21°**Д**20'15 1°29'25 conjunction morning rise -12398 Jun 30 j 11:10 0°≈ -12393 Sep 07 j 23:41 21°**Д**20'18 1°30'09 minimum elong -12398 Aug 16 j 07:06 3°≈23'17 max. Earth dist. -12393 Sep 08 j 00:31 21°**Д**20'47 6.20580 AU retrograde -12398 Oct 02 j 20:16 30°R♂ -12393 Sep 20 j 14:23 24°**Д**14'31 morning rise -12398 Oct 14 j 15:16 28°♂28'15 -0°53'57 -12393 Oct 16 j 10:09 0°5 opposition -12398 Oct 15 j 02:28 28°る24'33 4.27182 AU -12392 Jan 27 j 12:00 13°513'13 min. Earth dist. retrograde direct -12398 Dec 15 j 04:24 23°る24'26 opposition -12392 Mar 29 j 00:38 8°\$13'54 1°42'06 -12397 Feb 23 j 01:57 0°≈ min. Earth dist. -12392 Mar 28 j 18:33 8°515'52 4.16942 AU evening set -12397 Apr 23 j 05:08 11°≈55'48 direct -12392 May 27 j 18:21 3°521'02 max. Earth dist. -12397 May 05 j 11:43 14°≈40'11 6.29890 AU evening set -12392 Sep 27 j 09:01 21°542'08 -12397 May 06 j 09:01 14°≈52'06 -0°06'59 -12392 Oct 10 j 07:40 24°542'41 0°42'57 conjunction conjunction -12397 May 06 j 09:01 14°≈52'06 0°07'31 -12392 Oct 10 j 07:45 24°542'44 0°43'39 minimum elong minimum elong -12397 May 06 j 01:39 14°≈48'00 max. Earth dist. -12392 Oct 10 j 22:24 24°551'16 6.13463 AU behind sun begin -12397 May 06 j 16:23 14°≈56'12 -12392 Oct 23 i 09:54 27°545'12 behind sun end morning rise -12397 May 06 j 23:08 15°≈ -12392 Nov 02 i 05:01 $0^{\circ}\Omega$ -12397 May 19 i 09:18 17°≈46'34 morning rise -12391 Jan 23 i 01:46 $15^{\circ}\Omega$ -12397 Jun 22 j 17:24 25°≈06'09 asc. node retrograde -12391 Mar 03 j 07:40 $17^{\circ}\Omega$ 19'00 -12397 Jul 19 i 16:41 0°₩ -12391 Apr 11 j 09:55 15°RΩ opposition -12397 Sep 17 j 03:55 5° **★** 11'31 -12391 May 03 j 04:54 $12^{\circ}\Omega$ 16'13 $0^{\circ}17'46$ retrograde -12397 Nov 16 j 04:36 0° **H** 19'02 0°31'24 min. Earth dist. -12391 May 02 j 14:24 12° Ω 21'02 4.10566 AU opposition min. Earth dist. -12397 Nov 16 j 21:39 0° **★** 13'32 4.31855 AU direct -12391 Jun 30 j 22:34 7°**\O**22'02 -12397 Nov 18 j 15:37 30°R≈ desc. node -12391 Jul 16 j 09:32 7° **Ω**46'19 -12391 Sep 10 j 19:21 15° Ω direct -12396 Jan 17 j 11:36 25°≈17'17 -12396 Mar 15 j 23:09 0°**米** evening set -12391 Nov 01 j 02:39 26°**Ω**03'55 evening set -12396 May 24 j 09:48 13°**米** 30'15 max. Earth dist. -12396 Jun 05 j 01:41 16° **★** 06'28 6.32863 AU -12391 Nov 14 j 12:04 29° Ω11'25 -0°19'18 conjunction -12391 Nov 14 j 12:02 29° Ω11'24 0°18'54 minimum elong -12396 Jun 06 j 04:16 16°**∺**21'21 0°49'37 max. Earth dist. -12391 Nov 15 j 14:11 29° Ω 26'40 6.08478 AU conjunction -12396 Jun 06 j 04:11 16° **X** 21'19 0°49'25 minimum elong -12391 Nov 17 j 23:13 0° M morning rise -12396 Jun 18 j 19:59 19°**米** 11'03 morning rise -12391 Nov 28 j 00:53 2° m 20'46 -12396 Aug 10 j 19:48 $0^{\circ}\Upsilon$ retrograde -12390 Apr 08 j 09:13 22° Mp 11'36 retrograde -12396 Oct 18 j 03:53 6°**Y**34'30 opposition -12390 Jun 07 j 09:29 17° M 06'54 -1°14'40 opposition -12396 Dec 17 j 22:54 1°**Y**42'42 1°46'29 min. Earth dist. -12390 Jun 06 j 15:37 17° m 12'57 4.07468 AU

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12390 in astronomical counting style is the year 12391 BCE in historical counting style. direct -12390 Aug 04 j 14:32 12° m 09'56 -12384 Jan 12 j 18:33 30°R≈ -12390 Dec 02 j 07:18 0°**♀** -12384 Jan 22 j 03:53 29°≈51'54 direct -12390 Dec 07 j 13:24 -12384 Jan 31 j 14:39 0°**米** 1°**£**12'43 evening set -12384 May 28 j 21:02 18°**米**02'18 evening set -12390 Dec 21 j 05:02 4°**2**23'13 -1°15'18 conjunction -12390 Dec 21 j 04:56 4°**2**23'09 1°15'21 -12384 Jun 10 j 14:17 20° **€** 52'44 0°56'44 minimum elong conjunction -12390 Dec 22 j 07:23 -12384 Jun 10 j 14:12 20° **€** 52'41 0°56'37 max. Earth dist. 4°**£**38'34 6.07467 AU minimum elong morning rise -12389 Jan 03 j 23:01 7°**△**34'50 max. Earth dist. -12384 Jun 09 j 13:03 20° **★**38'36 6.33120 AU retrograde -12389 May 13 j 21:00 27°**△**16'53 morning rise -12384 Jun 23 j 04:41 23° **★**41'47 opposition -12389 Jul 12 j 04:08 22° **2**12'27 -2°20'17 -12384 Jul 22 j 11:31 0°**Υ** min. Earth dist. -12389 Jul 11 j 12:45 22°**2**17'43 4.08775 AU retrograde -12384 Oct 22 j 16:50 11°Υ06'16 -12389 Sep 08 j 14:51 17°**£**12'03 -12384 Dec 22 j 14:40 6°**Υ**14'24 1°54'58 direct opposition 6°**Y**08'46 4.32984 AU -12389 Dec 15 j 21:31 0°M min. Earth dist. -12384 Dec 23 j 08:27 evening set -12388 Jan 13 j 18:10 6°M25'59 direct -12383 Feb 23 j 00:35 1°**Y**16′02 evening set -12383 Jun 29 j 02:26 19°**Υ**16'50 conjunction -12388 Jan 27 j 11:20 9°M 35'21 -1°43'52 minimum elong -12388 Jan 27 j 11:17 9°MJ35'19 1°44'20 conjunction -12383 Jul 11 j 12:11 22°**Υ**'04'24 1°35'19 max. Earth dist. -12388 Jan 28 j 06:24 9°M-46'20 6.10855 AU minimum elong -12383 Jul 11 j 12:06 22°**Y**04'22 1°35'34 morning rise -12388 Feb 10 j 04:25 12°ML44'37 max. Earth dist. -12383 Jul 10 j 13:40 21°**Υ**51'42 6.31651 AU -12388 Feb 20 j 02:49 15°M morning rise -12383 Jul 23 j 20:51 24° Υ 51'26 -12388 May 13 j 03:12 0° ₹ -12383 Aug 16 j 08:46 0°8 retrograde -12388 Jun 16 j 09:31 1°**₹**53'24 retrograde -12383 Nov 24 j 12:14 12°\(238'20\) -12388 Jul 20 i 07:50 30°RML opposition -12382 Jan 24 j 23:49 7°**8**45'01 2°33'33 opposition -12388 Aug 14 j 05:42 26°ML51'32 -2°34'52 min. Earth dist. -12382 Jan 25 j 12:24 7°**8**41'02 4.29642 AU min. Earth dist. -12388 Aug 13 j 22:49 26°ML53'53 4.13981 AU direct -12382 Mar 27 j 19:35 2°**8**49'35 -12388 Oct 12 j 14:10 21°ML48'24 -12382 Jul 03 j 16:40 15°8 direct -12388 Dec 28 j 09:25 0° ₹ -12382 Jul 30 j 05:16 20°**8**49'57 evening set -12387 Feb 18 j 09:12 10° **₹** 57'08 evening set 1°46'06 conjunction -12382 Aug 11 j 13:32 23°**8**38'36 -12387 Mar 04 j 00:16 14°**尽** 02'52 -1°35'19 minimum elong -12382 Aug 11 j 13:33 23°**8**38'36 conjunction 1°46'43 -12387 Mar 04 j 00:20 14° ₹ 02'55 1°36'01 -12382 Aug 11 j 02:28 23°**8**32'17 minimum elong max. Earth dist. 6.26606 AU -12387 Mar 04 j 03:13 14°**尽**04'33 6.17383 AU morning rise -12382 Aug 23 j 22:16 26°**8**27'40 max. Earth dist. -12382 Sep 08 j 18:07 0°**Ц** -12387 Mar 17 j 13:34 17° **₹**07'34 morning rise -12387 May 19 j 20:28 0°る -12382 Dec 28 j 10:13 14°**Д**51'13 retrograde -12387 Jul 19 j 13:49 5°**궁**31'17 -12381 Feb 28 j 03:07 9°**I**55'04 2°26'22 retrograde opposition -12387 Sep 16 j 12:44 0°♂33'06 -1°56'27 -12381 Feb 28 j 06:37 9°**Ц**53'57 4.23265 AU opposition min. Earth dist. -12387 Sep 16 j 15:24 0°♂32'12 4.21179 AU -12381 Apr 29 j 22:00 5°**Ⅲ**01'43 min. Earth dist. direct -12387 Sep 20 j 15:20 30°R ✓ evening set -12381 Aug 30 j 23:58 23°**Ⅲ**10'11 direct -12387 Nov 16 j 02:05 25° ₹28'46 -12386 Jan 11 j 05:17 0°る conjunction -12381 Sep 12 j 13:37 26°**Д**04'09 1°24'27 evening set -12386 Mar 25 j 11:35 14°**⋜**19'14 minimum elong -12381 Sep 12 j 13:43 26°**Д**04'12 1°25'12 max. Earth dist. -12381 Sep 12 j 15:21 26°**Д**05'09 6.19436 AU -12386 Apr 07 j 21:55 17°**⋜**20'10 -0°55'07 -12381 Sep 25 j 05:54 28°**Д**59'33 conjunction morning rise -12386 Apr 07 j 22:00 17° ₹ 20'13 0°55'51 -12381 Sep 29 j 15:37 0°5 minimum elong -12386 Apr 07 j 09:57 17°**궁**13'25 6.24768 AU -12380 Feb 01 j 12:39 18°504'24 max. Earth dist. retrograde morning rise -12386 Apr 21 j 05:06 20°る19'25 opposition -12380 Apr 02 j 23:12 13°504'33 1°31'55 -12386 Jun 06 i 09:02 0°≈ min. Earth dist. -12380 Apr 02 i 15:57 13°506'55 4.15759 AU retrograde -12386 Aug 20 j 20:57 8°≈03'38 direct -12380 Jun 01 j 13:13 8°511'34 opposition -12386 Oct 19 i 06:27 3°≈09'01 -0°42'04 evening set -12380 Oct 02 j 04:01 26°536'03 min. Earth dist. -12386 Oct 19 i 18:40 3°≈05'00 4.28012 AU conjunction -12386 Nov 14 j 05:27 30°Rる -12380 Oct 15 j 04:26 29°537'51 0°34'41 direct -12386 Dec 19 j 23:00 28°る05'24 minimum elong -12380 Oct 15 j 04:30 29°537'54 0°35'21 -12385 Jan 24 j 23:50 0°≈ max. Earth dist. -12380 Oct 15 j 21:51 29°548'00 6.12370 AU -12385 Apr 20 j 19:08 15°≈ -12380 Oct 16 j 18:25 $0^{\circ}\Omega$ evening set -12385 Apr 27 j 20:43 16°≈33'35 morning rise -12380 Oct 28 j 08:18 2°**Ω**41'37 asc. node -12385 May 01 j 03:45 17°≈17'31 -12380 Dec 25 j 12:44 15°**Ω** retrograde -12379 Mar 08 j 11:22 22°**\O**20'02 -12385 May 10 j 23:17 19°≈29'04 0°01'28 -12379 May 08 j 04:54 $17^{\circ}\Omega$ 16'57 0° 04'21 conjunction opposition -12385 May 10 j 23:18 19°≈29'04 min. Earth dist. -12379 May 07 j 13:49 $17^{\circ}\Omega$ 21'58 4.09662 AU minimum elong 0°00'58 -12385 May 10 j 15:13 19°≈24'34 behind sun begin desc. node -12379 May 26 j 08:04 $14^{\circ}\Omega$ 57'57 behind sun end -12385 May 11 j 07:24 19°≈33'34 -12379 May 26 j 01:04 15°RΩ max. Earth dist. -12385 May 10 j 00:30 19°≈16'19 6.30588 AU direct -12379 Jul 05 j 19:03 12° Ω 22'31 morning rise -12385 May 23 j 22:29 22°≈22'47 -12379 Aug 15 j 01:59 15°**Ω** -12385 Jun 28 j 18:46 0°**∀** -12379 Nov 01 j 06:39 retrograde -12385 Sep 21 j 15:56 9°**)** 45'45 evening set -12379 Nov 06 j 04:59 1°M 08'31 -12385 Nov 20 j 19:37 4°**)** 53′22 opposition

conjunction

-12379 Nov 19 j 15:31 4° mp 16'50 -0°28'11

min. Earth dist.

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12379 in astronomical counting style is the year 12380 BCE in historical counting style. -12379 Nov 19 j 15:28 4° m 16'48 0°27'50 -12373 Jun 11 i 18:43 0°**)** minimum elong -12379 Nov 20 j 17:09 4° m 31'49 -12373 Sep 25 j 23:53 14° **★** 09'25 max. Earth dist. 6.07835 AU retrograde -12379 Dec 03 j 05:39 7° m 26'59 -12373 Nov 25 j 06:15 9°**H** 17'16 0°54'15 morning rise opposition -12378 Apr 13 j 11:16 27° m 19'19 min. Earth dist. -12373 Nov 26 j 00:56 9°**米**11'16 4.33174 AU retrograde -12372 Jan 26 j 17:09 4°**米** 16'10 -12378 Jun 12 j 09:38 22° m 14'31 -1°26'25 opposition direct -12378 Jun 11 j 15:05 22° Mp 20'50 4.07174 AU min. Earth dist. evening set -12372 Jun 02 j 03:25 22°**∺**23'15 direct -12378 Aug 09 j 13:54 17° Mp 17'09 1°03'14 -12378 Nov 14 j 11:56 0∘<u>ರ</u> conjunction -12372 Jun 14 j 19:23 25°**米** 12'58 1°03'09 evening set -12378 Dec 12 j 20:43 6°**£**23′09 minimum elong -12372 Jun 14 j 19:18 25°**米** 12'55 max. Earth dist. -12372 Jun 13 j 16:18 24° **★** 57'49 6.33486 AU conjunction -12378 Dec 26 j 13:01 9°**2**33'51 -1°21'27 morning rise -12372 Jun 27 j 08:49 28° **₭** 01'26 -12378 Dec 26 j 12:55 -12372 Jul 06 j 07:22 0°**Υ** minimum elong 9°**₽**33'47 1°21'33 -12378 Dec 27 j 16:44 max. Earth dist. 9°**≙**49'58 6.07565 AU retrograde -12372 Oct 27 j 01:09 15°**Υ**26'57 morning rise -12377 Jan 09 j 07:03 12°**△**45'25 opposition -12372 Dec 27 j 01:42 10°**Y**34'58 2°02'26 -12377 Apr 09 j 20:29 0°M min. Earth dist. -12372 Dec 27 j 19:29 10°**Y**29'20 4.32903 AU retrograde -12377 May 18 j 22:59 2°M24'34 direct -12371 Feb 27 j 10:30 5°**Y**36'56 -12377 Jun 26 j 15:53 30°R <u>♀</u> evening set -12371 Jul 03 j 06:51 23°**Y**36'58 opposition -12377 Jul 17 j 02:52 27° **2**20'28 -2°25'47 min. Earth dist. -12377 Jul 16 j 12:27 27° **2**25'24 4.09301 AU conjunction -12371 Jul 15 j 16:07 26°**Υ**24'27 1°38'32 direct -12377 Sep 13 j 16:09 22° **△**19'45 minimum elong -12371 Jul 15 j 16:03 26°**Υ**24'25 1°38'51 -12377 Nov 25 j 13:14 0°M max. Earth dist. -12371 Jul 14 j 18:50 26°**Υ**12'26 6.31118 AU evening set -12376 Jan 19 j 01:53 11°M 33'49 morning rise -12371 Jul 28 j 00:15 29°**Υ**'11'30 -12371 Jul 31 j 14:53 0°8 conjunction -12376 Feb 01 i 18:48 14° ML42'42 -1°44'55 -12371 Oct 22 j 21:43 15°8 minimum elong -12376 Feb 01 j 18:46 14° ML42'41 1°45'26 retrograde -12371 Nov 29 j 00:44 17°**8**03'05 max. Earth dist. -12376 Feb 02 j 12:16 14°ML52'45 6.11773 AU -12370 Jan 05 j 13:15 15°R8 -12376 Feb 03 j 00:53 15°M -12370 Jan 29 j 13:25 12°809'32 2°35'23 opposition -12376 Feb 15 j 11:35 17° ML51'23 min. Earth dist. -12370 Jan 30 j 02:00 12°**8**05'33 4.28698 AU morning rise -12376 Apr 13 j 11:17 0° ₹ -12370 Apr 01 j 06:39 7°**8**14'26 direct -12376 Jun 21 j 04:04 6° ₹ 53'18 -12370 Jun 15 j 16:02 15°8 retrograde -12376 Aug 19 j 01:07 1°**尽** 51'55 -2°32'19 -12370 Aug 03 j 11:36 25°**8**16'29 evening set opposition -12376 Aug 18 j 18:15 1° ₹ 54'15 4.15235 AU min. Earth dist. -12370 Aug 15 j 20:06 28°**8**05'46 1°45'02 -12376 Sep 02 j 01:56 30°RML conjunction -12376 Oct 17 j 13:12 26°ML48'33 -12370 Aug 15 j 20:07 28°**8**05'47 1°45'40 direct minimum elong -12376 Dec 02 j 08:59 0° ₹ max. Earth dist. -12370 Aug 15 j 08:31 27°**8**59'08 6.25320 AU -12375 Feb 23 j 11:42 15° ₹ 53'56 -12370 Aug 24 j 03:54 0°**Ⅱ** evening set -12370 Aug 28 j 05:40 0°**Д**55'41 morning rise conjunction -12375 Mar 09 j 02:11 18° ₹ 58'48 -1°31'13 retrograde -12369 Jan 02 j 04:16 19°**Ⅲ**26'27 minimum elong -12375 Mar 09 j 02:16 18° ₹ 58'51 1°31'56 opposition -12369 Mar 04 j 20:25 14°**Д**29'49 2°21'34 max. Earth dist. -12375 Mar 09 j 03:40 18°**尽** 59'39 6.18898 AU min. Earth dist. -12369 Mar 04 j 22:35 14°**I**I29'07 4.21727 AU morning rise -12375 Mar 22 j 14:38 22°**尽** 02'31 direct -12369 May 04 j 10:33 9°**Д**36'34 -12375 Apr 28 j 11:23 0°ਰ -12369 Sep 04 j 11:22 27°**Ⅲ**48'51 evening set -12375 Jul 24 j 04:54 10° ₹ 18'06 -12369 Sep 13 j 22:23 0°5 retrograde -12375 Sep 21 j 04:32 5°₹20'28 -1°47'30 opposition min. Earth dist. -12375 Sep 21 j 08:57 5°**궁**18'59 4.22791 AU conjunction -12369 Sep 17 j 02:35 0°544'09 1°18'59 -12369 Sep 17 j 02:40 0°5044'13 direct -12375 Nov 20 j 23:06 0°る16'09 minimum elong -12369 Sep 17 i 07:23 0°546'57 evening set -12374 Mar 30 j 06:04 19°る01'08 max. Earth dist. 6.17811 AU -12369 Sep 29 i 20:18 3°540'57 morning rise -12374 Apr 12 j 15:27 22°る01'02 -0°47'47 conjunction retrograde -12368 Feb 06 i 13:21 22°553'24 opposition minimum elong -12374 Apr 12 i 15:31 22° ₹ 01'04 0° 48'28 -12368 Apr 07 j 20:34 17°553'06 1°21'10 max. Earth dist. -12374 Apr 12 j 02:00 21°る53'29 6.26355 AU min. Earth dist. -12368 Apr 07 j 12:24 17°555'46 4 14175 AU -12374 Apr 25 j 21:30 24°る59'11 direct -12368 Jun 06 j 06:06 13°500'04 morning rise -12374 May 18 j 21:26 0°**≈** -12368 Sep 30 j 12:28 0°**Ω** retrograde -12374 Aug 25 j 05:13 12°≈36'59 evening set -12368 Oct 06 j 23:19 1°**Ω**29'28 opposition -12374 Oct 23 j 18:50 7°≈42'43 -0°30'17 min. Earth dist. -12374 Oct 24 j 07:27 7°≈38'34 4.29440 AU conjunction -12368 Oct 20 j 01:16 $4^{\circ}\Omega$ 32'36 0° 26'10 direct -12374 Dec 24 j 14:25 2°≈39'17 minimum elong -12368 Oct 20 j 01:19 $4^{\circ}\Omega$ 32'38 0°26'46 -12373 Mar 11 j 14:59 10°≈26'35 -12368 Oct 20 j 19:26 4° **Ω**43'13 6.10981 AU asc. node max. Earth dist. -12368 Nov 02 j 07:03 7°**Ω**37'47 -12373 Apr 04 j 05:10 15°≈ morning rise evening set -12373 May 02 j 08:05 21°≈02'22 -12368 Dec 05 j 06:25 15° Ω max. Earth dist. -12373 May 14 j 09:21 23°≈43'27 6.31754 AU retrograde -12367 Mar 13 j 13:24 27° Ω21'37 desc. node -12367 Apr 05 j 03:12 26°**Ω**33'01 conjunction -12373 May 15 j 09:17 23°≈56'49 0°09'33 min. Earth dist. -12367 May 12 j 11:43 22°Ω23'48 4.08598 AU minimum elong -12373 May 15 j 09:16 23°≈56'48 0°09'05 opposition -12367 May 13 j 04:47 22°**Ω**18'06 -0°09'08 behind sun begin -12373 May 15 j 02:24 23°≈52'59 direct -12367 Jul 10 j 15:33 17°**Ω**23'19 -12373 May 15 j 16:07 24°≈00'37 -12367 Oct 14 j 19:20 behind sun end

-12367 Nov 11 j 08:05

6° Mp 13′54

evening set

-12373 May 28 j 07:06 26°≈49'31

morning rise

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12367 in astronomical counting style is the year 12368 BCE in historical counting style. -12367 Nov 24 j 19:58 9° m 23'02 -0°36'54 -12361 May 26 j 16:16 conjunction -12367 Nov 24 j 19:54 9° m 23'00 -12361 Jun 01 j 17:34 minimum elong 0°36'37 morning rise 1°\ 20'51 -12367 Nov 26 j 00:36 9° m 39'47 -12361 Sep 30 j 10:25 18° **\(\)**40'17 max. Earth dist. 6.07200 AU retrograde -12367 Dec 08 j 10:56 12° m/33'50 -12361 Nov 29 j 20:15 13°**米**48'16 morning rise opposition 1°05'19 4.33344 AU -12366 Mar 09 j 20:43 -12361 Nov 30 j 14:35 13° **)** 42'23 0∘**⊽** min. Earth dist. -12360 Jan 31 j 06:58 8° **∺**47'36 retrograde -12366 Apr 18 j 15:17 2°**£**26'52 direct -12366 May 28 j 00:40 30°R Mp evening set -12360 Jun 06 j 13:20 26° **∺** 53'29 opposition -12366 Jun 17 j 09:35 27° Mp 21'58 -1°37'32 max. Earth dist. -12360 Jun 18 j 01:25 29°**∺**27'47 6.33315 AU min. Earth dist. -12366 Jun 16 j 15:22 27° m 28'10 4.07036 AU direct -12366 Aug 14 j 14:26 22° m 24'06 conjunction -12360 Jun 19 j 04:06 29°**)** 42'45 1°09'36 -12366 Oct 25 j 08:11 0°**♀** minimum elong -12360 Jun 19 j 04:00 29°**米**42'42 1°09'35 -12366 Dec 18 j 04:23 11°**2**32'24 -12360 Jun 20 j 10:52 0°**Υ** evening set 2°Y30'50 morning rise -12360 Jul 01 j 16:29 conjunction -12366 Dec 31 j 20:56 14° **2**43'01 -1°26'58 retrograde -12360 Oct 31 j 15:58 19°**Υ**59'18 minimum elong -12366 Dec 31 j 20:49 14°**2**42'57 1°27'08 opposition -12360 Dec 31 j 17:56 15°**Υ**07'19 2°09'35 max. Earth dist. -12365 Jan 01 j 23:49 14°**£**58'39 6.07886 AU min. Earth dist. -12359 Jan 01 j 12:11 15°**Y**01'32 4.32420 AU morning rise -12365 Jan 14 j 15:09 17°**♀**54'24 direct -12359 Mar 04 j 02:13 10°**Υ**09'45 -12365 Mar 12 j 14:05 evening set -12359 Jul 07 j 16:22 28°**Y** 10'07 retrograde -12365 May 23 j 21:03 7°M29'07 -12359 Jul 15 j 19:11 0°8 min. Earth dist. -12365 Jul 21 j 09:29 2°M30'16 4.10043 AU max. Earth dist. -12359 Jul 19 j 03:58 0°**ප්**45'43 6.30346 AU opposition -12365 Jul 22 j 00:13 2°M25'12 -2°30'08 -12365 Aug 09 j 11:17 30°R **≏** conjunction -12359 Jul 20 j 01:05 0°**8**57'40 1°41'22 direct -12365 Sep 18 j 15:26 27° \alpha 23'59 minimum elong -12359 Jul 20 i 01:01 0°**ප**57'38 1°41'44 -12365 Oct 29 i 03:04 0°M morning rise -12359 Aug 01 i 09:06 3°**8**44'56 -12364 Jan 17 i 04:45 15°M -12359 Sep 25 j 02:05 15°8 -12364 Jan 24 j 08:05 16° ML37'13 retrograde -12359 Dec 03 j 18:32 21°841'58 evening set opposition -12358 Feb 03 j 08:37 16°848'05 2°36'25 -12364 Feb 07 j 00:46 19°ML45'32 -1°45'12 min. Earth dist. -12358 Feb 03 j 19:15 16°844'43 4.27724 AU conjunction -12364 Feb 07 j 00:46 19°M 45'32 1°45'45 -12358 Feb 17 j 22:09 15°R8 minimum elong -12364 Feb 07 j 16:14 19°ML54'24 6.12823 AU max. Earth dist. -12358 Apr 05 j 21:31 11°**8**53'22 direct -12364 Feb 20 j 17:01 22°ML53'28 -12358 May 21 j 20:06 15°**8** morning rise -12364 Mar 23 j 23:43 0° ✓ evening set -12358 Aug 07 j 23:03 29°**8**56'56 retrograde -12364 Jun 25 j 22:55 11°**尽** 48'17 -12358 Aug 08 j 04:26 0°**Ⅱ** -12364 Aug 23 j 19:14 6° ₹ 47'21 -2°28'45 opposition -12364 Aug 23 j 14:40 6° ₹ 48'54 4.16448 AU -12358 Aug 20 j 08:13 2°**II**46'55 1°43'18 min. Earth dist. conjunction -12364 Oct 22 j 12:25 1° ₹ 43'43 -12358 Aug 20 j 08:15 2°**II**46'56 1°43'57 direct minimum elong -12363 Feb 28 j 12:16 20° ₹ 45'56 -12358 Aug 20 j 00:14 2°**Д**42'20 6.24245 AU evening set max. Earth dist. -12358 Sep 01 j 18:24 5°**Д**37'36 morning rise conjunction -12363 Mar 14 j 02:16 23° ₹ 50'05 -1°26'33 retrograde -12357 Jan 07 j 04:33 24°**Ⅱ**14'37 minimum elong -12363 Mar 14 j 02:22 23° ₹ 50'08 1°27'18 opposition -12357 Mar 09 j 18:56 19°**Ⅲ**17'34 2°15'38 max. Earth dist. -12363 Mar 14 j 02:07 23° ₹ 49'59 6.20162 AU min. Earth dist. -12357 Mar 09 j 20:01 19°**Ⅱ**17'13 4.20645 AU -12363 Mar 27 j 13:51 26° ₹ 52'56 -12357 May 09 j 05:24 14°**Д**24'33 morning rise direct -12363 Apr 10 j 14:24 0°ਰ -12357 Aug 28 j 12:55 0°5 -12363 Jul 28 j 17:10 15°**⋜**01'44 -12357 Sep 09 j 03:07 2°538'46 retrograde evening set -12363 Sep 25 j 19:27 10°₹04'37 -1°38'00 opposition min. Earth dist. -12363 Sep 26 j 00:28 10°る02'56 4.23985 AU conjunction -12357 Sep 21 j 19:31 5°\$35'04 1°12'51 direct -12363 Nov 25 j 17:10 5°る00'21 minimum elong -12357 Sep 21 i 19:37 5°535'07 1°13'37 -12362 Apr 04 j 00:25 23°**정**41'44 evening set max. Earth dist. -12357 Sep 22 i 01:46 5°538'41 6.16841 AU morning rise -12357 Oct 04 i 14:58 8°\$33'02 -12362 Apr 17 i 08:39 26° ₹40'47 -0°40'08 retrograde -12356 Feb 11 j 13:52 27°550'21 conjunction -12362 Apr 17 i 08:43 26° ₹40'50 0°40'49 opposition -12356 Apr 12 j 20:30 22°549'29 minimum elong max. Earth dist. -12362 Apr 16 j 16:15 26°る31'36 6.27398 AU min. Earth dist. -12356 Apr 12 j 09:42 22°553'01 4.13403 AU -12362 Apr 30 j 13:44 29°る38'07 direct -12356 Jun 11 j 01:29 17°556'21 morning rise -12362 May 02 j 05:05 0°≈ -12356 Sep 13 j 04:04 0°**Ω** -12362 Jul 23 j 06:42 15°≈ evening set -12356 Oct 11 j 20:31 6°**Ω**27'44 retrograde -12362 Aug 29 j 17:27 17°≈11'47 -12362 Oct 06 j 09:38 15°R≈ conjunction -12356 Oct 25 j 00:07 9°**Ω**31'46 0°17'24 -12362 Oct 28 j 08:25 12°≈17'57 -0°18'15 minimum elong -12356 Oct 25 j 00:09 9°Ω31'47 0°18'00 opposition min. Earth dist. -12362 Oct 28 j 23:12 12°≈13'07 4.30239 AU -12356 Oct 25 j 21:53 6.10498 AU max. Earth dist. 9°**Ω**44'30 -12362 Dec 29 j 08:00 -12356 Nov 07 j 07:14 12° Ω 37'48 direct 7°**≈**14'47 morning rise -12361 Jan 19 j 16:47 asc. node 7°≈56'02 -12356 Nov 17 j 14:34 15°**Ω** -12361 Mar 16 j 04:21 15°≈ -12355 Feb 06 j 23:43 evening set -12361 May 06 j 20:58 25°≈35'07 desc. node -12355 Feb 12 j 17:59 0°m/37'12 retrograde -12355 Mar 18 j 15:54 2° m 23'12 conjunction -12361 May 19 j 21:00 28°≈28'50 0°17'40 -12355 Apr 27 j 01:42 30°RΩ minimum elong -12361 May 19 j 20:58 28°≈28'49 min. Earth dist. -12355 May 17 j 11:07 $27^{\circ}\Omega 25'01$ 4.08445 AU max. Earth dist. -12361 May 18 j 20:13 28°≈15'00 6.32243 AU -12355 May 18 j 04:03 27° Ω 19'20 -0°22'28 opposition

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norning rise	minimum elong	-12351 Mar 18 j 22:16	28° ₹ 32'39	1°22'13		-12345 Aug 11 j 02:15	0 \circ \odot	
morning rise	max. Earth dist.	-12351 Mar 18 j 17:41	28° 渘 30′04	6.21040 AU	evening set	-12345 Sep 13 j 19:07	7° © 27'51	
retrograde		-12351 Mar 25 j 08:48	8°0					
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min. Earth dist.	retrograde	-12351 Aug 02 j 05:20	19° る 38'42		minimum elong	-12345 Sep 26 j 13:07	10°525'09	1°06'57
min. Earth dist.	opposition			-1°28'10	max. Earth dist.	-12345 Sep 26 i 22:35	10°530'40	6.16119 AU
direct					morning rise			
evening set					<i>5</i>	-		
-12350 Apr 16 j 08:08 0°≈					retrograde			
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opposition -12350 Nov 01 j 21:19 16°≈50'40 -0°06'16 minimum elong min. Earth dist12350 Nov 02 j 12:05 16°≈45'51 4.30491 AU behind sun begin -12344 Oct 29 j 15:35 14°Ω24'34 -12350 Nov 16 j 09:29 15°R≈ behind sun end -12344 Oct 30 j 05:31 14°Ω32'40 -12350 Nov 30 j 11:49 13°≈27'36 max. Earth dist12344 Oct 30 j 05:31 14°Ω32'40 -12344 Oct 30 j 20:49 14°Ω41'37 6.10087 AU direct -12349 Jan 02 j 21:55 11°≈47'48 -12349 Feb 19 j 10:03 15°≈ morning rise -12344 Nov 12 j 07:15 17°Ω35'29 -12349 May 10 j 20:39 0°ℋ desc. node -12344 Dec 23 j 03:31 26°Ω35'50 evening set -12349 May 11 j 09:22 0°ℋ07'03		-12350 Jun 26 j 18:01	15° ≈					
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direct $-12349 \text{ Jan} \ 02 \text{ j} \ 21:55 \ 11^{\circ} \approx 47'48$ $-12349 \text{ Feb} \ 19 \text{ j} \ 10:03 \ 15^{\circ} \approx 12349 \text{ May} \ 10 \text{ j} \ 20:39 \ 0^{\circ} \text{H}$ desc. node $-12344 \text{ Nov} \ 12 \text{ j} \ 07:15 \ 17^{\circ} \Omega 35'29$ evening set $-12349 \text{ May} \ 11 \text{ j} \ 09:22 \ 0^{\circ} \text{H} \ 07'03$ desc. node $-12344 \text{ Dec} \ 23 \text{ j} \ 03:31 \ 26^{\circ} \Omega 35'50$ $-12349 \text{ May} \ 11 \text{ j} \ 09:22 \ 0^{\circ} \text{H} \ 07'03$	asc node	·				-		6 10087 AII
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evening set -12349 May 11 j 09:22 0°\(\frac{1}{100}\) 07'03 -12343 Jan 09 j 20:00 0°\(\frac{1}{100}\)		-			•	-		
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max. Earth dist12349 May 23 j U5:41 2° # 45'30 6.32245 AU retrograde -12343 Mar 23 j 15:48 7° 10 22'13	_			(22245 433	, 1	-		
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Martin Carbon Car	Planetary Pheno	omena of Jupiter fro	m -12400	through -1189	8 (UT), Astrodier	nst AG 18-Feb-2025	14:23,	page 6
	Attention, astronom	nical year style is used: The	-		ounting style is the year	ar 12344 BCE in historical	counting styl	le.
12343 Num 09 2237 2074 2014 2019 2074 20237 2014 2014 2019 2074 20237 2014 20	min. Earth dist.	-12343 May 22 j 08:01	2°M 24'15	4.08269 AU	conjunction	-12337 May 28 j 19:41		0°33'34
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1-244 Aug. 29 1533		-						6.32455 AU
Seminary	direct	-12343 Jul 20 j 10:09	27° Ω 22'37		morning rise			
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1.242 Jan. 26 1.233 Jan. 27 1.221		•		6.07434 AU	evening set	-12336 Jun 15 j 10:28	5° Υ' 59'02	
Internation	morning rise	-						
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effect -1.2342 Aug -24 j 09:11 52 1° 2° 22:2246 eretorgade -1.2345 Nov 09; 23:36 2° 9° 1003 29° 11003 evening set -1.2341 Dac 28 j 11:55 21° 26:3255 min. Earth dist -1.2335 Jan 10 j 02:25 24° 12:345 24° 12:44 3 4.31485 AU eonjunction -1.2341 Jan 11 j 04:33 24° 24° 24:34 13:399 evening set -1.2335 Jan 13 j 09:26 19° 19° 12:05 19° 12:05 12' 12:05 12' 12' 12' 12' 12' 12' 12' 12' 12' 12'		3						6.32706 AU
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opposition -12340 Sep 02 j 00:28 16 × 21'05 -2°18'57 max. Earth dist. -12334 Aug 29 j 04:42 2°106'19 6.22739 AU min. Earth dist. -12340 Sep 01 j 23:10 16 × 21'31 4.18253 AU morning rise -12334 Nep 10 j 20:51 15°100'48 12334 Nep 10 j 20:51 17 × 17'0'3 12334 Nep 10 j 20:51 17 × 17'0'3 12333 Mar 10 j 10:15 10°00'1 3°247'21 2°10'02 2°2339 Mar 10 j 06:17 0°515'22 12333 Mar 10 j 00:15 3°8 Mar 23 j 19:10 3°518'25 1°15'49 opposition -12333 Mar 10 j 11:50 28°1149'51 4.1910 AU min. Earth dist. -12333 Mar 19 j 11:50 28°1149'51 4.1910 AU min. Earth dist. -12333 Mar 19 j 11:50 28°1149'51 4.1910 AU min. Earth dist. -12339 Mar 23 j 19:16 3°518'28 1°16'33 direct -12333 Mar 19 j 11:50 23°1156'15 4.1910 AU min. Earth dist. -12339 Mar 23 j 19:16 6°619'59 evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 23°1156'15 4.1910 AU evening set -12333 Mar 19 j 10:50 12°21232 4°5190 evening set -12333 Mar 19 j 10:50 15°2104 0°59'15 evening set -12333 Mar 19 j 10:50 15°2104 0°59'15 evening set -12333 Mar 19 j 10:50 15°2104 0°59'15 evening set -12333 Mar 19 j 10:50 5°854'12 0°24'22 evening set -12332 Apr 22 j 10:20 2°4334 0°45'18 evening set -12333 Mar 19 j 10:50 15°210 0°40'14 15°210 0°40'14 15°210'14 0°59'15 0°40'14 0°59'15 0°40'14 0°59'15 0°40'14 0°59'15 0°40'14 0°59'15 0°40'14	C	3			3	C 3		
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evening set -12339 Mar 10 j 06:17 0°₹15'22 opposition		-			retrograde			
conjunction -12339 Mar 23 j 19:10 3°T8'25 - 1°15'49 min. Earth dist. -12333 Mar 19 j 14:03 28°T49'10 20'10'2 minimum elong -12339 Mar 23 j 19:16 3°T8'28 1°16'33 direct -12333 Mar 19 j 11:54 28°T49'15 4.19101 AU max. Earth dist. -12339 Mar 23 j 13:48 3°T5'23 6.21859 AU -12333 Mar 19 j 11:54 28°T49'15 4.19101 AU morning rise -12339 Mar 23 j 13:48 3°T5'23 6.21859 AU -12333 Mar 19 j 11:54 28°T5'15 -12333 Mar 19 j 11:54 28°T5'15 4.19101 AU morning rise -12339 Mar 23 j 13:48 3°T5'23 6.21859 AU -12333 Mar 19 j 11:54 28°T5'13 122333 Mar 19 j 11:54 28°T5'13 12333 Mar 19 j 11:54 28°T5'13 4.19101 AU 4.19101	evening set	-						
conjunction -12339 Mar 23 j 19:10 3°518'25 -1°15'49 min. Earth dist. -12333 Mar 19 j 11:54 28° Π49'51 4.19101 AU minimum elong -12339 Mar 23 j 19:16 3°518'28 1°16'33 direct -12333 May 18 j 17:05 23° Π56'15 max. Earth dist. -12339 Apr 06 j 05:14 6°519'59 evening set -12333 Jul 21 j 22:30 0°5 evening set -12333 May 18 j 17:05 23° Π56'15 evening set -12339 Apr 06 j 05:14 6°519'59 evening set -12333 Sep 18 j 09:21 12°512'32 evening set -12339 Oct 04 j 22:05 19°529'08 -1°17'39 conjunction -12333 Oct 01 j 04:34 15°510'44 0°59'15 min. Earth dist. -12339 Oct 05 j 06:25 19°520'02 4.25405 AU minimum elong -12333 Oct 01 j 04:34 15°510'47 0°59'58 direct -12338 Mar 30 j 23:49 0°∞ max. Earth dist. -12333 Oct 01 j 15:26 15°05'05'05'05'05'05'05'05'05'05'05'05'05'0	Č	J			opposition			2°01'02
minimum elong max. Earth dist. -12339 Mar 23 j 19:16 3° ₹18'28 1°16'33 direct -12333 May 18 j 17:05 23° ∏56'15 max. Earth dist. -12339 Apr 06 j 05:14 6° ₹19'59 evening set -12333 Sep 18 j 09:21 12° ₹212'32 retrograde -12339 Apr 06 j 05:14 6° ₹19'59 evening set -12333 Oct 01 j 04:39 15° ₹10'44 0°59'15 min. Earth dist. -12339 Oct 05 j 06:25 19° ₹20'23 4.25405 AU minimum elong -12333 Oct 01 j 04:34 15° ₹10'47 0°59'58 direct -12338 Mar 30 j 23:49 0° ≈ max. Earth dist. -12333 Oct 01 j 05:44 15° ₹10'47 0°59'58 direct -12338 Mar 30 j 23:49 0° ≈ morning rise -12333 Oct 01 j 15:26 15° ₹10'47 0°59'58 direct -12338 Apr 13 j 08:46 2° ≈56'19 max. Earth dist. -12333 Oct 01 j 15:26 15° ₹10'47 0°59'58 direct -12338 Apr 13 j 08:46 2° ≈56'19 morning rise -12333 Oct 01 j 15:26 15° ₹10'47 0°59'58 direct -12338 Apr 25 j 15:05 5° ≈54'12 0°24'22 opposition -12338 Apr 25 j 15:05 5° ≈54'13 0°25'00 min. Earth dist. -12333 Apr 22 j 10:34 2° ₹37'54 4.12160 AU max. Earth dist. -12338 May 09 j 18:07 5° ≈54'13 0°25'00 min. Earth dist. -12332 May 13 j 04:23 30° ₹9 ₹10' ₹10' ₹10' ₹10' ₹10' ₹10' ₹10' ₹10'	conjunction	-12339 Mar 23 j 19:10	3° る 18'25	-1°15'49		-		
morning rise	minimum elong				direct	-12333 May 18 j 17:05	23° Ⅱ 56'15	
retrograde	max. Earth dist.	-12339 Mar 23 j 13:48	3° る 15'23	6.21859 AU		-12333 Jul 21 j 22:30	0°©	
opposition -12339 Oct 04 j 22:05 19° 523'08 -1°17'39 conjunction -12333 Oct 01 j 04:39 15° 5010'44 0°59'15 min. Earth dist. -12339 Oct 05 j 06:25 19° 520'23 4.25405 AU minimum elong -12333 Oct 01 j 04:44 15° 5010'47 0°59'58 direct -12339 Dec 05 j 03:23 14° 519'02 max. Earth dist. -12333 Oct 01 j 15:26 15° 5016'59 6.15408 AU evening set -12338 Mar 30 j 23:49 0° ∞ morning rise -12333 Dec 08 j 23:16 0° Ω conjunction -12338 Apr 13 j 08:46 2° ∞56'19 retrograde -12332 Feb 21 j 13:22 7° Ω35'31 conjunction -12338 Apr 26 j 15:05 5° ∞54'12 -0°24'22 opposition -12332 Apr 22 j 03:48 2° Ω3'3'43 0°45'18 minimum elong -12338 Apr 25 j 19:04 5° ∞42'59 6.28465 AU -12332 May 13 j 04:23 30° № 2° Ω3'3'43 0° Ω* retrograde -12338 May 09 j 18:07 8° ∞50'19 direct -12332 Jun 20 j 15:45 2° ©40'11 1° ©40'11 asc. node -12338 Nov 06 j 11:35 21° ∞26'39 <t< td=""><td>morning rise</td><td>-12339 Apr 06 j 05:14</td><td>6°る19'59</td><td></td><td>evening set</td><td>-12333 Sep 18 j 09:21</td><td>12°©12'32</td><td></td></t<>	morning rise	-12339 Apr 06 j 05:14	6° る 19'59		evening set	-12333 Sep 18 j 09:21	12°©12'32	
min. Earth dist. -12339 Oct 05 j 06:25 19°Z0'23 4.25405 AU minimum elong -12333 Oct 01 j 04:44 15°©10'47 0°59'58 direct -12339 Dec 05 j 03:23 14°Z19'02 max. Earth dist. -12333 Oct 01 j 15:26 15°©10'47 0°59'58 evening set -12338 Mar 30 j 23:49 0°∞ morning rise -12333 Dec 08 j 23:16 0°Ω -12333 Dec 08 j 23:16 0°Ω conjunction -12338 Apr 26 j 15:05 5°∞54'12 -0°24'22 opposition -12332 Apr 22 j 16:29 2°Q33'34 0°45'18 minimum elong -12338 Apr 26 j 15:07 5°∞54'13 0°25'00 min. Earth dist. -12332 May 13 j 04:23 30°R© 4.12160 AU max. Earth dist. -12338 May 09 j 18:07 8°∞50'19 direct -12332 May 13 j 04:23 30°R© retrograde -12338 May 09 j 18:07 8°∞50'19 direct -12332 Jul 28 j 16:48 0°Ω retrograde -12338 May 09 j 18:07 8°∞50'19 direct -12332 Jul 28 j 16:48 0°Ω retrograde -12338 Nov 06 j 11:35 21°∞26'39 0°05'53 desc. node <	retrograde	-12339 Aug 06 j 17:42	24° る 19'12					
Max. Earth dist. -12333 Dec 05 j 03:23 14° ₹19′02 max. Earth dist. -12333 Oct 01 j 15:26 15° \$16'59 6.15408 AU	opposition	-12339 Oct 04 j 22:05	19° る 23'08	-1°17'39	conjunction	-12333 Oct 01 j 04:39	15° © 10'44	0°59'15
conjunction -12338 Apr 26 j 15:05 5°≈54'12 -0°24'22 opposition -12332 Apr 2 j 16:29 2°Ω33'43 0°45'18 opposition -12338 Apr 26 j 15:07 5°≈54'13 0°25'00 opposition -12332 Apr 2 j 16:29 2°Ω3'43 0°45'18 opposition -12338 Apr 2 j 19:04 5°≈42'59 6.28465 AU opposition -12332 Apr 2 j 16:29 2°Ω3'43 0°45'18 opposition -12338 Apr 2 j 19:04 5°≈42'59 6.28465 AU opposition -12332 Apr 2 j 16:29 2°Ω3'45 4.12160 AU opposition -12332 Apr 2 j 16:29 2°Ω3'45 0°45'18 opposition -12338 Apr 2 j 19:04 5°≈42'59 6.28465 AU opposition -12332 Apr 2 j 16:29 2°Ω3'45 0°45'18 opposition -12338 Apr 2 j 19:04 5°≈42'59 6.28465 AU opposition -12332 Jul 28 j 16:48 o°Ω opposition -12338 Apr 2 j 19:04 15°Ω opposition -12338 Apr 2 j 19:21 opposition -12332 Apr 2 j 16:29 opposition -12332 Apr 2 j 16:49 opposition -12332 Apr 2 j 16:49 opposition -12332 Apr 2 j 16:49 opposition	min. Earth dist.	-12339 Oct 05 j 06:25	19° る 20'23	4.25405 AU	minimum elong	-12333 Oct 01 j 04:44	15° © 10'47	0°59'58
evening set -12338 Apr 13 j 08:46 -12338 Apr 26 j 15:05 -12338 Apr 26 j 15:07 -12338 A	direct	-12339 Dec 05 j 03:23	14° る 19'02		max. Earth dist.	-12333 Oct 01 j 15:26	15° © 16'59	6.15408 AU
retrograde opposition -12332 Apr 26 j 15:05 5°≈54'12 -0°24'22 opposition -12332 Apr 22 j 16:29 2°Ω33'43 0°45'18 opposition -12332 Apr 22 j 16:29 2°Ω33'43 0°45'18 opposition -12332 Apr 22 j 16:29 2°Ω33'43 0°45'18 opposition -12332 Apr 22 j 03:48 2°Ω37'54 4.12160 AU max. Earth dist12338 Apr 25 j 19:04 5°≈42'59 6.28465 AU morning rise -12338 May 09 j 18:07 8°≈50'19 direct -12332 Jun 20 j 15:45 27°©40'11 -12338 Jun 07 j 07:23 15°≈ -12332 Jul 28 j 16:48 0°Ω retrograde -12338 Sep 07 j 16:25 26°≈19'47 -12332 Oct 16 j 02:34 15°Ω asc. node -12338 Nov 06 j 11:35 21°≈26'39 0°05'53 desc. node -12332 Nov 02 j 06:18 18°Ω59'29 min. Earth dist12337 Jan 07 j 15:08 16°≈24'04 conjunction -12332 Nov 03 j 19:42 19°Ω21'21 -0°00'14 -12337 Apr 24 j 07:07 0° ★ minimum elong -12332 Nov 03 j 19:43 19°Ω21'21 0°00'16		-12338 Mar 30 j 23:49	0° ≈		morning rise	-12333 Oct 14 j 03:11	18°9510'44	
conjunction -12338 Apr 26 j 15:05 5°≈54'12 -0°24'22 opposition -12332 Apr 22 j 16:29 2°Ω33'43 0°45'18 minimum elong -12338 Apr 26 j 15:07 5°≈54'13 0°25'00 min. Earth dist. -12332 Apr 22 j 03:48 2°Ω37'54 4.12160 AU max. Earth dist. -12338 Apr 25 j 19:04 5°≈42'59 6.28465 AU -12332 May 13 j 04:23 30°R© morning rise -12338 May 09 j 18:07 8°≈50'19 direct -12332 Jun 20 j 15:45 27°©40'11 -12338 Jun 07 j 07:23 15°≈ -12332 Jul 28 j 16:48 0°Ω retrograde -12338 Sep 07 j 16:25 26°≈19'47 -12332 Oct 16 j 02:34 15°Ω asc. node -12338 Nov 06 j 11:35 21°≈26'39 0°05'53 desc. node -12332 Nov 02 j 06:18 18°Ω59'29 min. Earth dist. -12337 Jan 07 j 15:08 16°≈24'04 conjunction -12332 Nov 03 j 19:42 19°Ω21'21 -0°00'14 direct -12337 Apr 24 j 07:07 0°¥ conjunction -12332 Nov 03 j 19:43 19°Ω21'21 -0°00'16	evening set	-12338 Apr 13 j 08:46	2° ≈ 56'19			-12333 Dec 08 j 23:16	$0^{\circ}\Omega$	
minimum elong					retrograde	-12332 Feb 21 j 13:22	7° Ω 35'31	
max. Earth dist. -12338 Apr 25 j 19:04 5°≈42'59 6.28465 AU -12332 May 13 j 04:23 30° \Re morning rise -12338 May 09 j 18:07 8°≈50'19 direct -12332 Jun 20 j 15:45 27° \Re 40'11 -12332 Jul 28 j 16:48 0° \Re retrograde -12338 Sep 07 j 16:25 26°≈19'47 -12332 Oct 16 j 02:34 15° \Re 0 asc. node -12338 Nov 06 j 11:35 21°≈26'39 0°05'53 min. Earth dist. -12338 Nov 07 j 03:49 21°≈21'22 4.30891 AU direct -12332 Nov 03 j 19:42 19° \Re 21'21 -0°00'14 -12337 Apr 24 j 07:07 0° \Re min. Farth dist. -12332 Dot 26 j 16:48 0° \Re 0 -12332 Oct 16 j 02:34 15° \Re 0 -12332 Oct 27 j 13:22 16° \Re 15'39 -12332 Nov 02 j 06:18 18° \Re 25'29 min. Earth dist. -12338 Nov 07 j 03:49 21°≈21'22 4.30891 AU direct -12337 Apr 24 j 07:07 0° \Re 0 minimum elong -12332 Nov 03 j 19:42 19° \Re 21'21 -0°00'14 -12337 Apr 24 j 07:07 0° \Re 0 -12332 Nov 03 j 19:43 19° \Re 21'21 0°00'16	conjunction	-12338 Apr 26 j 15:05	5° ≈ 54'12	-0°24'22	opposition			
morning rise $-12338 \text{May} 09 j 18:07 8^{\circ} \approx 50'19$ direct $-12332 \text{Jun} 20 j 15:45 27^{\circ} \approx 40'11$ $-12338 \text{Jun} 07 j 07:23 15^{\circ} \approx$ $-12332 \text{Jul} 28 j 16:48 0^{\circ} \Omega$ retrograde $-12338 \text{Sep} 07 j 16:25 26^{\circ} \approx 19'47$ $-12332 \text{Oct} 16 j 02:34 15^{\circ} \Omega$ asc. node $-12338 \text{Oct} 10 j 12:10 24^{\circ} \approx 38'49$ evening set $-12332 \text{Oct} 21 j 13:22 21^{\circ} \approx 26'39$ opposition $-12338 \text{Nov} 06 j 11:35 21^{\circ} \approx 26'39 0^{\circ} 05'53$ desc. node $-12332 \text{Nov} 02 j 06:18 18^{\circ} \Omega 59'29$ min. Earth dist. $-12338 \text{Nov} 07 j 03:49 21^{\circ} \approx 21'22 4.30891 \text{AU}$ direct $-12337 \text{Jan} 07 j 15:08 16^{\circ} \approx 24'04$ conjunction $-12332 \text{Nov} 03 j 19:42 19^{\circ} \Omega 21'21 -0^{\circ} 00'14 12337 \text{Apr} 24 j 07:07 0^{\circ} \mathcal{H}$ minimum elong $-12332 \text{Nov} 03 j 19:43 19^{\circ} \Omega 21'21 0^{\circ} 00'16$	minimum elong	-12338 Apr 26 j 15:07	5° ≈ 54'13	0°25'00	min. Earth dist.	-12332 Apr 22 j 03:48	2° Ω 37'54	4.12160 AU
-12338 Jun 07 j 07:23 15°≈ -12332 Jul 28 j 16:48 0° Ω retrograde -12338 Sep 07 j 16:25 26°≈19'47 -12332 Oct 16 j 02:34 15° Ω asc. node -12338 Oct 10 j 12:10 24°≈38'49 evening set -12332 Oct 21 j 13:22 16° Ω 15'39 opposition -12338 Nov 06 j 11:35 21°≈26'39 0°05'53 desc. node -12332 Nov 02 j 06:18 18° Ω 59'29 min. Earth dist12338 Nov 07 j 03:49 21°≈21'22 4.30891 AU direct -12337 Jan 07 j 15:08 16°≈24'04 conjunction -12332 Nov 03 j 19:42 19° Ω 21'21 -0°00'14 -12337 Apr 24 j 07:07 0° Ω 1 minimum elong -12332 Nov 03 j 19:43 19° Ω 21'21 0°00'16				6.28465 AU				
retrograde	morning rise				direct			
asc. node								
opposition -12338 Nov $06 \text{ j } 11:35$ $21^{\circ} \approx 26'39$ $0^{\circ} 05'53$ desc. node -12332 Nov $02 \text{ j } 06:18$ $18^{\circ} \Omega 59'29$ min. Earth dist12338 Nov $07 \text{ j } 03:49$ $21^{\circ} \approx 21'22$ 4.30891 AU direct -12337 Jan $07 \text{ j } 15:08$ $16^{\circ} \approx 24'04$ conjunction -12332 Nov $03 \text{ j } 19:42$ $19^{\circ} \Omega 21'21$ $-0^{\circ} 00'14$ -12337 Apr $24 \text{ j } 07:07$ $0^{\circ} \mathcal{H}$ minimum elong -12332 Nov $03 \text{ j } 19:43$ $19^{\circ} \Omega 21'21$ $0^{\circ} 00'16$	•					-		
min. Earth dist. $-12338 \text{ Nov } 07 \text{ j } 03:49 \ 21^{\circ} \approx 21'22 \ 4.30891 \text{ AU}$ direct $-12337 \text{ Jan } 07 \text{ j } 15:08 \ 16^{\circ} \approx 24'04$ conjunction $-12332 \text{ Nov } 03 \text{ j } 19:42 \ 19^{\circ} \Omega 21'21 \ -0^{\circ} 00'14$ minimum elong $-12332 \text{ Nov } 03 \text{ j } 19:43 \ 19^{\circ} \Omega 21'21 \ 0^{\circ} 00'16$		-			•	-		
direct -12337 Jan 07 j 15:08 16°≈24'04 conjunction -12332 Nov 03 j 19:42 19° Ω 21'21 -0°00'14 -12337 Apr 24 j 07:07 0° Θ minimum elong -12332 Nov 03 j 19:43 19° Ω 21'21 0°00'16	**				desc. node	-12332 Nov 02 j 06:18	18° Ω 59'29	
-12337 Apr 24 j 07:07 0° H minimum elong -12332 Nov 03 j 19:43 19° Q 21'21 0°00'16		•		4.30891 AU			_	
	direct				-	-		
evening set -12337 May 15 j 22:09 4°#41'35 behind sun begin -12332 Nov 03 j 11:31 19° & 216'35					_	-		0°00'16
	evening set	-12337 May 15 j 22:09	4° ዚ41'35		behind sun begin	-12332 Nov 03 j 11:31	19~ 81 16'35	

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12332 in astronomical counting style is the year 12333 BCE in historical counting style. -12332 Nov 04 i 03:55 $19^{\circ}\Omega 26'07$ opposition behind sun end -12326 Nov 11 j 02:07 26°≈01'44 0°18'02 max. Earth dist. -12332 Nov 04 j 18:48 19° **Ω**34'50 6.09561 AU min. Earth dist. -12326 Nov 11 j 18:19 25°≈56'29 4.31506 AU -12332 Nov 17 j 05:45 $22^{\circ}\Omega 29'02$ -12325 Jan 12 j 07:17 20°≈59'31 morning rise direct -12332 Dec 20 j 21:23 0° Mp -12325 Apr 06 j 02:13 0°**光** -12325 May 20 j 10:18 9°**米** 14'16 -12331 Mar 28 j 15:33 12° m 17'33 retrograde evening set -12331 May 27 j 22:33 -12325 Jun 01 j 03:49 11° **∺** 51'15 6.32850 AU opposition 7° Mp 13'12 -0°48'16 max. Earth dist. min. Earth dist. -12331 May 27 j 05:02 7° Mp 19'07 4.07905 AU -12331 Jul 25 j 06:19 2° Mp 17'12 -12325 Jun 02 j 06:19 12°**₭**06'04 direct conjunction 0°41'16 -12331 Nov 26 j 13:11 21° Mp 14'20 -12325 Jun 02 j 06:15 12°**米**06'02 0°41'00 evening set minimum elong morning rise -12325 Jun 14 j 23:26 14° **∺** 56'21 conjunction -12331 Dec 10 j 03:36 24° m 24'27 -1°00'33 -12325 Sep 05 j 04:48 0°**Υ** -12331 Dec 10 j 03:30 24° m/24'23 1°00'27 -12325 Oct 14 j 01:44 2° Υ 17'41 minimum elong retrograde -12331 Dec 11 j 08:16 24° mp 41'10 6.07266 AU max. Earth dist. -12325 Nov 22 j 10:49 30°R ₩ morning rise -12331 Dec 23 j 20:36 27° m 35'54 opposition -12325 Dec 13 j 17:55 27°****25'53 1°36'03 -12330 Jan 03 j 07:31 0°**♀** min. Earth dist. -12325 Dec 14 j 12:30 27° **∺** 19'57 4.33291 AU retrograde -12330 May 03 j 10:15 17°**2**23'40 direct -12324 Feb 14 j 05:07 22°**∺**26'28 opposition -12330 Jul 01 j 21:26 12°**2**18'56 -2°05'10 -12324 Apr 29 j 20:52 0°**Υ** min. Earth dist. -12330 Jul 01 j 04:30 12°**2**24'43 4.07914 AU evening set -12324 Jun 19 j 19:40 10°**Υ**29'13 direct -12330 Aug 29 j 04:11 7°**£**19'38 max. Earth dist. -12324 Jul 01 j 08:05 13°**Y**04'12 6.32561 AU evening set -12329 Jan 02 j 15:48 26° **△**31'35 conjunction -12324 Jul 02 j 07:24 13°Υ 17'20 1°26'10 conjunction -12329 Jan 16 j 08:46 29° **△**41'36 -1°38'58 minimum elong -12324 Jul 02 i 07:19 13°**Υ**17'17 minimum elong -12329 Jan 16 j 08:42 29° **△**41'33 1°39'19 morning rise -12324 Jul 14 j 17:11 16° Υ 04'34 max. Earth dist. -12329 Jan 17 j 06:24 29° **2**54'07 6.09436 AU -12324 Sep 25 i 02:24 0°8 -12329 Jan 17 j 16:34 0°M retrograde -12324 Nov 14 j 13:32 3°**8**42'32 -12329 Jan 30 j 02:42 2°M 51'57 -12323 Jan 05 j 14:05 30° R**Y** morning rise -12329 Mar 28 j 14:30 15°M -12323 Jan 14 j 21:57 28° γ 49'54 2°26'12 opposition retrograde -12329 Jun 07 j 05:16 22°M 12'51 min. Earth dist. -12323 Jan 15 j 12:35 28°**Y**45'17 4.31067 AU -12329 Aug 05 j 04:32 17°ML09'58 -2°36'14 direct -12323 Mar 17 j 23:11 23°**Υ**53'39 opposition min. Earth dist. -12329 Aug 04 j 18:20 17° ML13'28 4.12138 AU -12323 May 23 j 12:00 0°**8** -12323 Jul 20 j 21:30 11°**8**53'17 -12329 Aug 21 j 13:42 15°RML evening set -12329 Oct 03 j 04:48 12°ML07'34 direct -12329 Nov 15 j 03:40 15°M ⋅ -12323 Aug 02 j 05:20 14°**8**41'07 1°46'05 conjunction -12323 Aug 02 j 05:19 14°**8**41'06 1°46'35 -12328 Feb 02 j 17:37 0° ₹ minimum elong -12323 Aug 01 j 13:15 14°\dagger331'58 6.28448 AU -12328 Feb 08 j 13:49 1° ₹ 19'14 max. Earth dist. evening set -12323 Aug 03 j 14:32 15°8 -12328 Feb 22 j 05:54 4° ₹26'14 -1°41'33 -12323 Aug 14 j 13:21 17°**8**29'06 conjunction morning rise minimum elong -12328 Feb 22 j 05:57 4° ₹26'15 1°42'13 -12323 Oct 15 j 09:07 0°**Ⅱ** max. Earth dist. -12328 Feb 22 j 14:57 4° ₹31'24 6.15283 AU retrograde -12323 Dec 18 j 03:59 5°**II**40'30 morning rise -12328 Mar 06 j 20:32 7°**尽** 32'24 opposition -12322 Feb 17 j 19:45 0°**Д**45'20 2°33'29 retrograde -12328 Jul 09 j 19:56 26°**尽** 09'46 min. Earth dist. -12322 Feb 18 j 02:43 0°**Ц**43'07 4.25394 AU opposition -12328 Sep 06 j 16:32 21° ₹ 10'27 -2°12'32 -12322 Feb 23 j 18:48 30°R8 min. Earth dist. -12328 Sep 06 j 16:17 21° ₹ 10'32 4.19030 AU -12322 Apr 19 j 23:10 25°**8**51'27 direct -12328 Nov 05 j 20:51 16°**尽** 06'20 -12322 Jun 12 j 00:55 0°**П** direct -12327 Feb 20j 04:01 0°る -12322 Aug 21 j 09:26 13°**Д**56'49 evening set -12327 Mar 15 i 04:25 5°る02'45 evening set -12322 Sep 02 j 20:50 16°II48'49 1°34'11 conjunction -12327 Mar 28 j 16:32 8°る05'12 -1°09'34 -12322 Sep 02 j 20:55 16°II48'52 1°34'54 conjunction minimum elong -12327 Mar 28 j 16:38 8°る05'16 1°10'18 -12322 Sep 02 j 18:42 16°**Д**47'36 6.21665 AU minimum elong max. Earth dist. -12327 Mar 28 j 08:16 8°중00'33 6.22698 AU max. Earth dist. morning rise -12322 Sep 15 i 10:06 19° **II**41'57 morning rise -12327 Apr 11 j 01:57 11°る06'10 -12322 Nov 02 j 17:16 0°5 retrograde -12327 Aug 11 j 07:04 29°る00'36 retrograde -12321 Jan 21 j 21:26 8°534'28 -12327 Oct 09 j 13:06 24°る04'58 -1°06'32 opposition -12321 Mar 24 j 11:19 3°535'49 1°52'33 opposition -12327 Oct 09 j 22:34 24°**정**01'49 4.26225 AU min. Earth dist. min. Earth dist. -12321 Mar 24 j 07:17 3°\$37'07 4.17949 AU direct -12327 Dec 09 j 22:15 19°る00'56 -12321 Apr 24 j 21:02 30°RII -12321 May 23 j 09:40 28°**Д**42'57 -12326 Mar 13 j 09:34 0°≈ direct evening set -12326 Apr 18 j 01:20 7°≈35'21 -12321 Jun 20 j 17:50 0°9 max. Earth dist. -12326 Apr 30 j 11:10 10°≈21'35 6.29223 AU -12321 Sep 23 j 01:53 17°502'06 evening set -12326 May 01 j 06:40 10°≈32'30 -0°16'08 -12321 Oct 05 j 22:41 20°501'28 0°51'47 conjunction conjunction -12326 May 01 j 06:41 10°≈32'31 0°16'42 -12321 Oct 05 j 22:46 20°501'31 minimum elong minimum elong 0°52'30 morning rise -12326 May 14 j 08:24 13°≈27'49 max. Earth dist. -12321 Oct 06 j 10:47 20°508'31 6.14283 AU -12326 May 21 j 07:03 15°≈ morning rise -12321 Oct 18 j 22:54 23°502'43 asc. node -12326 Aug 19 j 17:15 0°**)**€01'53 -12321 Nov 19 j 02:46 0°**Ω** -12326 Aug 19 j 07:07 0°**∀** retrograde -12320 Feb 26 j 15:42 12°**Ω**32'45 retrograde -12326 Sep 12 j 04:12 0° **★** 54'35 -12320 Apr 27 j 15:32 7°**Ω**30'30 0°32'29 opposition -12326 Oct 06 j 01:50 30°R≈ min. Earth dist. -12320 Apr 27 j 02:20 7° **Ω**34'52 4.11132 AU

Planetary Pheno	omena of Jupiter fro	om -12400	through -11898	8 (UT), Astrodien	st AG 18-Feb-2025	14:23,	page 8
•	ical year style is used: The		•				le.
direct	-12320 Jun 25 j 12:22	2° Ω 36'40		conjunction	-12314 May 05 j 19:14	15° ≈ 04'19	-0°08'02
desc. node	-12320 Sep 11 j 14:23	11° Ω 25'54		minimum elong	-12314 May 05 j 19:15	15° ≈ 04'20	0°08'35
	-12320 Sep 28 j 19:00	15° Ω		behind sun begin	-12314 May 05 j 12:12	15° ≈ 00′25	
evening set	-12320 Oct 26 j 12:45	21° Ω 16'07		behind sun end	-12314 May 06 j 02:19	15° ≈ 08'15	
				max. Earth dist.	-12314 May 04 j 21:34		6.30564 AU
conjunction	-12320 Nov 08 j 20:37				-12314 May 05 j 11:28		
minimum elong	-12320 Nov 08 j 20:36		0°08'51	morning rise	-12314 May 18 j 19:46		
behind sun begin	-12320 Nov 08 j 13:31			asc. node	-12314 Jun 29 j 16:05		
behind sun end	-12320 Nov 09 j 03:42				-12314 Jul 18 j 00:42		
max. Earth dist.	-12320 Nov 09 j 21:31		6.08737 AU	retrograde	-12314 Sep 16 j 12:04		0000100
morning rise	-12320 Nov 22 j 08:01			opposition	-12314 Nov 15 j 13:20		
. 1	-12320 Dec 03 j 02:09			min. Earth dist.	-12314 Nov 16 j 06:24		4.32577 AU
retrograde	-12319 Apr 02 j 18:53		1001100	Ji	-12314 Nov 19 j 05:14		
opposition	-12319 Jun 01 j 22:13			direct	-12313 Jan 16 j 20:50		
min. Earth dist.	-12319 Jun 01 j 04:14		4.07382 AU		-12313 Mar 15 j 08:54		
direct	-12319 Jul 30 j 03:32			evening set	-12313 May 24 j 18:10		6 22560 AII
evening set	-12319 Dec 01 j 18:55	26" 111/22" 34		max. Earth dist.	-12313 Jun 05 j 10:48	10°π13′23	0.33300 AU
conjunction	-12319 Dec 15 j 09:54	29° m 33'01	-1°07'48	conjunction	-12313 Jun 06 j 12:57	16°) €28'00	0°48'26
minimum elong	-12319 Dec 15 j 09:47	29° m 32'57	1°07'47	minimum elong	-12313 Jun 06 j 12:52	16°) 27′58	0°48'14
max. Earth dist.	-12319 Dec 16 j 13:14	29° m 48'59	6.07072 AU	morning rise	-12313 Jun 19 j 04:40	19° ∺ 17′27	
	-12319 Dec 17 j 08:08	0∘ ⊽			-12313 Aug 10 j 16:24	$0^{\circ}\Upsilon$	
morning rise	-12319 Dec 29 j 03:30	2° £ 44'45		retrograde	-12313 Oct 18 j 09:27	6° Ƴ 38'14	
retrograde	-12318 May 08 j 10:34	22° ₽ 31'09		opposition	-12313 Dec 18 j 04:40	1° Ƴ 46′28	1°44'49
opposition	-12318 Jul 06 j 20:07	17° ≏ 26'32	-2°12'52	min. Earth dist.	-12313 Dec 18 j 23:38	1° Y 40′26	4.33597 AU
min. Earth dist.	-12318 Jul 06 j 03:22	17° ≏ 32'17	4.08109 AU		-12312 Jan 01 j 11:08	30° ₹	
direct	-12318 Sep 03 j 04:23	12° ≏ 26'48		direct	-12312 Feb 18 j 16:06	26°) 47′28	
	-12318 Dec 31 j 16:01	0° M.			-12312 Apr 06 j 05:08	$0^{\circ}\Upsilon$	
evening set	-12317 Jan 07 j 23:38	1°ML40'20		evening set	-12312 Jun 24 j 00:24	14° Ƴ 48'15	
				max. Earth dist.	-12312 Jul 05 j 10:03	17° Y 21′52	6.32407 AU
conjunction	-12317 Jan 21 j 16:49	4°M50'08	-1°41'39				
minimum elong	-12317 Jan 21 j 16:45	4°M50'05	1°42'03	conjunction	-12312 Jul 06 j 11:05	17° Ƴ 35'58	1°30'30
max. Earth dist.	-12317 Jan 22 j 15:05	5°M03'00	6.10027 AU	minimum elong	-12312 Jul 06 j 11:00	17° Ƴ 35'55	1°30'42
morning rise	-12317 Feb 04 j 10:17	8°M00'00		morning rise	-12312 Jul 18 j 20:23	20° Y 23′00	
	-12317 Mar 07 j 23:20	15°M₊			-12312 Sep 02 j 20:05		
retrograde	-12317 Jun 12 j 03:34			retrograde	-12312 Nov 19 j 00:52		
opposition	-12317 Aug 10 j 00:52			opposition	-12311 Jan 19 j 10:17		
min. Earth dist.	-12317 Aug 09 j 15:39		4.13105 AU	min. Earth dist.	-12311 Jan 20 j 01:09		4.30476 AU
direct	-12317 Oct 08 j 05:00				-12311 Feb 15 j 21:53		
	-12316 Jan 16 j 00:04			direct	-12311 Mar 22 j 09:38		
evening set	-12316 Feb 13 j 18:24	6° ∡ 19'55			-12311 Apr 25 j 15:06		
					-12311 Jul 19 j 11:58		
conjunction	-12316 Feb 27 j 09:56			evening set	-12311 Jul 25 j 02:24	16° 8 15'42	
minimum elong	-12316 Feb 27 j 10:00						
max. Earth dist.	-12316 Feb 27 j 16:45	9° ∡ ³30'03	6.16555 AU	conjunction	-12311 Aug 06 j 10:28		1°46'22
morning rise	-12316 Mar 12 j 00:01			minimum elong	-12311 Aug 06 j 10:27		1°46'55
	-12316 Jun 19 j 13:52			max. Earth dist.	-12311 Aug 05 j 20:01		6.27468 AU
retrograde	-12316 Jul 14 j 11:01	1°る01'08		morning rise	-12311 Aug 18 j 18:39		
	-12316 Aug 08 j 05:24				-12311 Sep 25 j 10:33	0° Π	
opposition	-12316 Sep 11 j 09:34			retrograde	-12311 Dec 22 j 18:56		
min. Earth dist.	-12316 Sep 11 j 09:57		4.20495 AU	opposition	-12310 Feb 22 j 11:04		
direct	-12316 Nov 10 j 18:32			min. Earth dist.	-12310 Feb 22 j 17:06		4.24101 AU
	-12315 Feb 01 j 06:44			direct	-12310 Apr 24 j 10:18	0° Ⅱ 20'51	
evening set	-12315 Mar 20 j 01:50	9° る 49'42		evening set	-12310 Aug 25 j 18:18	18°Щ29'10	
conjunction	-12315 Apr 02 j 13:06	12° る 51'10	-1°02'55	conjunction	-12310 Sep 07 j 06:40	21° Ⅱ 22'15	1°30'01
minimum elong	-12315 Apr 02 j 13:11	12° る 51'13	1°03'39	minimum elong	-12310 Sep 07 j 06:45	21° Ⅱ 22'18	1°30'44
max. Earth dist.	-12315 Apr 02 j 04:05			max. Earth dist.	-12310 Sep 07 j 04:59		6.20174 AU
morning rise	-12315 Apr 15 j 21:22			morning rise	-12310 Sep 19 j 21:21		
-	-12315 Jun 28 j 01:49			-	-12310 Oct 15 j 12:24		
retrograde	-12315 Aug 15 j 18:44			retrograde	-12309 Jan 26 j 19:08		
	-12315 Oct 04 j 06:50			opposition	-12309 Mar 29 j 06:38		1°43'29
opposition	-12315 Oct 14 j 02:43	28° පි 43'08	-0°55'11	min. Earth dist.	-12309 Mar 29 j 01:33	8°9519'15	4.16359 AU
min. Earth dist.	-12315 Oct 14 j 13:27			direct	-12309 May 28 j 00:49		
direct	-12315 Dec 14 j 16:16	23° る 39'16		evening set	-12309 Sep 27 j 17:28	21° © 48'29	
	-12314 Feb 21 j 03:25	0° ≈					
evening set	-12314 Apr 22 j 15:16	12° ≈ 08'16		conjunction	-12309 Oct 10 j 16:04	24° © 49'17	0°44'02

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12309 in astronomical counting style is the year 12310 BCE in historical counting style. -12309 Oct 10 j 16:09 24°\$49'20 0°44'43 morning rise -12303 Apr 20 j 15:20 20°る32'57 minimum elong -12309 Oct 11 j 07:08 24°558'04 6.12772 AU -12303 Jun 04 j 16:37 max Earth dist 0°≈≈ -12309 Oct 23 j 18:01 27°552'00 -12303 Aug 20 j 05:05 morning rise retrograde 8°≈15'06 -12309 Nov 02 j 00:43 0°**Ω** -12303 Oct 18 j 16:11 opposition 3°≈20'21 -0°43'35 min. Earth dist. -12308 Jan 22 j 02:45 15°**Ω** -12303 Oct 19 j 03:32 3°≈16'37 4.28712 AU -12308 Mar 02 j 17:56 $17^{\circ}\Omega$ 28'27 retrograde -12303 Nov 15 j 12:49 30°R♂ direct -12303 Dec 19 j 08:13 28°쥥16'41 -12308 Apr 12 j 05:32 15°R**Ω** -12308 May 02 j 14:02 12°**Ω**25'51 0°19'28 opposition -12302 Jan 22 j 12:44 min. Earth dist. -12308 May 01 j 23:42 12°**Ω**30'37 4.09843 AU -12302 Apr 19 j 10:57 15°≈ direct -12308 Jun 30 j 06:41 7°**Ω**31'50 evening set -12302 Apr 27 j 05:08 16°≈42'28 desc. node -12308 Jul 22 j 19:05 8°**Ω**22'42 asc. node -12302 May 08 j 20:18 19°≈17'52 -12308 Sep 09 j 05:58 15°**Ω** -12302 May 09 j 08:56 19°≈24'56 max. Earth dist. 6.31279 AU -12308 Oct 31 j 12:54 26° Ω16'19 evening set conjunction -12302 May 10 j 07:51 19°≈37'43 0°00'12 conjunction -12308 Nov 13 j 22:02 29° Ω 24'03 -0°18'12 minimum elong -12302 May 10 j 07:51 19°≈37'43 0°00'18 minimum elong -12308 Nov 13 j 22:00 29° Ω 24'02 0°17'48 behind sun begin -12302 May 09 j 23:48 19°≈33'15 max. Earth dist. -12308 Nov 14 j 23:22 29°**Q**38'53 6.07785 AU behind sun end -12302 May 10 j 15:54 19°≈42'11 -12308 Nov 16 j 11:25 0° Mp morning rise -12302 May 23 j 07:09 22°≈31'13 morning rise -12308 Nov 27 j 10:53 2° m 33'43 -12302 Jun 27 j 12:03 0°**)**€ retrograde -12307 Apr 07 j 20:16 22° m 27'27 retrograde -12302 Sep 20 j 23:25 9°**₩**51'57 opposition -12307 Jun 06 j 21:36 17° m 22'43 -1°13'17 opposition -12302 Nov 20 j 02:44 4° **\(\)** 59'35 0°41'18 min. Earth dist. -12307 Jun 06 j 02:29 17° m 29'12 4.06872 AU min. Earth dist. -12302 Nov 20 j 21:02 4° + 53'41 4.32981 AU direct -12307 Aug 04 i 01:49 12° m 25'54 -12301 Jan 16 j 20:27 30°R≈ -12307 Nov 30 j 12:30 0°**♀** direct -12301 Jan 21 j 12:18 29°≈58'02 evening set -12307 Dec 07 j 01:00 1°**£**30′19 -12301 Jan 26 j 04:23 0°**光** -12301 May 29 j 04:15 18° ¥ 06'48 evening set -12307 Dec 20 j 16:47 4°**2**41'03 -1°14'32 conjunction -12307 Dec 20 j 16:40 4°**2**40'59 1°14'35 conjunction -12301 Jun 10 j 21:44 20° **€** 57'09 0°55'30 minimum elong -12307 Dec 21 j 22:09 4°**2**58'11 6.07040 AU -12301 Jun 10 j 21:39 20° **€** 57'06 0°55'22 max. Earth dist. minimum elong 6.33604 AU -12306 Jan 03 j 10:35 7°**♀**52'51 max. Earth dist. -12301 Jun 09 j 18:14 20° **)** 41'47 morning rise -12306 May 13 j 11:51 27°**△**36'39 -12301 Jun 23 j 12:26 23°**)** 46'08 retrograde morning rise -12306 Jul 11 j 18:14 22°**£**32'11 -2°19'30 -12301 Jul 22 j 11:40 0°**Υ** opposition -12306 Jul 11 j 02:15 22°**2**37'40 4.08553 AU -12301 Oct 22 j 21:53 11°**Υ**08'50 min. Earth dist. retrograde -12301 Dec 22 j 19:35 6° \begin{pmatrix} \gamma^{\chi} 17'00 & 1^{\chi} 53'22 \end{pmatrix} -12306 Sep 08 j 04:40 17°**⊆**32'00 direct opposition -12306 Dec 13 j 20:42 0°M -12301 Dec 23 j 14:07 6° **Y**11'06 4.33310 AU min. Earth dist. -12305 Jan 13 j 06:21 6°M 45'47 -12300 Feb 23 j 05:50 1°**Υ**18'25 evening set direct -12300 Jun 28 j 09:14 19°**Υ**19'02 evening set conjunction -12305 Jan 26 j 23:22 9°M 55'08 -1°43'33 minimum elong -12305 Jan 26 j 23:19 9°ML55'06 1°44'01 conjunction -12300 Jul 10 j 19:17 22°**Υ**06'39 1°34'31 max. Earth dist. -12305 Jan 27 j 19:39 10°ML06'50 6.10848 AU minimum elong -12300 Jul 10 j 19:12 22°**Y**′06'36 1°34'46 morning rise -12305 Feb 09 j 16:38 13°ML04'28 max. Earth dist. -12300 Jul 09 j 20:18 21°**Υ**53'41 6.31806 AU -12305 Feb 18 j 03:44 15°M morning rise -12300 Jul 23 j 03:54 24°**Y**53'39 -12305 May 10 j 15:15 0° ₹ -12300 Aug 15 j 11:49 0°8 -12305 Jun 16 j 21:49 2° ₹ 13'22 retrograde -12300 Nov 23 j 17:12 12°**8**39'41 retrograde -12305 Jul 23 j 22:31 30°RML -12299 Jan 24 j 04:11 7°**8**46'35 2°32'53 opposition -12299 Jan 24 j 18:18 7°**8**42'07 4.29621 AU opposition -12305 Aug 14 j 19:41 27° ML11'21 -2°34'46 min. Earth dist. -12305 Aug 14 j 10:49 27° ML14'23 4.14195 AU -12299 Mar 27 j 01:02 2°**8**51'04 min. Earth dist. direct direct -12305 Oct 13 j 03:16 22° ML08'19 -12299 Jul 02 j 19:25 15°8 -12299 Jul 29 j 12:34 20°**8**52'28 -12305 Dec 27 i 03:58 0° ₹ evening set -12304 Feb 18 j 20:39 11° ₹ 15'26 evening set conjunction -12299 Aug 10 j 20:41 23°841'11 1°46'03 -12304 Mar 03 j 11:44 14° ₹20'58 -1°35'33 minimum elong -12299 Aug 10 j 20:41 23°841'11 1°46'38 conjunction max. Earth dist. -12304 Mar 03 j 11:48 14° ₹21'01 1°36'15 -12299 Aug 10 j 06:46 23°833'14 6.26425 AU minimum elong -12304 Mar 03 j 16:25 14° ₹23'38 6.17806 AU max. Earth dist. morning rise -12299 Aug 23 j 05:32 26°\(\mathbf{2}\)30'21 morning rise -12304 Mar 17 j 01:03 17° ₹25'30 -12299 Sep 07 j 20:10 0°**Ⅱ** -12304 May 17 j 15:05 0°る retrograde -12299 Dec 27 j 16:11 14°**Д**54'15 -12298 Feb 27 j 08:21 9° \mathbf{I} 58'16 2° 26'53 retrograde -12304 Jul 19 j 02:35 5°**⋜**47'55 opposition -12304 Sep 16 j 01:08 0°₹49'38 -1°57'10 min. Earth dist. -12298 Feb 27 j 12:22 9°**Д**56'59 4.22960 AU opposition min. Earth dist. -12304 Sep 16 j 03:43 0°정48'45 4.21751 AU -12298 Apr 29 j 03:18 5°**耳**04'51 direct -12304 Sep 22 j 05:21 30°R ✓ -12298 Aug 30 j 08:04 23°**I**I15′08 evening set -12304 Nov 15 j 14:58 25° ₹ 45'21 direct -12303 Jan 08 j 20:46 0°る conjunction -12298 Sep 11 j 21:45 26°**Ⅱ**09'14 1°25'07 evening set -12303 Mar 24 j 21:34 14°♂33'16 minimum elong -12298 Sep 11 j 21:51 26°**Ⅲ**09'17 1°25'51 max. Earth dist. -12298 Sep 12 j 00:07 26°**Ⅱ**10'36 6.19075 AU conjunction -12303 Apr 07 j 08:03 17°♂33'57 -0°55'57 morning rise -12298 Sep 24 j 13:40 29°**Ⅱ**04'41 minimum elong -12303 Apr 07 j 08:08 17°₹34'00 0°56'39 -12298 Sep 28 j 14:18 0°95 max. Earth dist. -12303 Apr 06 j 20:52 17°る27'40 6.25430 AU -12297 Jan 31 j 20:50 18°5010'27 retrograde

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12297 in astronomical counting style is the year 12298 BCE in historical counting style. -12297 Apr 03 j 06:13 13°510'49 1°33'21 direct -12292 Nov 20 j 05:38 0°る22'48 opposition -12297 Apr 02 j 23:35 13°512'59 evening set -12291 Mar 29 j 13:52 19°**궁**08'31 min. Earth dist. 4.15409 AU -12297 Jun 01 j 20:30 8°\$17'56 direct -12291 Apr 11 j 23:24 22°♂08'36 -0°48'49 -12297 Oct 02 j 12:58 26°543'50 conjunction evening set -12291 Apr 11 j 23:28 22°**궁**08'39 0°49'30 minimum elong -12297 Oct 15 j 12:56 29°545'37 0°35'48 -12291 Apr 11 j 08:58 22°중00'31 conjunction max. Earth dist. 6.26094 AU -12297 Oct 15 j 13:00 29°545'39 minimum elong 0°36'27 morning rise -12291 Apr 25 j 05:51 25°る07'01 max. Earth dist. -12297 Oct 16 j 05:13 29°555'07 6.12071 AU -12291 May 17 j 14:39 -12297 Oct 16 j 13:35 $0^{\circ}\Omega$ retrograde -12291 Aug 24 j 16:11 12°≈46'09 morning rise -12297 Oct 28 j 16:39 2°**Ω**49'23 opposition -12291 Oct 23 j 04:03 7°≈51'51 -0°31'59 -12297 Dec 25 j 02:29 15° Ω min. Earth dist. -12291 Oct 23 j 17:40 7°≈47'23 4.29123 AU -12296 Mar 07 j 18:41 22°Ω28'40 retrograde direct -12291 Dec 23 j 23:44 2°≈48'24 opposition -12296 May 07 j 13:35 17°**Ω**25'34 0°06'10 asc. node -12290 Mar 19 j 02:04 12°≈05'54 min. Earth dist. -12296 May 06 j 21:19 $17^{\circ} \Omega 30'59$ 4.09458 AU -12290 Apr 02 j 18:35 15°≈ -12296 May 26 j 15:56 15°R**Ω** evening set -12290 May 01 j 17:31 21°≈12'51 desc. node -12296 Jun 02 j 06:20 14°**Ω**17'00 direct -12296 Jul 05 j 03:29 12°**Q**31'13 conjunction -12290 May 14 j 19:11 24°≈07'37 0°08'22 -12296 Aug 13 j 06:18 15°**Ω** minimum elong -12290 May 14 j 19:11 24°≈07'36 0°07'54 -12296 Oct 30 j 23:50 0° Mg behind sun begin -12290 May 14 j 11:56 24°≈03'35 evening set -12296 Nov 05 j 13:27 1° Mp 17'24 behind sun end -12290 May 15 j 02:25 24°≈11'38 max. Earth dist. -12290 May 13 j 19:29 23°≈54'23 6.31411 AU conjunction -12296 Nov 18 j 23:54 4° m 25'40 -0°26'58 morning rise -12290 May 27 j 17:19 27°≈00'36 minimum elong -12296 Nov 18 j 23:51 4° m 25'38 0°26'37 -12290 Jun 10 j 08:14 0°₩ max. Earth dist. -12296 Nov 20 j 04:01 4° Mp 42'06 6.07752 AU retrograde -12290 Sep 25 i 09:40 14° + 21'39 morning rise -12296 Dec 02 i 13:35 7° m 35'42 opposition -12290 Nov 24 j 15:57 9°\ 29'28 0°52'37 -12295 Apr 12 j 21:10 27° m 28'13 min. Earth dist. -12290 Nov 25 j 09:50 9° **★**23'43 4.32854 AU retrograde opposition -12295 Jun 11 j 19:13 22° m 23'21 -1°24'46 -12289 Jan 26 j 01:14 4°**∺**28'19 direct -12295 Jun 11 j 00:47 22° m 29'37 4.07201 AU -12289 Jun 02 j 14:41 22°\cdot\displas36'56 min. Earth dist. evening set -12295 Aug 09 j 00:12 17° m 26'03 max. Earth dist. -12289 Jun 14 j 04:10 25° **X** 11'54 6.33230 AU direct -12295 Nov 13 j 05:03 0°**♀** -12295 Dec 12 j 04:23 -12289 Jun 15 j 06:57 25° **★** 26'54 1°02'15 6°**£**30'58 conjunction evening set -12289 Jun 15 j 06:52 25° **∺**26'51 minimum elong 1°02'10 -12295 Dec 25 j 20:22 9°**2**41'29 -1°20'32 -12289 Jun 27 j 20:38 28°**光** 15'35 conjunction morning rise -12295 Dec 25 j 20:16 9°**2**41'25 1°20'38 -12289 Jul 05 j 17:22 0°**Υ** minimum elong -12295 Dec 27 j 00:03 9°**2**57'35 6.07657 AU -12289 Oct 27 j 12:55 15°**Y**41'33 max. Earth dist. retrograde -12294 Jan 08 j 14:25 12°**⊆**52'58 -12289 Dec 27 j 11:58 10° \begin{pmatrix} \cdot 49'42 & 2\circ 01'16 \end{pmatrix} morning rise opposition -12294 Apr 08 j 03:20 0°M -12289 Dec 28 j 06:35 10° **Y** 43'48 4.32731 AU min. Earth dist. retrograde -12294 May 18 j 06:11 2°M31'53 direct -12288 Feb 27 j 21:45 5°**γ**51'37 -12294 Jun 27 j 01:39 30°R ₽ evening set -12288 Jul 02 j 19:15 23°**γ**52'42 opposition -12294 Jul 16 j 12:03 27°**2**27'37 -2°24'51 max. Earth dist. -12288 Jul 14 j 06:27 26°**Y**27'47 6.31050 AU min. Earth dist. -12294 Jul 15 j 20:15 27°**2**33'01 4.09417 AU -12294 Sep 13 j 00:27 22°**2**26'54 -12288 Jul 15 j 04:38 26°**Y**'40'18 1°37'59 direct conjunction -12294 Nov 24 j 06:28 0°M -12288 Jul 15 j 04:33 26°**Y**40'16 minimum elong -12293 Jan 18 j 08:22 11° M 39'41 -12288 Jul 27 j 12:59 29°**Y**'27'27 evening set morning rise -12288 Jul 29 j 23:02 0°8 -12293 Feb 01 i 01:13 14°ML48'29 -1°44'39 -12288 Oct 20 j 00:27 15°8 conjunction -12288 Nov 28 j 10:54 17°**8**18'37 minimum elong -12293 Feb 01 i 01:12 14°ML48'28 1°45'10 retrograde -12293 Feb 01 i 21:14 15°M -12287 Jan 07 j 11:10 15°R₩ max. Earth dist. -12293 Feb 01 i 19:01 14° ML58'43 6.11862 AU opposition -12287 Jan 28 j 23:44 12°**8**25'10 2°34'56 -12293 Feb 14 j 17:59 17° ML57'07 min. Earth dist. -12287 Jan 29 j 11:33 12°\(\mathbf{2}21'25\) 4.28761 AU morning rise -12293 Apr 13 j 05:12 0° ₹ direct -12287 Mar 31 j 16:41 7°**8**30'02 retrograde -12293 Jun 21 j 13:22 6° ₹ 59'26 -12287 Jun 13 j 17:36 15°8 -12293 Aug 19 j 10:02 1°**⊀** 57'52 -2°32'29 -12287 Aug 03 j 00:03 25°832'17 opposition evening set min. Earth dist. -12293 Aug 19 j 03:56 1° ₹ 59'57 4.15247 AU -12287 Aug 15 j 08:37 28°**8**21'30 1°45'02 -12293 Sep 03 j 05:24 30°RML conjunction -12293 Oct 17 j 22:23 26°M54'31 -12287 Aug 15 j 08:38 28°**8**21'31 1°45'39 direct minimum elong -12293 Dec 01 j 22:15 0° ₹ max. Earth dist. -12287 Aug 14 j 22:35 28°**8**15'46 6.25528 AU -12292 Feb 23 j 18:02 15° ₹ 59'25 -12287 Aug 22 j 12:48 0°**Ⅱ** evening set morning rise -12287 Aug 27 j 17:52 1°**Д**11'15 -12292 Mar 08 j 08:46 19° ₹ 04'24 -1°31'43 -12286 Jan 01 j 15:12 19°**II**40'35 conjunction retrograde minimum elong -12292 Mar 08 j 08:51 19° **₹**04'27 1°32'27 opposition -12286 Mar 04 j 06:25 14°**II**44'09 2°22'00 max. Earth dist. -12292 Mar 08 j 11:03 19° ₹05'42 6.18806 AU min. Earth dist. -12286 Mar 04 j 09:18 14° **II**43'13 4.22074 AU morning rise -12292 Mar 21 j 21:22 22° ₹ 08'14 direct -12286 May 03 j 22:10 9°**Д**50'56 -12292 Apr 27 j 06:41 0°る evening set -12286 Sep 03 j 22:50 28°**Ⅲ**02'18 retrograde -12292 Jul 23 j 12:41 10°중24'53 -12286 Sep 12 j 10:41 -12292 Sep 20 j 13:11 5°**♂**27'06 -1°48'42 opposition min. Earth dist. -12292 Sep 20 j 16:40 5°る25'56 4.22609 AU -12286 Sep 16 j 13:35 0°557'16 1°19'37 conjunction

Planetary Phen	omena of Jupiter fro	m -12400	through -1189	8 (UT), Astrodier	nst AG 18-Feb-2025 1	14:23,	page 11
Attention, astronom	nical year style is used: The	e year -12286	in astronomical c	ounting style is the year	ar 12287 BCE in historical	counting styl	le.
minimum elong	-12286 Sep 16 j 13:40	0°957'19	1°20'22	opposition	-12280 Sep 25 j 02:53	10° る 08'43	-1°39'26
max. Earth dist.	-12286 Sep 16 j 17:06	0°959'18	6.18264 AU	min. Earth dist.	-12280 Sep 25 j 08:50	10° පි 06'44	4.23415 AU
morning rise	-12286 Sep 29 j 07:07	3° © 53'45		direct	-12280 Nov 25 j 00:25	5° る 04'23	
retrograde	-12285 Feb 05 j 20:18	23° © 03'57		evening set	-12279 Apr 03 j 07:17		
opposition	-12285 Apr 08 j 05:17	18° © 03'45	1°22'32	-			
min. Earth dist.	-12285 Apr 07 j 20:18		4.14708 AU	conjunction	-12279 Apr 16 j 16:06	26° る 47'22	-0°41'17
direct	-12285 Jun 06 j 15:03	13°9510'47		minimum elong	-12279 Apr 16 j 16:11		0°41'57
	-12285 Sep 30 j 05:52	$0^{\circ}\Omega$		max. Earth dist.	-12279 Apr 16 j 01:01		6.26776 AU
evening set	-12285 Oct 07 j 08:14	1° Ω 38'18		morning rise	-12279 Apr 29 j 21:27		
C	,			Č	-12279 May 01 j 00:13		
conjunction	-12285 Oct 20 j 09:53	4° Ω 41'01	0°27'21		-12279 Jul 21 j 08:33		
minimum elong	-12285 Oct 20 j 09:56			retrograde	-12279 Aug 29 j 02:26		
max. Earth dist.	-12285 Oct 21 j 05:27		6.11555 AU	J	-12279 Oct 07 j 05:02		
morning rise	-12285 Nov 02 j 15:00			opposition	-12279 Oct 27 j 17:17		-0°20'01
	-12285 Dec 05 j 00:20			min. Earth dist.	-12279 Oct 28 j 06:53		
retrograde	-12284 Mar 12 j 20:37			direct	-12279 Dec 28 j 14:31	7° ≈ 24'01	,
desc. node	-12284 Apr 12 j 17:39			asc. node	-12278 Jan 27 j 04:15	8°≈41'42	
opposition	-12284 May 12 j 12:20		-0°07'07	use. Houe	-12278 Mar 14 j 14:06		
min. Earth dist.	-12284 May 11 j 20:18		4.09160 AU	evening set	-12278 May 06 j 06:47		
direct	-12284 Jul 10 j 01:08		4.07100 AC	max. Earth dist.	-12278 May 18 j 05:47		6 31725 AII
direct	-12284 Oct 13 j 18:26			max. Earth dist.	-12276 May 16 J 03.47	26 ~20 32	0.31723 AU
avanina aat	-12284 Nov 10 j 14:06			agniumation	-12278 May 19 j 07:04	2000040140	0°16'29
evening set	-12284 NOV 10 J 14:00	6° Mp 17'17		conjunction	, ,		0°16'29 0°16'05
· · · · · · · · · · · ·	10004 N 24 : 01.07	00 7 25150	0925120	minimum elong	-12278 May 19 j 07:02		0-1603
conjunction	-12284 Nov 24 j 01:27	9° m 25'59			-12278 May 25 j 05:01	0°)(
minimum elong	-12284 Nov 24 j 01:23	9° m, 25'57		morning rise	•	1°) 33'04	
max. Earth dist.	-12284 Nov 25 j 05:00	9° m/42'05	6.07693 AU	retrograde	-12278 Sep 29 j 22:51		1002111
morning rise	-12284 Dec 07 j 16:14	-		opposition	-12278 Nov 29 j 06:34		1°03'44
	-12283 Mar 08 j 21:08	0∘ ⊽		min. Earth dist.	-12278 Nov 30 j 01:28		4.32966 AU
retrograde	-12283 Apr 17 j 19:20			direct	-12277 Jan 30 j 17:46	9° H 01'10	
	-12283 May 27 j 10:15			evening set	-12277 Jun 07 j 01:03	27° H 08'26	
opposition	-12283 Jun 16 j 15:44						
min. Earth dist.	-12283 Jun 15 j 20:42		4.07415 AU	conjunction	-12277 Jun 19 j 16:14		1°08'40
direct	-12283 Aug 13 j 20:17	-•		minimum elong	-12277 Jun 19 j 16:09		1°08'38
	-12283 Oct 24 j 12:30			max. Earth dist.	-12277 Jun 18 j 14:34		6.33130 AU
evening set	-12283 Dec 17 j 08:00	11° ≏ 31'39			-12277 Jun 19 j 19:56	0° Υ	
				morning rise	-12277 Jul 02 j 04:51	2° Y 46′12	
conjunction	-12283 Dec 31 j 00:22			retrograde	-12277 Nov 01 j 01:50		
minimum elong	-12283 Dec 31 j 00:16	14° ≏ 42'01	1°26'07	opposition	-12276 Jan 01 j 04:17		2°08'27
max. Earth dist.	-12282 Jan 01 j 02:59	14° ≏ 57'32	6.08117 AU	min. Earth dist.	-12276 Jan 01 j 21:01		4.32464 AU
morning rise	-12282 Jan 13 j 18:25	17° ≏ 53'18		direct	-12276 Mar 03 j 11:37		
	-12282 Mar 11 j 20:22	0°M₊		evening set	-12276 Jul 07 j 04:39		
retrograde	-12282 May 23 j 02:54	7°M28'08			-12276 Jul 14 j 05:03	9° 8	
opposition	-12282 Jul 21 j 06:07	2°M24'08	-2°29'13				
min. Earth dist.	-12282 Jul 20 j 16:27	2°M28'49	4.10081 AU	conjunction	-12276 Jul 19 j 13:25	1° 8 12'37	1°40'50
	-12282 Aug 08 j 13:31	30° ₹ Ω		minimum elong	-12276 Jul 19 j 13:22	1° 8 12'34	1°41'13
direct	-12282 Sep 17 j 21:53	27° ≏ 22'59		max. Earth dist.	-12276 Jul 18 j 17:24	1° 8 01'17	6.30628 AU
	-12282 Oct 28 j 11:23	0°M		morning rise	-12276 Jul 31 j 21:23	3° 8 59'45	
	-12281 Jan 16 j 10:38	15°M			-12276 Sep 23 j 05:47	15° 8	
evening set	-12281 Jan 23 j 10:53	16°ML35'34		retrograde	-12276 Dec 03 j 04:59	21° 8 54'49	
				opposition	-12275 Feb 02 j 18:12	17° 8 01'01	2°35'59
conjunction	-12281 Feb 06 j 03:42	19°ML43'58	-1°45'02	min. Earth dist.	-12275 Feb 03 j 05:34	16° 8 57'25	4.28207 AU
minimum elong	-12281 Feb 06 j 03:42				-12275 Feb 19 j 03:56		
max. Earth dist.	-12281 Feb 06 j 19:55			direct	-12275 Apr 05 j 09:18		
morning rise	-12281 Feb 19 j 20:01				-12275 May 19 j 15:18		
	-12281 Mar 24 j 05:08				-12275 Aug 06 j 19:33	0°II	
retrograde	-12281 Jun 26 j 04:16			evening set	-12275 Aug 07 j 09:59	0° Ⅲ 08'12	
opposition	-12281 Aug 24 j 01:23		-2°29'11	0 / 4 · · · · · · · · · · · · · · · · · ·			
min. Earth dist.	-12281 Aug 23 j 19:58		4.16130 AU	conjunction	-12275 Aug 19 j 18:54	2° ∏ 57'50	1°43'23
direct	-12281 Oct 22 j 15:58			minimum elong	-12275 Aug 19 j 18:56	2° I 57'51	1°44'01
evening set	-12280 Feb 28 j 16:36			max. Earth dist.	-12275 Aug 19 j 09:58	2° I 52'44	6.24876 AU
o ronning set	12200 1 00 20 J 10.30	20 7 7/02		morning rise	-12275 Aug 19 j 09:58 -12275 Sep 01 j 04:59	5° Ⅱ 48'11	5.2 1010 AU
conjunction	-12280 Mar 13 j 06:42	23° / 51127	-1°27'1 <i>/</i> /	retrograde	-12273 Sep 01 j 04.39 -12274 Jan 06 j 09:54		
minimum elong	-12280 Mar 13 j 06:47			opposition	-12274 Jan 00 j 09.34 -12274 Mar 09 j 02:19		2°16'14
max. Earth dist.	-12280 Mar 13 j 05:03		6.19697 AU	min. Earth dist.	-12274 Mar 09 j 02:19 -12274 Mar 09 j 02:40		
max. Earth dist.	-12280 Mar 13 j 05:03 -12280 Mar 26 j 18:45		0.1707/ AU	direct	-12274 May 08 j 13:20		7.∠1 <i>337 A</i> U
morning 1150	-12280 Mai 26 j 18.43 -12280 Apr 09 j 15:44			direct	-12274 May 08 j 13.20 -12274 Aug 27 j 11:48	0°9	
retrograde	-12280 Apr 09 j 15:44 -12280 Jul 28 j 02:00			evening set	-12274 Aug 27 j 11:48 -12274 Sep 08 j 11:31	0°99 2°9943'56	
renograde	-12200 Jui 28 J 02.00	15 005 38		evening set	-12214 SEP US J 11.31	30 د دوست ک	

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12274 in astronomical counting style is the year 12275 BCE in historical counting style. -12274 Sep 21 i 03:38 5°539'46 1°13'41 retrograde -12268 Aug 01 i 15:04 19°₹48'26 conjunction minimum elong -12274 Sep 21 j 03:44 5°**5**39'49 1°14'26 opposition -12268 Sep 29 j 17:29 14° 궁51'44 -1°29'27 5°5643'34 max. Earth dist. -12274 Sep 21 j 10:12 min. Earth dist. -12268 Sep 29 j 23:50 14°정49'37 4.24226 AU 6 17554 AU -12274 Oct 03 j 22:27 -12268 Nov 29 j 17:55 9°**정**47'32 8°937'11 direct morning rise -12267 Apr 08 j 01:09 28°중28'26 -12273 Feb 10 j 19:26 27°551'25 retrograde evening set -12273 Apr 13 j 01:55 22°550'43 -12267 Apr 14 j 21:11 opposition 1°11'20 -12273 Apr 12 j 16:51 22°553'41 4.14031 AU min. Earth dist. 1°≈27'13 -0°33'25 -12267 Apr 21 j 08:49 direct -12273 Jun 11 j 09:36 17°557'36 conjunction 1°≈27'15 0°34'04 -12273 Sep 13 j 10:20 $0^{\circ}\Omega$ minimum elong -12267 Apr 21 j 08:52 evening set -12273 Oct 12 j 02:00 6°**Ω**26'57 max. Earth dist. -12267 Apr 20 j 15:09 1°≈17'19 6.27553 AU morning rise -12267 May 04 j 13:16 4°≈24'15 -12273 Oct 25 j 04:59 9° Ω 30'33 0°18'51 -12267 Jun 25 j 00:30 15°≈ conjunction -12273 Oct 25 j 05:01 minimum elong 9°**Ω**30'34 0°19'26 retrograde -12267 Sep 02 j 15:00 21°≈56'59 max. Earth dist. -12273 Oct 26 j 00:39 9°**Ω**42'02 6.10975 AU opposition -12267 Nov 01 j 07:28 17°≈03'25 -0°07'52 morning rise -12273 Nov 07 j 11:46 $12^{\circ}\Omega$ 36'11 min. Earth dist. -12267 Nov 01 j 22:29 16°≈58'31 4.30302 AU -12273 Nov 17 j 22:01 15°**Ω** -12267 Nov 17 j 13:46 15°R≈ -12272 Feb 07 j 13:40 asc. node -12267 Dec 07 j 06:07 13°≈02'09 desc. node -12272 Feb 22 j 14:21 1° m 24'59 direct -12266 Jan 02 j 08:26 12°≈00'28 retrograde -12272 Mar 17 j 18:18 2° m 19'57 -12266 Feb 17 i 02:34 15°≈ -12272 Apr 25 j 18:31 30°RΩ -12266 May 09 j 07:04 opposition -12272 May 17 j 08:22 27° Ω 16'14 -0°20'08 evening set -12266 May 10 j 19:45 0°**)**€20'18 min. Earth dist. -12272 May 16 j 15:09 $27^{\circ}\Omega$ 22'00 4.08734 AU direct -12272 Jul 14 i 18:20 $22^{\circ}\Omega 21'12$ conjunction -12266 May 23 j 18:53 3°**)** 13'39 0°24'33 -12272 Sep 24 i 14:58 0° m minimum elong -12266 May 23 j 18:50 3°**)** 13'38 0°24'12 evening set -12272 Nov 15 j 13:17 11° m 12'09 max. Earth dist. -12266 May 22 j 18:41 3° **米** 00'08 6.32228 AU -12266 Jun 05 j 14:31 6°**米**05'17 morning rise -12272 Nov 29 j 01:42 14° m 21'24 -0°43'39 retrograde -12266 Oct 04 j 09:23 23°\cdot\cdot 25'26 conjunction -12272 Nov 29 j 01:37 14° m 21'21 0°43'27 -12266 Dec 03 j 20:45 18° \(\frac{1}{3} \) 33'32 1°14'28 minimum elong opposition max. Earth dist. -12272 Nov 30 j 05:26 14° m 37'36 6.07450 AU min. Earth dist. -12266 Dec 04 j 14:49 18° **X** 27'45 4.33265 AU -12272 Dec 12 j 17:13 17° m 32'16 -12265 Feb 04 j 07:42 13°**)** €33'11 direct morning rise -12271 Feb 09 j 09:18 0°**♀** -12265 Jun 04 j 00:36 0°**Υ** -12265 Jun $\,$ 11 j 10:46 $\,$ 1° $\mathbf{\Upsilon}'$ 38'30 -12271 Apr 22 j 18:19 7°**♀**23'32 retrograde evening set -12271 Jun 21 j 10:56 2°**♀**18'38 -1°45'40 -12265 Jun 22 j 22:31 4°**Υ**12'45 opposition max. Earth dist. 6.33165 AU -12271 Jun 20 j 17:21 2°**2**24'38 4.07382 AU min. Earth dist. -12265 Jun 24 j 00:37 4° **Y** 27'24 1° 14'40 -12271 Jul 09 j 02:38 30°R M conjunction -12265 Jun 24 j 00:32 4°**Υ**27'21 -12271 Aug 18 j 16:46 27° m 20'24 1°14'41 direct minimum elong -12271 Sep 28 j 04:52 0°**♀** -12265 Jul 06 j 12:22 7°**Υ**15'15 morning rise evening set -12271 Dec 22 j 10:42 16° **2**29'13 retrograde -12265 Nov 05 j 16:37 24°**Y**45'39 opposition -12264 Jan 05 j 20:01 19°**Υ**'53'29 2°14'51 -12270 Jan 05 j 03:28 19°**2**39'42 -1°30'41 conjunction min. Earth dist. -12264 Jan 06 j 13:16 19°**Y**48'02 4.32223 AU minimum elong -12270 Jan 05 j 03:21 19°**2**39'38 1°30'55 direct -12264 Mar 08 j 02:46 14°**Υ**56'13 max. Earth dist. -12270 Jan 06 j 05:31 19°**2**54'49 6.08288 AU -12264 Jun 28 j 08:16 0°8 morning rise -12270 Jan 18 j 21:31 22°**♀**50'48 -12264 Jul 11 j 12:49 2°**8**55'49 evening set -12270 Feb 20 j 00:09 0°M retrograde -12270 May 27 j 21:51 12° M22'30 conjunction -12264 Jul 23 j 21:15 5°**8**43'17 1°43'07 -12270 Jul 25 j 23:33 7°ML18'52 -2°32'31 -12264 Jul 23 j 21:12 5°843'15 1°43'31 opposition minimum elong -12270 Jul 25 j 10:22 7° ML23'23 4.10473 AU -12264 Jul 23 j 02:29 5°832'39 6.30103 AU min. Earth dist. max. Earth dist. direct -12270 Sep 22 j 16:20 2°ML17'22 morning rise -12264 Aug 05 j 05:02 8°\(230'33\) -12264 Sep 04 i 00:58 15°8 -12270 Dec 30 i 03:58 15°M -12269 Jan 28 j 13:38 21° ML30'47 retrograde -12264 Dec 07 j 20:45 26°830'06 evening set opposition -12263 Feb 07 j 11:52 21° \(\delta 35'54 \) 2°36'10 -12269 Feb 11 j 06:09 24°M 38'52 -1°44'38 min. Earth dist. -12263 Feb 07 j 21:14 21°**8**32'56 4.27441 AU conjunction -12269 Feb 11 j 06:10 24°MJ38'52 1°45'13 direct -12263 Apr 09 j 22:35 16°841'24 minimum elong -12269 Feb 11 j 18:54 24°M 46'10 6.13240 AU max. Earth dist. -12263 Jul 21 j 13:41 $0^{\circ}\Pi$ -12269 Feb 24 j 22:12 27°M46'32 morning rise evening set -12263 Aug 11 j 19:44 4°**∏**44'10 -12269 Mar 06 j 18:19 0° ₹ -12263 Aug 24 j 05:14 7° **II**34'26 1° 41'07 retrograde -12269 Jun 30 j 20:41 16° **₹** 37'58 conjunction opposition -12269 Aug 28 j 17:15 11° ₹37'25 -2°24'51 minimum elong -12263 Aug 24 j 05:17 7°**Ⅱ**34'28 1°41'47 min. Earth dist. -12269 Aug 28 j 13:53 11° ₹38'34 4.16824 AU max. Earth dist. -12263 Aug 23 j 22:14 7°**Ⅲ**30′25 6.23925 AU -12269 Oct 27 j 12:33 6° ₹33'39 -12263 Sep 05 j 16:06 10°**Ⅲ**25'32 direct morning rise -12268 Mar 04 j 15:31 25° ₹35'38 -12262 Jan 11 j 07:39 29°**Ⅱ**05'09 evening set retrograde opposition -12262 Mar 13 j 22:24 24°**Д**07'38 2°09'39 conjunction -12268 Mar 18 j 05:18 28°**尽** 39'35 -1°22'07 min. Earth dist. -12262 Mar 13 j 22:32 24°**Ⅲ**07'36 4.20265 AU minimum elong -12268 Mar 18 j 05:23 28° ₹39'39 1°22'50 direct -12262 May 13 j 06:28 19°**Ⅲ**14'36 max. Earth dist. -12268 Mar 18 j 03:15 28° ₹38'26 6.20490 AU -12262 Aug 10 j 06:11 0ಂತಾ -12268 Mar 24 j 03:20 0°る -12262 Sep 13 j 01:33 7°528'53 evening set

morning rise

-12268 Mar 31 j 16:28 1°₹42'10

•	-		•		nst AG 18-Feb-2025 14:	
		-			ar 12263 BCE in historical cour	
conjunction	-12262 Sep 25 j 19:03	10° © 25'49	1°07'15	conjunction	-12256 Mar 23 j 04:17 3°	329'45 -1°16'26
minimum elong	-12262 Sep 25 j 19:08	10° © 25'52	1°07'58	minimum elong	-12256 Mar 23 j 04:23 3°	329'49 1°17'09
max. Earth dist.	-12262 Sep 26 j 02:40		6.16428 AU	max. Earth dist.	J	されて 6.21920 AU
morning rise	-12262 Oct 08 j 15:35	13° 5 24'28		morning rise	1 3	ි ට 31'25
	-12261 Jan 03 j 18:40	$0^{\circ}\Omega$		retrograde	-12256 Aug 06 j 03:37 24°	る 30'24
retrograde	-12261 Feb 15 j 18:15	2° Ω 44'08		opposition	-12256 Oct 04 j 08:19 19°	
	-12261 Mar 30 j 21:37	30° ₹ 5		min. Earth dist.	-12256 Oct 04 j 15:52 19°	る31'38 4.25700 AU
opposition	-12261 Apr 17 j 23:51	27°542'57	0°59'31	direct	-12256 Dec 04 j 13:48 14°	る 29'58
min. Earth dist.	-12261 Apr 17 j 12:51	27°5946'34	4.12954 AU		-12255 Mar 29 j 14:50 0°	°≈
direct	-12261 Jun 16 j 03:01	22° 5 49'39		evening set	-12255 Apr 12 j 17:30 3°	°≈05'43
	-12261 Aug 24 j 19:52	$0^{\circ}\Omega$		max. Earth dist.	-12255 Apr 25 j 06:37 5°	°≈53'40 6.28980 AU
evening set	-12261 Oct 16 j 22:28	11° Ω 22'32				
				conjunction	-12255 Apr 26 j 00:07 6°	°≈03'28 -0°25'28
conjunction	-12261 Oct 30 j 03:03	14° Ω 27'14	0°10'04	minimum elong	-12255 Apr 26 j 00:09 6°	°≈03'29 0°26'05
minimum elong	-12261 Oct 30 j 03:04	14° Ω 27'15	0°10'37	morning rise	-12255 May 09 j 03:10 8°	2≈59'23
behind sun begin	-12261 Oct 29 j 20:43	14° £ 23′33			-12255 Jun 05 j 23:52 15°	*
behind sun end	-12261 Oct 30 j 09:25	14° Ω 30'57		retrograde	-12255 Sep 06 j 23:50 26°	°≈26'52
max. Earth dist.	-12261 Oct 31 j 00:17	14° Ω 39'39	6.10047 AU	asc. node	-12255 Oct 18 j 04:22 23°	′ ≈ 52'52
	-12261 Nov 01 j 11:05			opposition	-12255 Nov 05 j 19:37 21°	°≈33'38 0°04'03
morning rise	-12261 Nov 12 j 11:19			min. Earth dist.	-12255 Nov 06 j 10:57 21°	
desc. node	-12260 Jan 01 j 23:13			direct	-12254 Jan 06 j 23:10 16°	
	-12260 Jan 10 j 02:53	0° m/			-12254 Apr 23 j 04:47 0°	
retrograde	-12260 Mar 22 j 21:12	7° Mp 21'15		evening set		° ¥ 46'07
opposition	-12260 May 22 j 07:23	2° m/ 17'12	-0°33'21	max. Earth dist.		° ¥ 23'41 6.33196 AU
min. Earth dist.	-12260 May 21 j 14:24		4.08023 AU	man. Bartir dist.	1220 : 1120 ; 27] 00:10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
mm. Earth dist.	-12260 Jun 09 j 00:49		1.00023 110	conjunction	-12254 May 28 j 03:06 7°	° H 38'26 0°32'14
direct	-12260 Jul 19 j 16:33			minimum elong		°₩38'25 0°31'56
uncer	-12260 Aug 28 j 22:43	0°m		morning rise	-12254 Jun 09 j 21:37 10°	
evening set	-12260 Nov 20 j 16:33	•		retrograde	-12254 Oct 08 j 18:17 27°	
evening set	12200 1101 20 j 10.55	10 11/1030		opposition	-12254 Dec 08 j 07:56 22°	
conjunction	-12260 Dec 04 j 05:59	10° m 26'26	0°51'44	min. Earth dist.	-12254 Dec 09 j 03:06 22°	
minimum elong	-12260 Dec 04 j 05:54			direct	-12253 Feb 08 j 20:12 17°	
max. Earth dist.	-12260 Dec 05 j 10:38		6.07023 AU	uncet	-12253 May 18 j 23:43 0°	
morning rise	-12260 Dec 03 j 10.38 -12260 Dec 17 j 22:17	-	0.07023 AU	avanina aat	, ,	Υ58'05
morning rise		22 III/3/48 0° Ω		evening set max. Earth dist.	•	Υ32'16 6.33368 AU
ratra ara da	-12259 Jan 19 j 20:30			max. Earm dist.	-12253 Jun 27 j 03:47 8°	1 32 10 0.33308 AU
retrograde	-12259 Apr 27 j 19:26		1955!16	agniumation	12252 Jun 20:04.50 00	° Υ 46'25 1°20'01
opposition	-12259 Jun 26 j 09:20			conjunction		
min. Earth dist.	-12259 Jun 25 j 15:30		4.0/319 AU	minimum elong	-12253 Jun 28 j 04:54 8°	
direct	-12259 Aug 23 j 14:24			morning rise	-12253 Jul 10 j 15:40 11°	
evening set	-12259 Dec 27 j 17:54	21°2236'48		retrograde	-12253 Nov 10 j 01:14 29°	
	10050 1 10:10 16	240 2 45112	100.415.5	opposition	-12252 Jan 10 j 07:38 24°	
conjunction	-12258 Jan 10 j 10:46			min. Earth dist.	-12252 Jan 11 j 00:08 24°	
minimum elong	-12258 Jan 10 j 10:40			direct	-12252 Mar 12 j 12:05 19°	
max. Earth dist.	-12258 Jan 11 j 10:44		6.08580 AU		-12252 Jun 12 j 00:46 0°	
morning rise	-12258 Jan 24 j 04:55			evening set	-12252 Jul 15 j 17:15 7°	
	-12258 Feb 02 j 02:05			max. Earth dist.	-12252 Jul 27 j 05:57 9°	8 52'33 6.29479 AU
	-12258 Apr 23 j 17:02					
retrograde	-12258 Jun 01 j 19:45			conjunction	-12252 Jul 28 j 01:15 10°	
	-12258 Jul 10 j 15:44			minimum elong	-12252 Jul 28 j 01:12 10°	
opposition	-12258 Jul 30 j 20:20			morning rise	-12252 Aug 09 j 09:04 12°	
min. Earth dist.	-12258 Jul 30 j 08:06		4.11125 AU		-12252 Aug 18 j 23:38 15°	
direct	-12258 Sep 27 j 16:33				-12252 Nov 17 j 16:32 0°	
	-12258 Dec 09 j 23:11	15°M		retrograde	-12252 Dec 12 j 11:22 0°	I 55'41
evening set	-12257 Feb 02 j 19:08	26°M33'22			-12251 Jan 06 j 06:06 30°	RB
				opposition	-12251 Feb 12 j 01:56 26°	8 01'09 2°35'25
conjunction	-12257 Feb 16 j 11:36			min. Earth dist.	-12251 Feb 12 j 11:34 25°	
minimum elong	-12257 Feb 16 j 11:37	29°M40'59	1°44'08	direct	-12251 Apr 14 j 09:58 21°	
max. Earth dist.	-12257 Feb 17 j 00:36	29°M48'25	6.14235 AU		-12251 Jul 04 j 06:56 0°	
	-12257 Feb 17 j 20:50	0° ∡		evening set	-12251 Aug 16 j 02:18 9°	I I11'35
morning rise	-12257 Mar 02 j 02:56	2° ∡ ¹47'55				
retrograde	-12257 Jul 05 j 14:43	21° х 32'24		conjunction	-12251 Aug 28 j 12:40 12°	I 102'43 1°38'19
opposition	-12257 Sep 02 j 11:18	16° ∡ ³32'23	-2°19'25	minimum elong	-12251 Aug 28 j 12:43 12°	° I 02'45 1°39'01
min. Earth dist.	-12257 Sep 02 j 08:31	16° х 33′20	4.18079 AU	max. Earth dist.	-12251 Aug 28 j 06:52 11°	159'23 6.22639 AU
direct	-12257 Nov 01 j 10:41	11° ≯ 28'31		morning rise	-12251 Sep 10 j 00:34 14°	
	-12256 Mar 07 j 15:42	0°ರ			-12251 Nov 26 j 11:24 0°	ඉ
evening set	-12256 Mar 09 j 15:22	0° ರ 26'41		retrograde	-12250 Jan 16 j 01:30 3°	9 41'33
	-				12250 Mar 08 i 15:57 30°	

-12250 Mar 08 j 15:57 30°**R II**

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12250 in astronomical counting style is the year 12251 BCE in historical counting style. -12250 Mar 18 j 15:53 28° **II** 43'36 2°02'26 direct -12245 Nov 06 i 07:21 16° ₹ 18'51 opposition min. Earth dist. -12250 Mar 18 j 14:15 28° **II** 44'08 4.18795 AU -12244 Feb 19 j 15:39 0°ಕ -12250 May 17 j 18:38 23°**Д**50'42 -12244 Mar 14 j 12:52 5°**♂**13'28 direct evening set -12250 Jul 21 j 13:41 0°5 -12250 Sep 17 j 14:01 12°508'57 -12244 Mar 28 j 01:07 8°る15'45 -1°10'20 evening set conjunction -12244 Mar 28 j 01:13 8°る15'48 1°11'04 minimum elong -12250 Sep 30 j 09:00 15°507'13 1°00'29 -12244 Mar 27 j 18:57 8°정12'16 6.23174 AU conjunction max. Earth dist. -12250 Sep 30 j 09:06 15°507'17 minimum elong 1°01'11 morning rise -12244 Apr 10 j 10:33 11°♂16'31 -12250 Sep 30 j 18:10 15°5512'34 max. Earth dist. 6.14917 AU retrograde -12244 Aug 10 j 16:09 29°る09'23 -12250 Oct 13 j 07:13 18°507'18 morning rise opposition -12244 Oct 08 j 21:58 24°♂13'38 -1°08'02 -12250 Dec 08 j 08:27 $0^{\circ}\Omega$ min. Earth dist. -12244 Oct 09 j 07:07 24°る10'36 4.26822 AU -12249 Feb 20 j 18:44 -12244 Dec 09 j 07:17 19°る09'36 retrograde 7°**Ω**34'04 direct opposition -12249 Apr 22 j 20:43 2° **Ω**32'27 0°47'25 -12243 Mar 12 j 02:42 0°**≈** min. Earth dist. -12249 Apr 22 j 09:02 2°**Q**36'18 4.11519 AU evening set -12243 Apr 17 j 08:37 -12249 May 13 j 04:19 30°RS direct -12249 Jun 20 j 20:47 27°538'58 conjunction -12243 Apr 30 j 14:02 10°≈38'33 -0°17'25 -12249 Jul 29 j 00:30 $0^{\circ}\Omega$ minimum elong -12243 Apr 30 j 14:04 10°≈38'34 0°17'58 -12249 Oct 16 j 06:15 15°**Ω** max. Earth dist. -12243 Apr 29 j 17:57 10°≈27'20 6.29877 AU evening set -12249 Oct 21 j 19:03 $16^{\circ}\Omega$ 17'00 morning rise -12243 May 13 j 16:02 13°≈33'40 -12243 May 20 j 04:15 15°≈ conjunction -12249 Nov 04 j 01:16 19° Ω 22'58 0°01'15 -12243 Aug 17 j 17:51 minimum elong -12249 Nov 04 i 01:15 19° Ω 22'57 asc. node -12243 Aug 28 i 05:55 0°**)**(38'42 behind sun begin -12249 Nov 03 j 17:00 19° Ω 18'08 retrograde -12243 Sep 11 j 10:03 0° \(\) 58'13 behind sun end -12249 Nov 04 i 09:31 19° Ω 27'45 -12243 Oct 06 i 03:09 30°R≈ max. Earth dist. -12249 Nov 05 j 00:48 19°**Ω**36'43 6.08846 AU opposition -12243 Nov 10 j 08:23 26°≈05'14 0°15'58 -12249 Nov 11 j 16:09 $21^{\circ}\Omega$ 09'57 min. Earth dist. -12243 Nov 11 j 00:41 25°≈59'57 4.32172 AU desc node -12249 Nov 17 j 11:03 $22^{\circ}\Omega 30'53$ direct -12242 Jan 11 j 13:52 21°≈02'51 morning rise -12249 Dec 20 j 21:28 0° Mg -12242 Apr 05 j 03:24 0°**光** -12248 Mar 27 j 23:40 12° m 22'23 -12242 May 19 j 16:10 9° **∺** 15'34 retrograde evening set -12248 May 26 j 11:53 7° m 24'14 4.07199 AU max. Earth dist. -12242 May 31 j 10:33 11° **∺** 52'43 6.33485 AU min. Earth dist. -12248 May 27 j 06:00 7° m 18'08 -0°46'18 opposition -12248 Jul 24 j 11:59 2° m 22'20 -12242 Jun 01 j 12:31 12° **★** 07'13 0°39'51 direct conjunction -12248 Nov 25 j 20:33 21° m 21'38 -12242 Jun 01 j 12:27 12°**米**07'11 0°39'35 minimum elong evening set -12242 Jun 14 j 05:41 14° **∺** 57'18 morning rise -12248 Dec 09 j 10:44 24° m/32'00 -0°59'25 -12242 Sep 04 j 13:15 0°**Υ** conjunction -12248 Dec 09 j 10:38 24° mg 31'56 0°59'19 -12242 Oct 13 j 05:15 2° **Y** 16'16 minimum elong retrograde -12248 Dec 10 j 15:05 24° Mp 48'34 6.06626 AU -12242 Nov 21 j 09:35 30°R ₩ max. Earth dist. morning rise -12248 Dec 23 j 03:50 27° mp 43'47 opposition -12242 Dec 12 j 21:31 27° **€** 24'30 1°34'05 -12247 Jan 02 j 00:31 0°**♀** min. Earth dist. -12242 Dec 13 j 16:47 27° **X** 18'22 4.33839 AU retrograde -12247 May 02 j 19:23 17°**♀**34'21 direct -12241 Feb 13 j 09:37 22°**∺**24'57 opposition -12247 Jul 01 j 07:35 12°**£**29'30 -2°03'57 -12241 Apr 30 j 06:09 0°**Υ** min. Earth dist. -12247 Jun 30 j 13:34 12°**2**35'40 4.07400 AU evening set -12241 Jun 20 j 00:41 10°**Υ**26'32 -12247 Aug 28 j 13:46 7°**೨**30′20 max. Earth dist. -12241 Jul 01 j 10:09 12°**Υ**59'45 6.32972 AU direct -12246 Jan 02 j 00:24 26°**♀**43'20 evening set conjunction -12241 Jul 02 j 12:29 13°**Υ**′14'33 1°25'06 -12246 Jan 15 i 17:34 29° **2**53'33 -1°38'25 -12241 Jul 02 j 12:24 13°**Υ** 14'30 conjunction minimum elong -12246 Jan 15 j 17:29 29° **2**53'30 1°38'46 -12241 Jul 14 j 22:35 16° Υ01'44 minimum elong morning rise -12246 Jan 16 i 04:42 0°M -12241 Sep 25 j 18:32 0°8 -12241 Nov 14 i 16:40 3°**8**37'54 max. Earth dist. -12246 Jan 16 j 18:37 0° ML08'03 6.09108 AU retrograde morning rise -12246 Jan 29 j 11:21 3°ML04'03 -12240 Jan 05 i 01:16 30° R**Y** -12246 Mar 26 j 19:23 15°M opposition -12240 Jan 14 j 23:56 28° Υ 45'23 2°25'06 retrograde -12246 Jun 06 j 17:13 22°M26'21 min. Earth dist. -12240 Jan 15 j 16:09 28°**Y**40'14 4.31313 AU -12246 Aug 04 j 15:58 17°M23'22 -2°35'55 direct -12240 Mar 17 j 02:28 23°**Y**48'54 opposition min. Earth dist. -12246 Aug 04 j 04:45 17° ML27'13 4.12024 AU -12240 May 23 j 02:55 0°**8** -12246 Aug 22 j 21:07 15°RML evening set -12240 Jul 20 j 02:03 11°**8**48'43 direct -12246 Oct 02 j 15:44 12°M21'08 -12246 Nov 12 j 18:27 15°M conjunction -12240 Aug 01 j 10:06 14°**8**36'34 1°45'47 -12245 Feb 01 j 03:40 minimum elong -12240 Aug 01 j 10:05 14°**8**36'33 1°46'16 0° **√** -12245 Feb 07 j 22:56 max. Earth dist. -12240 Jul 31 j 17:25 14°**8**27'05 6.28531 AU evening set 1°**∡**³32'11 -12240 Aug 03 j 03:18 15°**8** -12245 Feb 21 j 14:54 4° ₹39'07 -1°41'41 conjunction morning rise -12240 Aug 13 j 17:57 17°**8**24'29 minimum elong -12245 Feb 21 j 14:57 4° ₹39'08 1°42'20 -12240 Oct 15 j 01:12 0°**Ⅱ** max. Earth dist. -12245 Feb 22 j 01:00 4°**≯**44'53 6.15378 AU retrograde -12240 Dec 17 j 05:49 5°**Ⅱ**35'08 morning rise -12245 Mar 07 j 05:46 7°**∡**°45'19 opposition -12239 Feb 16 j 21:33 0°**П**40'13 2°33'43 retrograde -12245 Jul 10 j 05:25 26° ₹22'30 min. Earth dist. -12239 Feb 17 j 05:23 0°**П**37'44 4.25331 AU -12245 Sep 07 j 03:23 21°**x** 22'57 -2°13'10 -12239 Feb 22 j 04:35 30°R8 opposition min. Earth dist. -12245 Sep 07 j 01:46 21° ₹23'30 4.19324 AU -12239 Apr 19 j 01:24 25°**8**46'19 direct

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12239 in astronomical counting style is the year 12240 BCE in historical counting style. -12239 Jun 11 i 17:54 0°**Ⅱ** minimum elong -12233 Feb 26 i 13:12 9° ₹24'29 1°39'54 -12239 Aug 20 j 14:27 13°**Д**52'53 max. Earth dist. -12233 Feb 26 j 20:30 9° ₹28'39 6.16506 AU evening set -12233 Mar 12 j 03:20 12° ₹29'54 morning rise -12239 Sep 02 j 01:34 16° II 44'52 1°34'46 conjunction -12233 Jun 19 j 22:24 0°る -12239 Sep 02 j 01:39 16°Д44'55 1°35'28 minimum elong retrograde -12233 Jul 14 j 18:07 1°る00'35 -12239 Sep 01 j 21:22 16°**Ⅱ**42'27 max. Earth dist. 6.21481 AU -12233 Aug 08 j 08:23 30°R.✓ -12239 Sep 14 j 14:42 19°**Д**38'00 morning rise opposition -12233 Sep 11 j 15:31 26° ₹01'37 -2°06'19 -12239 Nov 02 j 05:15 0ಂತಾ min. Earth dist. -12233 Sep 11 j 16:28 26°**尽**01'17 4.20352 AU retrograde -12238 Jan 21 j 01:24 8°**9**30'57 direct -12233 Nov 10 j 23:57 20° ₹ 57'25 opposition -12238 Mar 23 j 14:21 3°532'29 1°54'03 -12232 Feb 01 j 11:46 0°る min. Earth dist. -12238 Mar 23 j 11:05 3°533'32 4.17682 AU evening set -12232 Mar 19 j 05:55 9°**る**49'28 -12238 Apr 23 j 08:58 30°RⅡ -12232 Apr 01 j 17:31 12°₹51'10 -1°04'01 direct -12238 May 22 j 13:36 28°**Д**39'37 conjunction -12238 Jun 20 j 12:21 0ಂತಾ minimum elong -12232 Apr 01 j 17:37 12°551'13 1°04'44 evening set -12238 Sep 22 j 07:15 17°500'16 max. Earth dist. -12232 Apr 01 j 08:27 12°₹46'04 6.24020 AU morning rise -12232 Apr 15 j 02:08 15°**궁**51'17 conjunction -12238 Oct 05 j 03:53 19°559'40 0°53'03 -12232 Jun 27 j 04:14 0°≈ minimum elong -12238 Oct 05 j 03:59 19°559'43 retrograde -12232 Aug 15 j 00:37 3°≈40'02 max. Earth dist. -12238 Oct 05 j 16:38 20°507'05 6.14000 AU -12232 Oct 03 j 18:23 30°R 궁 morning rise -12238 Oct 18 j 03:43 23°500'53 opposition -12232 Oct 13 j 08:45 28° ₹ 44'45 -0°57'07 -12238 Nov 18 j 10:16 0°**Ω** min. Earth dist. -12232 Oct 13 j 18:52 28°る41'25 4.27424 AU retrograde -12237 Feb 25 j 20:48 $12^{\circ}\Omega$ 31'41 direct -12232 Dec 13 j 20:16 23°る40'50 opposition -12237 Apr 27 i 20:21 $7^{\circ}\Omega$ 29'38 $0^{\circ}34'39$ -12231 Feb 20 i 03:31 0°≈ min. Earth dist. -12237 Apr 27 j 07:02 7° **Ω**34'02 4.10894 AU evening set -12231 Apr 21 j 21:19 12°≈11'16 direct -12237 Jun 25 j 16:53 2°**Q**35'59 max. Earth dist. -12231 May 04 j 04:01 14°≈55'32 6.30209 AU desc. node -12237 Sep 21 j 07:19 $13^{\circ}\Omega$ 21'09 -12231 May 04 j 11:59 15°≈ -12237 Sep 29 j 00:59 $15^{\circ}\Omega$ -12237 Oct 26 j 18:09 21° Ω 16'04 -12231 May 05 j 01:39 15°≈07'37 -0°09'27 conjunction evening set -12231 May 05 j 01:39 15°≈07'38 minimum elong 0°09'59 -12237 Nov 09 j 01:34 24° Ω22'42 -0°07'47 -12231 May 04 j 19:07 15°≈03'59 conjunction behind sun begin -12237 Nov 09 j 01:32 24° Ω 22'41 0°07'21 -12231 May 05 j 08:12 15°≈11'16 minimum elong behind sun end -12237 Nov 08 j 18:00 24° **Ω**18'18 -12231 May 18 j 02:32 18°≈02'12 behind sun begin morning rise -12237 Nov 09 j 09:05 24°**Ω**27'05 -12231 Jul 08 j 16:22 28°≈36'28 behind sun end asc. node -12237 Nov 10 j 01:49 24° Ω36'54 6.08567 AU -12231 Jul 16 j 21:12 0°**米** max. Earth dist. -12237 Nov 22 j 12:46 27° **Ω**31'19 -12231 Sep 15 j 20:33 5°**∺** 26'00 morning rise retrograde -12237 Dec 03 j 06:59 0° Mp -12231 Nov 14 j 20:10 0° ★ 33'22 0°27'37 opposition -12236 Apr 01 j 23:09 17° m 23'03 -12231 Nov 15 j 13:44 0° **★**27'41 4.32214 AU retrograde min. Earth dist. min. Earth dist. -12236 May 31 j 09:16 12° m 24'55 4.07295 AU -12231 Nov 19 j 03:35 30°R≈ opposition -12236 Jun 01 j 04:16 12° m 18'30 -0°58'51 direct -12230 Jan 16 j 03:16 25°≈31'23 direct -12236 Jul 29 j 09:45 7° m 22'14 -12230 Mar 14 j 00:43 0°**米** evening set -12236 Nov 30 j 23:23 26° m 22'35 evening set -12230 May 24 j 02:06 13°**)** 43'38 -12236 Dec 14 j 14:21 29° m 32'59 -1°06'32 conjunction -12230 Jun 05 j 21:15 16° **€** 34'54 0°47'09 conjunction -12236 Dec 14 j 14:14 29° m 32'55 1°06'31 -12230 Jun 05 j 21:11 16° **€** 34'51 0°46'57 minimum elong minimum elong max. Earth dist. -12236 Dec 15 j 20:12 29° m 50'24 6.07079 AU max. Earth dist. -12230 Jun 04 j 18:05 16° **X** 19'42 6.33219 AU -12236 Dec 16 i 12:39 0°₽ morning rise -12230 Jun 18 j 13:27 19° + 24'40 -12236 Dec 28 i 07:38 2°**2**44'36 -12230 Aug 09 i 07:46 0°Υ morning rise retrograde -12235 May 07 j 17:03 22° **△**31'11 retrograde $-12230 \text{ Oct } 17 \text{ i } 17:49 \quad 6^{\circ} \Upsilon 46'17$ -12230 Dec 17 j 12:05 1° γ 54'31 1° 43'15 min. Earth dist. -12235 Jul 05 i 09:42 17° **2**32'14 4.08173 AU opposition -12235 Jul 06 i 02:32 17° \(\Omega\) 26'28 -2°11'26 min. Earth dist. -12230 Dec 18 j 06:42 1°Υ48'35 4.33323 AU opposition direct -12235 Sep 02 j 10:48 12° \(\Omega\) 26'50 -12229 Jan 01 j 21:42 30°R € -12235 Dec 30 j 21:41 0°M -12229 Feb 17 j 22:48 26° **H** 55'25 direct -12234 Jan 07 j 03:13 -12229 Apr 05 j 10:57 0°**Υ** evening set 1°M39'08 -12229 Jun 24 j 09:55 14°**Υ**'57'37 evening set conjunction -12234 Jan 20 j 20:12 4°ML48'50 -1°41'05 4°M48'48 1°41'28 minimum elong -12234 Jan 20 j 20:08 conjunction -12229 Jul 06 j 20:59 17°**Y**'45'33 1°29'40 -12234 Jan 21 j 18:07 max. Earth dist. 5°M01'30 6.10091 AU minimum elong -12229 Jul 06 j 20:54 17°**Υ**45'30 1°29'52 -12234 Feb 03 j 13:51 7°M 58'43 max. Earth dist. -12229 Jul 05 j 21:12 17°**Y**32'09 6.32241 AU morning rise -12229 Jul 19 j 06:18 20° **Y** 32'42 -12234 Mar 07 j 05:28 15°M morning rise -12234 Jun 11 j 07:55 27° ML14'26 -12229 Sep 02 j 08:54 0°8 retrograde -12229 Nov 19 j 09:00 8°**8**13'50 opposition -12234 Aug 09 j 06:53 22°ML11'51 -2°35'53 retrograde min. Earth dist. -12234 Aug 08 j 20:36 22°ML15'22 4.13127 AU opposition -12228 Jan 19 j 18:00 3°**8**21'07 2°29'06 direct -12234 Oct 07 j 10:01 17°ML09'12 min. Earth dist. -12228 Jan 20 j 09:02 3°8 16'21 4.30439 AU -12233 Jan 15 j 06:30 0°**∡**7 -12228 Feb 17 j 23:06 30°R**Y**

evening set

conjunction

-12233 Feb 12 j 21:28

6°**⊀**18′08

-12233 Feb 26 j 13:08 9° ₹24'27 -1°39'14

direct

-12228 Mar 21 j 18:08 28°**Y**25'08 -12228 Apr 23 j 07:20 0°**∀**

-12228 Jul 18 j 03:45 15°8

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 16 Attention, astronomical year style is used: The year -12228 in astronomical counting style is the year 12229 BCE in historical counting style.

Attention, astronom							
evening set	-12228 Jul 24 j 12:38	16° 8 25'59			-12222 May 11 j 00:40	0° ∡ ¹	
				retrograde	-12222 Jun 16 j 01:27	2° ₹ 04'44	
conjunction	-12228 Aug 05 j 20:33	19° 8 14'11	1°46'11		-12222 Jul 21 j 18:07	30°RM₊	
minimum elong	-12228 Aug 05 j 20:33	19° 8 14'11	1°46'43	opposition	-12222 Aug 13 j 22:45	27°M02'35	-2°34'51
max. Earth dist.	-12228 Aug 05 j 04:54		6.27568 AU	min. Earth dist.	-12222 Aug 13 j 14:55		
morning rise	-12228 Aug 18 j 04:52		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	direct	-12222 Oct 12 j 06:12		.,,.,
morning rise	• •	0°II		direct	-12222 Dec 26 j 23:33	0°×7	
	-12228 Sep 24 j 00:26				•		
retrograde	-12228 Dec 22 j 02:31			evening set	-12221 Feb 17 j 20:58	11°×'06'59	
opposition	-12227 Feb 21 j 18:41	5° Ⅱ 23'41					
min. Earth dist.	-12227 Feb 22 j 00:22	5° Ⅱ 21'52	4.24345 AU	conjunction	-12221 Mar 03 j 12:19	14° ∡ 12'47	-1°36'06
direct	-12227 Apr 23 j 18:46	0° Ⅲ 30′00		minimum elong	-12221 Mar 03 j 12:23	14° ∡ 12'49	1°36'47
evening set	-12227 Aug 25 j 03:40	18° Ⅲ 37'47		max. Earth dist.	-12221 Mar 03 j 17:28	14° ∡ 15'42	6.17439 AU
Ü	Ç j			morning rise	-12221 Mar 17 j 01:53		
conjunction	-12227 Sep 06 j 15:58	210∏20/20	1°30'33		-12221 May 18 j 09:04	0°る	
					, ,		
minimum elong	-12227 Sep 06 j 16:03			retrograde	-12221 Jul 19 j 05:44		1050126
max. Earth dist.	-12227 Sep 06 j 15:49		6.20559 AU	opposition	-12221 Sep 16 j 04:53	0° ප් 43'52	
morning rise	-12227 Sep 19 j 06:12	24° ∏ 24'41		min. Earth dist.	-12221 Sep 16 j 06:35	0° ರ 43'17	4.21245 AU
	-12227 Oct 14 j 06:43	0ంత			-12221 Sep 21 j 15:41	30°₽ ⋌ ¹	
retrograde	-12226 Jan 26 j 01:55	13° © 22'39		direct	-12221 Nov 15 j 16:03	25° х 39'34	
opposition	-12226 Mar 28 j 13:24	8°923'40	1°44'47		-12220 Jan 09 j 13:44	0°రె	
min. Earth dist.	-12226 Mar 28 j 08:36		4.16871 AU	evening set	-12220 Mar 24 j 00:27	14°云29'20	
direct	-12226 May 27 j 08:53	3°930'50	1.10071710	evening sec	12220 11141 21 1 00.27	1. 02,20	
	• •				10000 4 06:11.11	170-720124	0055110
evening set	-12226 Sep 27 j 01:02	21°952'53		conjunction	-12220 Apr 06 j 11:11		
				minimum elong	-12220 Apr 06 j 11:17		
conjunction	-12226 Oct 09 j 22:59	24° © 53'11	0°45'15	max. Earth dist.	-12220 Apr 05 j 23:10	17° る 23'39	6.24825 AU
minimum elong	-12226 Oct 09 j 23:04	24° © 53'14	0°45'56	morning rise	-12220 Apr 19 j 18:59	20° る 29'51	
max. Earth dist.	-12226 Oct 10 j 12:45	25° © 01'13	6.13356 AU		-12220 Jun 04 j 01:12	0° ≈	
morning rise	-12226 Oct 23 j 00:34			retrograde	-12220 Aug 19 j 12:32	8° ≈ 14'37	
morning rise	-12226 Nov 01 j 01:24			opposition	-12220 Oct 17 j 21:31	3°≈19'47	0045141
	-						
_	-12225 Jan 21 j 03:14			min. Earth dist.	-12220 Oct 18 j 09:46		4.28060 AU
retrograde	-12225 Mar 02 j 21:00				-12220 Nov 14 j 14:59		
	-12225 Apr 12 j 13:15	15° Ŗ €		direct	-12220 Dec 18 j 13:10	28° る 16'03	
opposition	-12225 May 02 j 19:15	12° Ω 26'44	0°21'39		-12219 Jan 21 j 18:34	0° ≈	
min. Earth dist.	-12225 May 02 j 04:20	12° Ω 31'42	4.10452 AU		-12219 Apr 18 j 13:43	15° ≈	
direct	-12225 Jun 30 j 12:45						
				evening set	-1//19 Anr /6 1 10:5X		
	-			evening set	-12219 Apr 26 j 10:58	10 244 10	
desc. node	-12225 Aug 01 j 13:17	9° Ω 13'40		C			0001117
desc. node	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38	9° £ 13'40 15° £		conjunction	-12219 May 09 j 14:14	19° ≈ 40'02	
	-12225 Aug 01 j 13:17	9° £ 13'40 15° £		C		19° ≈ 40'02	
desc. node	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38	9° £ 13'40 15° £		conjunction	-12219 May 09 j 14:14	19°≈40'02 19°≈40'02	
desc. node	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05	9°Ω13'40 15°Ω 26°Ω14'43	-0°16'37	conjunction minimum elong	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08	19°≈40'02 19°≈40'02 19°≈35'32	
desc. node evening set conjunction	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55	9°\$\Omega\$13'40 15°\$\Omega\$ 26°\$\Omega\$14'43 29°\$\Omega\$22'01		conjunction minimum elong behind sun begin behind sun end	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33	0°01'47
desc. node evening set conjunction minimum elong	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53	9°Ω13'40 15°Ω 26°Ω14'43 29°Ω22'01 29°Ω21'59	0°16'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33	0°01'47
desc. node evening set conjunction	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43	9°Ω13'40 15°Ω 26°Ω14'43 29°Ω22'01 29°Ω21'59 29°Ω37'41	0°16'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38	0°01'47
desc. node evening set conjunction minimum elong max. Earth dist.	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51	9° \(\Omega 13'40\) 15° \(\Omega \) 26° \(\Omega 14'43\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 37'41\) 0° \(\omega \)	0°16'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58	0°01'47
desc. node evening set conjunction minimum elong max. Earth dist. morning rise	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07	9° \(\Omega 13'40\) 15° \(\Omega \) 26° \(\Omega 14'43\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 37'41\) 0° \(\omega \) 2° \(\omega 31'10\)	0°16'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°∺	0°01'47
desc. node evening set conjunction minimum elong max. Earth dist.	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51	9° \(\Omega 13'40\) 15° \(\Omega \) 26° \(\Omega 14'43\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 37'41\) 0° \(\omega \) 2° \(\omega 31'10\)	0°16'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45	0°01'47
desc. node evening set conjunction minimum elong max. Earth dist. morning rise	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07	9° £13'40 15° £ 26° £14'43 29° £22'01 29° £21'59 29° £37'41 0° \$\text{Theorem }\text{Theorem }\text{20}20	0°16'13 6.08375 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°∺	0°01'47
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54	9° £13'40 15° £ 26° £14'43 29° £22'01 29° £21'59 29° £37'41 0° £0 2° £131'10 22° £12'46 17° £12'17	0°16'13 6.08375 AU 4.07386 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45	0°01'47 6.30638 AU
evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35	$9^{\circ}\Omega 13'40$ $15^{\circ}\Omega$ $26^{\circ}\Omega 14'43$ $29^{\circ}\Omega 22'01$ $29^{\circ}\Omega 21'59$ $29^{\circ}\Omega 37'41$ 0° m 2° m $31'10$ 22° m $22'46$ 17° m $24'17$ 17° m $18'05$	0°16'13 6.08375 AU 4.07386 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48	0°01'47 6.30638 AU 0°39'17
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desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Nov 30 j 01:59	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)12'07 12° \(\Omega\)21'24 0° \(\Omega\)	0°16'13 6.08375 AU 4.07386 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 May 28 j 12:48	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38	0°01'47 6.30638 AU 0°39'17 4.32429 AU
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desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Nov 30 j 01:59 -12224 Dec 06 j 02:17	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 20° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)21'24 0° \(\Omega\) 1° \(\Omega\)23'14	0°16'13 6.08375 AU 4.07386 AU -1°10'56	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 May 28 j 12:48 -12218 Jun 09 j 04:03	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Nov 30 j 01:59	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)12'07 12° \(\Omega\)21'24 0° \(\Omega\)	0°16'13 6.08375 AU 4.07386 AU -1°10'56	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jun 20 j 17:04 -12218 May 28 j 12:48 -12218 Jun 09 j 04:03	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26	0°01'47 6.30638 AU 0°39'17 4.32429 AU
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Nov 30 j 01:59 -12224 Dec 06 j 02:17	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 20° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)21'24 0° \(\Omega\) 1° \(\Omega\)23'14	0°16'13 6.08375 AU 4.07386 AU -1°10'56	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 May 28 j 12:48 -12218 Jun 09 j 04:03	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU
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desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist.	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'19 2° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)24'17 17° \(\Omega\)1'24 0° \(\Omega\) 1° \(\Omega\)23'14 4° \(\Omega\)33'38 4° \(\Omega\)33'34 4° \(\Omega\)49'59	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jun 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:33 -12218 Jun 10 j 06:33 -12218 Jun 22 j 21:41	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0° ₩ 9° ₩ 56'45 5° ₩ 04'20 4° ₩ 58'48 0° ₩ 0° ₩ 02'44 18° ₩ 13'38 20° ₩ 49'26 21° ₩ 04'19 21° ₩ 04'16 23° ₩ 53'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jan 02 j 11:24	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 22° \(\Omega\)31'10 22° \(\Omega\)22'46 17° \(\Omega\)24'17 17° \(\Omega\)1'24 0° \(\Omega\) 1° \(\Omega\)23'14 4° \(\Omega\)33'38 4° \(\Omega\)33'34 4° \(\Omega\)49'59 7° \(\Omega\)45'13	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:33 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°₩ 9°₩56'45 5°₩04'20 4°₩58'48 0°₩02'44 18°₩13'38 20°₩49'26 21°₩04'19 21°₩04'16 23°₩53'35 0°Ψ	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jan 02 j 11:24 -12223 May 12 j 12:40	9° \(\Omega\)13'40 15° \(\Omega\) 29° \(\Omega\)21'59 29° \(\Omega\)31'10 22° \(\Omega\)21'46 17° \(\Omega\)21'24 0° \(\Omega\) 1° \(\Omega\)23'14 4° \(\Omega\)33'38 4° \(\Omega\)33'34 4° \(\Omega\)49'59 7° \(\Omega\)45'13 27° \(\Omega\)28'18	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:33 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Oct 22 j 07:08	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08
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desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 10 j 21:07 -12223 Jul 10 j 04:23 -12223 Sep 07 j 06:52 -12223 Dec 13 j 14:37	9° \(\Omega 13'40\) 15° \(\Omega 22'01\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 31'10\) 22° \(\Omega 21'24\) 17° \(\Omega 21'24\) 0° \(\Omega 23'14\) 4° \(\Omega 33'38\) 4° \(\Omega 33'34\) 4° \(\Omega 49'59\) 7° \(\Omega 45'13\) 27° \(\Omega 28'18\) 22° \(\Omega 23'45\) 22° \(\Omega 23'45\) 22° \(\Omega 23'38\) 0° \(\Omega 23'38\)	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 Jun 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jun 20 j 17:04 -12218 Jun 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:33 -12218 Jun 10 j 06:33 -12218 Jun 22 j 21:41	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 10 j 04:23 -12223 Jul 10 j 04:23 -12223 Dec 13 j 14:37 -12222 Jan 12 j 06:07	9° \(\Omega\)13'40 15° \(\Omega\) 26° \(\Omega\)14'43 29° \(\Omega\)22'01 29° \(\Omega\)31'10 22° \(\Omega\)31'10 22° \(\Omega\)21'24 0° \(\Omega\) 1° \(\Omega\)23'14 4° \(\Omega\)33'38 4° \(\Omega\)33'34 4° \(\Omega\)4'59 7° \(\Omega\)45'13 27° \(\Omega\)23'14 22° \(\Omega\)23'14 22° \(\Omega\)23'14 22° \(\Omega\)23'14 22° \(\Omega\)23'14 22° \(\Omega\)23'14	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jan 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jun 28 j 19:04 -12217 Jul 10 j 06:01	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00 22°Y02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 10 j 04:23 -12223 Sep 07 j 06:52 -12223 Dec 13 j 14:37 -12222 Jan 12 j 06:07	9° \(\Omega \). 13'40 15° \(\Omega \). 22'01 29° \(\Omega \). 22'01 29° \(\Omega \). 21'59 29° \(\Omega \). 31'10 22° \(\Omega \). 22'46 17° \(\Omega \). 22'46 17° \(\Omega \). 23'14 4° \(\Omega \). 33'38 4° \(\Omega \). 33'38 4° \(\Omega \). 33'34 4° \(\Omega \). 45'23 7° \(\Omega \). 23'14 22° \(\Omega \). 23'38 0° \(\Omega \). 6° \(\Omega \). 36'04 9° \(\Omega \). 35'04	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jul 28 j 19:04 -12217 Jul 10 j 06:01	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00 22°Y02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU 1°33'45
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Avg 03 j 07:03 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 02 j 11:24 -12223 Jul 10 j 04:23 -12223 Jul 10 j 06:52 -12223 Jul 25 j 23:07 -12222 Jan 25 j 23:07	9° \(\Omega 13'40\) 15° \(\Omega 22'01\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 31'10\) 22° \(\Omega 22'46\) 17° \(\Omega 24'17\) 17° \(\Omega 23'14\) 4° \(\Omega 23'14\) 4° \(\Omega 23'14\) 4° \(\Omega 23'14\) 4° \(\Omega 23'14\) 27° \(\Omega 28'18\) 22° \(\Omega 23'45\) 22° \(\Omega 23'38\) 0° \(\Omega 23'38\)	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jul 28 j 19:04 -12217 Jul 10 j 06:01	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0° ₩ 9° ₩ 56'45 5° ₩ 04'20 4° ₩ 58'48 0° ₩ 02'44 18° ₩ 13'38 20° ₩ 49'26 21° ₩ 04'16 23° ₩ 53'35 0° ₩ 11° ϒ 16'56 6° ϒ 25'10 6° ϒ 19'11 1° ϒ 26'33 19° ϒ 28'00 22° ϒ 02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition 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	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 10 j 21:07 -12223 Jul 10 j 21:07 -12223 Jul 10 j 04:23 -12223 Sep 07 j 06:52 -12223 Jul 10 j 04:23 -12223 Jul 10 j 06:52 -12223 Jul 25 j 23:07 -12222 Jan 25 j 23:07 -12222 Jan 25 j 23:04 -12222 Jan 26 j 19:16	9° \(\Omega 13'40\) 15° \(\Omega 22'01\) 29° \(\Omega 22'01\) 29° \(\Omega 21'59\) 29° \(\Omega 31'10\) 22° \(\Omega 22'46\) 17° \(\Omega 23'14\) 4° \(\Omega 23'14\) 27° \(\Omega 24'17\) 27° \(\Omega 23'14\) 22° \(\Omega 23'14\) 23° \(\Omega 23'14\) 23° \(\Omega 23'14\) 29° \(0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 14:15 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Dec 22 j 07:08 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jul 28 j 19:04 -12217 Jul 10 j 06:01 -12217 Jul 11 j 05:17 -12217 Jul 11 j 05:17 -12217 Jul 11 j 05:12 -12217 Jul 23 j 14:09	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00 22°Y02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU 1°33'45
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction min. Earth dist. direct	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 02 j 11:24 -12223 Jun 10 j 04:23 -12223 Jul 10 j 06:52 -12223 Jul 25 j 23:07 -12222 Jan 25 j 23:07 -12222 Jan 25 j 23:04 -12222 Jan 26 j 19:16 -12222 Feb 08 j 16:20	9° \(\Omega 13'40\) 15° \(\Omega 22'01\) 29° \(\Omega 22'15\) 29° \(\Omega 31'10\) 22° \(\Omega 22'46\) 17° \(\Omega 23'14\) 4° \(\Omega 23'14\) 27° \(\Omega 23'14\) 27° \(\Omega 23'14\) 22° \(\	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 06:08 -12219 May 09 j 06:08 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jan 20 j 04:03 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jul 23 j 19:04 -12217 Jul 11 j 05:17 -12217 Jul 11 j 05:17 -12217 Jul 23 j 14:09 -12217 Aug 15 j 05:01	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00 22°Y02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU 1°33'45
desc. node evening set conjunction minimum elong max. Earth dist. morning rise retrograde min. Earth dist. opposition 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	-12225 Aug 01 j 13:17 -12225 Sep 09 j 11:38 -12225 Oct 31 j 17:05 -12225 Nov 14 j 01:55 -12225 Nov 14 j 01:53 -12225 Nov 15 j 04:43 -12225 Nov 16 j 18:51 -12225 Nov 27 j 14:07 -12224 Apr 06 j 23:54 -12224 Jun 05 j 07:18 -12224 Jun 06 j 01:35 -12224 Aug 03 j 07:03 -12224 Aug 03 j 07:03 -12224 Dec 06 j 02:17 -12224 Dec 19 j 17:38 -12224 Dec 19 j 17:31 -12224 Dec 20 j 21:41 -12223 Jun 02 j 11:24 -12223 Jun 10 j 21:07 -12223 Jul 10 j 21:07 -12223 Jul 10 j 04:23 -12223 Sep 07 j 06:52 -12223 Jul 10 j 04:23 -12223 Jul 10 j 06:52 -12223 Jul 25 j 23:07 -12222 Jan 25 j 23:07 -12222 Jan 25 j 23:04 -12222 Jan 26 j 19:16	9° \(\Omega 13'40\) 15° \(\Omega 22'01\) 29° \(\Omega 22'15\) 29° \(\Omega 31'10\) 22° \(\Omega 22'46\) 17° \(\Omega 23'14\) 4° \(\Omega 23'14\) 27° \(\Omega 23'14\) 27° \(\Omega 23'14\) 22° \(\	0°16'13 6.08375 AU 4.07386 AU -1°10'56 -1°13'11 1°13'13 6.07418 AU -2°18'02 4.08760 AU	conjunction minimum elong behind sun begin behind sun end max. Earth dist. asc. node morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct evening set retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction min. Earth dist. direct evening set max. Earth dist.	-12219 May 09 j 14:14 -12219 May 09 j 14:15 -12219 May 09 j 14:15 -12219 May 09 j 22:21 -12219 May 08 j 15:54 -12219 May 18 j 01:32 -12219 May 22 j 13:56 -12219 May 22 j 13:56 -12219 May 26 j 12:07 -12219 Sep 20 j 06:32 -12219 Nov 19 j 09:31 -12219 Nov 20 j 02:40 -12218 Jan 20 j 17:04 -12218 Jan 20 j 17:04 -12218 Jun 09 j 04:03 -12218 Jun 10 j 06:38 -12218 Jun 10 j 06:38 -12218 Jun 22 j 21:41 -12218 Jul 21 j 05:53 -12218 Dec 22 j 07:08 -12218 Dec 22 j 07:08 -12218 Dec 22 j 03:17 -12218 Dec 22 j 14:24 -12217 Jul 28 j 19:04 -12217 Jul 10 j 06:01 -12217 Jul 11 j 05:17 -12217 Jul 11 j 05:17 -12217 Jul 11 j 05:12 -12217 Jul 23 j 14:09	19°≈40'02 19°≈40'02 19°≈35'32 19°≈44'33 19°≈27'33 21°≈33'38 22°≈33'58 0°¥ 9°¥56'45 5°¥04'20 4°¥58'48 0°¥02'44 18°¥13'38 20°¥49'26 21°¥04'19 21°¥04'16 23°¥53'35 0°Y 11°Y16'56 6°Y25'10 6°Y19'11 1°Y26'33 19°Y28'00 22°Y02'35	0°01'47 6.30638 AU 0°39'17 4.32429 AU 6.33221 AU 0°54'16 0°54'08 1°51'52 4.33130 AU 6.31858 AU 1°33'45

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12216 in astronomical counting style is the year 12217 BCE in historical counting style. conjunction -12210 Jan 31 i 01:36 14° ML40'30 -1°44'17 opposition minimum elong min. Earth dist. -12216 Jan 25 j 00:27 7°**と**50'24 4.29913 AU -12210 Jan 31 j 01:34 14° ML40'29 1°44'47 -12216 Mar 26 j 08:23 2°**8**58'56 max. Earth dist. -12210 Jan 31 j 20:16 14°ML51'15 6.11343 AU direct -12216 Jul 01 j 14:24 15°8 -12210 Feb 01 j 11:28 15°M -12216 Jul 28 j 21:48 20°**8**59'34 -12210 Feb 13 j 18:32 17° ML49'28 evening set morning rise -12210 Apr 12 j 20:31 0°**∡**7 -12216 Aug 10 j 05:56 23°**8**48'04 1°45'56 conjunction retrograde -12210 Jun 20 j 17:11 6°**х** 54'48 -12216 Aug 10 j 05:57 23°**8**48'04 minimum elong 1°46'30 opposition -12210 Aug 18 j 14:18 1°**х** 53′09 -2°32′44 -12216 Aug 09 j 17:44 23°**8**41'07 min. Earth dist. 1°**₹**'55'41 4.14646 AU max. Earth dist. 6.26938 AU -12210 Aug 18 j 06:55 morning rise -12216 Aug 22 j 14:26 26°**8**36'55 -12210 Sep 01 j 18:44 30°RM -12216 Sep 06 j 17:39 0°**Ⅱ** direct -12210 Oct 16 j 23:33 26°ML49'57 -12216 Dec 26 j 22:02 14°**Д**57'58 -12210 Dec 01 j 13:55 retrograde 0°×7 -12215 Feb 26 j 14:04 10°**Д**02'08 2°27'14 -12209 Feb 22 j 20:40 15° ₹ 56'44 opposition evening set min. Earth dist. -12215 Feb 26 j 18:51 10°**Ц**00'36 4.23639 AU direct -12215 Apr 28 j 11:20 5°**Д**08'41 conjunction -12209 Mar 08 j 11:31 19°**х** 02'05 -1°32'17 evening set -12215 Aug 29 j 15:13 23°**II**16'52 minimum elong -12209 Mar 08 j 11:36 19°**х** 02'07 1°33'00 max. Earth dist. -12209 Mar 08 j 13:19 19°**尽**03'06 6.18180 AU conjunction -12215 Sep 11 j 04:22 26°**Ⅲ**10'28 1°25'50 morning rise -12209 Mar 22 j 00:36 22° ₹ 06'21 minimum elong -12215 Sep 11 j 04:28 26° II 10'30 1°26'32 -12209 Apr 27 j 12:22 max. Earth dist. -12215 Sep 11 j 04:55 26° **I**I 10'46 6.19833 AU retrograde -12209 Jul 23 j 20:11 10°る25'59 morning rise -12215 Sep 23 j 20:02 29°**Д**05'25 opposition -12209 Sep 20 j 19:22 5°る28'03 -1°50'03 -12215 Sep 27 i 19:28 0°5 min. Earth dist. -12209 Sep 20 j 23:12 5°る26'46 4.22018 AU retrograde -12214 Jan 30 j 22:11 18°507'43 direct -12209 Nov 20 j 11:28 0°る23'45 opposition -12214 Apr 02 i 09:29 13°508'12 1°34'59 evening set -12208 Mar 28 j 19:11 19°る11'20 min. Earth dist. -12214 Apr 02 j 02:38 13°510'25 4.16160 AU -12214 Jun 01 j 00:43 8°\$15'17 -12208 Apr 11 j 05:15 22°る11'48 -0°49'58 direct conjunction -12214 Oct 01 j 16:46 26°538'50 -12208 Apr 11 j 05:20 22°る11'51 0°50'38 evening set minimum elong max. Earth dist. -12208 Apr 10 j 17:00 22°る04'56 6.25596 AU -12214 Oct 14 j 16:22 29°540'07 0°37'18 -12208 Apr 24 j 11:57 25° **정**10'33 conjunction morning rise -12214 Oct 14 j 16:26 29°5540'09 0°37'56 -12208 May 16 j 13:40 0°**≈** minimum elong -12214 Oct 15 j 09:04 29°549'51 6.12738 AU max. Earth dist. -12208 Aug 23 j 22:54 12°≈51'27 retrograde -12214 Oct 16 j 02:28 0°**Ω** -12208 Oct 22 j 11:05 7°≈57'02 -0°33'51 opposition -12214 Oct 27 j 19:20 2°**Ω**43'20 min. Earth dist. -12208 Oct 22 j 23:06 7°≈53'05 4.28764 AU morning rise -12214 Dec 24 j 20:46 15°**Ω** direct -12208 Dec 23 j 04:44 2°≈53'32 -12213 Mar 07 j 20:22 22° **Q**20'04 -12207 Mar 27 j 07:46 13°≈56'16 retrograde asc. node -12213 May 07 j 15:24 $17^{\circ}\Omega$ 17'10 $0^{\circ}08'44$ -12207 Apr 01 j 14:02 15°≈ opposition min. Earth dist. -12213 May 07 j 00:47 $17^{\circ}\Omega$ 22'01 4.09963 AU -12207 May 01 j 01:05 21°≈19'09 evening set -12213 May 25 j 13:07 15°R**Ω** max. Earth dist. -12207 May 13 j 03:05 24°≈00'46 6.31224 AU desc. node -12213 Jun 13 j 03:37 13° Ω 12'06 direct -12213 Jul 05 j 07:16 12° Ω 22'56 conjunction -12207 May 14 j 02:57 24°≈14'06 0°07'03 -12213 Aug 14 j 13:00 15°**Ω** minimum elong -12207 May 14 j 02:56 24°≈14'05 0°06'36 -12213 Oct 31 j 18:09 0° M behind sun begin -12207 May 13 j 19:22 24°≈09'53 -12213 Nov 05 j 14:19 behind sun end -12207 May 14 j 10:29 24°≈18'17 evening set morning rise -12207 May 27 j 01:31 27°≈07'18 -12213 Nov 19 j 00:10 4° mp 15'13 -0°25'11 -12207 Jun 09 j 03:57 0°**米** conjunction -12213 Nov 19 i 00:07 4° m 15'11 0°24'50 -12207 Sep 24 j 18:36 14° \(\)28'34 minimum elong retrograde -12213 Nov 20 j 02:06 4° m 30'23 6.08048 AU -12207 Nov 23 j 23:20 9° \(\) 36'19 0°50'44 max. Earth dist. opposition morning rise -12213 Dec 02 j 13:38 7° m 25'00 min. Earth dist. -12207 Nov 24 j 17:42 9° + 30'24 4.32843 AU retrograde -12212 Apr 11 j 20:38 27° m 17'03 direct -12206 Jan 25 j 09:41 4° **∺** 35'02 -12212 Jun 10 i 20:34 22° m 12'17 -1°22'20 evening set -12206 Jun 01 j 22:48 22° * 43'39 opposition min. Earth dist. -12212 Jun 10 j 01:40 22° m 18'42 4.07265 AU direct -12212 Aug 08 j 00:52 17° mp 15'10 -12206 Jun 14 j 15:29 25° + 33'42 1°01'05 conjunction -12212 Nov 13 j 01:47 -12206 Jun 14 j 15:24 25° **)** 33'39 0∘⊽ minimum elong 1°01'00 6.33397 AU evening set -12212 Dec 11 j 03:45 6° **2**19'36 max. Earth dist. -12206 Jun 13 j 13:33 25° **∺** 19'11 morning rise -12206 Jun 27 j 05:22 28°**米** 22'25 conjunction -12212 Dec 24 j 19:40 9°**-**230'10 -1°19'12 -12206 Jul 04 j 13:44 0°**Υ** retrograde minimum elong -12212 Dec 24 j 19:34 9°**2**30'06 1°19'18 -12206 Oct 26 j 18:14 15° Υ 47'01 -12206 Dec 26 j 18:04 10° **Y** 55'07 1° 59'48 max. Earth dist. -12212 Dec 25 j 23:09 9°**£**46'10 6.07506 AU opposition -12211 Jan 07 j 13:33 12°**-**241'43 min. Earth dist. -12206 Dec 27 j 11:33 10°**Υ**49'34 4.33065 AU morning rise -12211 Apr 08 j 13:37 direct -12205 Feb 27 j 03:21 5° **Y** 56'52 0°M -12205 Jul 03 j 03:07 23°**Y**57'06 retrograde -12211 May 17 j 09:35 2°M22'27 evening set -12211 Jun 24 j 19:28 30°R € opposition -12211 Jul 15 j 14:34 27°**2**18'10 -2°23'36 conjunction -12205 Jul 15 j 12:34 26°**Y**44'33 1°37'16 min. Earth dist. -12211 Jul 14 j 23:51 27°**£**23'13 4.09055 AU minimum elong -12205 Jul 15 j 12:29 26° **Y** 44'30 1°37'34 direct -12211 Sep 12 j 03:02 22°**△**17'37 max. Earth dist. -12205 Jul 14 j 14:43 26°**Y**32'12 6.31523 AU -12211 Nov 24 j 02:29 morning rise -12205 Jul 27 j 20:53 29°**Y**31'30 -12210 Jan 17 j 08:34 11°M31'23 -12205 Jul 29 j 23:48 0°8 evening set

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Earth dist. -12198 Feb 05 j 23:36 19°ML52'43 6.12053 AU morning rise -12198 Feb 19 j 00:01 22°ML51'51 conjunction -12204 Aug 14 j 14:43 28°**8**21'05 1°45'05 -12198 Mar 23 j 08:21 0° ⊀ minimum elong -12204 Aug 14 j 14:44 28°**8**21'06 1°45'41 retrograde -12198 Jun 25 j 12:20 11° ₹ 51'23 -12204 Aug 14 j 02:56 28°8 14'21 6.26119 AU max. Earth dist. opposition -12198 Aug 23 j 09:01 6° ₹ 50'13 -2°29'32 -12204 Aug 21 j 19:56 0°**П** min. Earth dist. -12198 Aug 23 j 03:13 6° ₹ 52'11 4.15630 AU morning rise -12204 Aug 26 j 23:53 1°**Ⅲ**10′31 direct -12198 Oct 21 j 23:08 1°**∡**¹46'48 retrograde -12204 Dec 31 j 16:01 19°**Д**36'54 evening set -12197 Feb 27 j 22:17 20° ₹51'07 opposition -12203 Mar 03 j 08:51 14°**Ⅱ**40'31 2°22'41 min. Earth dist. -12203 Mar 03 j 11:28 14°**Ⅲ**39'41 4.22649 AU conjunction -12197 Mar 13 j 12:47 23°**х** 55'48 -1°27'48 direct -12203 May 03 j 01:10 9°**Ⅲ**47'11 minimum elong -12197 Mar 13 j 12:52 23°**₹** 55'51 1°28'32 evening set -12203 Sep 03 j 03:00 27°**Д**57'02 max. Earth dist. -12197 Mar 13 j 14:45 23° ₹756'55 6.19407 AU -12203 Sep 12 j 00:15 0°€ morning rise -12197 Mar 27 j 00:56 26° ₹ 59'14 -12197 Apr 09 j 13:34 0°る conjunction -12203 Sep 15 j 17:29 0°951'38 1°20'34 retrograde -12197 Jul 28 i 09:47 15°정11'48 minimum elong -12203 Sep 15 i 17:35 0°951'41 1°21'18 opposition -12197 Sep 25 j 11:02 10°る14'25 -1°40'43 max. Earth dist. -12203 Sep 15 i 20:55 0°953'37 6.18764 AU min. Earth dist. -12197 Sep 25 j 15:02 10°る13'05 4.23374 AU morning rise -12203 Sep 28 j 10:25 3°547'40 direct -12197 Nov 25 j 06:48 5°る10'12 retrograde -12202 Feb 04 j 22:03 22°555'36 evening set -12196 Apr 02 j 14:08 23°₹53'14 opposition -12202 Apr 07 j 06:36 17°555'32 1°24'32 min. Earth dist. -12202 Apr 06 j 23:35 17°557'50 4.15068 AU -12196 Apr 15 j 23:00 26°る52'42 -0°42'25 conjunction -12202 Jun 05 j 18:53 13°502'31 -12196 Apr 15 j 23:05 26° ₹52'45 0°43'04 direct minimum elong -12202 Sep 30 j 00:05 0°**Ω** max. Earth dist. -12196 Apr 15 j 08:10 26° ₹ 44'23 6.26992 AU -12196 Apr 29 j 04:46 29°**궁**50'29 -12202 Oct 06 j 10:24 1° **Ω**29'04 evening set morning rise -12196 Apr 29 j 21:52 0°≈ -12202 Oct 19 j 11:27 4° Ω31'28 0°29'00 -12196 Jul 20 j 00:03 15°≈ conjunction -12202 Oct 19 j 11:30 $4^{\circ}\Omega$ 31'30 0° 29'36 -12196 Aug 28 j 10:04 17°≈25'37 minimum elong retrograde -12202 Oct 20 j 04:29 4° **Ω**41'24 6.11726 AU -12196 Oct 07 j 03:42 15°R≈ max. Earth dist. -12202 Nov 01 j 16:15 7° **Ω**35'53 -12196 Oct 27 j 00:23 12°≈31'35 -0°21'57 morning rise opposition -12202 Dec 04 j 20:08 15°**Ω** -12196 Oct 27 j 14:00 12°≈27'08 4.30073 AU min. Earth dist. retrograde -12201 Mar 12 j 20:06 $27^{\circ}\Omega$ 16'49 direct -12196 Dec 27 j 22:50 7°≈28'18 desc. node -12201 Apr 23 j 20:44 24°**Ω**37'00 asc. node -12195 Feb 04 j 18:57 9°≈40'01 opposition -12201 May 12 j 13:29 22° Ω 13'31 -0°04'28 -12195 Mar 13 j 12:16 15°≈ min. Earth dist. -12201 May 11 j 21:15 $22^{\circ}\Omega$ 18'56 4.09122 AUevening set -12195 May 05 j 12:51 25°≈49'04 -12201 Jul $10 \text{ j } 01:50 \ 17^{\circ} \Omega 18'55$ direct -12201 Oct 14 j 14:21 0° M conjunction -12195 May 18 j 13:31 28°≈43'01 0°15'03 -12201 Nov 10 j 14:53 6° Mp 07'11 -12195 May 18 j 13:30 28°≈43'00 evening set minimum elong 0°14'40 -12195 May 18 j 10:05 28°≈41'07 behind sun begin -12201 Nov 24 i 02:01 9° m 15'52 -0°33'46 -12195 May 18 j 16:55 28°≈44'54 conjunction behind sun end -12201 Nov 24 i 01:57 9° m 15'50 0°33'29 minimum elong max. Earth dist. -12195 May 17 j 14:19 28°≈30'05 6.32350 AU -12201 Nov 25 j 05:11 9° m 31'46 6.07449 AU max. Earth dist. -12195 May 24 i 07:27 0°₩ morning rise -12201 Dec 07 i 16:25 12° m 26'19 morning rise -12195 May 31 i 10:37 1° + 35'12 -12200 Mar 09 i 04:41 0° € retrograde -12195 Sep 29 j 01:54 18° + 53'37 -12200 Apr 16 j 22:56 2° **△**19'34 opposition -12195 Nov 28 j 10:53 14° **H** 01'33 1°01'35 retrograde -12200 May 25 j 07:43 30°R Mp min. Earth dist. -12195 Nov 29 j 04:48 13° X 55'48 4.33705 AU -12200 Jun 15 j 18:41 27° m 14'42 -1°33'27 direct -12194 Jan 29 j 21:55 9°**米**00'41 opposition -12200 Jun 15 j 00:47 27° m 20'48 4.06969 AU min. Earth dist. evening set -12194 Jun 06 j 05:43 27°**米** 05'41 direct -12200 Aug 12 j 23:48 22° m 17'05 -12200 Oct 24 j 06:46 0° Ω conjunction -12194 Jun 18 j 20:57 29° **∺** 54'55 1°07'20 -12194 Jun 18 j 20:52 29°**升** 54'52 evening set -12200 Dec 16 j 09:19 11°**2**24'43 minimum elong 1°07'18 max. Earth dist. -12194 Jun 17 j 17:51 29° **★** 39'45 6.33909 AU -12200 Dec 30 j 01:45 14°**2**35'27 -1°24'50 -12194 Jun 19 j 06:01 0° Υ conjunction -12200 Dec 30 j 01:38 14°**△**35'23 1°24'59 -12194 Jul 01 j 09:50 2°**Y**42'59 minimum elong morning rise max. Earth dist. -12200 Dec 31 j 05:14 14°**£**51'27 6.07529 AU retrograde -12194 Oct 31 j 04:25 20°**Y**08'09 morning rise -12199 Jan 12 j 19:51 17°**2**47'01 opposition -12194 Dec 31 j 05:37 15° Υ 16'13 2°06'46 -12199 Mar 11 j 08:59 min. Earth dist. -12193 Jan 01 j 00:14 15° **Y** 10'19 4.33193 AU retrograde -12199 May 22 j 07:55 7°M25'02 direct -12193 Mar 03 j 15:15 10°**Υ**18'21 opposition -12199 Jul 20 j 11:22 2°M21'02 -2°28'17 evening set -12193 Jul 07 j 07:31 28°**Υ**17'01 min. Earth dist. -12199 Jul 19 j 20:32 2°M26'07 4.09437 AU -12193 Jul 14 j 22:34 0°8

-12199 Aug 07 j 08:24 30°R ₽

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Earth dist. -12192 Feb 03 j 04:51 16°**8**46'16 4.28659 AU evening set -12186 Jan 27 j 19:24 21°M 35'50 -12192 Feb 17 j 13:20 15°R8 direct -12192 Apr 04 j 08:20 11°**8**55'02 conjunction -12186 Feb 10 j 12:11 24° ML44'05 -1°44'34 -12192 May 20 j 03:57 15°**8** minimum elong -12186 Feb 10 j 12:11 24° ML44'05 1°45'08 -12192 Aug 06 j 11:41 29°**8**56'35 -12186 Feb 11 j 04:33 24°ML53'29 evening set max. Earth dist. 6.13006 AU -12192 Aug 06 j 17:42 0°**П** morning rise -12186 Feb 24 j 04:11 27° ML51'52 -12186 Mar 05 j 14:46 0° ⊀7 conjunction -12192 Aug 18 j 20:26 2°**II**46'03 1°43'39 retrograde -12186 Jun 30 j 05:20 16° **₹** 44'23 minimum elong -12192 Aug 18 j 20:28 2°**II**46'04 1°44'16 opposition -12186 Aug 28 j 01:55 11°**х** 43'39 -2°25'18 max. Earth dist. -12192 Aug 18 j 09:53 2°**Ⅱ**40′00 6.25130 AU min. Earth dist. -12186 Aug 27 j 21:00 11°**х** 45'19 4.16804 AU morning rise -12192 Aug 31 j 06:13 5°**Д**36'11 direct -12186 Oct 26 j 20:03 6° ₹ 39'59 retrograde -12191 Jan 05 j 09:56 24°**Д**08'52 evening set -12185 Mar 04 j 21:46 25° ₹ 41'03 opposition -12191 Mar 08 j 00:52 19° II 12'05 2°17'24 min. Earth dist. -12191 Mar 08 j 03:41 19° **I**I1'11 4.21382 AU conjunction -12185 Mar 18 j 11:31 28° ₹ 44'57 -1°22'49 direct -12191 May 07 j 13:53 14°**Д**18'54 minimum elong -12185 Mar 18 j 11:37 28° ₹ 45'00 1°23'32 -12191 Aug 27 j 10:47 0 \circ \odot max. Earth dist. -12185 Mar 18 j 09:58 28° **x** 44'04 6.20668 AU evening set -12191 Sep 07 j 12:47 2°531'47 -12185 Mar 24 j 00:13 0°る morning rise -12185 Mar 31 j 23:03 1°**⋜**47'33 -12191 Sep 20 j 04:33 5°527'34 1°14'56 -12185 Aug 01 j 22:16 19°る53'19 conjunction retrograde -12191 Sep 20 j 04:38 5°**©**27'37 opposition -12185 Sep 30 j 01:09 14° 궁56'23 -1°30'55 minimum elong 1°15'39 max. Earth dist. -12191 Sep 20 j 08:32 5°529'52 6.17352 AU min. Earth dist. -12185 Sep 30 j 06:54 14°る54'27 4.24581 AU -12191 Oct 02 j 23:08 8°524'56 -12185 Nov 30 j 01:53 9°る52'05 morning rise direct -12190 Feb 09 j 18:03 27°539'49 -12184 Apr 07 j 06:51 28°₹31'14 retrograde evening set -12190 Apr 12 j 01:32 22°539'20 1°13'42 -12184 Apr 13 j 22:12 0°≈ opposition -12190 Apr 11 j 16:32 22°542'17 4.13629 AU min. Earth dist. -12190 Jun 10 j 08:38 17°546'16 -12184 Apr 20 j 14:50 1°≈29'53 -0°34'43 conjunction direct -12190 Sep 13 j 06:28 0°**Ω** -12184 Apr 20 j 14:53 1°≈29'55 0°35'21 minimum elong -12190 Oct 11 j 03:38 6° **Ω**17'34 -12184 Apr 19 j 23:27 1°≈21'17 6.28059 AU evening set max. Earth dist. -12184 May 03 j 19:19 4°≈26'45 morning rise -12190 Oct 24 j 06:22 9° Ω 21'18 0°20'35 -12184 Jun 24 j 03:03 15°≈ conjunction minimum elong -12190 Oct 24 j 06:25 9° Ω 21'19 0°21'10 retrograde -12184 Sep 01 j 19:50 21°≈57'41 max. Earth dist. -12190 Oct 25 j 01:27 9° Ω 32'27 6.10412 AU opposition -12184 Oct 31 j 12:48 17°≈04'01 -0°10'01 morning rise -12190 Nov 06 j 12:44 12° **Ω**27'01 min. Earth dist. -12184 Nov 01 j 03:03 16°≈59'22 4.30905 AU -12190 Nov 17 j 14:44 15°**Ω** -12184 Nov 16 j 21:04 15°R≈ -12189 Feb 07 j 16:44 0° Mp asc. node -12184 Dec 16 j 12:04 12°≈24'39 desc. node -12189 Mar 04 j 18:07 1° m 56'43 -12183 Jan 01 j 13:31 12°≈00'59 direct retrograde -12189 Mar 17 j 21:57 2° m 13'18 -12183 Feb 16 j 07:19 15°≈ -12189 Apr 24 j 21:02 30°RΩ -12183 May 08 j 14:37 0°**光** -12189 May 17 j 10:58 $27^{\circ}\Omega$ 09'40 $-0^{\circ}17'34$ opposition evening set -12183 May 10 j 00:31 0° **H** 18'45 min. Earth dist. -12189 May 16 j 18:39 $27^{\circ}\Omega$ 15'08 4.08051 AU -12183 May 22 j 23:43 3° *\frac{1}{1}1'54 0°23'00 direct -12189 Jul 14 j 21:46 22° Ω 14'44 conjunction -12183 May 22 j 23:41 3° **H** 11'53 0°22'39 -12189 Sep 25 i 05:17 0° m minimum elong -12189 Nov 15 j 16:00 11° mp 07'55 max. Earth dist. -12183 May 21 j 21:58 2° X 57'32 6.32871 AU evening set morning rise -12183 Jun 04 j 19:46 6° **★** 03'24 -12189 Nov 29 j 04:18 14° mp 17'27 -0°42'05 retrograde -12183 Oct 03 j 13:06 23°\(\frac{1}{2}\)21'10 conjunction -12189 Nov 29 j 04:13 14° m 17'24 0°41'53 -12183 Dec 02 j 23:39 18° **¥** 29'12 1°12'13 minimum elong opposition max. Earth dist. -12189 Nov 30 j 08:54 14° m 34'11 6.06727 AU min. Earth dist. -12183 Dec 03 j 18:45 18° \(\frac{1}{2}\)3'05 4.33897 AU -12182 Feb 03 j 11:51 13°**米**28'39 morning rise -12189 Dec 12 j 19:45 17° m 28'38 direct -12188 Feb 09 j 16:38 0°**♀** -12182 Jun 03 j 15:04 0°**Υ** retrograde -12188 Apr 21 j 23:51 7°**£**23′04 evening set -12182 Jun 10 j 14:08 1°**Y**32'18 -12188 Jun 20 j 16:37 2°**2**18'09 -1°43'51 max. Earth dist. -12182 Jun 22 j 02:26 4°Υ06'34 6.33741 AU opposition min. Earth dist. -12188 Jun 19 j 21:47 2°**2**24'35 4.06704 AU -12182 Jun 23 j 04:25 4° **Y** 21'07 1° 13'20 -12188 Jul 08 j 06:40 30°R Mp conjunction -12188 Aug 17 j 20:17 27° m 20'06 -12182 Jun 23 j 04:19 4°**Υ**21'04 1°13'22 direct minimum elong -12188 Sep 27 j 09:50 0°**♀** morning rise -12182 Jul 05 j 16:12 7°**Y**08'48 evening set -12188 Dec 21 j 15:16 16°**△**30'39 retrograde -12182 Nov 04 j 16:24 24°**Y**36'49 opposition -12181 Jan 04 j 20:23 19°**Υ**44'45 2°13'17 conjunction -12187 Jan 04 j 07:54 19°**-**241'23 -1°29'47 min. Earth dist. -12181 Jan 05 j 13:51 19°**γ**39'13 4.32704 AU minimum elong -12187 Jan 04 j 07:48 19°**2**41'19 1°30'01 -12181 Mar 08 j 03:18 14°**Υ**'47'21 direct

-12181 Jun 29 j 04:05 0°8

max. Earth dist.

-12187 Jan 05 j 10:10 19°**2**56'39 6.07710 AU

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evening set	-12181 Jul 11 j 15:34	-	iii astronomicai c	minimum elong	-12175 Jan 09 j 11:13 24° 2 39'0	-
evening set	-12101 Jul 11 j 15.54	2 040 10		max. Earth dist.	-12175 Jan 10 j 11:13 24 ≅ 59 00 -12175 Jan 10 j 13:50 24° \$\oldsymbol{\Omega}\$54'34	
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conjunction	-12181 Jul 23 j 23:57			morning rise	-12175 Jan 23 j 05:16 27° 2 50'0	ł
minimum elong	-12181 Jul 23 j 23:54		1°42'54		-12175 Feb 01 j 16:45 0°M	
max. Earth dist.	-12181 Jul 23 j 02:41		6.30450 AU	. 1	-12175 Apr 23 j 21:05 15°ML	-
morning rise	-12181 Aug 05 j 07:49			retrograde	-12175 May 31 j 22:57 17° ML18'00)
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retrograde	-12181 Dec 07 j 21:43		2025150	opposition	-12175 Jul 29 j 23:37 12° ML14'3	
opposition	-12180 Feb 07 j 11:11			min. Earth dist.	-12175 Jul 29 j 11:04 12° ML18'5	
min. Earth dist.	-12180 Feb 07 j 22:38		4.27627 AU	direct	-12175 Sep 26 j 19:14 7° ML12'5	3
direct	-12180 Apr 08 j 23:47				-12175 Dec 09 j 17:58 15°ML	_
. ,	-12180 Jul 21 j 11:59	0°Ⅱ 4°Ⅲ22110		evening set	-12174 Feb 01 j 19:14 26° ML24'4)
evening set	-12180 Aug 10 j 21:59	4° Ⅱ 33'19			10174 F 1 15 11 25 200M 2010	1042127
	12100 4 22:07.25	70 T 03130	1041121	conjunction	-12174 Feb 15 j 11:35 29° M.32'20	
conjunction	-12180 Aug 23 j 07:25	7° Ⅱ 23'32		minimum elong	-12174 Feb 15 j 11:36 29° M.32'20	
minimum elong	-12180 Aug 23 j 07:28		1°42'10	max. Earth dist.	-12174 Feb 15 j 23:57 29°M 39'24	6.14203 AU
max. Earth dist.	-12180 Aug 22 j 23:00		6.23960 AU		-12174 Feb 17 j 11:56 0° ₹	
morning rise	-12180 Sep 04 j 18:05			morning rise	-12174 Mar 01 j 03:12 2° ₹ 39'2'	
retrograde	-12179 Jan 10 j 06:44			retrograde	-12174 Jul 04 j 16:48 21° ₹24'50	
opposition	-12179 Mar 12 j 21:58			opposition	-12174 Sep 01 j 14:19 16° ₹24'3'	
min. Earth dist.	-12179 Mar 12 j 22:13		4.20186 AU	min. Earth dist.	-12174 Sep 01 j 11:07 16° ₹25'4	
direct	-12179 May 12 j 05:46			direct	-12174 Oct 31 j 12:53 11° ₹ 20'4	3
	-12179 Aug 10 j 04:12				-12173 Mar 08 j 06:03 0°중	
evening set	-12179 Sep 12 j 03:54	7° © 18'55		evening set	-12173 Mar 09 j 15:59 0° 전 19'0)
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conjunction	-12179 Sep 24 j 21:04		1°08'33	conjunction	-12173 Mar 23 j 05:14 3° ♂ 22'1:	
minimum elong	-12179 Sep 24 j 21:10		1°09'15	minimum elong	J	3 1°18'12
max. Earth dist.	-12179 Sep 25 j 03:48		6.16267 AU	max. Earth dist.		6.21718 AU
morning rise	-12179 Oct 07 j 17:13			morning rise	-12173 Apr 05 j 15:51 6° ♂ 24'0	
	-12178 Jan 04 j 04:13	0 $^{\circ}\Omega$		retrograde	-12173 Aug 06 j 08:03 24° ♂ 24'3:	
retrograde	-12178 Feb 14 j 20:06	2° Ω 34'35		opposition	-12173 Oct 04 j 11:24 19°♂28'1	
	-12178 Mar 28 j 13:30	30° ₹ 5		min. Earth dist.	-12173 Oct 04 j 19:08 19°る25'3	7 4.25410 AU
opposition	-12178 Apr 17 j 00:54	27° © 33'36	1°01'55	direct	-12173 Dec 04 j 15:37 14° ♂ 24'00)
min. Earth dist.	-12178 Apr 16 j 14:42	27° © 36'57	4.12749 AU		-12172 Mar 29 j 02:20 0°≈	
direct	-12178 Jun 15 j 05:25	22° © 40'25		evening set	-12172 Apr 11 j 19:59 3°≈00'54	1
	-12178 Aug 24 j 17:07	$0^{\circ}\Omega$		max. Earth dist.	-12172 Apr 24 j 08:17 5°≈48'3	2 6.28605 AU
evening set	-12178 Oct 16 j 00:39	11° Ω 14'14				
				conjunction	-12172 Apr 25 j 02:56 5°≈58'58	3 -0°27'03
conjunction	-12178 Oct 29 j 04:55	14° Ω 18'53	0°11'49	minimum elong	-12172 Apr 25 j 02:59 5°≈58'59	0°27'39
minimum elong	-12178 Oct 29 j 04:56	14° Ω 18'54	0°12'22	morning rise	-12172 May 08 j 06:32 8°≈55'1	1
behind sun begin	-12178 Oct 28 j 23:32	14° Ω 15'45			-12172 Jun 05 j 10:51 15°≈	
behind sun end	-12178 Oct 29 j 10:20	14° £ 22′02		retrograde	-12172 Sep 06 j 04:41 26°≈24'1:	5
max. Earth dist.	-12178 Oct 30 j 02:45	14° Ω 31'39	6.09851 AU	asc. node	-12172 Oct 28 j 09:26 22°≈29'4)
	-12178 Nov 01 j 03:13			opposition	-12172 Nov 04 j 23:16 21°≈30'5	5 0°01'39
morning rise	-12178 Nov 11 j 12:49	17° Ω 25'32		min. Earth dist.	-12172 Nov 05 j 14:44 21°≈25'5	4.31141 AU
	-12177 Jan 09 j 21:55	0° m		direct	-12171 Jan 06 j 01:35 16°≈28'09)
desc. node	-12177 Jan 12 j 08:37	0°m/25'59			-12171 Apr 22 j 11:49 0° ∺	
retrograde	-12177 Mar 22 j 23:22	7° m 13'32		evening set	-12171 May 14 j 10:09 4° 米 45'0∙	1
opposition	-12177 May 22 j 09:53	2°M,09'38	-0°30'43	max. Earth dist.	-12171 May 26 j 06:51 7° 米 23'34	4 6.32788 AU
min. Earth dist.	-12177 May 21 j 16:06	2°M) 15'36	4.07889 AU			
	-12177 Jun 08 j 02:10	30°R€		conjunction	-12171 May 27 j 08:16 7° 米 37'4	6 0°30'40
direct	-12177 Jul 19 j 18:09	27° Ω 14′23		minimum elong	-12171 May 27 j 08:13 7° 米 37'4:	5 0°30'22
	-12177 Aug 30 j 00:49	0° m		morning rise	-12171 Jun 09 j 03:03 10° ∺ 28'4')
evening set	-12177 Nov 20 j 18:07	16°M)09'09		retrograde	-12171 Oct 07 j 23:44 27° ∺ 48'10	5
				opposition	-12171 Dec 07 j 12:21 22° ₭ 56'2'	
conjunction	-12177 Dec 04 j 07:09	19° m 18'53	-0°50'06	min. Earth dist.	-12171 Dec 08 j 07:22 22° 升 50′22	2 4.33516 AU
minimum elong	-12177 Dec 04 j 07:04	19° m 18'49	0°49'56	direct	-12170 Feb 07 j 23:48 17° 米 56'2	3
max. Earth dist.	-12177 Dec 05 j 11:29	19° m 35'27	6.06954 AU		-12170 May 18 j 02:11 0° Υ	
morning rise	-12177 Dec 17 j 23:20	22° m $30'12$		evening set	-12170 Jun 14 j 22:47 6° Υ 00'2	7
	-12176 Jan 20 j 11:38			max. Earth dist.	-12170 Jun 26 j 09:06 8° Y ′34'0	6.33076 AU
retrograde	-12176 Apr 26 j 21:02	12° ≙ 21'55				
opposition	-12176 Jun 25 j 12:38	7° £ 16'58	-1°53'16	conjunction	-12170 Jun 27 j 11:54 8° Ƴ 49'0	3 1°18'53
min. Earth dist.	-12176 Jun 24 j 18:08	7° ≏ 23'18	4.07302 AU	minimum elong	-12170 Jun 27 j 11:48 8° Υ 49'0	1°18'58
direct	-12176 Aug 22 j 17:58	2° ≙ 18′25		morning rise	-12170 Jul 09 j 23:03 11° Υ ′36'3)
evening set	-12176 Dec 26 j 18:22	21° ≏ 28'49		retrograde	-12170 Nov 09 j 08:05 29° Υ 09'1	
				opposition	-12169 Jan 09 j 12:37 24° Υ 16'5	3 2°19'03
	-12175 Jan 09 j 11:19	240.0.20111	-1°33'59	min. Earth dist.	-12169 Jan 10 j 05:32 24° Υ 11'30	4 3 1 8 2 7 A I I
conjunction	-121/3 Jan 09 J 11.19	24 == 39 11	1 33 37	mm. Earth dist.	-12107 Juli 10 J 05.52 24 1 11 5	7.3102/AU

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12169 in astronomical counting style is the year 12170 BCE in historical counting style. -12169 Mar 12 j 17:38 19°**Υ**19'58 direct direct -12164 Aug 27 j 14:42 7°**♀**16'04 -12169 Jun 12 j 00:20 0°8 evening set -12164 Dec 31 j 21:43 26°**2**26'53 -12169 Jul 16 j 00:58 7°**8**20'10 evening set -12163 Jan 14 j 14:34 29°**2**36'54 -1°37'32 conjunction -12169 Jul 28 j 09:15 10°**8**07'48 1°44'16 -12163 Jan 14 j 14:30 29°**2**36'52 1°37'52 conjunction minimum elong -12169 Jul 28 j 09:13 10°**8**07'47 1°44'42 -12163 Jan 15 j 14:04 29°**2**50'30 6.09313 AU minimum elong max. Earth dist. -12169 Jul 27 j 15:08 9°**8**57'31 max. Earth dist. 6.29432 AU -12163 Jan 16 j 06:29 0°M morning rise -12169 Aug 09 j 16:59 12°**8**55'19 morning rise -12163 Jan 28 j 08:30 2°M47'20 -12169 Aug 18 j 23:47 15°**8** -12163 Mar 27 j 05:58 15°ML -12169 Nov 17 j 03:38 0°**Ⅱ** retrograde -12163 Jun 05 j 15:31 22°ML09'58 retrograde -12169 Dec 12 j 16:01 0°**Ⅲ**59'11 opposition -12163 Aug 03 j 15:58 17° ML06'52 -2°35'28 -12168 Jan 07 j 06:33 30°R ₩ min. Earth dist. -12163 Aug 03 j 04:14 17° ML10'54 4.12025 AU opposition -12168 Feb 12 j 07:04 26°**8**04'47 2°35'20 -12163 Aug 19 j 15:08 15°RM min. Earth dist. -12168 Feb 12 j 16:13 26°**8**01'53 4.26554 AU direct -12163 Oct 01 j 14:46 12°ML04'41 direct -12168 Apr 13 j 15:32 21°**8**10'32 -12163 Nov 13 j 21:58 15°M -12168 Jul 03 j 06:38 $0^{\circ}\Pi$ -12162 Feb 01 j 06:34 evening set -12168 Aug 15 j 10:03 9°**Ⅲ**15′11 evening set -12162 Feb 06 j 19:54 1°**∡**15′22 conjunction -12168 Aug 27 j 20:06 12°**I**I06'07 1°38'41 conjunction -12162 Feb 20 j 12:02 4° ₹22'25 -1°41'58 minimum elong -12168 Aug 27 j 20:09 12°**Д**06'09 minimum elong -12162 Feb 20 j 12:04 4°**∡**¹22'27 max. Earth dist. -12168 Aug 27 j 13:44 12°**I**I02'28 6.22910 AU max. Earth dist. -12162 Feb 20 j 22:20 4° ₹ 28'19 6.15181 AU morning rise -12168 Sep 09 i 07:48 14°**Д**58'01 morning rise -12162 Mar 06 i 02:59 7° ₹ 28'47 -12168 Nov 25 i 11:31 0°5 retrograde -12162 Jul 09 i 07:23 26° ₹07'57 retrograde -12167 Jan 15 j 06:13 3°542'54 opposition -12162 Sep 06 j 04:02 21° ₹ 08'17 -2°14'25 -12167 Mar 08 j 01:12 30°R II min. Earth dist. -12162 Sep 06 j 03:07 21° ₹ 08'36 4.18946 AU -12167 Mar 17 j 20:37 28° **II** 45'04 2°03'33 direct -12162 Nov 05 j 07:02 16° ₹04'14 opposition min. Earth dist. -12167 Mar 17 j 19:10 28° **I** 45'32 4.19207 AU -12161 Feb 19 j 15:59 0°₹ -12167 May 17 j 01:21 23°**Д**52'08 evening set -12161 Mar 14 j 11:36 5°る00'09 direct -12167 Jul 20 j 17:39 0°ഇ -12167 Sep 16 j 20:05 12°509'03 conjunction -12161 Mar 28 j 00:13 8°중02'49 -1°11'36 evening set -12161 Mar 28 j 00:19 8°중02'52 1°12'20 minimum elong -12167 Sep 29 j 14:46 15°506'57 1°01'38 -12161 Mar 27 j 17:46 7°**궁**59'10 6.22628 AU conjunction max. Earth dist. -12167 Sep 29 j 14:51 15°507'00 1°02'20 -12161 Apr 10 j 10:06 11°**⋜**04'00 minimum elong morning rise -12161 Aug 10 j 18:07 28°**궁**59'37 max. Earth dist. -12167 Sep 30 j 00:52 15°512'49 6.15450 AU retrograde -12167 Oct 12 j 12:27 18°506'34 -12161 Oct 08 j 23:42 24°♂03'43 -1°10'20 morning rise opposition -12167 Dec 07 j 17:13 $0^{\circ}\Omega$ -12161 Oct 09 j 08:16 24°る00'53 4.26177 AU min. Earth dist. -12166 Feb 19 j 21:08 7° **Ω** 30'35 -12161 Dec 09 j 06:33 18°**궁**59'37 retrograde direct opposition -12166 Apr 22 j 00:07 $2^{\circ}\Omega$ 29'08 $0^{\circ}49'37$ -12160 Mar 11 j 20:42 0°≈ min. Earth dist. -12166 Apr 21 j 12:18 2° **Ω**33'01 4.12146 AU evening set -12160 Apr 16 j 10:33 7°**≈**34'14 -12166 May 11 j 20:21 30°Rூ direct -12166 Jun 20 j 01:04 27°535'45 conjunction -12160 Apr 29 j 16:26 10°≈31'38 -0°19'05 -12166 Jul 28 j 17:21 0°**Ω** -12160 Apr 29 j 16:28 10°≈31'39 0°19'39 minimum elong -12166 Oct 15 j 19:07 15° Ω max. Earth dist. -12160 Apr 28 j 20:33 10°≈20'31 6.29194 AU -12166 Oct 20 j 22:18 16° **Ω**11'19 -12160 May 12 j 18:52 13°≈27'14 evening set morning rise -12160 May 19 j 18:40 15°≈ -12166 Nov 03 j 03:51 19° Ω 16'43 0°02'59 -12160 Aug 17 j 20:05 0°**米** conjunction -12160 Sep 07 j 20:50 0° ¥ 53'30 minimum elong -12166 Nov 03 j 03:50 19° Ω 16'42 0°03'28 asc. node -12166 Nov 02 j 19:40 19° **Ω**11'57 behind sun begin retrograde -12160 Sep 10 i 15:33 0° \(\)54'15 behind sun end -12166 Nov 03 j 12:01 19° Ω 21'28 -12160 Oct 04 j 10:18 30°R≈ max. Earth dist. -12166 Nov 04 j 02:14 19° **Ω**29'48 6.09498 AU opposition -12160 Nov 09 j 11:47 26°≈01'18 0°13'32 morning rise -12166 Nov 16 j 13:11 $22^{\circ}\Omega 24'07$ min. Earth dist. -12160 Nov 10 j 04:24 25°≈55'54 4.31508 AU desc. node -12166 Nov 21 j 16:29 $23^{\circ}\Omega 35'23$ direct -12159 Jan 10 j 16:20 20°≈58'54 -12166 Dec 20 j 13:31 0° Mp -12159 Apr 04 j 12:36 0°**米** retrograde -12165 Mar 27 j 23:04 12° m 13'02 evening set -12159 May 18 j 21:09 9° **∺** 14'15 -12165 May 27 j 07:52 7° Mp 08'47 -0°43'38 opposition -12165 May 26 j 13:30 7° Mp 14'58 4.07811 AU min. Earth dist. conjunction -12159 May 31 j 17:57 12° **★** 06'22 0°38'18 direct -12165 Jul 24 j 15:12 2° Mp 13'05 minimum elong -12159 May 31 j 17:53 12°**米**06′20 0°38'03 -12165 Nov 25 j 20:02 21° m 09'28 max. Earth dist. -12159 May 30 j 15:23 11°**米**51'31 6.32903 AU evening set -12159 Jun 13 j 11:39 14° **★** 56'54 morning rise -12165 Dec 09 j 10:00 24° m 19'27 -0°57'45 -12159 Sep 03 j 16:33 $0^{\circ}\Upsilon$ conjunction minimum elong -12165 Dec 09 j 09:54 24° Mp 19'23 0°57'39 retrograde -12159 Oct 12 j 11:22 2°**Y**17′24 max. Earth dist. -12165 Dec 10 j 15:48 24° m 36'51 6.07158 AU -12159 Nov 20 j 18:52 30°R₩ morning rise -12165 Dec 23 j 02:35 27° m 30'49 opposition -12159 Dec 12 j 02:21 27° **★**25'38 -12164 Jan 02 j 22:21 0°**♀** min. Earth dist. -12159 Dec 12 j 20:55 27° **★** 19'42 4.33415 AU

direct

evening set

-12158 Feb 12 j 13:19 22° **★**26'01

-12158 Jun 19 j 07:45 10°**Υ**29'24

-12158 Apr 29 j 07:41 0°**Υ**

retrograde

opposition min. Earth dist. -12164 May 01 j 19:38 17°**≏**19'55

-12164 Jun 30 j 08:16 12° **2**15'04 -2°01'55

-12164 Jun 29 j 14:45 12°**2**21'03 4.07794 AU

•	omena of Jupiter fro		_	. //			page 22
	ical year style is used: The						
conjunction	-12158 Jul 01 j 19:59			minimum elong	-12153 Dec 14 j 10:32	29° m 14'51	1°04'48
minimum elong	-12158 Jul 01 j 19:53		1°24'11	max. Earth dist.	-12153 Dec 15 j 14:31	29° m 31'11	6.07142 AU
max. Earth dist.	-12158 Jun 30 j 19:35		6.32772 AU		-12153 Dec 17 j 15:55	0∘ ⊽	
morning rise	-12158 Jul 14 j 06:11	16° Y 05′01		morning rise	-12153 Dec 28 j 03:55	2° £ 26'30	
	-12158 Sep 24 j 16:10	9° 8		retrograde	-12152 May 06 j 14:33	22° ≏ 13'54	
retrograde	-12158 Nov 13 j 22:13	3° 8 40'58		min. Earth dist.	-12152 Jul 04 j 08:17	17° ≏ 15′08	4.07995 AU
	-12157 Jan 04 j 16:43	30° ₹ Υ		opposition	-12152 Jul 05 j 01:41	17° ≏ 09'11	-2°09'34
opposition	-12157 Jan 14 j 05:04	28° Ƴ 48'33	2°24'00	direct	-12152 Sep 01 j 09:01	12° ≏ 09'41	
min. Earth dist.	-12157 Jan 14 j 20:58	28° Ƴ 43'32	4.31363 AU		-12152 Dec 31 j 00:02	0° M	
direct	-12157 Mar 17 j 08:18	23° Y 52'05		evening set	-12151 Jan 05 j 23:44	1°ML22'13	
	-12157 May 23 j 01:56	9° 8			-		
evening set	-12157 Jul 20 j 09:40	11° 8 52'00		conjunction	-12151 Jan 19 j 16:49	4°MJ32'07	-1°40'21
•	·			minimum elong	-12151 Jan 19 j 16:45	4°M32'05	1°40'43
conjunction	-12157 Aug 01 j 17:35	14° 8 39'45	1°45'25	max. Earth dist.	-12151 Jan 20 j 15:07	4°M45'01	6.09714 AU
minimum elong	-12157 Aug 01 j 17:33		1°45'54	morning rise	-12151 Feb 02 j 10:29	7°M42'14	
max. Earth dist.	-12157 Aug 01 j 00:08	14° 8 29'50	6.28827 AU	C	-12151 Mar 07 j 08:38	15° M ₊	
	-12157 Aug 03 j 05:14			retrograde	-12151 Jun 10 j 09:58		
morning rise	-12157 Aug 14 j 01:32			opposition	-12151 Aug 08 j 07:49		-2°35'42
morning rise	-12157 Oct 15 j 02:55			min. Earth dist.	-12151 Aug 07 j 22:16		
retrograde	-12157 Dec 17 j 09:44			direct	-12151 Oct 06 j 10:11		2000 110
opposition	-12156 Feb 17 j 01:41		2°33'44		-12150 Jan 15 j 04:55	0° ∡ 7	
min. Earth dist.	-12156 Feb 17 j 09:09		4.25849 AU	evening set	-12150 Feb 11 j 19:58	6° ∡ 105'59	
iiiii. Eartii dist.	-12156 Feb 22 j 11:54		4.23649 AU	evening set	-12130 FC0 11 j 19.36	0 × 03 39	
direct	-12156 Apr 18 j 07:04			conjunction	-12150 Feb 25 j 11:54	9° ∡ 12'42	1°20'27
direct	-12156 Jun 10 j 22:14			minimum elong	-12150 Feb 25 j 11:58	9° × 12'44	
				C	-		6.15859 AU
evening set	-12156 Aug 19 j 20:21	13°Щ32′13		max. Earth dist.	-12150 Feb 25 j 20:11		6.13839 AU
	121566 01:07.10	1.60₩.42152	1025116	morning rise	-12150 Mar 11 j 02:25		
conjunction	-12156 Sep 01 j 07:19		1°35'16		-12150 Jun 20 j 19:57	0°る	
minimum elong	-12156 Sep 01 j 07:23		1°35'58	retrograde	-12150 Jul 13 j 20:17	0°る52'33	
max. Earth dist.	-12156 Sep 01 j 04:29		6.22173 AU		-12150 Aug 05 j 18:05		
morning rise	-12156 Sep 13 j 19:55			opposition	-12150 Sep 10 j 18:13		
_	-12156 Nov 01 j 15:49			min. Earth dist.	-12150 Sep 10 j 17:44		4.19685 AU
retrograde	-12155 Jan 20 j 02:51	8° © 25'58		direct	-12150 Nov 09 j 23:36		
opposition	-12155 Mar 22 j 16:28	3° © 27'41	1°55'26		-12149 Feb 01 j 03:49		
min. Earth dist.	-12155 Mar 22 j 13:42	3° © 28'35	4.18478 AU	evening set	-12149 Mar 19 j 07:30	9° る 43'23	
	-12155 Apr 21 j 14:29						
direct	-12155 May 21 j 17:36			conjunction	-12149 Apr 01 j 19:22		-1°05'12
	-12155 Jun 20 j 14:08	0		minimum elong	-12149 Apr 01 j 19:28	12° る 45'31	1°05'55
evening set	-12155 Sep 21 j 10:12	16° © 52'52		max. Earth dist.	-12149 Apr 01 j 10:34	12°る40'30	6.23401 AU
				morning rise	-12149 Apr 15 j 04:29	15° ප් 46'01	
conjunction	-12155 Oct 04 j 06:08	19° © 51'39	0°54'28		-12149 Jun 27 j 17:51	0° ≈	
minimum elong	-12155 Oct 04 j 06:13	19° 9 51'42	0°55'10	retrograde	-12149 Aug 15 j 06:41	3° ≈ 37'16	
max. Earth dist.	-12155 Oct 04 j 16:55	19° 9 57'56	6.14789 AU		-12149 Oct 03 j 13:35	30°Rる	
morning rise	-12155 Oct 17 j 05:30	22°952'18		opposition	-12149 Oct 13 j 13:05	28° る 41'50	-0°59'11
	-12155 Nov 18 j 05:32	$0^{\circ}\Omega$		min. Earth dist.	-12149 Oct 13 j 23:27	28° る 38'24	4.26900 AU
retrograde	-12154 Feb 24 j 18:45	12° Ω 19'49		direct	-12149 Dec 14 j 00:17	23° る 37'52	
opposition	-12154 Apr 26 j 20:11	7° Ω 17'52	0°37'16		-12148 Feb 20 j 12:29		
min. Earth dist.	-12154 Apr 26 j 07:04		4.11581 AU	evening set	-12148 Apr 21 j 01:30		
direct	-12154 Jun 24 j 17:55			max. Earth dist.	-12148 May 03 j 09:58	14° ≈ 55'14	6.29823 AU
	-12154 Sep 29 j 01:38	15° Ω			-12148 May 03 j 18:29	15° ≈	
desc. node	-12154 Oct 02 j 09:16				, ,		
evening set	-12154 Oct 25 j 17:19			conjunction	-12148 May 04 j 06:22	15°≈06'38	-0°10'56
				minimum elong	-12148 May 04 j 06:22		
conjunction	-12154 Nov 08 j 00:22	24°Ω08'04	-0°05'50	behind sun begin	-12148 May 04 j 00:31		
minimum elong	-12154 Nov 08 j 00:21			behind sun end	-12148 May 04 j 12:14		
behind sun begin	-12154 Nov 07 j 16:23		0 03 24	morning rise	-12148 May 17 j 07:37		
behind sun end	-12154 Nov 08 j 08:18				-12148 Jul 16 j 02:49	0° \	
max. Earth dist.	-12154 Nov 09 j 01:08		6.00002 ATT	asc. node	-12148 Jul 18 j 06:23	0° ∺ 20'44	
morning rise	-12154 Nov 21 j 10:52		0.07092 AU	retrograde	-12148 Sep 15 j 01:09	5° ∺ 26'18	
morning rise	-			•			0°25'26
ratragrada	-12154 Dec 03 j 07:59			opposition min. Earth dist.	-12148 Nov 14 j 01:01	0° ★ 33'31 0° ★ 28'17	
retrograde	-12153 Apr 01 j 21:48		4 07602 ATT	mm. Darth dist.	-12148 Nov 14 j 17:11		4.32001 AU
min. Earth dist.	-12153 May 31 j 09:27			J: 4	-12148 Nov 18 j 08:48		
opposition	-12153 Jun 01 j 03:12		-U~22.28	direct	-12147 Jan 15 j 06:40		
direct	-12153 Jul 29 j 09:34				-12147 Mar 13 j 04:42		
evening set	-12153 Nov 30 j 20:08	26° 11004'42		evening set	-12147 May 23 j 07:55		< 0.0014 · · · · ·
	10150 5 11110 5	200** 1	100.4150	max. Earth dist.	-12147 Jun 04 j 01:12	16° 共 21'08	6.33214 AU
conjunction	-12153 Dec 14 j 10:39	29° III) 14'55	-1~04.20				

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12147 in astronomical counting style is the year 12148 BCE in historical counting style. -12147 Jun 05 i 03:22 16° + 35'45 0° 45'44 max. Earth dist. -12142 Nov 13 j 23:49 29° Ω 18'27 6.08349 AU conjunction -12147 Jun 05 j 03:17 16° **)** (35'43 -12142 Nov 16 j 22:50 0° Mg minimum elong 0°45'33 -12142 Nov 26 j 11:32 2° m/13'18 -12147 Jun 17 j 19:50 19°\\$25'38 morning rise morning rise -12147 Aug 08 j 12:20 0°**Υ** retrograde -12141 Apr 06 j 21:16 22° Mp 05'37 6°**Y**46'33 -12141 Jun 05 j 05:55 17° Mp 07'21 4.07123 AU -12147 Oct 16 j 23:15 retrograde min. Earth dist. -12147 Dec 16 j 16:35 -12141 Jun $06\,\mathrm{j}\,00:38$ $17^\circ\mathrm{M}\,01'00$ $-1^\circ08'11$ 1°**Y**54'46 opposition 1°41'25 opposition 1°**Ƴ**48'43 min. Earth dist. -12147 Dec 17 j 11:36 4.33506 AU direct -12141 Aug 03 j 05:08 12° Mp 04'28 -12146 Jan 01 j 02:42 30°R € -12141 Dec 01 j 03:53 0∘ಹ direct -12146 Feb 17 j 04:41 26° **★** 55'33 evening set -12141 Dec 05 j 23:49 1°**♀**07'00 -12146 Apr 04 j 15:50 $0^{\circ}\Upsilon$ evening set -12146 Jun 23 j 15:54 14°**Y**57'14 conjunction -12141 Dec 19 j 15:08 4°**2**17'36 -1°11'38 4°**£**17'32 1°11'40 -12146 Jul 05 j 02:38 17°**Y**31'20 -12141 Dec 19 j 15:01 max. Earth dist. 6.32596 AU minimum elong max. Earth dist. -12141 Dec 20 j 19:33 4°**£**34'11 6.06955 AU conjunction -12146 Jul 06 j 03:08 17°**Y**45'07 1°28'42 morning rise -12140 Jan 02 j 08:43 7°**₽**29'22 minimum elong -12146 Jul 06 j 03:03 17°**Y**45'04 1°28'53 retrograde -12140 May 11 j 15:19 27° **2**15'27 morning rise -12146 Jul 18 j 12:43 20°**Y**32'13 opposition -12140 Jul 09 j 22:29 22°**2**10'54 -2°16'31 -12146 Sep 01 j 17:36 0°8 min. Earth dist. -12140 Jul 09 j 06:37 22°**2**16'21 4.08128 AU retrograde -12146 Nov 18 j 11:17 8°**8**11'09 direct -12140 Sep 06 j 08:00 17° **2**10'59 opposition -12145 Jan 18 j 20:45 3°**8**18'25 -12140 Dec 13 j 11:23 0°M min. Earth dist. -12145 Jan 19 j 11:18 3°**8**13'48 4.30937 AU evening set -12139 Jan 11 j 05:27 -12145 Feb 16 j 14:09 30° R**Y** direct $-12145 \text{ Mar } 21 \text{ j } 21:26 \quad 28^{\circ} \Upsilon 22'15$ conjunction -12139 Jan 24 i 22:36 9°M35'04 -1°42'31 -12145 Apr 23 i 24:00 0°8 minimum elong -12139 Jan 24 i 22:33 9°MJ35'02 1°42'58 -12145 Jul 18 j 15:48 15°8 max. Earth dist. -12139 Jan 25 i 19:58 9°M47'24 6.10146 AU -12145 Jul 24 j 17:29 16°**8**21'50 morning rise -12139 Feb 07 j 16:04 12°M44'51 evening set max. Earth dist. -12145 Aug 05 j 10:42 19°**8**01'24 6.28172 AU -12139 Feb 17 j 13:35 15°ML -12139 May 11 j 03:33 0° ₹ -12145 Aug 06 j 01:27 19°**8**09'47 1°45'58 -12139 Jun 15 i 04:56 1° ₹ 58'36 conjunction retrograde -12145 Aug 06 j 01:26 19°**8**09'47 -12139 Jul 19 j 23:34 30°RM minimum elong 1°46'29 -12145 Aug 18 j 09:25 21°**8**57'54 -12139 Aug 13 j 02:35 26°M 56'24 -2°34'53 morning rise opposition -12145 Sep 24 j 15:55 0°**Ⅱ** -12139 Aug 12 j 17:01 26°M 59'40 4.13312 AU min. Earth dist. -12145 Dec 22 j 03:29 10°**Д**11'15 -12139 Oct 11 j 06:54 21°ML53'39 retrograde direct -12139 Dec 26 j 12:25 0° ₹ -12144 Feb 21 j 19:34 5°**Ⅱ**16'00 2°31'16 opposition min. Earth dist. -12144 Feb 22 j 02:29 5°**I**I13'49 4.24996 AU -12138 Feb 16 j 23:14 11° ₹03'09 evening set -12144 Apr 22 j 22:03 0°**Д**22'14 direct -12144 Aug 24 j 06:29 18°**Ⅲ**28'15 -12138 Mar 02 j 14:40 14° ₹ 09'18 -1°36'33 evening set conjunction -12138 Mar 02 j 14:44 14° ₹09'20 1°37'13 minimum elong conjunction -12144 Sep 05 j 18:15 21° **II** 20'39 1°31'19 max. Earth dist. -12138 Mar 02 j 20:26 14° ₹ 12'35 6.16846 AU minimum elong -12144 Sep 05 j 18:19 21°II20'42 1°32'01 morning rise -12138 Mar 16 j 04:38 17°**√**14'31 max. Earth dist. -12144 Sep 05 j 15:40 21°**Ц**19'10 6.21187 AU -12138 May 17 j 16:37 0°る morning rise -12144 Sep 18 j 08:12 24°**Ц**14'17 retrograde -12138 Jul 18 j 12:44 5°정42'01 -12144 Oct 14 j 04:52 0°5 -12138 Sep 15 j 10:44 0°₹43'24 -1°59'50 opposition -12143 Jan 24 j 23:21 13°509'21 min. Earth dist. -12138 Sep 15 j 12:08 0°정42'56 4.20844 AU retrograde -12143 Mar 27 j 12:26 8°\$10'29 1°46'37 -12138 Sep 20 j 19:59 30°R **✗** opposition min. Earth dist. -12143 Mar 27 j 07:47 8°511'59 4.17413 AU -12138 Nov 14 j 21:32 25° ₹ 39'13 direct direct -12143 May 26 j 08:59 3°517'34 -12137 Jan 08 i 17:58 0°る evening set -12143 Sep 26 j 01:13 21°538'08 evening set -12137 Mar 24 j 04:39 14°**♂**29'49 -12143 Oct 08 j 22:51 24°\$38'05 0°46'55 conjunction conjunction -12137 Apr 06 i 15:50 17°₹31'06 -0°58'20 minimum elong -12143 Oct 08 i 22:56 24°\$38'08 0°47'35 minimum elong -12137 Apr 06 j 15:56 17°る31'09 0°59'02 max. Earth dist. -12143 Oct 09 j 12:39 24°546'07 6.13757 AU max. Earth dist. -12137 Apr 06 j 06:59 17°る26'08 6.24673 AU -12143 Oct 21 j 23:42 27°539'53 morning rise -12137 Apr 19 j 23:49 20°る30'43 morning rise -12143 Nov 01 j 04:06 $0^{\circ}\Omega$ -12137 Jun 04 j 04:16 0°≈ -12142 Jan 22 j 12:46 15° Ω retrograde -12137 Aug 19 j 17:08 8°≈15'58 retrograde -12142 Mar 01 j 19:40 $17^{\circ}\Omega$ 12'08 opposition -12137 Oct 18 j 03:09 3°≈20'59 -0°47'39 -12142 Apr 08 j 21:42 15°R**Ω** min. Earth dist. -12137 Oct 18 j 13:17 3°≈17'39 4.28176 AU opposition -12142 May 01 j 17:35 12°**Ω**09'46 0°24'31 -12137 Nov 15 j 01:08 30°₹♂ min. Earth dist. -12142 May 01 j 04:29 $12^{\circ}\Omega$ 14'07 4.10657 AU -12137 Dec 18 j 17:05 28°**궁**17'15 direct -12142 Jun 29 j 12:48 7°**Ω**15'53 direct -12136 Jan 21 j 18:32 0°≈ -12142 Aug 12 j 22:47 10° **Ω**24'50 desc. node -12136 Apr 17 j 17:38 15°≈ -12142 Sep 09 j 23:19 15°**Ω** evening set -12136 Apr 25 j 15:58 16°≈44'43 evening set -12142 Oct 30 j 15:20 25° € 57'11 conjunction -12136 May 08 j 19:20 19°≈40'23 -0°02'49 conjunction -12142 Nov 12 j 23:33 29°**Ω**04'15 -0°14'36 minimum elong -12136 May 08 j 19:21 19°≈40'23 0°03'18 minimum elong -12142 Nov 12 j 23:31 29° Ω 04'14 0°14'13 behind sun begin -12136 May 08 j 11:18 19°≈35'55 behind sun begin -12142 Nov 12 j 19:38 29°**Ω**01'59 behind sun end -12136 May 09 j 03:24 19°≈44'51

max. Earth dist.

-12136 May 07 j 21:19 19°≈28'05 6.31014 AU

behind sun end

-12142 Nov 13 j 03:24 29°**Ω**06'30

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12136 in astronomical counting style is the year 12137 BCE in historical counting style. -12136 May 21 j 19:25 22°≈34'17 -12130 Oct 31 j 18:40 morning rise -12136 May 27 j 17:09 23°≈52'34 evening set -12130 Nov 04 j 13:15 asc. node 0° m 52'36 -12136 Jun 25 j 18:04 0°**米** -12136 Sep 19 j 11:20 -12130 Nov 17 j 22:57 4° m 00'43 -0°23'14 9°**升**55′22 conjunction retrograde -12136 Nov 18 j 13:29 5°**)**€02'51 0°36'58 -12130 Nov 17 j 22:55 4° m 00'41 0°22'53 opposition minimum elong -12136 Nov 19 j 07:09 4°**₭** 57'10 -12130 Nov 19 j 01:17 4° № 16'08 min. Earth dist. 4.33006 AU max. Earth dist. 6.07408 AU direct -12135 Jan 19 j 22:59 0°**米**01'07 morning rise -12130 Dec 01 j 12:04 7° Mp 10'41 evening set -12135 May 27 j 16:38 18° **₭** 10'00 retrograde -12129 Apr 11 j 23:13 27° m 05'46 max. Earth dist. 6.33937 AU -12135 Jun 08 j 08:44 20° **★**45'58 opposition -12129 Jun 10 j 22:04 22° M 01'00 -1°19'51 min. Earth dist. -12129 Jun 10 j 03:53 22° m 07'11 4.06545 AU conjunction -12135 Jun 09 j 10:49 21° **★** 00'31 0°52'45 direct -12129 Aug 08 j 02:46 17° Mp 04'00 -12135 Jun 09 j 10:44 21°**米**00′29 -12129 Nov 13 j 20:22 minimum elong 0°52'37 0∘**⊽** -12135 Jun 22 j 02:00 23°**)** 49'35 -12129 Dec 11 j 04:09 morning rise evening set 6°**£**10′26 -12135 Jul 20 j 19:22 0°**℃** retrograde -12135 Oct 21 j 06:43 11°**Y**09'53 conjunction -12129 Dec 24 j 20:04 9°**£**21'20 -1°17'53 opposition -12135 Dec 21 j 04:10 6° \bullet 18'05 1°49'50 minimum elong -12129 Dec 24 j 19:57 9°**2**21'16 1°17'58 min. Earth dist. -12135 Dec 21 j 22:24 6° \mathbf{Y} 12'17 4.33916 AU max. Earth dist. -12129 Dec 26 j 00:54 9°**₽**38'09 6.06785 AU direct -12134 Feb 21 j 15:26 1°**Υ**19'15 morning rise -12128 Jan 07 j 14:04 12°**2**33'16 evening set -12134 Jun 27 j 21:14 19° Υ 18'33 -12128 Apr 08 j 11:50 0° M max. Earth dist. -12134 Jul 09 j 07:40 21°**Υ**52'33 6.32641 AU retrograde -12128 May 16 j 13:11 2°M17'16 -12128 Jun 23 j 05:38 30°R ₽ conjunction -12134 Jul 10 j 07:33 22° Υ 06'00 1°32'44 opposition -12128 Jul 14 j 18:49 27° **2**12'51 -2°22'24 minimum elong -12134 Jul 10 i 07:29 22°**Υ**05'57 1°32'58 min. Earth dist. -12128 Jul 14 i 02:23 27°**△**18'29 4.08413 AU morning rise -12134 Jul 22 j 16:26 24° Υ 52'47 direct -12128 Sep 11 j 04:49 22° **△**12'28 -12134 Aug 15 j 03:11 0°8 -12128 Nov 23 j 14:56 0°M retrograde -12134 Nov 22 j 23:01 12°**8**34'15 -12127 Jan 16 j 11:03 11° ML27'42 evening set -12133 Jan 23 j 09:26 7°841'20 2°31'12 opposition min. Earth dist. conjunction -12127 Jan 30 j 04:04 14° ML 37'04 -1° 43'55 -12133 Mar 26 j 09:06 2°**8**45'31 -12127 Jan 30 j 04:02 14°M 37'03 1°44'24 direct minimum elong -12133 Jul 02 j 18:11 15°8 max. Earth dist. -12127 Jan 30 j 23:25 14° ML48'14 6.10833 AU -12133 Jul 28 j 22:12 20°**8**44'44 -12127 Jan 31 j 19:50 15° ML evening set -12127 Feb 12 j 21:18 17° ML46'23 morning rise -12127 Apr 12 j 04:28 0°⊀ conjunction -12133 Aug 10 j 06:11 23°**8**32'58 1°46'27 retrograde -12127 Jun 19 j 23:29 6° ₹ 54'04 minimum elong -12127 Aug 17 j 20:30 1°**尽** 52'11 -2°32'56 -12133 Aug 09 j 14:57 23°**8**24'17 6.27480 AU max. Earth dist. opposition -12133 Aug 22 j 14:38 26°**8**21'32 min. Earth dist. -12127 Aug 17 j 12:40 1° ₹ 54'52 4.14298 AU morning rise -12133 Sep 07 j 22:13 0°**Ⅱ** -12127 Aug 31 j 21:27 30°RM retrograde -12133 Dec 26 j 17:29 14°**Д**40'05 direct -12127 Oct 16 j 05:38 26°M49'03 opposition -12132 Feb 26 j 10:15 9°**II**44'24 2°27'59 -12127 Nov 30 j 20:41 0°**尽** min. Earth dist. -12132 Feb 26 j 15:34 9°**Ц**42'42 4.23990 AU evening set -12126 Feb 22 j 00:22 15°**尽** 56'06 direct -12132 Apr 27 j 07:56 4°**Ц**50'48 -12132 Aug 28 j 14:13 22°**Д**58'47 conjunction -12126 Mar 07 j 15:33 19°**х** 01'36 -1°32'50 evening set -12126 Mar 07 j 15:38 19°**х** 01'39 1°33'32 minimum elong -12132 Sep 10 j 03:11 25°**Д**52'12 1°26'54 max. Earth dist. -12126 Mar 07 j 20:54 19° ₹ 04'38 6.18035 AU conjunction -12132 Sep 10 j 03:16 25°**Д**52'14 1°27'37 morning rise -12126 Mar 21 j 04:41 22° ₹ 05'59 minimum elong -12132 Sep 10 j 02:56 25° **II** 52'03 6.19972 AU max. Earth dist. -12126 Apr 26 j 17:10 0°る -12132 Sep 22 j 18:17 28° **II** 46'53 morning rise retrograde -12126 Jul 23 j 01:37 10°중26'20 -12132 Sep 28 i 02:18 0°5 opposition -12126 Sep 20 j 01:31 5° ₹28'13 -1°51'24 -12131 Jan 29 j 19:53 17°5048'28 retrograde min. Earth dist. -12126 Sep 20 j 03:29 5°る27'33 4.22081 AU opposition -12131 Apr 01 i 05:58 12°549'10 1°37'19 direct -12126 Nov 19 j 15:57 0°る23'58 min. Earth dist. -12131 Apr 01 j 01:25 12°550'39 4.16065 AU evening set -12125 Mar 28 j 23:30 19°る10'39 direct -12131 May 30 j 23:00 7°556'13 -12131 Sep 30 j 15:23 26°520'47 conjunction -12125 Apr 11 j 09:37 22°る11'04 -0°51'13 evening set minimum elong -12125 Apr 11 j 09:42 22°る11'07 0°51'52 -12125 Apr 10 j 21:17 22°**♂**04'09 conjunction -12131 Oct 13 j 14:28 29°522'00 0°39'10 max. Earth dist. 6.25849 AU minimum elong -12131 Oct 13 j 14:33 29°522'03 0°39'48 morning rise -12125 Apr 24 j 16:45 25°**⋜**09'50 max. Earth dist. -12131 Oct 14 j 04:19 29°530'05 6.12419 AU -12125 May 16 j 20:17 0°≈ -12131 Oct 16 j 07:35 $0^{\circ}\Omega$ retrograde -12125 Aug 24 j 04:20 12°≈49'52 -12131 Oct 26 j 17:14 opposition -12125 Oct 22 j 15:53 7°≈55'17 -0°36'01 morning rise 2°**Ω**25′13 -12131 Dec 25 j 09:27 15° Ω min. Earth dist. 7°≈51'15 4.29171 AU -12125 Oct 23 j 04:10 direct retrograde -12130 Mar 06 j 17:25 22°Ω03'16 -12125 Dec 23 j 10:41 2°≈51'41 opposition -12130 May 06 j 13:38 17°**Ω**00'30 0°11'44 -12124 Mar 31 j 23:24 15°≈ min. Earth dist. -12130 May 05 j 22:41 $17^{\circ}\Omega$ 05'28 4.09455 AUasc. node -12124 Apr 06 j 10:59 16°≈07'58 -12130 May 22 j 03:49 15°R**Ω** evening set -12124 Apr 30 j 04:47 21°≈15'43 desc. node -12130 Jun 24 j 15:18 12°Ω15'43 max. Earth dist. -12124 May 12 j 09:02 23°≈58'17 6.31753 AU direct -12130 Jul 04 j 04:38 12°**Ω**06'21

conjunction

-12124 May 13 j 07:06 24°≈10'36 0°05'26

-12130 Aug 15 j 15:12 15°**Ω**

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12124 in astronomical counting style is the year 12125 BCE in historical counting style. minimum elong -12124 May 13 j 07:05 24°≈10'35 0°04'59 min. Earth dist. -12118 May 10 j 21:30 22° Ω 04'52 4.08979 AU behind sun begin -12124 May 12 j 23:14 24°≈06'13 direct -12118 Jul 09 j 02:54 17° Ω 05'17 -12124 May 13 j 14:56 24°≈14'57 -12118 Oct 14 j 14:37 behind sun end 0° m -12124 May 26 j 05:46 27°**≈**03'39 5° m 53'44 -12118 Nov 09 j 14:08 morning rise evening set -12124 Jun 08 j 15:31 0°**米** 9° m 02'21 -0°31'50 -12124 Sep 23 j 19:53 14° ¥ 22'54 -12118 Nov 23 j 00:54 retrograde conjunction -12124 Nov 23 j 01:41 9°**米** 30'36 -12118 Nov 23 j 00:50 9° m 02'19 0°31'33 opposition 0°48'17 minimum elong -12124 Nov 23 j 19:07 9°**米**25'00 -12118 Nov 24 j 04:44 min. Earth dist. 4.33446 AU max. Earth dist. 9°**m** 18'38 6.07332 AU direct -12123 Jan 24 j 11:33 4°**∺**29'14 morning rise -12118 Dec 06 j 15:03 12° Mp 12'45 evening set -12123 Jun 01 j 01:36 22° ₩ 36'07 -12117 Mar 11 j 02:10 0∘**⊽** retrograde -12117 Apr 16 j 22:32 2°**₽**06'36 -12123 Jun 13 j 18:23 25° **€**26'01 0°59'32 conjunction -12117 May 23 j 09:37 30°R M -12123 Jun 13 j 18:18 25°**米**25'58 0°59'28 minimum elong opposition -12117 Jun 15 j 19:17 27° Mp 01'45 -1°30'54 max. Earth dist. -12123 Jun 12 j 15:02 25° **∺** 10'44 6.34026 AU min. Earth dist. -12117 Jun 15 j 00:04 27° Mp 08'17 4.06912 AU morning rise -12123 Jun 26 j 08:35 28° **∺** 14'35 direct -12117 Aug 12 j 23:05 22° Mp 04'20 -12123 Jul 04 j 07:31 $0^{\circ}\Upsilon$ -12117 Oct 25 j 09:56 0°**♀** retrograde -12123 Oct 25 j 19:37 15°**Υ**36'41 evening set -12117 Dec 16 j 07:37 11°**2**11'13 opposition -12123 Dec 25 j 18:03 10°**Υ**44'52 1°57'50 min. Earth dist. -12123 Dec 26 j 13:15 10° \gamma 38'46 4.33659 AU conjunction -12117 Dec 29 j 23:45 14° \(\Omega\)21'51 -1°23'29 direct -12122 Feb 26 j 05:28 5°**Υ**46'26 minimum elong -12117 Dec 29 j 23:38 14° **2**21'47 1°23'37 evening set -12122 Jul 02 j 04:41 23°**Υ**45'26 max. Earth dist. -12117 Dec 31 j 03:11 14° **2**37'50 6.07520 AU morning rise -12116 Jan 12 j 17:52 17° **2**33'24 conjunction -12122 Jul 14 j 14:23 26°**Y**32'47 1°36'21 -12116 Mar 11 j 13:01 0°M minimum elong -12122 Jul 14 j 14:19 26°**Υ**'32'45 1°36'39 retrograde -12116 May 21 j 07:38 7°M12'01 max. Earth dist. -12122 Jul 13 j 15:14 26°**γ**′19'44 6.32039 AU opposition -12116 Jul 19 j 12:21 2°ML07'48 -2°27'02 -12122 Jul 26 j 22:47 29°**Υ**19'35 min. Earth dist. -12116 Jul 18 j 21:19 2°ML12'58 4.09442 AU morning rise -12122 Jul 29 j 23:03 0°8 -12116 Aug 04 j 14:03 30°R ₽ -12122 Oct 21 j 01:15 15°8 -12116 Sep 16 j 01:51 27° **2**06'57 direct -12122 Nov 27 j 13:25 17°**8**05'50 -12116 Oct 28 j 17:43 0°M retrograde -12121 Jan 04 j 13:09 15°R8 -12115 Jan 15 j 14:55 15°M -12121 Jan 28 j 01:53 12°**8**12'39 2°33'37 -12115 Jan 21 j 12:05 16° ML 20'22 opposition evening set -12121 Jan 28 j 15:12 12°**8**08'26 4.29729 AU min. Earth dist. -12121 Mar 30 j 21:13 7°**8**17'14 -12115 Feb 04 j 05:04 19°M29'07 -1°44'32 direct conjunction -12121 Jun 14 j 05:46 15°**8** -12115 Feb 04 j 05:03 19°M29'06 1°45'04 minimum elong -12121 Aug 02 j 07:12 25°**8**17'46 max. Earth dist. -12115 Feb 04 j 23:42 19°M 39'50 6.12049 AU evening set -12115 Feb 17 j 21:38 22° ML37'36 morning rise -12121 Aug 14 j 15:26 28°**8**06'32 1°45'11 -12115 Mar 23 j 09:23 0° ₹ conjunction minimum elong -12121 Aug 14 j 15:27 28°**8**06'32 1°45'46 retrograde -12115 Jun 24 j 12:38 11°**х** 37'51 max. Earth dist. -12121 Aug 14 j 02:23 27°**8**59'04 6.26396 AU opposition -12115 Aug 22 j 09:42 6°**尽** 36'29 -2°30'00 -12121 Aug 22 j 22:13 0°**П** min. Earth dist. -12115 Aug 22 j 03:12 6° ₹ 38'42 4.15580 AU morning rise -12121 Aug 27 j 00:20 0°**Д**55'46 direct -12115 Oct 20 j 22:34 1° ₹33'07 retrograde -12121 Dec 31 j 15:05 19°**Ⅲ**20'48 -12114 Feb 26 j 20:13 20° ₹ 37'00 evening set -12120 Mar 02 j 06:14 14°**П**24'43 2°23'38 opposition min. Earth dist. -12120 Mar 02 j 11:02 14°**I**I23'11 4.22777 AU conjunction -12114 Mar 12 j 10:42 23°**х** 41'45 -1°28'41 -12120 May 02 j 00:31 9°**Д**31'22 -12114 Mar 12 j 10:47 23°**х** 41'48 1°29'24 direct minimum elong evening set -12120 Sep 02 i 03:12 27° **1**41'49 max. Earth dist. -12114 Mar 12 j 11:32 23° 🗷 42'13 6.19260 AU -12114 Mar 25 i 23:16 26° ₹ 45'22 -12120 Sep 12 i 02:38 0°5 morning rise -12114 Apr 09 i 13:02 0°る -12120 Sep 14 j 17:19 0°536'17 1°21'44 -12114 Jul 27 j 10:47 14°중59'16 conjunction retrograde minimum elong -12120 Sep 14 i 17:25 0°\$36'20 1°22'27 opposition -12114 Sep 24 j 11:44 10° 중01'39 -1°42'40 max. Earth dist. -12120 Sep 14 j 18:38 0°937'02 6.18762 AU min. Earth dist. -12114 Sep 24 j 16:05 10°る00'12 4.23129 AU -12120 Sep 27 j 10:00 3°\$32'12 direct -12114 Nov 24 j 07:07 4°る57'19 morning rise -12119 Feb 03 j 18:55 22°539'58 evening set -12113 Apr 02 j 13:22 23°중41'09 retrograde opposition -12119 Apr 06 j 04:36 17°540'11 1°26'55 min. Earth dist. -12119 Apr 05 j 21:10 17°542'37 4.14981 AU conjunction -12113 Apr 15 j 22:46 26° ₹ 40'56 -0°44'04 direct -12119 Jun 04 j 16:27 12°547'19 minimum elong -12113 Apr 15 j 22:50 26°정40'59 0°44'43 -12119 Sep 30 j 01:03 0°**Ω** max. Earth dist. -12113 Apr 15 j 09:11 26° ₹33'19 6.26656 AU -12119 Oct 05 j 10:20 1° **Ω**14'44 -12113 Apr 29 j 04:46 29°♂38'59 evening set morning rise -12113 Apr 30 j 18:33 0°≈ -12119 Oct 18 j 11:03 $4^{\circ}\Omega$ 17'03 0° 30'52 -12113 Jul 21 j 12:42 15°≈ conjunction -12119 Oct 18 j 11:06 $4^{\circ}\Omega$ 17'05 minimum elong 0°31'27 retrograde -12113 Aug 28 j 11:45 17°≈15'39 max. Earth dist. -12119 Oct 19 j 04:18 $4^{\circ}\Omega$ 27'07 6.11594 AU -12113 Oct 05 j 17:10 15°R≈ morning rise -12119 Oct 31 j 15:18 $7^{\circ}\Omega$ 21'19 opposition -12113 Oct 27 j 01:18 12°≈21'30 -0°24'36 -12119 Dec 04 j 22:20 15°**Ω** min. Earth dist. -12113 Oct 27 j 14:31 12°≈17'11 4.29668 AU retrograde -12118 Mar 11 j 20:10 27°**Ω**02'49 direct -12113 Dec 27 j 21:57 7°**≈**18'08 -12118 May 05 j 05:57 22°**Ω**49'50 -12112 Feb 17 j 04:53 11°≈00'53 desc. node asc. node -12118 May 11 j 13:01 21° Ω 59'42 -0°01'30 -12112 Mar 13 j 10:13 15°≈ opposition

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Attention, astronomical year style is used: The year -12112 in astronomical counting style is the year 12113 BCE in historical counting style.

evening set -12112 May 04 j 14:32 25°≈40'36 -12107 Nov 17 i 07:57 $15^{\circ}\Omega$ -12106 Feb 08 j 09:08 0° mg -12112 May 17 j 15:31 28°≈34'54 0°13'14 -12106 Mar 15 j 07:47 desc. node 2° m 01'34 conjunction -12112 May 17 j 15:30 28°≈34'53 0°12'51 retrograde -12106 Mar 16 j 21:06 2° m 01'48 minimum elong -12112 May 17 j 10:30 28°≈32'07 -12106 Apr 22 j 03:06 30°R**Ω** behind sun begin -12112 May 17 j 20:30 28°≈37'40 behind sun end opposition -12106 May 16 j 11:51 $26^{\circ}\Omega$ 58'19 -0°14'46 min. Earth dist. max. Earth dist. -12112 May 16 j 14:31 28°≈20'57 6.31896 AU -12106 May 15 j 18:54 $27^{\circ}\Omega$ 03'59 4.08721 AU-12106 Jul 13 j 22:55 22° Ω 03'34 -12112 May 23 j 23:59 0°**∀** direct 1°**¥**27′29 morning rise -12112 May 30 j 13:15 -12106 Sep 25 j 08:21 0° Mg retrograde -12112 Sep 28 j 06:02 18° ¥47'14 evening set -12106 Nov 14 j 15:09 10° m 53'45 opposition -12112 Nov 27 j 12:45 13°**米**55'06 0°59'07 -12112 Nov 28 j 07:32 13°**)** 49'04 4.33244 AU -12106 Nov 28 j 02:51 14° m 02'45 -0°40'13 min. Earth dist. conjunction -12106 Nov 28 j 02:46 14° m 02'42 0°40'00 direct -12111 Jan 28 j 23:37 8° **★** 54'03 minimum elong evening set -12111 Jun 05 j 09:31 27°**₭**01'03 max. Earth dist. -12106 Nov 29 j 06:31 14° Mp 18'56 6.07370 AU max. Earth dist. -12111 Jun 16 j 23:12 29°**米** 36′02 6.33492 AU morning rise -12106 Dec 11 j 17:53 17° m 13'28 -12105 Feb 10 j 02:55 conjunction -12111 Jun 18 j 01:22 29° **∺** 50'41 1°05'53 retrograde -12105 Apr 21 j 20:58 7°**≏**05'51 minimum elong -12111 Jun 18 j 01:16 29° **₭** 50'38 opposition -12105 Jun 20 j 15:59 2°**£**00'55 -1°41'20 -12111 Jun 18 j 18:00 0°**℃** min. Earth dist. -12105 Jun 19 j 21:15 2°**2**07'18 4.07246 AU morning rise -12111 Jun 30 j 14:27 2°**Y**39'02 -12105 Jul 05 j 22:08 30°R Mp retrograde -12111 Oct 30 j 07:20 20° Υ 04'54 direct -12105 Aug 17 j 20:53 27° m 03'00 opposition -12111 Dec 30 j 08:12 15° Y 13'00 2° 05'07 -12105 Sep 29 i 15:36 0° **♀** min. Earth dist. -12111 Dec 31 i 02:02 15° \(\gamma 07'21 \) 4.32863 AU evening set -12105 Dec 21 j 11:02 16° **2**10'45 direct -12110 Mar 02 j 16:37 10° **Y**15'03 evening set -12110 Jul 06 j 13:11 28°**Υ**15'20 conjunction -12104 Jan 04 i 03:36 19° **2**21'14 -1°28'31 -12110 Jul 14 j 07:07 0°8 minimum elong -12104 Jan 04 i 03:30 19° \(\Omega\)21'11 1°28'44 max. Earth dist. -12104 Jan 05 j 07:18 19°**2**37'20 6.08118 AU -12110 Jul 18 j 22:13 1°802'48 1°39'22 -12104 Jan 17 j 21:34 22° **△**32'26 conjunction morning rise -12110 Jul 18 j 22:09 1°802'45 1°39'43 -12104 Feb 20 j 10:37 0°M minimum elong -12110 Jul 17 j 23:48 0°\(250'07\) 6.31029 AU -12104 May 26 j 03:03 12°ML06'11 max. Earth dist. retrograde -12110 Jul 31 j 06:25 3°**8**49'52 -12104 Jul 24 j 05:49 7°ML02'19 -2°30'45 morning rise opposition -12110 Sep 23 j 15:05 15°8 min. Earth dist. -12104 Jul 23 j 15:55 7°ML07'05 4.10270 AU -12110 Dec 02 j 08:25 21°**8**42'04 -12104 Sep 20 j 21:27 2°M01'06 retrograde direct -12109 Feb 01 j 20:22 16°**8**48'32 2°35'05 -12104 Dec 29 j 12:55 15°M opposition -12109 Feb 02 j 08:59 16°844'32 4.28582 AU -12103 Jan 26 j 14:05 21°ML13'41 min. Earth dist. evening set -12109 Feb 16 j 11:22 15°R -12109 Apr 04 j 13:06 11°**8**53'28 -12103 Feb 09 j 06:43 24°M21'54 -1°44'29 direct conjunction -12109 May 20 j 12:55 15°**8** minimum elong -12103 Feb 09 j 06:43 24°M21'54 1°45'03 evening set -12109 Aug 06 j 17:48 29°**8**55'44 max. Earth dist. -12103 Feb 09 j 21:28 24°ML30'22 6.13018 AU -12109 Aug 07 j 01:18 0°**Ⅱ** morning rise -12103 Feb 22 j 23:01 27°M29'47 -12103 Mar 06 j 00:56 0° ⊀ -12109 Aug 19 j 02:33 2°**Д**45'10 1°43'46 retrograde -12103 Jun 29 j 02:42 16° **₹** 23'38 conjunction -12109 Aug 19 j 02:35 2°**Ⅱ**45'11 1°44'22 -12103 Aug 27 j 00:07 11°**⊀** 22'46 -2°26'08 minimum elong opposition max. Earth dist. -12109 Aug 18 j 16:14 2°**II**39'15 6.25210 AU min. Earth dist. -12103 Aug 26 j 19:11 11° ₹24'27 4.16603 AU -12109 Aug 31 j 12:11 5°**Ⅲ**35'11 -12103 Oct 25 j 17:17 6° ₹ 19'08 morning rise direct -12108 Jan 05 j 11:50 24°**Д**06'32 retrograde evening set -12102 Mar 03 j 17:15 25° ₹20'49 -12108 Mar 07 j 03:59 19° **I** 109'54 2°18'13 opposition min. Earth dist. -12108 Mar 07 i 05:45 19°**Д**09'20 4.21642 AU conjunction -12102 Mar 17 i 07:22 28° ₹24'59 -1°23'56 direct -12108 May 06 j 17:05 14°**Д**16'46 minimum elong -12102 Mar 17 i 07:27 28° ₹25'03 1°24'38 -12108 Aug 26 j 20:45 0°ഇ max. Earth dist. -12102 Mar 17 j 06:36 28° ₹24'34 6.20280 AU -12108 Sep 06 j 18:02 2°528'59 -12102 Mar 24 j 07:11 0°る evening set morning rise -12102 Mar 30 j 19:05 1°る27'53 conjunction -12108 Sep 19 j 09:24 5°524'26 1°15'56 -12102 Jul 31 j 22:46 19°**궁**36'11 retrograde minimum elong -12108 Sep 19 j 09:30 5°524'29 1°16'38 opposition -12102 Sep 29 j 00:10 14°중39'10 -1°33'11 max. Earth dist. -12108 Sep 19 j 13:51 5°527'00 6.17770 AU min. Earth dist. -12102 Sep 29 j 06:06 14°337'11 4.24042 AU morning rise -12108 Oct 02 j 03:30 8°**5**21'24 direct -12102 Nov 28 j 23:08 9°**궁**34'54 retrograde -12107 Feb 08 j 20:22 27°534'02 -12101 Apr 07 j 05:09 28°쥥16'10 evening set -12107 Apr 11 j 03:58 22°533'40 1°15'45 -12101 Apr 14 j 23:10 0°≈ opposition -12107 Apr 10 j 19:27 22°536'27 min. Earth dist. 4.14171 AU -12107 Jun 09 j 13:30 17°5540'38 -12101 Apr 20 j 13:32 direct conjunction 1°≈15′17 -0°36′31 -12107 Sep 12 j 22:34 $0 {\circ} \Omega$ minimum elong -12101 Apr 20 j 13:36 1°≈15'19 0°37'08 evening set -12107 Oct 10 j 06:22 6° Ω09'55 max. Earth dist. -12101 Apr 19 j 20:53 1°**≈**05'58 6.27395 AU morning rise -12101 May 03 j 18:39 4°≈12'40 conjunction -12107 Oct 23 j 08:36 9°**Ω**13'08 0°22'17 -12101 Jun 25 j 08:04 15°≈ minimum elong -12107 Oct 23 j 08:38 9°**Ω**13'10 0°22'51 retrograde -12101 Sep 01 j 21:57 21°≈46'21 max. Earth dist. -12107 Oct 24 j 04:04 9° Ω 24'31 -12101 Oct 31 j 13:13 16°≈52'36 -0°12'47 6.11038 AU opposition -12107 Nov 05 j 14:27 12°**Ω**18'22 min. Earth dist. -12101 Nov 01 j 03:36 16°≈47'53 4.30189 AU morning rise

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12101 in astronomical counting style is the year 12102 BCE in historical counting style. -12101 Nov 15 i 06:47 15°R≈ behind sun begin -12095 Oct 27 i 23:37 $14^{\circ}\Omega$ 00'31 -12101 Dec 29 i 03:35 11°≈50'31 -12095 Oct 28 j 07:17 $14^{\circ}\Omega$ 04'59 asc node behind sun end -12100 Jan 01 j 12:13 11°≈49'28 -12095 Oct 28 j 23:29 14° Ω14'27 6.10561 AU direct max. Earth dist. -12100 Feb 17 j 17:49 15°≈ -12095 Nov 01 j 05:26 15°**Ω** -12100 May 08 j 07:44 -12095 Nov 10 j 10:46 17° **Ω**08'48 0°**∀** morning rise -12100 May 09 j 02:06 evening set 0°**)** 10′10 -12094 Jan 10 j 12:12 max. Earth dist. -12100 May 21 j 01:24 2°**升**50′08 6.32177 AU desc. node -12094 Jan 24 j 03:34 2° m 14'28 6° M 54'11 retrograde -12094 Mar 21 j 18:59 conjunction -12100 May 22 j 01:57 3°****03'51 0°21'11 opposition minimum elong -12100 May 22 j 01:55 3°**∺**03′50 0°20'51 min. Earth dist. -12094 May 20 j 14:10 1° m 56'07 4.08415 AU morning rise -12100 Jun 03 j 22:20 5°**米** 55'49 -12094 Jun 04 j 09:05 30°R**Ω** -12100 Oct 02 j 16:37 23°**米** 15'42 retrograde direct -12094 Jul 18 j 17:09 26° **Ω**55'08 opposition -12100 Dec 02 j 01:45 18° **★**23'48 1°09'50 -12094 Aug 31 j 11:06 0° Mp min. Earth dist. -12100 Dec 02 j 20:21 18°**米** 17'50 4.33288 AU evening set -12094 Nov 19 j 13:42 15° m/47'37 direct -12099 Feb 02 j 12:22 13°**∺**23'15 -12099 Jun 03 j 01:02 $0^{\circ}\Upsilon$ conjunction -12094 Dec 03 j 02:29 18° m 57'03 -0°48'07 evening set -12099 Jun 09 j 18:36 1°Y29'21 minimum elong -12094 Dec 03 j 02:23 18° m 57'00 0°47'57 max. Earth dist. -12099 Jun 21 j 06:11 4°**Υ**03'24 6.33286 AU max. Earth dist. -12094 Dec 04 j 07:28 19° Mp 14'00 6.07264 AU morning rise -12094 Dec 16 j 18:09 22° Mp 08'03 conjunction -12099 Jun 22 j 09:10 4°**Υ**18'32 1°11'58 -12093 Jan 21 j 00:47 0°**♀** minimum elong -12099 Jun 22 j 09:04 4°**Y**18′29 1°12'00 retrograde -12093 Apr 26 j 18:04 11°**£**59'26 morning rise -12099 Jul 04 i 21:29 7°**Y**06'35 opposition -12093 Jun 25 j 09:54 6° **2**54'32 -1°50'49 retrograde -12099 Nov 03 j 21:54 24° γ35'24 min. Earth dist. -12093 Jun 24 j 16:04 7°**2**00'37 4.07370 AU opposition $-12098 \text{ Jan } 03 \text{ j } 23:41 \quad 19^{\circ} \Upsilon 43'23 \quad 2^{\circ}11'47$ direct -12093 Aug 22 j 14:53 1°**£**56'10 min. Earth dist. -12098 Jan 04 j 17:09 19°**Υ**37'51 4.32455 AU evening set -12093 Dec 26 j 12:38 21° **2**05'45 -12098 Mar 07 j 06:54 14°**Y**45'53 direct -12098 Jun 28 j 10:36 0°8 -12092 Jan 09 j 05:19 24° **2**16'08 -1°32'49 conjunction -12098 Jul 10 j 21:25 -12092 Jan 09 j 05:13 24° **2**16'05 1°33'06 evening set 2°**8**45'58 minimum elong -12098 Jul 22 j 10:40 5°**8**22'25 -12092 Jan 10 j 05:59 24° **2**30'27 6.08427 AU max Earth dist 6.30455 AU max. Earth dist. -12092 Jan 22 j 23:29 27°**£**27'10 morning rise -12098 Jul 23 j 06:08 5°\begin{align*} 5°\begin{align*} 33'26 1°41'51 \end{align*} -12092 Feb 03 j 03:10 0°M conjunction -12092 Apr 25 j 21:52 15°ML -12098 Jul 23 j 06:05 5°**8**33'25 1°42'15 minimum elong -12098 Aug 04 j 13:57 8°**8**20'36 -12092 May 30 j 19:55 16°M 57'15 morning rise retrograde -12098 Sep 04 j 05:48 15°8 -12092 Jul 04 j 10:33 15°RM -12098 Dec 06 j 23:59 26°817'20 -12092 Jul 28 j 21:46 11°ML53'40 -2°33'23 retrograde opposition -12097 Feb 06 j 14:10 21°**8**23'27 2°35'36 -12092 Jul 28 j 08:41 11°ML58'09 4.10753 AU opposition min. Earth dist. -12097 Feb 07 j 00:42 21°**8**20'06 4.27902 AU -12092 Sep 25 j 16:08 6°ML52'00 min. Earth dist. direct direct -12097 Apr 09 j 03:13 16°**8**28'48 -12092 Dec 10 j 09:57 15°M -12097 Jul 21 j 20:38 0°**Ⅱ** evening set -12091 Jan 31 j 14:40 26° ML04'54 evening set -12097 Aug 11 j 03:28 4°**II**31'19 conjunction -12091 Feb 14 j 07:16 29°ML12'49 -1°43'41 -12097 Aug 23 j 12:34 7°**Ⅲ**21'13 1°41'45 minimum elong -12091 Feb 14 j 07:17 29°ML12'50 1°44'18 conjunction -12097 Aug 23 j 12:36 7°**Ⅲ**21'15 1°42'24 max. Earth dist. -12091 Feb 14 j 20:36 29°M20'28 6.13646 AU minimum elong -12097 Aug 23 j 03:52 7°**II**16'14 6.24470 AU -12091 Feb 17 j 17:34 0° ⊀ max. Earth dist. -12097 Sep 04 j 23:00 10°**Д**11'54 -12091 Feb 27 j 23:02 2°**尽** 20'13 morning rise morning rise -12096 Jan 10 j 08:06 28° **II** 48'07 retrograde retrograde -12091 Jul 03 j 18:22 21° ₹08'57 -12096 Mar 11 j 23:38 23°**II**50'57 2°12'00 opposition opposition -12091 Aug 31 j 14:23 16° ₹08'36 -2°21'19 min. Earth dist. -12096 Mar 12 j 00:14 23°**Д**50'45 4.20873 AU min. Earth dist. -12091 Aug 31 i 11:23 16° 709'37 4.17312 AU direct -12096 May 11 j 10:09 18°**Д**57'53 direct -12091 Oct 30 j 11:28 11° ₹ 04'47 -12096 Aug 09 j 20:49 -12090 Mar 08 j 14:16 0°る05'06 0ಂತಾ evening set -12096 Sep 11 j 06:37 7°9510'59 -12090 Mar 08 j 05:11 0°ಕ evening set -12096 Sep 23 j 23:23 10°507'20 1°09'45 -12090 Mar 22 j 03:50 3°る08'47 -1°18'35 conjunction conjunction minimum elong -12096 Sep 23 j 23:29 10°507'23 1°10'27 minimum elong -12090 Mar 22 j 03:56 3°る08'50 1°19'17 max. Earth dist. -12096 Sep 24 j 06:36 10°511'31 6.17052 AU max. Earth dist. -12090 Mar 22 j 00:34 3°**궁**06'56 6.21024 AU -12096 Oct 06 j 18:57 13°505'18 morning rise morning rise -12090 Apr 04 j 14:56 6°쥥11'06 -12095 Jan 04 j 21:12 0°**Ω** retrograde -12090 Aug 05 j 09:54 24°♂14'39 -12095 Feb 13 j 18:01 $2^{\circ}\Omega$ 21'47 -12090 Oct 03 j 13:11 19°₹18'04 -1°23'03 retrograde opposition -12095 Mar 25 j 15:12 30°Rூ -12090 Oct 03 j 19:46 19°る15'53 4.24761 AU min. Earth dist. -12095 Apr 16 j 00:17 27°520'57 1°04'20 -12090 Dec 03 j 14:58 14°♂13'50 opposition direct -12095 Apr 15 j 14:14 27°524'15 4.13551 AU min. Earth dist. -12089 Mar 29 j 18:51 direct -12095 Jun 14 j 06:03 22°527'47 evening set -12089 Apr 11 j 21:25 2°≈52'54 -12095 Aug 24 j 23:23 0°**Ω** max. Earth dist. -12089 Apr 24 j 11:25 5°≈41'37 6.28068 AU

conjunction

morning rise

minimum elong

-12089 Apr 25 j 04:49

-12089 Apr 25 j 04:52

-12089 May 08 j 08:49

5°≈51'21 -0°28'39

0°29'14

5°**≈**51'23

8°≈48'02

evening set

conjunction

minimum elong

-12095 Oct 14 j 23:52 10° **Q** 58'42

-12095 Oct 28 j 03:25 14° Ω 02'44 0°13'46

-12095 Oct 28 j 03:27 14° Ω 02'45 0°14'18

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12089 in astronomical counting style is the year 12090 BCE in historical counting style. -12089 Jun 06 i 02:31 15°≈ direct -12083 Jun 18 i 22:58 27°515'51 -12089 Sep 06 j 09:09 26°≈18'49 -12083 Jul 30 j 08:45 0°Ω retrograde -12089 Nov 05 j 02:12 21°≈25'24 -0°00'47 -12083 Oct 16 j 04:36 15°Ω opposition -12089 Nov 05 j 17:28 21°≈20'26 4.30748 AU -12083 Oct 19 j 19:06 15° **Ω** 50'08 min. Earth dist. evening set -12089 Nov 08 j 15:51 20°≈57'33 asc. node -12088 Jan 06 j 03:53 16°≈22'35 -12083 Nov 02 j 00:18 18° Ω55'14 0°05'06 direct conjunction -12083 Nov 02 j 00:19 18° **Ω**55'14 0°05'35 -12088 Apr 21 j 23:42 0°**∀** minimum elong -12083 Nov 01 j 16:25 18° **Ω** 50'38 evening set -12088 May 13 j 13:52 4°**)** 40′50 behind sun begin max. Earth dist. -12088 May 25 j 10:49 -12083 Nov 02 j 08:13 18°**Ω**59'50 7°**∺**19'31 6.32568 AU behind sun end max. Earth dist. -12083 Nov 02 j 22:49 19°**Ω**08'23 6.09725 AU conjunction -12088 May 26 j 12:23 7° **∺** 33'48 0°29'04 morning rise -12083 Nov 15 j 09:00 22° Ω 02'18 -12088 May 26 j 12:20 7°**米** 33'46 -12083 Dec 04 j 04:30 26° **Ω**19'49 minimum elong 0°28'46 desc. node -12088 Jun 08 j 07:39 10° **€**25'07 morning rise -12083 Dec 21 j 03:00 0° M retrograde -12088 Oct 07 j 03:27 27° **\(\)**44'42 retrograde -12082 Mar 26 j 19:50 11° m 50'44 opposition -12088 Dec 06 j 15:25 22° **€** 52'48 1°20'12 min. Earth dist. -12082 May 25 j 11:29 6° m 52'24 4.07799 AU min. Earth dist. -12088 Dec 07 j 09:45 22° **★** 46'56 4.33492 AU opposition -12082 May 26 j 04:34 6° Mp 46'39 -0°40'28 direct -12087 Feb 07 j 02:25 17°**米** 52'36 direct -12082 Jul 23 j 12:19 1°M 51'06 -12087 May 17 j 13:17 $0^{\circ}\Upsilon$ evening set -12082 Nov 24 j 15:23 20° m 47'20 evening set -12087 Jun 14 j 03:22 5° Υ 56'53 conjunction -12082 Dec 08 j 04:54 23° m 57'17 -0°55'50 conjunction -12087 Jun 26 j 16:53 8°**Υ**45'34 1°17'39 minimum elong -12082 Dec 08 j 04:48 23° m 57'13 0°55'43 minimum elong -12087 Jun 26 i 16:48 8°**Y**45'31 1°17'44 max. Earth dist. -12082 Dec 09 i 08:29 24° m 13'24 6.06895 AU max. Earth dist. -12087 Jun 25 i 15:53 8°**Y**31'32 6.33267 AU morning rise -12082 Dec 21 j 21:29 27° m 08'46 morning rise -12087 Jul 09 i 04:06 11° γ33'10 -12081 Jan 03 j 07:42 0° **△** retrograde -12087 Nov 08 i 10:05 29° Υ 04'09 retrograde -12081 May 01 j 16:21 16° **△**59'56 -12086 Jan 08 j 14:37 24°Υ11'59 2°17'40 opposition -12081 Jun 30 j 06:23 11° **2**55'05 -1°59'45 opposition -12086 Jan 09 j 07:29 24° Υ 06'38 4.32207 AU min. Earth dist. -12081 Jun 29 j 12:19 12°**2**01'15 4.07298 AU min. Earth dist. -12086 Mar 11 j 20:41 19° Υ 14'55 -12081 Aug 27 j 11:38 6°**2**56'14 direct direct -12086 Jun 11 j 15:16 0°8 -12081 Dec 31 j 17:42 26° **2**08'28 evening set -12086 Jul 15 j 05:08 7°**8**14'12 evening set -12080 Jan 14 j 10:45 29° **2**18'52 -1°36'35 conjunction -12086 Jul 27 j 13:18 10°**8**01'38 1°43'45 -12080 Jan 14 j 10:40 29°**2**18'49 1°36'54 conjunction minimum elong -12086 Jul 27 j 13:15 10°**8**01'36 1°44'11 max. Earth dist. -12080 Jan 15 j 11:14 29°**2**33'04 6.08653 AU minimum elong -12086 Jul 26 j 17:43 9°**8**50'32 6.29961 AU max. Earth dist. -12080 Jan 17 j 09:42 0°M -12086 Aug 08 j 21:09 12°**8**48'58 -12080 Jan 28 j 04:43 2° M29'40 morning rise morning rise -12086 Aug 18 j 15:38 15°**8** -12080 Mar 27 j 14:36 15°M -12086 Nov 18 j 05:55 0°**Ⅱ** -12080 Jun 04 j 18:01 21°M 56'07 retrograde retrograde -12086 Dec 11 j 16:06 0°**I**I50'00 opposition -12080 Aug 02 j 16:48 16°ML52'57 -2°35'01 -12085 Jan 04 j 03:35 30°R8 min. Earth dist. -12080 Aug 02 j 05:30 16°M 56'49 4.11260 AU opposition -12085 Feb 11 j 07:08 25°**8**55'41 2°35'12 -12080 Aug 16 j 18:57 15°RM min. Earth dist. -12085 Feb 11 j 16:40 25°**8**52'40 4.27183 AU direct -12080 Sep 30 j 14:31 11°M 50'57 direct -12085 Apr 13 j 17:27 21°**8**01'17 -12080 Nov 14 j 14:11 15°M -12085 Jul 04 j 05:37 0°**Ⅱ** -12079 Feb 01 j 01:52 0° ⊀ -12085 Aug 15 j 12:13 9°**Д**04'21 -12079 Feb 05 j 18:46 1°**尽**04'00 evening set evening set -12085 Aug 27 j 22:08 11°**II**54'55 1°39'10 -12079 Feb 19 i 11:10 4° ₹ 11'32 -1°42'10 conjunction conjunction -12085 Aug 27 j 22:11 11°**II**54'57 1°39'50 -12079 Feb 19 i 11:12 4° ₹ 11'33 1°42'48 minimum elong minimum elong -12085 Aug 27 j 16:17 11° **II**51'34 6.23590 AU -12079 Feb 19 j 22:44 4° ₹ 18'09 6.14400 AU max. Earth dist. max. Earth dist. -12085 Sep 09 i 09:21 14°**Д**46'21 morning rise morning rise -12079 Mar 05 i 02:30 7° ₹ 18'25 retrograde -12085 Nov 27 i 04:24 0°9 -12079 Jul 08 i 10:15 26° ₹ 01'16 -12084 Jan 15 i 03:32 3°\$27'57 opposition -12079 Sep 05 j 07:19 21° ₹ 01'27 -2°15'27 retrograde -12084 Mar 04 j 23:04 30°R II min. Earth dist. -12079 Sep 05 j 04:29 21° ₹ 02'25 4.18263 AU -12084 Mar 16 j 18:42 28° \$\mathbb{I}\$30'20 2°05'01 direct -12079 Nov 04 j 07:09 15° ₹ 57'32 opposition -12084 Mar 16 j 18:06 28° **II** 30'32 4.19881 AU min. Earth dist. -12078 Feb 19 j 03:28 0°る direct -12084 May 16 j 01:14 23° **II** 37'23 evening set -12078 Mar 13 j 13:32 4°**궁**55'25 -12084 Jul 21 j 05:16 0°ഇ evening set -12084 Sep 15 j 19:44 11°552'28 conjunction -12078 Mar 27 j 02:23 7°중58'24 -1°12'40 minimum elong -12078 Mar 27 j 02:29 7°る58'27 1°13'22 -12084 Sep 28 j 13:45 14°549'51 1°03'09 -12078 Mar 26 j 21:18 7°る55'32 6.22139 AU conjunction max. Earth dist. -12084 Sep 28 j 13:50 14°549'54 1°03'50 -12078 Apr 09 j 12:40 10°**궁**59'56 minimum elong morning rise -12084 Sep 28 j 21:29 14°554'20 -12078 Aug 10 j 00:03 28°る57'29 max. Earth dist. 6.16038 AU retrograde -12084 Oct 11 j 10:59 17°5548'59 morning rise opposition -12078 Oct 08 j 04:18 24°♂01'25 -1°12'17 -12084 Dec 08 j 08:51 $0^{\circ}\Omega$ min. Earth dist. -12078 Oct 08 j 12:29 23°중58'42 4.25930 AU retrograde -12083 Feb 18 j 16:30 7°**Ω**10'34 direct -12078 Dec 08 j 10:56 18°중57'20 opposition -12083 Apr 20 j 20:43 2°**Ω**09'14 0°52'27 -12077 Mar 12 j 04:12 0°≈ min. Earth dist. -12083 Apr 20 j 09:30 2°**Ω**12'55 4.12573 AU -12077 Apr 16 j 14:12 7°≈32'16 evening set

-12083 May 07 j 20:38 30°RS

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12077 in astronomical counting style is the year 12078 BCE in historical counting style. -12077 Apr 29 j 20:30 10°≈29'49 -0°20'37 conjunction -12072 Oct 03 i 02:50 19°528'33 0°56'16 conjunction -12077 Apr 29 j 20:33 10°≈29'50 0°21'09 -12072 Oct 03 j 02:56 19°528'36 0°56'57 minimum elong minimum elong -12077 Apr 29 j 02:34 10°≈19'47 6.29216 AU -12072 Oct 03 j 13:12 19°534'34 max. Earth dist. max. Earth dist. 6 14774 AU -12077 May 12 j 23:15 13°≈25'32 -12072 Oct 16 j 01:34 22°528'57 morning rise morning rise -12077 May 20 j 02:10 15°≈ -12072 Nov 18 j 21:40 0°**Ω** -12071 Feb 23 j 15:23 11°**Ω**56'33 -12077 Aug 18 j 12:13 0°**米** retrograde retrograde -12077 Sep 10 j 18:16 0°**)** 52′03 opposition -12071 Apr 25 j 15:55 6° **Ω**54'49 0°40'25 asc. node -12077 Sep 18 j 21:44 0°**)** 45′33 min. Earth dist. -12071 Apr 25 j 04:36 6° **Ω**58'32 4.11337 AU -12077 Oct 04 j 02:03 30°R≈ direct -12071 Jun 23 j 14:45 2°**Ω**01'15 opposition -12077 Nov 09 j 15:25 25°≈58'53 0°11'10 -12071 Sep 29 j 15:12 15°**Ω** min. Earth dist. -12077 Nov 10 j 06:26 25°≈54'01 4.31794 AU desc. node -12071 Oct 15 j 02:24 18° Ω 28'31 -12076 Jan 10 j 19:06 20°≈56'22 -12071 Oct 24 j 14:07 20° **Ω**40'04 direct evening set -12076 Apr 03 j 22:44 0°**∀** evening set -12076 May 18 j 00:53 9°**₩**10'30 conjunction -12071 Nov 06 j 20:35 23° Ω 46'15 -0°03'39 minimum elong -12071 Nov 06 j 20:36 23° Ω 46'16 0°03'13 conjunction -12076 May 30 j 21:56 12° **€** 02'30 0°36'41 behind sun begin -12071 Nov 06 j 12:24 23°**Ω**41'28 minimum elong -12076 May 30 j 21:52 12°**₭**02'28 0°36'26 behind sun end -12071 Nov 07 j 04:49 23°**Ω**51'03 max. Earth dist. -12076 May 29 j 20:24 11° **€** 48'15 6.33431 AU max. Earth dist. -12071 Nov 07 j 18:51 23°**Ω**59'17 6.08637 AU morning rise -12076 Jun 12 j 15:51 14° **H** 52'54 morning rise -12071 Nov 20 j 06:57 26° **Ω**54'29 -12076 Sep 03 j 16:51 0°Υ -12071 Dec 03 j 17:46 0° mg retrograde -12076 Oct 11 j 13:06 2° \begin{picture}(\gamma) 10'53\end{picture} retrograde -12070 Mar 31 j 18:34 16° mp 46'50 -12076 Nov 18 j 19:55 30°R ★ min. Earth dist. -12070 May 30 i 06:47 11° Mp 48'41 4.06983 AU opposition -12076 Dec 11 i 03:49 27° \times 19'04 1°29'53 opposition -12070 May 31 j 01:10 11° m 42'29 -0°52'57 min. Earth dist. -12076 Dec 11 j 22:56 27° H 12'58 4.34107 AU direct -12070 Jul 28 j 06:26 6° Mp 46'32 direct -12075 Feb 11 j 16:55 22° **₭** 19'16 evening set -12070 Nov 29 j 17:32 25° m 47'20 -12075 Apr 29 i 03:03 0°**℃** -12075 Jun 18 j 09:58 10°**Y**20'25 -12070 Dec 13 j 08:03 28° m 57'51 -1°03'06 conjunction evening set -12070 Dec 13 j 07:57 28° m 57'48 1°03'03 minimum elong -12075 Jun 30 j 22:21 13°**Υ**'08'28 1°22'46 max. Earth dist. -12070 Dec 14 j 13:15 29° m 14'56 6.06433 AU conjunction -12075 Jun 30 j 22:16 13° \(\gamma 08'25 \) 1° 22'55 -12070 Dec 17 j 18:21 0°**♀** minimum elong -12075 Jun 29 j 20:37 12°**Y**54'03 6.33553 AU -12070 Dec 27 j 01:07 2°**೨**09'44 max. Earth dist. morning rise -12075 Jul 13 j 08:48 15° Υ 55'35 -12069 May 06 j 17:08 22°**♀**00'40 retrograde morning rise -12075 Sep 25 j 04:05 0°₩ -12069 Jul 04 j 09:57 17°**2**01'43 4.07255 AU min. Earth dist. -12075 Nov 12 j 19:51 3°**8**28'03 -12069 Jul 05 j 02:58 16°**♀**55'53 -2°07'46 retrograde opposition -12074 Jan 01 j 20:40 30°R**Y** -12069 Sep 01 j 10:00 11° **△**56'34 direct -12074 Jan 13 j 03:23 28°**Y**°35'37 2°22'35 -12069 Dec 31 j 19:19 0°M opposition -12074 Jan 13 j 19:31 28°**Y**30'31 4.32157 AU -12068 Jan 05 j 23:05 min. Earth dist. evening set 1°ML11'00 direct -12074 Mar 16 j 07:45 23°**Y**38'52 -12074 May 23 j 11:03 0°**8** conjunction -12068 Jan 19 j 16:16 4°ML21'17 -1°39'36 evening set -12074 Jul 19 j 09:59 11°**8**36'49 minimum elong -12068 Jan 19 j 16:11 4°ML21'14 1°39'58 max. Earth dist. -12068 Jan 20 j 16:09 4°ML35'07 6.09013 AU -12074 Jul 31 j 18:00 14°**8**24'16 1°45'00 -12068 Feb 02 j 10:10 7°MJ31'50 conjunction morning rise -12074 Jul 31 j 17:58 14°**8**24'15 1°45'29 -12068 Mar 07 j 02:43 15° M minimum elong -12074 Jul 31 j 00:25 14°8 14'18 6.29567 AU -12068 Jun 09 j 12:45 26°M53'33 max. Earth dist. retrograde -12074 Aug 03 j 08:58 15°8 -12068 Aug 07 j 11:24 21°M 50'43 -2°35'28 opposition morning rise -12074 Aug 13 j 01:39 17°**8**11'42 min. Earth dist. -12068 Aug 06 j 23:52 21°M-54'40 4.11996 AU -12074 Oct 15 i 22:03 0°**Ⅱ** direct -12068 Oct 05 j 11:12 16° ML48'20 retrograde -12074 Dec 16 j 05:39 5° II 16'50 -12067 Jan 14 i 18:16 0°**∡**7 opposition -12073 Feb 15 j 21:26 0°**I**I22'11 2°33'54 evening set -12067 Feb 10 j 21:38 6°**х** 00′09 min. Earth dist. -12073 Feb 16 j 06:50 0° **I**I 19'12 4.26467 AU conjunction -12073 Feb 18 j 19:25 30°R8 -12067 Feb 24 j 13:37 9° ₹07'06 -1°39'56 direct -12073 Apr 18 j 05:14 25°**8**28'02 minimum elong -12067 Feb 24 j 13:40 9° ₹07'07 1°40'34 -12073 Jun 13 j 00:45 0°**Ц** max. Earth dist. -12067 Feb 24 j 22:53 9° ₹ 12'23 6.15430 AU -12073 Aug 19 j 18:52 13°**Д**31'53 evening set morning rise -12067 Mar 10 j 04:26 12° ₹ 13'16 -12067 Jun 20 j 18:53 ೧೦೯ conjunction -12073 Sep 01 j 05:22 16°**Д**23'09 1°36'03 retrograde -12067 Jul 13 j 02:09 0°**る**49'15 minimum elong -12073 Sep 01 j 05:26 16°**I**I23'11 1°36'43 -12067 Aug 04 j 04:41 30°R ⊀ -12073 Aug 31 j 23:04 16°**Ⅱ**19'31 6.22607 AU -12067 Sep 09 j 23:11 25° ₹ 49'53 -2°08'43 max. Earth dist. opposition -12073 Sep 13 j 17:45 19°**Ⅲ**15'28 min. Earth dist. -12067 Sep 09 j 22:30 25° ₹ 50'07 4.19437 AU morning rise -12073 Nov 03 j 11:47 direct -12067 Nov 09 j 04:31 20°**х** 45'47 0ಂತಾ retrograde -12072 Jan 19 j 20:51 8°**©**02'55 -12066 Jan 31 j 13:45 0°₹ opposition -12072 Mar 21 j 11:11 3°904'47 1°57'25 evening set -12066 Mar 18 j 10:22 9°♂40'05 min. Earth dist. -12072 Mar 21 j 09:16 3°505'24 4.18691 AU -12072 Apr 16 j 09:00 30°RⅡ conjunction -12066 Mar 31 j 22:37 12°♂42'19 -1°06'20 direct -12072 May 20 j 13:15 28°**Ⅲ**11'49 minimum elong -12066 Mar 31 j 22:43 12°₹42'22 1°07'02 -12072 Jun 23 j 08:30 0°€ max. Earth dist. -12066 Mar 31 j 16:40 12°₹38'58 6.23352 AU -12072 Sep 20 j 07:10 16°529'56 -12066 Apr 14 j 07:52 15° ₹42'58 evening set morning rise

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12066 in astronomical counting style is the year 12067 BCE in historical counting style. -12066 Jun 27 i 06:23 0°≈ morning rise -12061 Sep 18 і 06:59 23° Д56'54 -12066 Aug 14 j 09:52 -12061 Oct 15 j 12:13 0°5 retrograde 3°≈34'29 -12060 Jan 24 j 21:11 12°550'59 -12066 Oct 02 j 09:02 30°R궁 retrograde opposition -12066 Oct 12 j 17:24 28°₹38'52 -1°01'15 opposition -12060 Mar 26 j 09:03 7°552'26 1°48'42 -12066 Oct 13 j 01:55 28° 336'03 4.27048 AU 4.17478 AU min. Earth dist. min. Earth dist. -12060 Mar 26 j 06:15 7°553'20 direct -12066 Dec 13 j 02:48 23°♂34'54 direct -12060 May 25 j 07:12 2°559'36 -12065 Feb 19 j 23:27 0°≈ evening set -12060 Sep 25 j 00:06 21°520'41 evening set -12065 Apr 21 j 04:54 12°≈06'08 conjunction -12060 Oct 07 j 21:10 24°520'26 0°48'43 conjunction -12065 May 04 j 09:53 15°≈02'48 -0°12'33 minimum elong -12060 Oct 07 j 21:15 24°\$20'29 0°49'22 minimum elong -12065 May 04 j 09:54 15°≈02'49 0°13'04 max. Earth dist. -12060 Oct 08 j 08:41 24°527'08 6.13720 AU -12065 May 04 j 05:04 15°≈00'07 behind sun begin morning rise -12060 Oct 20 j 21:45 27°522'06 behind sun end -12065 May 04 j 14:44 15°≈05'30 -12060 Nov 01 j 09:16 $0^{\circ}\Omega$ max. Earth dist. -12065 May 03 j 13:29 14°≈51'24 6.30150 AU -12059 Jan 24 j 04:16 15°**Ω** -12065 May 04 j 04:51 15°≈ retrograde -12059 Feb 28 j 15:23 16° **Ω**54'25 morning rise -12065 May 17 j 11:32 17°≈57'41 -12059 Apr 05 j 00:04 15°R**Ω** -12065 Jul 16 j 18:05 0°**∀** opposition -12059 Apr 30 j 15:06 11°**Ω**52'15 0°27'34 asc. node -12065 Jul 29 j 19:52 1°**¥**56'54 min. Earth dist. -12059 Apr 30 j 01:11 11°Ω56'51 4.10566 AU retrograde -12065 Sep 15 j 04:58 5°**₩**21'11 direct -12059 Jun 28 j 09:57 $6^{\circ}\Omega$ 58'32 opposition -12065 Nov 14 j 03:46 0° \(28'21 \) 0°22'56 desc. node -12059 Aug 25 j 01:06 $12^{\circ}\Omega$ 05'15 min. Earth dist. -12065 Nov 14 j 20:40 0° ★22'53 4.32457 AU -12059 Sep 10 j 09:56 15° Ω -12065 Nov 17 j 19:28 30°R≈ evening set -12059 Oct 29 j 13:22 $25^{\circ}\Omega 40'09$ direct -12064 Jan 15 j 11:06 25°≈26'09 -12064 Mar 12 i 22:46 0°**米** conjunction -12059 Nov 11 j 21:20 $28^{\circ}\Omega47'09$ -0°12'30 evening set -12064 May 22 j 10:37 13° **€** 37'39 minimum elong -12059 Nov 11 j 21:19 $28^{\circ}\Omega47'08$ $0^{\circ}12'06$ max. Earth dist. -12064 Jun 03 j 04:38 16° **★** 14'34 6.33757 AU behind sun begin -12059 Nov 11 j 15:45 $28^{\circ}\Omega 43'53$ -12059 Nov 12 j 02:53 28° **Ω**50'23 behind sun end -12064 Jun 04 j 06:28 16°\\$28'59 0°44'05 max. Earth dist. -12059 Nov 12 j 22:43 29°**Ω**02'01 conjunction 6.08250 AU -12064 Jun 04 j 06:24 16° **¥** 28'56 0°43'53 -12059 Nov 17 j 01:46 0° Mp minimum elong -12064 Jun 16 j 23:08 19° **€** 18'45 -12059 Nov 25 j 08:47 1° m 56'03 morning rise morning rise -12064 Aug 08 j 09:39 0°**℃** -12058 Apr 05 j 20:39 21° Mp 48'57 retrograde -12064 Oct 15 j 22:27 6° **Y** 37'23 opposition -12058 Jun 04 j 23:38 16° m 44'24 -1°05'14 retrograde -12064 Dec 15 j 16:51 1° **Y**45'36 1° 39'10 min. Earth dist. -12058 Jun 04 j 05:25 16° Mp 50'34 4.07038 AU opposition min. Earth dist. -12064 Dec 16 j 11:16 1° **Y**39'44 4.34096 AU -12058 Aug 02 j 05:29 11° Mp 48'03 direct -12064 Dec 29 j 20:10 30°R ₩ -12058 Dec 01 j 06:29 0°**♀** -12063 Feb 16 j 04:48 26° ¥ 46'14 -12058 Dec 04 j 20:53 0°**⊆**50'01 direct evening set -12063 Apr 04 j 23:22 0°**℃** evening set -12063 Jun 22 j 17:39 14°**Υ**46'32 conjunction -12058 Dec 18 j 11:55 4°**£**00'32 -1°09'56 max. Earth dist. -12063 Jul 04 j 04:05 17°**Υ**20'14 6.33194 AU minimum elong -12058 Dec 18 j 11:49 4°**£**00'28 1°09'58 max. Earth dist. -12058 Dec 19 j 17:15 4°**2**17'38 6.06904 AU conjunction -12063 Jul 05 j 05:03 17°**Y**34'16 1°27'30 morning rise -12057 Jan 01 j 05:26 7°**♀**12'17 -12063 Jul 05 j 04:57 17°**Y**°34'13 1°27'41 -12057 May 11 j 13:03 26° **2**58'55 minimum elong retrograde -12063 Jul 17 j 14:42 20°**Υ**21'11 -12057 Jul 09 j 22:02 21°**2**54'14 -2°14'40 morning rise opposition -12063 Sep 01 j 21:08 0°8 min. Earth dist. -12057 Jul 09 j 04:33 22°**2**00'13 4.08123 AU -12063 Nov 17 j 10:24 7°**8**57'27 -12057 Sep 06 j 06:00 16° **2**54'27 retrograde direct -12062 Jan 17 j 18:48 3°804'55 2°26'53 opposition -12057 Dec 14 i 16:36 0° M min. Earth dist. evening set -12056 Jan 11 j 01:48 6°**™**07'39 -12062 Feb 13 i 03:48 30° R**°**Y direct -12062 Mar 20 j 21:55 28° Υ 08'36 conjunction -12056 Jan 24 j 18:49 9°ML17'19 -1°41'50 -12062 Apr 25 j 07:33 0°8 minimum elong -12056 Jan 24 i 18:45 9°ML17'17 1°42'16 -12062 Jul 18 j 18:16 15°8 max. Earth dist. -12056 Jan 25 j 16:19 9°M29'44 6.10166 AU -12062 Jul 23 j 18:04 16°807'19 -12056 Feb 07 j 12:23 12°M27'08 evening set morning rise max. Earth dist. -12062 Aug 04 j 08:27 18°845'09 6.28615 AU -12056 Feb 18 j 17:25 15°M -12056 May 12 j 19:39 0° ⊀ conjunction retrograde -12056 Jun 14 j 04:01 1°×741'30 -12056 Jul 16 j 04:41 30° RML minimum elong -12062 Aug 17 j 09:58 21°**8**43'02 morning rise opposition -12056 Aug 12 j 02:07 26°M 39'01 -2°34'47 -12062 Sep 24 j 23:09 0°**Ⅱ** min. Earth dist. -12056 Aug 11 j 16:55 26°ML42'10 4.13309 AU -12062 Dec 20 j 23:33 9°**Д**54'12 direct -12056 Oct 10 j 06:50 21°M36'15 retrograde -12061 Feb 20 j 16:00 4°**I**59'10 2°31'41 opposition -12056 Dec 26 j 23:36 0° ₹ -12055 Feb 15 j 19:21 10° ₹ 44'51 min. Earth dist. -12061 Feb 20 j 23:14 4°**Д**56'52 4.25317 AU evening set direct -12061 Apr 22 j 18:47 0°**Д**05'18 evening set -12061 Aug 24 j 05:58 18°**Ⅲ**11'19 conjunction -12055 Mar 01 j 11:04 13° ₹ 51'04 -1°37'06 minimum elong -12055 Mar 01 j 11:08 13° ₹ 51'07 1°37'46 conjunction -12061 Sep 05 j 17:34 21°**Д**03'33 1°32'12 max. Earth dist. -12055 Mar 01 j 18:50 13°**尽**55'30 6.16787 AU minimum elong -12061 Sep 05 j 17:38 21°**Д**03'35 1°32'53 -12055 Mar 15 j 01:05 16° ₹ 56'21 morning rise

-12055 May 18 j 08:59 0°る

max. Earth dist.

-12061 Sep 05 j 14:40 21°**Д**01'52 6.21378 AU

Planetary Pheno	omena of Jupiter fro	m -12400	through -11898	8 (UT), Astrodier	nst AG 18-Feb-2025	14:23,	page 31
•	ical year style is used: The		•				le.
retrograde	-12055 Jul 17 j 11:10	-		opposition	-12049 Feb 25 j 12:46	9° Ⅱ 40'31	
opposition	-12055 Sep 14 j 09:57		-2°01'28	min. Earth dist.	-12049 Feb 25 j 18:58		4.24029 AU
min. Earth dist.	-12055 Sep 14 j 10:24		4.20705 AU	direct	-12049 Apr 27 j 12:13		1.2 1027 710
iiiii. Lattii dist.			4.20703 AU				
	-12055 Sep 17 j 15:09			evening set	-12049 Aug 28 j 19:16	22°Щ33′09	
direct	-12055 Nov 13 j 18:47					_	
	-12054 Jan 09 j 14:32			conjunction	-12049 Sep 10 j 07:52		
evening set	-12054 Mar 23 j 01:49	14° る 12'32		minimum elong	-12049 Sep 10 j 07:57		1°28'21
				max. Earth dist.	-12049 Sep 10 j 07:02	25° Ⅱ 47'52	6.20175 AU
conjunction	-12054 Apr 05 j 13:09	17° る 14'00	-0°59'54	morning rise	-12049 Sep 22 j 22:46	28° Ⅱ 42'51	
minimum elong	-12054 Apr 05 j 13:14	17° る 14'03	1°00'34		-12049 Sep 28 j 13:51	0°ಅ	
max. Earth dist.	-12054 Apr 05 j 02:49	17° ප 08'11	6.24425 AU	retrograde	-12048 Jan 29 j 20:22		
morning rise	-12054 Apr 18 j 21:41			opposition	-12048 Mar 31 j 08:13		1°39'02
morning not	-12054 Jun 04 j 13:26	0°≈		min. Earth dist.	-12048 Mar 31 j 02:17		4.16447 AU
ratra ara da	·	8°≈00'36		direct			4.10447 210
retrograde	-12054 Aug 18 j 18:05		0050120		-12048 May 30 j 01:15		
opposition	-12054 Oct 17 j 02:33	3°≈05'26		evening set	-12048 Sep 29 j 18:36	26 2014 05	
min. Earth dist.	-12054 Oct 17 j 13:45		4.27828 AU				
	-12054 Nov 11 j 09:37	30°R℃		conjunction	-12048 Oct 12 j 17:18		0°40'42
direct	-12054 Dec 17 j 16:39	28° る 01'32		minimum elong	-12048 Oct 12 j 17:22	29° © 14'56	0°41'20
	-12053 Jan 23 j 06:54	0° ≈		max. Earth dist.	-12048 Oct 13 j 08:28	29° © 23'44	6.12944 AU
	-12053 Apr 18 j 19:03	15° ≈			-12048 Oct 15 j 22:37	$0^{\circ}\Omega$	
evening set	-12053 Apr 25 j 15:02			morning rise	-12048 Oct 25 j 19:23		
					-12048 Dec 25 j 06:53		
conjunction	-12053 May 08 j 19:05	1000026127	0004145	retrograde	-12047 Mar 05 j 18:20		
,	, ,			•	3		001.410.5
minimum elong	-12053 May 08 j 19:06		0°05'14	opposition	-12047 May 05 j 14:57		
behind sun begin	-12053 May 08 j 11:15			min. Earth dist.	-12047 May 05 j 00:36		4.10076 AU
behind sun end	-12053 May 09 j 02:56	19° ≈ 30'49			-12047 May 19 j 20:59	15°R Ω	
max. Earth dist.	-12053 May 07 j 21:58	19° ≈ 14'40	6.30580 AU	direct	-12047 Jul 03 j 08:22	11° Ω 56′37	
morning rise	-12053 May 21 j 19:29	22° ≈ 20'42		desc. node	-12047 Jul 05 j 04:11	11° Ω 56′58	
asc. node	-12053 Jun 10 j 03:33	26° ≈ 33'38			-12047 Aug 16 j 00:14	15° Ω	
	-12053 Jun 26 j 20:58	0°) €			-12047 Oct 31 j 16:07		
retrograde	-12053 Sep 19 j 11:20	9°) (43'15		evening set	-12047 Nov 03 j 13:19		
opposition	-12053 Nov 18 j 13:15	4°) (50'40	0°34'11	evening see	12017 1107 03 j 13.17	0 10 10 10	
min. Earth dist.	-12053 Nov 19 j 06:14		4.32525 AU	conjunction	-12047 Nov 16 j 22:26	3° m 47'45	0°21'10
iiiii. Eartii dist.			4.32323 AU	v		~	
	-12052 Jan 08 j 18:39			minimum elong	-12047 Nov 16 j 22:24	3° Mp 47'44	
direct	-12052 Jan 19 j 20:45			max. Earth dist.	-12047 Nov 18 j 00:51	4°Mp03′12	6.08068 AU
	-12052 Jan 31 j 00:11	0° ∀		morning rise	-12047 Nov 30 j 11:08	6°Mp57'14	
evening set	-12052 May 26 j 18:20	17°) ₹ 59'48		retrograde	-12046 Apr 10 j 20:38	26° Mp 49′48	
max. Earth dist.	-12052 Jun 07 j 09:26	20°) 35′22	6.33449 AU	opposition	-12046 Jun 09 j 21:34	21° m 45'07	-1°17'04
				min. Earth dist.	-12046 Jun 09 j 02:21	21° m 51'38	4.07198 AU
conjunction	-12052 Jun 08 j 12:51	20° ¥ 50'42	0°51'02	direct	-12046 Aug 07 j 02:00		
minimum elong	-12052 Jun 08 j 12:46				-12046 Nov 14 j 02:37		
morning rise	-12052 Jun 21 j 04:35		0 2021	evening set	-12046 Dec 10 j 00:28		
morning rise	=			evening set	-12040 Dec 10 J 00.28	3 = 31 33	
	-12052 Jul 20 j 15:47				10046 D 20:15.56	00.0.00101	1017110
retrograde	-12052 Oct 20 j 10:26			conjunction	-12046 Dec 23 j 15:56		
opposition	-12052 Dec 20 j 05:14		1°47'45	minimum elong	-12046 Dec 23 j 15:50		
min. Earth dist.	-12052 Dec 21 j 00:40	6° Ƴ 03'41	4.33454 AU	max. Earth dist.	-12046 Dec 24 j 20:06	9° ≏ 18'26	6.07363 AU
direct	-12051 Feb 20 j 17:11	1° Ƴ 10'52		morning rise	-12045 Jan 06 j 09:42	12° ≏ 13'36	
evening set	-12051 Jun 27 j 00:53	19° Ƴ 12'16			-12045 Apr 11 j 11:35	0° M.	
max. Earth dist.	-12051 Jul 08 j 11:36		6.32250 AU	retrograde	-12045 May 16 j 09:42		
	,			-	-12045 Jun 19 j 22:45		
conjunction	-12051 Jul 09 j 11:39	22° ℃ ∩∩'∩2	1°31'40	opposition	-12045 Jul 14 j 16:55		-2°20'43
-	-12051 Jul 09 j 11:34			* *	-		
minimum elong			1 31 34	min. Earth dist.	-12045 Jul 14 j 00:57		4.00044 AU
morning rise	-12051 Jul 21 j 20:47			direct	-12045 Sep 11 j 03:48		
	-12051 Aug 14 j 17:58				-12045 Nov 25 j 09:16		
retrograde	-12051 Nov 22 j 00:57			evening set	-12044 Jan 16 j 04:48	11°ML04'27	
opposition	-12050 Jan 22 j 11:15	7° 8 36'13	2°30'17				
min. Earth dist.	-12050 Jan 23 j 01:27	7° 8 31'44	4.30335 AU	conjunction	-12044 Jan 29 j 21:55	14°ML13'42	-1°43'25
direct	-12050 Mar 25 j 09:47			minimum elong	-12044 Jan 29 j 21:53		
	-12050 Jul 02 j 06:35			max. Earth dist.	-12044 Jan 30 j 18:44		
evening set	-12050 Jul 28 j 03:20			dibt.	-12044 Feb 02 j 06:16		
evening set	12000 Jul 20 J 03.20	20 04103		morning ris-	-		
	10050 : 0555	anot ta	1045115	morning rise	-12044 Feb 12 j 15:01		
conjunction	-12050 Aug 09 j 11:21		1°45'42		-12044 Apr 13 j 04:14		
minimum elong	-12050 Aug 09 j 11:21			retrograde	-12044 Jun 18 j 19:56		
max. Earth dist.	-12050 Aug 08 j 20:44	23° 8 21'01	6.27355 AU	opposition	-12044 Aug 16 j 17:38	1° ≯ 29'00	-2°33'09
morning rise	-12050 Aug 21 j 19:41	26° 8 17'57		min. Earth dist.	-12044 Aug 16 j 09:26	1° ₹ ³31'48	4.14354 AU
	-12050 Sep 07 j 09:43				-12044 Aug 27 j 18:24		
retrograde	-12050 Dec 25 j 21:39			direct	-12044 Oct 15 j 01:10		
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Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 32 Attention, astronomical year style is used: The year -12044 in astronomical counting style is the year 12045 BCE in historical counting style.

Attention, astronom	ical year style is used: The	e year -12044	in astronomical co	ounting style is the year	r 12045 BCE in historical	counting styl	le.
	-12044 Dec 02 j 13:24	0° ∡ ¹		max. Earth dist.	-12038 Aug 13 j 08:17	27° 8 56'41	6.26601 AU
evening set	-12043 Feb 20 j 18:14	15° ∡ ³32'31			-12038 Aug 22 j 08:28	$\Pi^{\circ}0$	
				morning rise	-12038 Aug 26 j 05:28	0° Ⅱ 52'51	
conjunction	-12043 Mar 06 j 09:23	18° ∡ ³38′07	-1°33'39	retrograde	-12038 Dec 30 j 15:14		
minimum elong	-12043 Mar 06 j 09:27	18° ∡ ³38′09	1°34'20	opposition	-12037 Mar 02 j 07:57		2°24'12
max. Earth dist.	-12043 Mar 06 j 12:59		6.17867 AU	min. Earth dist.	-12037 Mar 02 j 11:28		4.23238 AU
morning rise	-12043 Mar 19 j 22:57			direct	-12037 May 02 j 02:35		
	-12043 Apr 27 j 09:13			evening set	-12037 Sep 02 j 06:54		
retrograde	-12043 Jul 21 j 23:28				-12037 Sep 12 j 17:53	0	
opposition	-12043 Sep 18 j 22:56					_	
min. Earth dist.	-12043 Sep 19 j 01:33		4.21715 AU	conjunction	-12037 Sep 14 j 20:37	0°\$29'20	
direct	-12043 Nov 18 j 12:45			minimum elong	-12037 Sep 14 j 20:42		1°23'21
evening set	-12042 Mar 27 j 19:09	18° 6 50'32		max. Earth dist.	-12037 Sep 14 j 22:29	0°930'25	6.19416 AU
	10010 1 10:05 50	210751121	0050155	morning rise	-12037 Sep 27 j 12:44	3°524'43	
conjunction	-12042 Apr 10 j 05:50			retrograde	-12036 Feb 03 j 18:33		1020155
minimum elong	-12042 Apr 10 j 05:55			opposition	-12036 Apr 05 j 04:42		1°28'55
max. Earth dist.	-12042 Apr 09 j 18:40		0.23318 AU	min. Earth dist.	-12036 Apr 04 j 22:06		4.13/43 AU
morning rise	-12042 Apr 23 j 13:15			direct	-12036 Jun 03 j 19:38 -12036 Sep 30 j 01:05	12° 23 023	
retrograde	-12042 May 17 j 04:50 -12042 Aug 23 j 03:36			evening set	-12036 Sep 30 j 01:03 -12036 Oct 04 j 10:40		
opposition	-12042 Aug 23 j 03:30 -12042 Oct 21 j 14:11		0°38'53	evening set	-12030 Oct 04 j 10.40	1 060101	
min. Earth dist.	-12042 Oct 21 j 14:11 -12042 Oct 22 j 02:02		4.28525 AU	conjunction	-12036 Oct 17 j 10:48	4° Ω 02'43	0.33,38
direct	-12042 Oct 22 j 02:02 -12042 Dec 22 j 06:38		4.26323 AU	minimum elong	-12036 Oct 17 j 10:48		
direct	-12042 Dec 22 j 00:38 -12041 Apr 02 j 03:09			max. Earth dist.	-12036 Oct 17 j 10:32 -12036 Oct 18 j 03:31		6.12370 AU
asc. node	-12041 Apr 20 j 02:04			morning rise	-12036 Oct 30 j 14:30		0.12370710
evening set	-12041 Apr 30 j 03:46			morning rise	-12036 Dec 05 j 03:28		
max. Earth dist.	-12041 May 12 j 06:37		6.31034 AU	retrograde	-12035 Mar 10 j 15:58		
max. Earth dist.	12011 May 12 J 00.37	25 74 15 51	0.51051110	opposition	-12035 May 10 j 10:50		0°01'31
conjunction	-12041 May 13 j 06:29	23°≈56'51	0°03'26	min. Earth dist.	-12035 May 09 j 19:08		4.09681 AU
minimum elong	-12041 May 13 j 06:28		0°03'00	desc. node	-12035 May 16 j 19:34		
behind sun begin	-12041 May 12 j 22:25			direct	-12035 Jul 08 j 01:14		
behind sun end	-12041 May 13 j 14:32				-12035 Oct 15 j 00:55		
morning rise	-12041 May 26 j 05:53			evening set	-12035 Nov 08 j 10:41		
•	-12041 Jun 09 j 15:31			•	v	•	
retrograde	-12041 Sep 23 j 22:41			conjunction	-12035 Nov 21 j 20:53	8° Mp 40'49	-0°29'45
opposition	-12041 Nov 23 j 01:44	9°) 19'48	0°45'33	minimum elong	-12035 Nov 21 j 20:49	8° Mp 40'47	0°29'28
min. Earth dist.	-12041 Nov 23 j 19:59	9°) 13′55	4.32720 AU	max. Earth dist.	-12035 Nov 22 j 23:11	8° Mp 56'12	6.07873 AU
direct	-12040 Jan 24 j 11:00	4°) 18′16		morning rise	-12035 Dec 05 j 10:33	11° m 50'46	
evening set	-12040 May 31 j 03:43	22° ∺ 28′06			-12034 Mar 13 j 14:34	0∘ ⊽	
				retrograde	-12034 Apr 15 j 17:37	1° ≏ 43′08	
conjunction	-12040 Jun 12 j 21:11	25° ∺ 18'31	0°57'54		-12034 May 18 j 12:07	30°R Mp	
minimum elong	-12040 Jun 12 j 21:06		0°57'49	opposition	-12034 Jun 14 j 16:04	•	
max. Earth dist.	-12040 Jun 11 j 19:05		6.33375 AU	min. Earth dist.	-12034 Jun 13 j 21:36	26° Mp 44'34	4.07217 AU
morning rise	-12040 Jun 25 j 11:41			direct	-12034 Aug 11 j 21:06	-	
	-12040 Jul 03 j 23:20				-12034 Oct 26 j 07:50		
retrograde	-12040 Oct 24 j 21:50			evening set	-12034 Dec 15 j 01:22	10° ≏ 46'11	
opposition	-12040 Dec 24 j 19:39		1°55'55				
min. Earth dist.	-12040 Dec 25 j 13:40		4.33155 AU	conjunction	-12034 Dec 28 j 17:26		
direct	-12039 Feb 25 j 05:13			minimum elong	-12034 Dec 28 j 17:20		
evening set	-12039 Jul 01 j 09:23	23 14159		max. Earth dist.	-12034 Dec 29 j 21:41		6.0/584 AU
	12020 1-1 12:10.15	2600020124	1025124	morning rise	-12033 Jan 11 j 11:18		
conjunction	-12039 Jul 13 j 19:15		1°35'24		-12033 Mar 13 j 14:45	0°M	
minimum elong	-12039 Jul 13 j 19:10		1°35'41	retrograde	-12033 May 21 j 04:32	6°M47'48	2025140
max. Earth dist.	-12039 Jul 12 j 19:50 -12039 Jul 26 j 03:56		6.31746 AU	opposition min. Earth dist.	-12033 Jul 19 j 09:24	1°M43'34	4.09269 AU
morning rise	-			min. Earth dist.	-12033 Jul 18 j 18:24		4.09269 AU
	-12039 Jul 29 j 09:34 -12039 Oct 20 j 16:35			direct	-12033 Aug 01 j 06:08 -12033 Sep 15 j 21:19		
retrograde	-12039 Oct 20 j 16.33 -12039 Nov 26 j 18:04			ance	-12033 Sep 13 j 21.19 -12033 Oct 31 j 14:49	0°M	
iciogiauc	-12039 Nov 26 j 18.04 -12038 Jan 03 j 03:57				-12033 Oct 31 j 14.49 -12032 Jan 17 j 03:04		
opposition	-12038 Jan 27 j 04:22		2°32'51	evening set	-12032 Jan 17 J 05:04 -12032 Jan 21 j 06:10		
min. Earth dist.	-12038 Jan 27 j 18:09		4.29677 AU	evening set	12032 Jan 21 J 00.10	100001	
direct	-12038 Mar 30 j 01:08	7° 8 14'08	1.27077110	conjunction	-12032 Feb 03 j 23:03	19°M.05'27	-1°44'14
311001	-12038 Jun 13 j 16:22			minimum elong	-12032 Feb 03 j 23:02		1°44'44
evening set	-12038 Aug 01 j 12:24			max. Earth dist.	-12032 Feb 04 j 16:02		6.11654 AU
	1105 VI J 12.27			morning rise	-12032 Feb 17 j 16:01		
conjunction	-12038 Aug 13 j 20:41	28° 8 03'46	1°45'07	<i>5</i> - <i>r</i>	-12032 Mar 23 j 23:49		
minimum elong	-12038 Aug 13 j 20:42			retrograde	-12032 Jun 23 j 10:42		
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Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12032 in astronomical counting style is the year 12033 BCE in historical counting style. -12032 Aug 21 j 08:06 6° ₹ 15'51 -2°30'32 evening set -12026 Aug 05 j 20:40 29°**8**46'45 opposition min. Earth dist. -12032 Aug 21 j 01:28 6° ₹ 18'07 4.15017 AU -12026 Aug 06 j 20:01 0°**Ⅱ** -12032 Oct 19 j 19:41 1° ₹ 12'32 direct -12031 Feb 25 j 16:31 20° **₹**18'17 -12026 Aug 18 j 05:07 2°**Ⅱ**35'50 evening set conjunction 1°43'55 -12026 Aug 18 j 05:08 2°**Ⅲ**35′50 1°44'31 minimum elong -12031 Mar 11 j 07:26 23° ₹23'28 -1°29'33 -12026 Aug 17 j 17:45 2°**Ⅱ**29'20 6.25859 AU conjunction max. Earth dist. -12031 Mar 11 j 07:31 23° ₹23'31 1°30'16 minimum elong morning rise -12026 Aug 30 j 14:32 5°**Ⅲ**25'30 max. Earth dist. -12025 Jan 04 j 10:32 23°**Д**53'37 -12031 Mar 11 j 09:52 23°**尽** 24'51 6.18603 AU retrograde morning rise -12031 Mar 24 j 20:13 26° ₹27'29 opposition -12025 Mar 07 j 02:28 18°**I**57'08 2°19'11 -12031 Apr 09 j 18:13 0°궁 min. Earth dist. -12025 Mar 07 j 05:22 18°**Д**56'12 4.22335 AU -12031 Jul 26 j 12:30 14°₹44'42 retrograde direct -12025 May 06 j 18:29 14°**Д**03'53 -12031 Sep 23 j 12:02 9°₹46'59 -1°44'36 opposition -12025 Aug 27 j 22:54 0 \circ \odot -12031 Sep 23 j 15:54 9°**정**45'42 4.22448 AU min. Earth dist. evening set -12025 Sep 06 j 18:15 2°9514'13 direct -12031 Nov 23 j 05:19 4°₹42'43 evening set -12030 Apr 01 j 12:52 23°₹28'52 conjunction -12025 Sep 19 j 09:15 5°99'12 1°17'09 minimum elong -12025 Sep 19 j 09:20 5°99'15 1°17'51 conjunction -12030 Apr 14 j 22:38 26° ₹29'07 -0°45'38 max. Earth dist. -12025 Sep 19 j 13:16 5°9311'31 6.18448 AU 8°905'39 minimum elong -12030 Apr 14 j 22:42 26°る29'09 0°46'17 morning rise -12025 Oct 02 j 02:47 max. Earth dist. -12030 Apr 14 j 08:41 26°る21'17 6.26002 AU retrograde -12024 Feb 08 j 15:42 27°515'08 morning rise -12030 Apr 28 j 05:15 29°る27'39 opposition -12024 Apr 10 j 00:38 22°5014'59 -12030 Apr 30 j 15:21 0°≈ min. Earth dist. -12024 Apr 09 j 16:33 22°517'37 4.14778 AU -12030 Jul 21 j 23:53 15°≈ direct -12024 Jun 08 j 11:15 17°521'58 retrograde -12030 Aug 27 j 14:54 17°≈06'51 -12024 Sep 13 i 09:15 $0^{\circ}\Omega$ -12030 Oct 03 j 10:26 15°R≈ evening set -12024 Oct 09 j 03:40 5°**Ω**49'22 opposition -12030 Oct 26 j 03:04 12°≈12'34 -0°27'06 min. Earth dist. -12030 Oct 26 j 15:54 12°≈08'21 4.29111 AU conjunction -12024 Oct 22 j 05:15 $8^{\circ}\Omega$ 52'07 0° 24'19 -12030 Dec 26 j 22:20 7°≈09'05 -12024 Oct 22 j 05:18 $8^{\circ}\Omega$ 52'09 0°24'54 direct minimum elong -12029 Feb 27 j 22:57 12°≈35'28 max. Earth dist. -12024 Oct 22 j 22:49 9° **Ω**02'22 6.11494 AU asc node -12029 Mar 14 j 05:32 15°≈ -12024 Nov 04 j 10:34 11° **Ω**56'53 morning rise -12029 May 04 j 16:50 25°≈33'35 -12024 Nov 17 j 18:10 15°Ωevening set -12023 Feb 10 j 21:59 0° mg -12029 May 17 j 18:25 28°≈28'16 0°11'32 -12023 Mar 15 j 16:01 1° Mp 38'46 conjunction retrograde -12029 May 17 j 18:24 28°≈28'16 0°11'09 -12023 Mar 27 j 21:21 1° m 24'19 desc. node minimum elong -12029 May 17 j 12:24 28°≈24'56 -12023 Apr 17 j 03:40 30°RΩ behind sun begin -12029 May 18 j 00:23 28°≈31'36 -12023 May 15 j 07:42 $26^{\circ}\Omega$ 35'21 -0°11'30 behind sun end opposition -12029 May 16 j 19:23 28°≈15'24 6.31495 AU min. Earth dist. -12023 May 14 j 15:41 $26^{\circ}\Omega$ 40'42 4.08952 AU max. Earth dist. -12029 May 24 j 14:36 0°**米** -12023 Jul 12 j 20:09 21° Ω 40'38 direct morning rise -12029 May 30 j 16:26 1°**米**21'11 -12023 Sep 26 j 04:57 0° Mg retrograde -12029 Sep 28 j 09:08 18° \(\frac{1}{4}\)1'51 evening set -12023 Nov 13 j 09:55 10° m 29'50 opposition -12029 Nov 27 j 15:02 13°\dagger449'43 0°56'45 min. Earth dist. -12029 Nov 28 j 08:57 13° **★** 43'58 4.33024 AU conjunction -12023 Nov 26 j 21:23 13° m 38'41 -0°38'05 -12028 Jan 29 j 00:45 8° **∺**48'38 minimum elong -12023 Nov 26 j 21:18 13° m/38'39 0°37'52 direct -12028 Jun 04 j 13:33 26° **∺** 56'35 max. Earth dist. -12023 Nov 28 j 01:22 13° m 55'04 6.07361 AU evening set max. Earth dist. -12028 Jun 16 j 02:32 29° **∺** 31'13 6.33471 AU morning rise -12023 Dec 10 j 11:58 16° Mp 49'15 -12022 Feb 11 j 03:07 0°**♀** -12028 Jun 17 i 05:35 29° \ 46'22 1°04'28 -12022 Apr 20 j 17:31 6°**2**42'27 conjunction retrograde -12028 Jun 17 i 05:30 29° **)** 46'19 -12022 Jun 19 j 12:37 1°**2**37'34 -1°38'39 minimum elong 1°04'25 opposition -12028 Jun 18 i 05:57 0°**Υ** min. Earth dist. -12022 Jun 18 j 18:29 1° **2**43'44 4.06986 AU $-12028 \text{ Jun } 29 \text{ j } 19:10 \quad 2^{\circ} \Upsilon 34'53$ morning rise -12022 Jul 01 i 16:48 30°R Mp retrograde -12028 Oct 29 i 11:07 20° Υ'00'02 direct -12022 Aug 16 j 16:40 26° m 39'50 opposition -12028 Dec 29 j 10:16 15° \(\gamma 08'09 \) 2\(^{\circ}03'25 \) -12022 Oct 01 j 08:51 0° **♀** min. Earth dist. -12028 Dec 30 j 04:21 15° Υ 02'24 4.33040 AU -12022 Dec 20 j 05:28 15° **2**48'03 evening set direct -12027 Mar 01 j 19:29 10°**Y**10'03 -12027 Jul 05 j 17:08 28° \begin{pmatrix} \gamma \text{10'05} \end{pmatrix} evening set conjunction -12021 Jan 02 j 21:47 18°**♀**58'42 -1°27'10 -12027 Jul 13 j 20:39 0°8 minimum elong -12021 Jan 02 j 21:40 18°**♀**58'38 1°27'22 -12027 Jul 17 j 05:27 0°845'37 6.31400 AU max. Earth dist. max. Earth dist. -12021 Jan 03 j 23:40 19°**2**13'45 6.07620 AU morning rise -12021 Jan 16 j 15:59 22°**♀**10'12 -12027 Jul 18 j 02:30 0°857'30 1°38'35 -12021 Feb 20 j 22:10 0°M conjunction -12027 Jul 18 j 02:27 0°**8**57'28 retrograde minimum elong 1°38'56 -12021 May 26 j 00:52 11° ML47'07 -12027 Jul 30 j 10:39 3°**8**44'27 -12021 Jul 24 j 04:28 morning rise opposition 6°M43'08 -2°29'43 -12027 Sep 23 j 09:28 15°8 -12021 Jul 23 j 14:04 min. Earth dist. 6°M48'05 4.09579 AU retrograde -12027 Dec 01 j 07:58 21°**8**34'20 direct -12021 Sep 20 j 18:55 1°M42'01 opposition -12026 Jan 31 j 20:46 16°**8**40'54 2°34'30 -12021 Dec 30 j 18:20 15°M min. Earth dist. -12026 Feb 01 j 08:55 16°**8**37'03 4.29122 AU evening set -12020 Jan 26 j 10:29 20°M 56'40 -12026 Feb 14 j 10:18 15°R direct -12026 Apr 03 j 14:04 11°**8**45'47 -12020 Feb 09 j 03:27 24°ML05'22 -1°44'21 conjunction

-12020 Feb 09 j 03:27 24°ML05'22 1°44'53

minimum elong

-12026 May 20 j 15:47 15°8

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12020 in astronomical counting style is the year 12021 BCE in historical counting style. -12020 Feb 09 j 19:49 24° ML14'47 6.12224 AU max. Earth dist. -12014 Jul 22 j 05:18 -12020 Feb 22 j 19:55 27°ML13'43 -12014 Aug 10 j 02:47 4°**Ⅱ**12'52 morning rise evening set -12020 Mar 06 j 02:10 0° ₹ -12020 Jun 28 j 05:53 16°**√**11'38 -12014 Aug 22 j 11:49 7°**I**102'27 1°42'07 retrograde conjunction -12020 Aug 26 j 01:34 11° ₹ 10'39 -2°26'49 -12014 Aug 22 j 11:52 7°**Ⅱ**02'29 1°42'45 opposition minimum elong -12014 Aug 22 j 02:32 6°**Ⅱ**57'08 min. Earth dist. -12020 Aug 25 j 20:26 11°**又** 12'24 4.15789 AU max. Earth dist. 6.25114 AU -12020 Oct 24 j 16:58 6°**尽** 07'09 -12014 Sep 03 j 21:48 9°**Д**52'42 direct morning rise -12019 Mar 02 j 17:10 25° ₹ 11'18 -12013 Jan 09 j 02:26 28°**Ц**25'55 evening set retrograde opposition -12013 Mar 11 j 18:39 23°**Ⅱ**29'01 2°13'24 conjunction -12019 Mar 16 j 07:33 28° ₹ 15'56 -1°24'48 min. Earth dist. -12013 Mar 11 j 20:36 23°**Д**28'23 4.21359 AU minimum elong -12019 Mar 16 j 07:39 28° ₹ 15'59 1°25'29 direct -12013 May 11 j 06:43 18°**Ⅲ**35'54 -12019 Mar 16 j 07:45 28° ₹ 16'03 6.19534 AU max. Earth dist. -12013 Aug 11 j 13:19 0ಂತಾ -12019 Mar 23 j 23:14 0°ਰ -12013 Sep 11 j 04:05 evening set 6°5548'12 morning rise -12019 Mar 29 j 19:45 1°**る**19'19 retrograde -12019 Jul 31 j 02:14 19°る30'44 conjunction -12013 Sep 23 j 20:14 9°**5**644'12 1°11'17 opposition -12019 Sep 28 j 03:42 14°₹33'29 -1°34'59 minimum elong -12013 Sep 23 j 20:20 9°**©**44'15 1°11'58 min. Earth dist. -12019 Sep 28 j 08:00 14° **정**32'03 4.23467 AU max. Earth dist. -12013 Sep 24 j 00:27 9°**©**46'38 6.17329 AU direct -12019 Nov 28 j 00:18 9°**3**29'14 morning rise -12013 Oct 06 j 15:22 12°541'49 evening set -12018 Apr 06 j 07:53 28°る12'02 -12012 Jan 08 j 09:57 $0^{\circ}\Omega$ -12018 Apr 14 j 09:16 0°≈ retrograde -12012 Feb 13 j 12:20 1° **Ω**57'14 -12012 Mar 20 j 13:36 30°RS conjunction -12018 Apr 19 j 16:39 1°≈11'26 -0°37'57 opposition -12012 Apr 14 j 19:04 26°556'35 1°07'15 minimum elong -12018 Apr 19 j 16:43 1°≈11'28 0°38'35 min. Earth dist. -12012 Apr 14 j 10:05 26°559'31 4.13584 AU max. Earth dist. -12018 Apr 19 i 02:15 1°≈03'22 6.27075 AU direct -12012 Jun 13 j 02:04 22°503'24 morning rise -12018 May 02 j 22:05 4°≈09'05 -12012 Aug 25 j 22:58 $0^{\circ}\Omega$ -12018 Jun 24 i 19:02 15°≈ -12012 Oct 13 j 19:55 $10^{\circ}\Omega$ 34'43 evening set -12018 Sep 01 j 02:50 21°≈43'36 retrograde -12018 Oct 30 j 17:11 16°≈49'41 -0°15'06 conjunction -12012 Oct 26 j 23:11 13° Ω 38'41 0°15'58 opposition min. Earth dist. -12018 Oct 31 j 06:47 16°≈45'15 4.30138 AU -12012 Oct 26 j 23:13 13° Ω 38'42 0°16'30 minimum elong -12012 Oct 27 j 19:03 13° Ω 50'17 6.10365 AU -12018 Nov 14 j 00:47 15°R≈ max. Earth dist. -12012 Nov 01 j 18:17 15°**Ω** -12018 Dec 31 j 15:53 11°≈46'31 direct -12017 Jan 08 j 03:44 11°≈51'39 -12012 Nov 09 j 05:58 16° **Ω**44'38 morning rise asc. node -12017 Feb 17 j 06:29 15°≈ -12011 Jan 11 j 13:17 0° M -12017 May 08 j 17:25 0°**米** -12011 Feb 06 j 04:58 3° m 48'22 desc. node -12017 May 09 j 06:01 0°**米** 06'58 -12011 Mar 20 j 15:57 6° m 31'08 evening set retrograde max. Earth dist. -12017 May 21 j 05:54 2° X 47'10 6.32393 AU min. Earth dist. -12011 May 19 j 11:35 1° m 32'54 4.08008 AU -12011 May 20 j 03:46 1° Mp 27'28 -0°24'19 opposition conjunction -12017 May 22 j 06:10 3°\mathcal{H} 00'42 0°19'33 -12011 May 31 j 04:55 30°RΩ minimum elong -12017 May 22 j 06:08 3° \(\mathcal{H}\) 00'41 0°19'13 direct -12011 Jul 17 j 13:22 26° **Ω** 32'27 morning rise -12017 Jun 04 j 02:58 5°**升** 52'43 -12011 Sep 02 j 01:35 0° M retrograde -12017 Oct 02 j 19:10 23°**米**11'08 evening set -12011 Nov 18 j 09:56 15° Mp 26'22 -12017 Dec 02 j 04:21 18°**米**19'04 1°07'29 opposition min. Earth dist. -12017 Dec 02 j 22:16 18° **X** 13'19 4.33738 AU conjunction -12011 Dec 01 j 22:17 18° m 35'57 -0°46'05 -12016 Feb 02 j 15:19 13°**米** 18'18 minimum elong -12011 Dec 01 j 22:12 18° mg 35'54 0°45'55 direct -12016 Jun 02 j 15:52 0°**Υ**° max. Earth dist. -12011 Dec 03 j 01:22 18° m 51'48 6.06680 AU evening set $-12016 \text{ Jun } 08 \text{ j } 21:50 \quad 1^{\circ} \Upsilon 22'49$ morning rise -12011 Dec 15 i 13:58 21° mp 47'13 -12010 Jan 21 j 10:48 0°**♀** max. Earth dist. -12016 Jun 20 j 11:19 3°**Υ**57'38 6.33934 AU retrograde -12010 Apr 25 i 16:00 11° **△**41'39 -12016 Jun 21 j 12:44 4° Υ 11'52 1°10'33 conjunction opposition -12010 Jun 24 j 08:58 6° **2**36'44 -1°48'27 minimum elong -12016 Jun 21 i 12:38 4°Υ'11'48 1°10'34 min. Earth dist. -12010 Jun 23 j 14:18 6°**2**43'07 4.06664 AU morning rise -12016 Jul 04 j 01:03 6° Υ 59'41 direct -12010 Aug 21 j 12:39 1°**△**38'33 evening set retrograde -12016 Nov 02 j 21:10 24° Υ 25'24 -12010 Dec 25 j 10:03 20° **2**50'08 -12015 Jan 02 j 23:39 19° Υ 33'23 2° 10'02 opposition -12015 Jan 03 j 17:20 19°**Υ**27'47 4.33220 AU min. Earth dist. conjunction -12009 Jan 08 j 02:54 24° **2**00'56 -1°31'41 -12015 Mar 06 j 08:28 14°**Y**35'43 direct minimum elong -12009 Jan 08 j 02:49 24° **2**00'53 1°31'57 -12015 Jun 28 j 10:06 0°8 max. Earth dist. -12009 Jan 09 j 05:41 24°**2**16'30 6.07687 AU evening set -12015 Jul 09 j 23:04 2°**8**33'38 morning rise -12009 Jan 21 j 21:02 27° **2**12'21 max. Earth dist. -12015 Jul 21 j 09:56 5°**8**08'30 6.31253 AU -12009 Feb 03 j 02:32 0°M -12009 Apr 27 j 18:37 15°M -12015 Jul 22 j 07:40 5°**8**20'47 1°41'08 -12009 May 30 j 23:31 16°M 46'11 conjunction retrograde -12015 Jul 22 j 07:37 5°**8**20'45 1°41'30 -12009 Jul 02 j 18:29 15°RM minimum elong morning rise -12015 Aug 03 j 15:36 8°**8**07'39 opposition -12009 Jul 28 j 23:51 11°ML42'30 -2°32'38 -12015 Sep 04 j 10:17 15°8 min. Earth dist. -12009 Jul 28 j 10:44 11°ML47'00 4.10036 AU retrograde -12015 Dec 05 j 21:04 26°**8**00'44 direct -12009 Sep 25 j 17:16 6°ML41'00 opposition -12014 Feb 05 j 11:08 21°**8**06'56 2°35'11 -12009 Dec 11 j 07:34 15°M

min. Earth dist.

direct

-12014 Feb 05 j 22:52 21°**8**03'13

-12014 Apr 08 j 02:24 16°812'03

4.28653 AU

evening set

-12008 Jan 31 j 14:39 25°M 55'46

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -12008 in astronomical counting style is the year 12009 BCE in historical counting style. -12008 Feb 14 i 07:24 29° ML04'03 -1°43'41 min. Earth dist. -12002 Feb 10 i 15:44 25° **3**7'43 4.27642 AU conjunction -12008 Feb 14 j 07:25 29° ML04'03 1°44'16 direct -12002 Apr 12 j 17:00 20°846'42 minimum elong max. Earth dist. -12008 Feb 14 j 22:10 29°ML12'31 6.13009 AU -12002 Jul 04 j 12:16 0°**Ⅱ** 8°**Ⅱ**49'09 -12008 Feb 18 j 08:56 0° ₹ -12002 Aug 14 j 12:36 evening set -12008 Feb 27 j 23:30 2° ₹ 11'52 morning rise -12008 Jul 02 j 21:29 21° \cancel{x} 03'30 -12002 Aug 26 j 22:07 11°**Ⅲ**39'28 1°39'40 retrograde conjunction -12002 Aug 26 j 22:10 11°**Д**39'29 1°40'19 opposition -12008 Aug 30 j 18:16 16° ₹ 02'57 -2°22'05 minimum elong min. Earth dist. -12008 Aug 30 j 13:22 16°**尽**04'37 4.16816 AU max. Earth dist. -12002 Aug 26 j 13:14 11°**Ⅱ**34'22 6.23930 AU -12008 Oct 29 j 12:53 10° ₹ 59'13 direct morning rise -12002 Sep 08 j 09:11 14°**Ⅲ**30'39 evening set -12007 Mar 07 j 16:29 0°**る**00'40 -12002 Nov 28 j 06:24 0°ഇ -12007 Mar 07 j 15:18 0°궁 retrograde -12001 Jan 14 j 00:01 3°510'31 -12001 Mar 02 j 10:38 30°RⅡ -12007 Mar 21 j 06:13 3°₹04'34 -1°19'30 conjunction opposition -12001 Mar 16 j 15:24 28° **I**I 13'06 2°06'35 minimum elong -12007 Mar 21 j 06:19 3°る04'37 1°20'12 min. Earth dist. -12001 Mar 16 j 15:25 28°**Ц**13'06 4.20089 AU max. Earth dist. -12007 Mar 21 j 04:21 3°る03'31 6.20713 AU direct -12001 May 15 j 22:50 23°**Ц**20'06 morning rise -12007 Apr 03 j 17:36 6°**⋜**07'08 -12001 Jul 22 j 19:15 0°95 retrograde -12007 Aug 04 j 15:45 24°**궁**12'02 evening set -12001 Sep 15 j 18:51 11°535'16 opposition -12007 Oct 02 j 17:49 19°♂15'17 -1°24'52 min. Earth dist. -12007 Oct 03 j 00:12 19°る13'09 4.24640 AU conjunction -12001 Sep 28 j 12:37 14°532'28 1°04'42 direct -12007 Dec 02 j 19:24 14°る11'04 minimum elong -12001 Sep 28 j 12:43 14°532'31 1°05'22 -12006 Mar 29 j 03:16 0°**≈** max. Earth dist. -12001 Sep 28 j 20:32 14°537'04 6.16126 AU evening set -12006 Apr 11 i 00:36 2°≈50'02 morning rise -12001 Oct 11 i 09:14 17°531'20 -12001 Dec 09 i 22:52 $0^{\circ}\Omega$ conjunction -12006 Apr 24 j 08:23 5°≈48'36 -0°30'09 retrograde -12000 Feb 18 i 14:38 $6^{\circ}\Omega$ 52'27 minimum elong -12006 Apr 24 j 08:26 5°≈48'38 0°30'44 opposition -12000 Apr 19 j 18:12 $1^{\circ}\Omega51'24$ $0^{\circ}55'17$ max. Earth dist. -12006 Apr 23 i 16:28 5°≈39'42 6.28131 AU min. Earth dist. -12000 Apr 19 j 08:09 1° **Ω**54'41 4.12569 AU -12006 May 07 j 12:41 8°≈45'23 -12000 May 04 j 06:26 30°RS morning rise -12006 Jun 05 j 11:55 15°≈ -12000 Jun 17 j 21:24 26°558'09 direct -12006 Sep 05 j 11:51 26°≈15'49 -12000 Jul $\,$ 31 j 14:20 $\,$ 0° Ω retrograde -12006 Nov 04 j 05:44 21°≈22'13 -0°03'11 -12000 Oct 16 j 09:15 15°**Ω** opposition -12006 Nov 04 j 19:43 21°≈17'40 4.30986 AU -12000 Oct 18 j 17:32 15°**Ω**32'40 min. Earth dist. evening set -12006 Nov 18 j 21:02 19°≈30'35 asc. node -12005 Jan 05 j 06:14 16°≈19'18 -12000 Oct 31 j 22:08 18° Ω 37'35 0°07'11 direct conjunction -12000 Oct 31 j 22:09 18° Ω 37'36 0°07'40 -12005 Apr 22 j 10:30 0°**米** minimum elong -12005 May 13 j 17:19 4° **★** 36'40 -12000 Oct 31 j 14:43 18° Ω33'16 evening set behind sun begin -12000 Nov 01 j 05:35 18° **Ω**41'55 behind sun end -12005 May 26 j 16:06 7° **★**29'36 0°27'23 -12000 Nov 01 j 18:53 18° **Ω**49'43 6.09659 AU conjunction max. Earth dist. minimum elong -12005 May 26 j 16:03 7° **★**29'35 0°27'05 morning rise -12000 Nov 14 j 06:37 21°**Ω**44'33 max. Earth dist. -12005 May 25 j 15:16 7° **∺** 15'45 6.32962 AU desc. node -12000 Dec 16 j 12:00 $28^{\circ}\Omega$ 57'53 morning rise -12005 Jun 08 j 11:37 10°**∺**20'52 -12000 Dec 21 j 10:10 0° M retrograde -12005 Oct 07 j 05:45 27° **∺** 38'39 retrograde -11999 Mar 25 j 16:28 11° M 33'22 -12005 Dec 06 j 17:05 22° **€** 46'45 1°17'50 min. Earth dist. -11999 May 24 j 09:00 6° m 35'27 4.07714 AU opposition min. Earth dist. -12005 Dec 07 j 12:05 22° **X** 40'41 4.33987 AU opposition -11999 May 25 j 03:06 6° m 29'22 -0°37'22 -12004 Feb 07 j 05:51 17° **∺**46'25 direct -11999 Jul 22 j 10:36 1° M 33'59 direct -12004 May 17 j 05:36 0°**Υ** -11999 Nov 23 j 12:43 20° m 29'56 evening set -12004 Jun 13 i 06:02 5°**Υ**49'21 evening set -11999 Dec 07 i 02:06 23° m 39'49 -0°53'55 conjunction -12004 Jun 25 j 19:45 8° **Y** 37'55 1° 16'17 -11999 Dec 07 i 02:00 23° m 39'46 0°53'48 conjunction minimum elong -12004 Jun 25 j 19:39 8° **Y** 37'52 1° 16'22 minimum elong max. Earth dist. -11999 Dec 08 i 07:43 23° m 57'08 6.06837 AU max. Earth dist. -12004 Jun 24 i 17:20 8°**Υ**23'08 6.33815 AU morning rise -11999 Dec 20 j 18:16 26° m 51'12 morning rise -12004 Jul 08 i 07:15 11° Υ 25'24 -11998 Jan 03 j 11:28 0°**♀** retrograde -12004 Nov 07 j 09:07 28°**Υ**53'52 retrograde -11998 Apr 30 j 16:18 16° **△**43'00 -12003 Jan 07 j 14:02 24° Υ 01'42 2°16'04 opposition -11998 Jun 29 j 06:02 11°**△**38'05 -1°57'27 opposition -12003 Jan 08 j 07:06 23°**Y**56'18 4.32767 AU min. Earth dist. min. Earth dist. -11998 Jun 28 j 12:11 11°**2**44'11 4.07277 AU -12003 Mar 10 j 20:53 19°**Υ**04'25 direct direct -11998 Aug 26 j 12:00 6°**♀**39'25 -12003 Jun 11 j 14:38 0° 8 evening set -11998 Dec 30 j 14:08 25°**£**50'31 evening set -12003 Jul 14 j 06:34 7°**8**02'31 -11997 Jan 13 j 07:00 29°**2**00'51 -1°35'31 conjunction -12003 Jul 26 j 14:56 9°**8**49'48 1°43'10 -11997 Jan 13 j 06:55 29°**2**00'48 1°35'49 conjunction minimum elong -12003 Jul 26 j 14:53 9°**8**49'47 1°43'35 max. Earth dist. -11997 Jan 14 j 08:33 29°**2**15'40 6.08668 AU minimum elong -12003 Jul 25 j 19:29 9°838'48 6.30493 AU max. Earth dist. -11997 Jan 17 j 13:04 0°M morning rise -12003 Aug 07 j 22:35 12°**8**36'53 morning rise -11997 Jan 27 j 01:04 2° ML11'41 -12003 Aug 18 j 15:19 15°**8** -11997 Mar 29 j 03:45 15° M -12003 Nov 20 j 22:04 0°**Ⅱ** retrograde -11997 Jun 04 j 15:31 21°M 38'37 retrograde -12003 Dec 10 j 13:50 0°**Ⅲ**35'19 opposition -11997 Aug 02 j 16:18 16°M 35'14 -2°34'18 -12003 Dec 30 j 06:02 30°R8 min. Earth dist. -11997 Aug 02 j 03:23 16°M 39'40 4.11303 AU

-11997 Aug 14 j 11:26 15°RML

-12002 Feb 10 j 04:40 25°**8**41'14 2°35'03

opposition

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -11997 in astronomical counting style is the year 11998 BCE in historical counting style. direct -11997 Sep 30 j 12:27 11°M 33'18 conjunction -11991 Jul 30 j 22:41 14°819'52 1°44'31 -11997 Nov 16 j 17:30 15°M minimum elong -11991 Jul 30 j 22:39 14°**8**19'50 1°44'58 max. Earth dist. -11996 Feb 02 j 07:07 -11991 Jul 30 j 03:42 14°**8**09'05 6.29214 AU 0° **₹** -11996 Feb 05 j 14:45 0°**∡**¹45′09 -11991 Aug 02 j 21:24 15°**8** evening set morning rise -11991 Aug 12 j 06:35 17°**8**07'31 -11996 Feb 19 j 07:08 3° ₹ 52'39 -1°42'19 conjunction -11991 Oct 15 j 12:00 0°**Ⅱ** -11996 Feb 19 j 07:10 3°**₹**52'40 1°42'56 minimum elong retrograde -11991 Dec 15 j 08:05 5°**Ⅲ**12'59 -11996 Feb 19 j 18:56 max. Earth dist. 3°**₹**59'24 6.14438 AU opposition -11990 Feb 14 j 23:37 0°**Ⅱ**18'28 2°33'53 6°**∡**759'34 morning rise -11996 Mar 03 j 22:39 min. Earth dist. -11990 Feb 15 j 08:08 0°**I**I15'46 4.26252 AU retrograde -11996 Jul 07 j 09:59 25° ₹ 43'07 -11990 Feb 17 j 09:49 30°R8 opposition -11996 Sep 04 j 06:33 20° ₹ 43'03 -2°16'33 direct -11990 Apr 17 j 06:52 25°**8**24'16 min. Earth dist. -11996 Sep 04 j 04:25 20° ₹ 43'46 4.18243 AU -11990 Jun 12 j 13:42 0°**Ⅱ** -11990 Aug 19 j 00:14 13°**Д**29'25 direct -11996 Nov 03 j 06:39 15°**尽** 39'05 evening set -11995 Feb 19 j 11:05 0°₹ evening set -11995 Mar 12 j 09:45 4°る36'27 conjunction -11990 Aug 31 j 10:44 16°**Ⅲ**20'41 1°36'28 minimum elong -11990 Aug 31 j 10:48 16°**Д**20'44 1°37'08 conjunction -11995 Mar 25 j 22:59 7°る39'35 -1°13'57 max. Earth dist. -11990 Aug 31 j 05:55 16°**Д**17'55 6.22558 AU minimum elong -11995 Mar 25 j 23:04 7°**る**39'39 1°14'39 morning rise -11990 Sep 12 j 22:43 19°**Д**12'54 max. Earth dist. -11995 Mar 25 j 19:04 7°る37'23 6.22023 AU -11990 Nov 02 j 22:03 0°5 morning rise -11995 Apr 08 j 09:27 10°る41'16 retrograde -11989 Jan 19 j 00:49 7°959'41 retrograde -11995 Aug 08 j 22:00 28°る39'57 opposition -11989 Mar 21 j 14:08 3°501'46 1°58'42 opposition -11995 Oct 07 i 03:02 23°₹43'41 -1°14'44 min. Earth dist. -11989 Mar 21 j 12:44 3°502'13 4.18825 AU min. Earth dist. -11995 Oct 07 i 10:22 23°₹41'14 4.25713 AU -11989 Apr 16 j 00:23 30°RII direct -11995 Dec 07 j 07:23 18°る39'30 direct -11989 May 20 j 17:36 28°**II**08'53 -11994 Mar 12 j 12:13 0°≈ -11989 Jun 24 j 00:13 0°5 -11994 Apr 15 j 12:04 7°≈15'17 -11989 Sep 20 j 11:51 16°526'41 evening set evening set -11994 Apr 28 j 18:40 10°≈13'06 -0°22'32 conjunction -11989 Oct 03 j 06:57 19°524'59 0°57'32 conjunction -11994 Apr 28 j 18:43 10°≈13'08 0°23'04 -11989 Oct 03 j 07:03 19°\$25'02 0°58'12 minimum elong minimum elong -11994 Apr 27 j 23:27 10°≈02'21 6.28891 AU -11989 Oct 03 j 16:27 19°530'30 6.15076 AU max. Earth dist. max. Earth dist. -11994 May 11 j 21:59 13°≈09'10 morning rise -11989 Oct 16 j 05:25 22°525'06 morning rise -11994 May 20 j 06:40 15°≈ -11989 Nov 19 j 09:16 0°**Ω** -11994 Aug 21 j 04:49 0°**⊁** retrograde -11988 Feb 23 j 15:23 11°Ω50'56 -11994 Sep 09 j 19:33 0° **★** 37'05 -11988 Apr 24 j 18:21 6° Ω49'18 0° 42'44 retrograde opposition -11994 Sep 29 j 08:50 30°R≈ -11988 Apr 24 j 05:35 6° Ω53'30 4.11801 AU min. Earth dist. -11988 Jun 22 j 17:26 1°**Q**55'52 -11994 Oct 01 j 08:24 29°≈52'16 asc. node direct -11988 Sep 29 j 06:14 15°**Ω** opposition -11994 Nov 08 j 14:29 25°≈43'52 0°08'15 min. Earth dist. -11994 Nov 09 j 06:51 25°≈38'33 4.31371 AU evening set -11988 Oct 23 j 16:18 20°**Ω**32'42 direct -11993 Jan 09 j 18:32 20°≈41'11 desc. node -11988 Oct 25 j 08:26 20°**Ω**56'03 -11993 Apr 05 j 03:53 0°**米** evening set -11993 May 18 j 00:56 8°**)**57'15 conjunction -11988 Nov 05 j 22:25 23° Ω 38'27 -0°01'51 -11988 Nov 05 j 22:26 23° Ω 38'28 0°01'26 minimum elong -11993 May 30 j 22:38 11°**米**49'42 0°34'47 -11988 Nov 05 j 14:11 23° **Ω**33'39 conjunction behind sun begin -11993 May 30 j 22:34 11°**米**49'40 0°34'32 -11988 Nov 06 j 06:42 23°**Ω**43'16 minimum elong behind sun end max. Earth dist. -11993 May 29 j 20:45 11° **★** 35'15 6.32933 AU -11988 Nov 06 j 22:25 23°**Ω**52'29 max. Earth dist. 6.09223 AU morning rise -11993 Jun 12 j 16:59 14° + 40'30 morning rise -11988 Nov 19 j 08:06 $26^{\circ}\Omega 46'10$ -11993 Sep 05 i 11:32 0°Υ -11988 Dec 03 i 10:04 0° m retrograde -11993 Oct 11 j 13:19 1° Υ 59'55 retrograde -11987 Mar 30 j 19:15 16° m 36'04 -11993 Nov 17 j 02:04 30°R € min. Earth dist. -11987 May 29 j 08:35 11° m 37'48 4.07634 AU -11993 Dec 11 j 03:40 27° \(\) 08'05 1°27'28 -11987 May 30 j 02:23 11° m 31'48 -0°50'12 opposition opposition min. Earth dist. -11993 Dec 11 j 22:16 27° \(\frac{1}{2}\) 02'09 4.33579 AU direct -11987 Jul 27 j 09:49 6° m 36'02 direct -11992 Feb 11 j 15:01 22° **₭** 08'09 -11987 Nov 28 j 16:14 25° m 33'38 evening set -11992 Apr 29 j 02:27 0°**Υ** -11987 Dec 12 j 06:13 28° Mp 43'40 -1° 01'24 evening set -11992 Jun 17 j 12:33 10°**Υ**11'45 conjunction max. Earth dist. -11992 Jun 28 j 23:34 12°**γ**45'43 6.33049 AU minimum elong -11987 Dec 12 j 06:07 28° m 43'37 1°01'21 -11987 Dec 13 j 11:19 29° m 00'40 6.07084 AU max. Earth dist. conjunction -11992 Jun 30 j 01:19 13°**Υ**00'11 1°21'26 -11987 Dec 17 j 17:02 0∘ Շ -11992 Jun 30 j 01:14 13°**Y**′00′08 1°21′34 -11987 Dec 25 j 23:02 1°**⊆**55'07 minimum elong morning rise -11992 Jul 12 j 12:03 15°**Y**47'39 -11986 May 05 j 14:04 21°**♀**43'56 morning rise retrograde -11992 Sep 25 j 04:13 0°8 min. Earth dist. -11986 Jul 03 j 08:06 16°**2**45'21 4.07854 AU -11992 Nov 11 j 23:13 3°**8**21'10 retrograde opposition -11986 Jul 04 j 02:19 16° **△**39'07 -2°05'40 -11992 Dec 30 j 23:31 30°R**Y** direct -11986 Aug 31 j 08:41 11°**△**39'59 opposition -11991 Jan 12 j 04:40 28° Υ 28'54 2° 21'15 -11985 Jan 01 j 00:59 min. Earth dist. 4.31709 AU evening set -11985 Jan 04 j 18:28 0°M51'18 direct -11991 Mar 15 j 09:58 23°**Y**32'04 -11991 May 23 j 04:06 0°8 -11985 Jan 18 j 11:23 4°M01'15 -1°38'43 conjunction -11991 Jul 18 j 14:33 11°\begin{align*} 32'10 \end{align*} -11985 Jan 18 j 11:18 4°ML01'13 1°39'05 evening set minimum elong

•	omena of Jupiter fro		•				page 37
	ical year style is used: The	-					
max. Earth dist.	-11985 Jan 19 j 10:50		6.09499 AU	conjunction	-11980 Jul 04 j 09:08		1°26'18
morning rise	-11985 Feb 01 j 05:13	7° ጤ 11'33		minimum elong	-11980 Jul 04 j 09:03		1°26'28
	-11985 Mar 08 j 13:34			morning rise	-11980 Jul 16 j 19:06		
retrograde	-11985 Jun 09 j 10:08				-11980 Sep 01 j 11:20		
opposition	-11985 Aug 07 j 09:25			retrograde	-11980 Nov 16 j 12:48		
min. Earth dist.	-11985 Aug 06 j 22:47		4.12309 AU	opposition	-11979 Jan 16 j 20:52		2°25'44
direct	-11985 Oct 05 j 09:45			min. Earth dist.	-11979 Jan 17 j 11:56		4.31113 AU
	-11984 Jan 16 j 06:34	0° ∡ ¹			-11979 Feb 11 j 12:51		
evening set	-11984 Feb 10 j 15:39	5° ∡ 37′25		direct	-11979 Mar 19 j 22:33		
					-11979 Apr 25 j 02:02		
conjunction	-11984 Feb 24 j 07:51	8° ∡ ¹44'21	-1°40'19		-11979 Jul 18 j 04:16		
minimum elong	-11984 Feb 24 j 07:54	8° ∡ ¹44'23	1°40'57	evening set	-11979 Jul 22 j 23:27	16° 8 04'43	
max. Earth dist.	-11984 Feb 24 j 18:16	8° ∡ ′50′18	6.15540 AU				
morning rise	-11984 Mar 08 j 22:41	11° ∡ °50'31		conjunction	-11979 Aug 04 j 07:28		1°45'20
	-11984 Jun 25 j 10:09	0°₹		minimum elong	-11979 Aug 04 j 07:27	18° 8 52'36	1°45'50
retrograde	-11984 Jul 11 j 22:22	0° る 27'19		max. Earth dist.	-11979 Aug 03 j 15:08	18° 8 43'20	6.28490 AU
	-11984 Jul 28 j 09:07	30°₽ ⋌ 7		morning rise	-11979 Aug 16 j 15:25	21° 8 40'35	
opposition	-11984 Sep 08 j 20:22	25° ∡ ¹27'49	-2°10'11		-11979 Sep 24 j 09:28	Π $^{\circ}0$	
min. Earth dist.	-11984 Sep 08 j 19:04	25° ∡ ¹28'15	4.19346 AU	retrograde	-11979 Dec 20 j 03:47	9° Ⅱ 51′01	
direct	-11984 Nov 07 j 23:40	20° х 23′45		opposition	-11978 Feb 19 j 18:41	4° Ⅱ 56′05	2°31'48
	-11983 Feb 01 j 06:31	0° ට		min. Earth dist.	-11978 Feb 20 j 02:30	4° ∏ 53'36	4.25447 AU
evening set	-11983 Mar 17 j 05:27	9° る 18'20		direct	-11978 Apr 21 j 23:25	0° Ⅱ 02'09	
				evening set	-11978 Aug 23 j 11:07	18° Ⅱ 07'52	
conjunction	-11983 Mar 30 j 17:48	12° る 20'46	-1°07'51				
minimum elong	-11983 Mar 30 j 17:54	12° る 20'49	1°08'32	conjunction	-11978 Sep 04 j 22:22	20° Ⅱ 59'49	1°32'45
max. Earth dist.	-11983 Mar 30 j 09:58		6.23051 AU	minimum elong	-11978 Sep 04 j 22:27		1°33'25
morning rise	-11983 Apr 13 j 03:35			max. Earth dist.	-11978 Sep 04 j 19:04		6.21745 AU
5 5	-11983 Jun 28 j 13:55			morning rise	-11978 Sep 17 j 11:36		
retrograde	-11983 Aug 13 j 09:21	3° ≈ 15'14		<i>5 2 3 3 3 3 3 3 3 3 3 3</i>	-11978 Oct 15 j 00:56		
	-11983 Sep 28 j 17:11			retrograde	-11977 Jan 23 j 20:44		
opposition	-11983 Oct 11 j 15:10		-1°03'57	opposition	-11977 Mar 26 j 10:38		1°50'10
min. Earth dist.	-11983 Oct 12 j 00:57			min. Earth dist.	-11977 Mar 26 j 06:30	7°5647'14	4.18056 AU
direct	-11983 Dec 12 j 00:31		20072110	direct	-11977 May 25 j 09:18		
	-11982 Feb 20 j 16:24	0°≈		evening set	-11977 Sep 25 j 02:43		
evening set	-11982 Apr 20 j 02:12			evening set	11777 Sep 25 j 02.45	21 312 00	
evening sec	11702 11p1 20 J 02.12	11 .4.1033		conjunction	-11977 Oct 07 j 23:21	24°9611'14	0°50'09
conjunction	-11982 May 03 j 07:55	14°2245'43	-0°14'33	minimum elong	-11977 Oct 07 j 23:26		
minimum elong	-11982 May 03 j 07:56			max. Earth dist.	-11977 Oct 08 j 12:04		
behind sun begin	-11982 May 03 j 05:08		0 13 04	morning rise	-11977 Oct 20 j 23:12		0.1442) 110
behind sun end	-11982 May 03 j 10:44			morning risc	-11977 Nov 02 j 04:35		
max. Earth dist.	-11982 May 02 j 12:15		6.29530 AU		-11976 Jan 26 j 06:06		
max. Latin dist.	-11982 May 04 j 09:27		0.27330 AO	retrograde	-11976 Feb 28 j 14:50		
morning rise	-11982 May 16 j 09:57			retrograde	-11976 Apr 01 j 18:47		
morning rise	-11982 May 10 J 09:37 -11982 Jul 17 j 07:22	0° ∺		opposition	-11976 Apr 01 j 18:47 -11976 Apr 29 j 15:00		0°20'12
asc. node	-11982 Jul 17 J 07:22 -11982 Aug 11 j 15:51	3° ¥ 20'56		min. Earth dist.	-11976 Apr 29 j 02:12		
	• •	5° ∺ 06'52			-11976 Apr 29 j 02.12 -11976 Jun 27 j 12:37		4.11303 AU
retrograde	-11982 Sep 14 j 04:11		0020101	direct			
opposition	-11982 Nov 13 j 02:31	0°) 13'57		desc. node	-11976 Sep 05 j 02:08		
min. Earth dist.	-11982 Nov 13 j 18:44	0° ∺ 08'41	4.31757 AU		-11976 Sep 10 j 16:05		
Γ	-11982 Nov 14 j 21:34			evening set	-11976 Oct 28 j 12:20	23- 81 24-09	
direct	-11981 Jan 14 j 07:24				1107637 10:10.10	200 02012	0010100
	-11981 Mar 14 j 10:22	0° \		conjunction	-11976 Nov 10 j 19:40		
evening set	-11981 May 22 j 11:25			minimum elong	-11976 Nov 10 j 19:39		0°10'09
max. Earth dist.	-11981 Jun 03 j 04:33	16° ★ 02'43	6.33037 AU	behind sun begin	-11976 Nov 10 j 13:04		
				behind sun end	-11976 Nov 11 j 02:14		
conjunction	-11981 Jun 04 j 07:40			max. Earth dist.	-11976 Nov 11 j 19:59		6.08916 AU
minimum elong	-11981 Jun 04 j 07:36		0°42'03		-11976 Nov 17 j 04:42	-	
morning rise	-11981 Jun 17 j 00:58			morning rise	-11976 Nov 24 j 06:43		
	-11981 Aug 09 j 09:36	0° Υ		retrograde	-11975 Apr 04 j 16:27		
retrograde	-11981 Oct 16 j 02:08	6° Y 28'47		opposition	-11975 Jun 03 j 21:42		
opposition	-11981 Dec 15 j 17:31		1°36'54	min. Earth dist.	-11975 Jun 03 j 02:58		4.07557 AU
min. Earth dist.	-11981 Dec 16 j 13:02	1° Ƴ 30'49	4.33417 AU	direct	-11975 Aug 01 j 03:20		
	-11981 Dec 28 j 15:31				-11975 Dec 01 j 15:31	0∘ ⊽	
direct	-11980 Feb 16 j 05:48			evening set	-11975 Dec 03 j 16:27	0° ≏ 28'19	
	-11980 Apr 05 j 01:32	0 ° Υ					
evening set	-11980 Jun 21 j 21:14			conjunction	-11975 Dec 17 j 07:06		
max. Earth dist.	-11980 Jul 03 j 08:22	17° Ƴ 14'51	6.32632 AU	minimum elong	-11975 Dec 17 j 06:59	3° ≏ 38'28	
				may Farth diet	-11975 Dec. 18 i 11:17	3°£5/150	6.07220 ATT

max. Earth dist. -11975 Dec 18 j 11:17 3° -54'59 6.07220 AU

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -11974 in astronomical counting style is the year 11975 BCE in historical counting style. -11975 Dec 31 i 00:19 6° **2**50'02 max. Earth dist. -11969 Jun 07 i 15:40 20° + 33'14 6.33220 AU morning rise -11974 May 10 j 09:54 26° **△**36'36 -11969 Jun 21 j 09:18 23°\mathbf{3}7'17 retrograde morning rise opposition -11974 Jul 08 j 19:44 21°**2**31'53 -2°12'47 -11969 Jul 21 j 01:58 0°**Υ** -11974 Jul 08 j 03:10 21°**2**37'34 4.08190 AU -11969 Oct 20 j 13:06 10° **Y** 58'48 min. Earth dist. retrograde -11969 Dec 20 j 07:58 6°**Υ**'07'03 -11974 Sep 05 j 04:23 16° **△**32'16 direct opposition 1°45'50 -11969 Dec 21 j 02:04 6°**Υ**01'17 -11974 Dec 15 j 05:30 0°M min. Earth dist. 4.33422 AU -11973 Jan 09 j 20:00 1°**Y**08'00 evening set 5°M44'42 direct -11968 Feb 20 j 18:33 -11968 Jun 26 j 05:48 19°**Y**09'46 evening set conjunction -11973 Jan 23 j 13:08 8°M54'28 -1°41'08 1°30'41 -11973 Jan 23 j 13:05 minimum elong 8°M54'26 1°41'33 conjunction -11968 Jul 08 j 16:39 21°**Υ**'57'33 max. Earth dist. -11973 Jan 24 j 11:41 9° 11.07'30 6.10001 AU minimum elong -11968 Jul 08 j 16:34 21°**Υ**57'30 1°30'54 -11973 Feb 06 j 06:41 12°M04'25 -11968 Jul 07 j 16:14 21°**Υ**43'48 morning rise max. Earth dist. 6.32423 AU -11973 Feb 19 j 04:05 15°M -11968 Jul 21 j 02:01 24°**Y**44'37 morning rise -11973 May 16 j 08:07 -11968 Aug 14 j 04:11 retrograde -11973 Jun 14 j 02:04 1°**х** 20'49 retrograde -11968 Nov 21 j 04:50 12°**8**25'02 -11973 Jul 12 j 13:09 30°RML opposition -11967 Jan 21 j 13:19 7°**8**32'17 2°29'20 opposition -11973 Aug 12 j 00:26 26°M 18'18 -2°34'43 min. Earth dist. -11967 Jan 22 j 04:22 7°**8**27'31 4.30689 AU min. Earth dist. -11973 Aug 11 j 14:37 26°M21'39 4.12944 AU direct -11967 Mar 24 j 13:44 2°**8**36'14 direct -11973 Oct 10 j 02:42 21° ML15'43 -11967 Jul 01 j 19:22 15°8 -11973 Dec 28 j 14:06 0° ₹ evening set -11967 Jul 27 j 07:32 20° 836'08 evening set -11972 Feb 15 j 15:11 10° ₹25'26 -11967 Aug 08 j 15:34 23°**8**24'14 conjunction 1°45'32 conjunction -11972 Feb 29 i 06:57 13° ₹31'58 -1°37'38 minimum elong -11967 Aug 08 j 15:34 23°**8**24'14 1°46'04 minimum elong -11972 Feb 29 i 07:01 13° ₹32'00 1°38'17 max. Earth dist. -11967 Aug 08 j 00:51 23°**8**15'51 6.27863 AU max. Earth dist. -11972 Feb 29 j 13:20 13° ₹35'36 6.16254 AU morning rise -11967 Aug 20 j 23:46 26°812'34 -11972 Mar 13 j 21:28 16° ₹37'39 -11967 Sep 07 j 00:08 0°**Ⅱ** morning rise -11972 May 19 j 00:29 0°る -11967 Dec 24 j 20:07 14°**Д**27'43 retrograde -11972 Jul 16 j 11:56 5°る09'19 -11966 Feb 24 j 12:48 9°**II**32'20 2°28'49 retrograde opposition -11972 Sep 13 j 09:57 0°る10'21 -2°03'01 min. Earth dist. -11966 Feb 24 j 18:20 9°**II**30'34 4.24659 AU opposition min. Earth dist. -11972 Sep 13 j 10:40 0°る10'06 4.20067 AU -11966 Apr 26 j 12:38 4°**Д**38'39 direct -11972 Sep 14 j 16:35 30°R ✓ -11966 Aug 27 j 21:32 22°**Ⅱ**45'12 evening set -11972 Nov 12 j 17:49 25°**尽**06'10 direct -11971 Jan 10j04:13 0°る -11966 Sep 09 j 09:46 25°**Д**37'56 1°28'29 conjunction -11971 Mar 22 j 00:23 13°**⋜**59'09 -11966 Sep 09 j 09:50 25°**Д**37'58 1°29'10 evening set minimum elong -11966 Sep 09 j 08:43 25°**Д**37'20 6.20862 AU max. Earth dist. -11971 Apr 04 j 12:16 17°♂01'06 -1°01'17 -11966 Sep 22 j 00:05 28° **II** 31'54 conjunction morning rise -11971 Apr 04 j 12:21 17°♂01'09 1°01'57 -11966 Sep 28 j 10:43 0°ഇ minimum elong max. Earth dist. -11971 Apr 04 j 04:00 16° ₹56'26 6.23758 AU retrograde -11965 Jan 28 j 18:37 17°528'37 morning rise -11971 Apr 17 j 21:02 20°중01'26 opposition -11965 Mar 31 j 06:33 12°529'35 1°40'59 -11971 Jun 04 j 13:46 0°≈ min. Earth dist. -11965 Mar 31 j 02:06 12°531'02 4.17116 AU retrograde -11971 Aug 17 j 20:16 7°≈51'03 direct -11965 May 30 j 02:46 7°536'41 -11971 Oct 16 j 04:05 2°≈55'47 -0°52'43 -11965 Sep 29 j 17:46 25°557'47 opposition evening set min. Earth dist. -11971 Oct 16 j 14:06 2°≈52'29 4.27199 AU -11971 Nov 08 j 21:34 30°R ₹ -11965 Oct 12 j 15:52 28°558'05 0°42'28 conjunction direct -11971 Dec 16 j 15:47 27°**⋜**51'56 -11965 Oct 12 j 15:56 28°558'07 0°43'05 minimum elong -11970 Jan 23 i 18:32 0°≈ max. Earth dist. -11965 Oct 13 i 05:45 29°506'10 6.13529 AU -11970 Apr 18 i 10:23 15°≈ -11965 Oct 17 i 02:12 $0^{\circ}\Omega$ -11965 Oct 25 j 17:26 $2^{\circ}\Omega 00'17$ evening set -11970 Apr 24 j 16:50 16°≈23'02 morning rise -11965 Dec 26 i 22:55 $15^{\circ}\Omega$ -11970 May 07 i 21:12 19°≈19'30 -0°06'26 retrograde -11964 Mar 04 j 13:21 21° Ω 33'25 conjunction -11970 May 07 i 21:13 19°≈19'31 0°06'55 opposition -11964 May 04 j 11:46 $16^{\circ}\Omega$ 30'54 $0^{\circ}17'28$ minimum elong behind sun begin -11970 May 07 j 13:42 19°≈15'20 min. Earth dist. -11964 May 03 j 21:24 $16^{\circ}\Omega$ 35'40 4.10520 AU behind sun end -11970 May 08 j 04:45 19°≈23'42 -11964 May 16 j 02:53 15°R**Ω** -11964 Jul 02 j 05:34 11°**Ω**36'56 max. Earth dist. -11970 May 06 j 23:15 19°≈07'14 6.30040 AU direct -11964 Jul 17 j 04:32 11° **Ω**59'29 morning rise -11970 May 20 j 22:16 22°≈14'12 desc. node asc. node -11970 Jun 20 j 23:10 28°≈53'35 -11964 Aug 17 j 09:29 15°**Ω** -11970 Jun 26 j 11:57 0°**∀** -11964 Nov 01 j 01:18 -11970 Sep 18 j 16:15 9°**∺**38'27 -11964 Nov 02 j 09:40 0° m 18'47 retrograde evening set -11970 Nov 17 j 15:55 opposition 4°**)**45'48 0°31'46 -11970 Nov 18 j 09:11 4° **★**40'13 4.32119 AU -11964 Nov 15 j 18:16 3° M 26'01 -0°19'11 min. Earth dist. conjunction -11969 Jan 05 j 15:14 30°R≈ -11964 Nov 15 j 18:14 minimum elong 3° Mp 26'00 0°18'50 direct -11969 Jan 18 j 23:15 29°≈43'48 max. Earth dist. -11964 Nov 16 j 19:14 3°**m**)40'37 6.08311 AU -11969 Feb 01 j 07:40 0°**光** morning rise -11964 Nov 29 j 06:28 6° m 35'10 evening set -11969 May 26 j 22:14 17° **★** 56'24 retrograde -11963 Apr 09 j 16:30 26° Mp 27'21 opposition -11963 Jun 08 j 18:19 21° Mp 22'39 -1°14'07 -11969 Jun 08 j 17:21 20° **€** 47'36 0°49'31 min. Earth dist. -11963 Jun 08 j 00:11 21° Mp 28'48 4.07183 AU conjunction -11969 Jun 08 j 17:16 20° **€** 47'33 0°49'23 -11963 Aug 05 j 23:52 16° m 25'55 minimum elong direct

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -11963 in astronomical counting style is the year 11964 BCE in historical counting style. -11963 Nov 14 i 15:22 0°**♀** evening set -11957 May 31 j 08:39 22° + 25'49 -11963 Dec 08 j 19:08 max. Earth dist. -11957 Jun 11 j 23:26 25° **米**01'10 6.33783 AU 5°**£**28'43 evening set -11963 Dec 22 j 10:32 8°**2**39'15 -1°14'40 -11957 Jun 13 j 02:14 25° **)** 16'09 conjunction conjunction 0°56'27 -11963 Dec 22 j 10:25 8°**2**39'11 1°14'44 -11957 Jun 13 j 02:09 25° **€** 16'07 minimum elong minimum elong 0°56'21 -11957 Jun 25 j 17:08 28°**₭**05'07 -11963 Dec 23 j 15:13 max. Earth dist. 8°**£**55'59 6.07099 AU morning rise -11957 Jul 04 j 09:21 0°**Υ** morning rise -11962 Jan 05 j 04:04 11°**⊆**50'53 -11962 Apr 13 j 18:13 0°M₊ retrograde -11957 Oct 25 j 01:11 15° \cdot \cdot 26'30 -11957 Dec 24 j 22:01 10° **Y** 34'40 1°M35'40 retrograde -11962 May 15 j 07:46 opposition 1°54'00 -11962 Jun 15 j 12:09 30°R € min. Earth dist. -11957 Dec 25 j 16:31 10° **Y** 28'48 4.33748 AU opposition -11962 Jul 13 j 15:03 26° **△**31'08 -2°19'07 direct -11956 Feb 25 j 09:09 5°**Υ**36'00 min. Earth dist. -11956 Jun 30 j 12:55 23°**Y**35'18 -11962 Jul 12 j 22:58 26°**2**36'38 4.08355 AU evening set direct -11962 Sep 09 j 23:56 21°**⊆**31'02 -11962 Nov 25 j 23:45 conjunction -11956 Jul 12 j 23:04 26°**Y**22'42 1°34'27 evening set -11961 Jan 15 j 00:33 10°M 45'10 minimum elong -11956 Jul 12 j 22:59 26°**Y**22'39 1°34'44 max. Earth dist. -11956 Jul 12 j 00:35 26°**Y**10′02 6.32469 AU conjunction -11961 Jan 28 j 17:36 13°ML54'44 -1°42'53 morning rise -11956 Jul 25 j 07:40 29°**Y**09'26 minimum elong -11961 Jan 28 j 17:33 13°M 54'43 1°43'21 -11956 Jul 29 j 02:16 0°8 max. Earth dist. -11961 Jan 29 j 12:55 14° ML05'54 6.10405 AU -11956 Oct 21 j 07:58 15°8 -11961 Feb 02 j 10:43 15°M retrograde -11956 Nov 25 j 16:22 16°852'12 morning rise -11961 Feb 11 j 11:06 17° ML04'23 -11956 Dec 31 j 09:26 15°R8 -11961 Apr 14 j 15:47 0° ₹ opposition -11955 Jan 26 j 03:51 11°\(259'11 \) 2°31'58 retrograde -11961 Jun 18 j 20:26 6° ₹ 16'15 min. Earth dist. -11955 Jan 26 i 17:37 11°854'50 4.30457 AU opposition -11961 Aug 16 j 18:12 1° ₹ 14'07 -2°33'21 direct -11955 Mar 29 j 01:27 7°**8**03'32 min. Earth dist. -11961 Aug 16 j 09:46 1° ₹ 17'00 4.13550 AU -11955 Jun 13 j 18:56 15°8 -11961 Aug 25 j 21:18 30°RM evening set -11955 Jul 31 j 14:04 25°**8**02'32 direct -11961 Oct 15 j 00:32 26° ML11'10 -11961 Dec 04 i 05:05 0° ₹ conjunction -11955 Aug 12 j 22:05 27°**8**50'51 1°45'05 -11960 Feb 20 j 17:03 15° ₹20'15 -11955 Aug 12 j 22:05 27°**8**50'51 1°45'39 evening set minimum elong -11955 Aug 12 j 07:51 27°**8**42'44 6.27355 AU max. Earth dist. -11960 Mar 05 j 08:39 18° ₹ 26'22 -1°34'14 -11955 Aug 22 j 08:56 0°**Ⅱ** conjunction -11960 Mar 05 j 08:43 18° ₹ 26'25 1°34'55 -11955 Aug 25 j 06:42 0°**Д**39'33 minimum elong morning rise -11960 Mar 05 j 14:29 18°**尽**29'42 6.17039 AU -11955 Dec 29 j 13:00 18°**Д**59'10 max. Earth dist. retrograde -11960 Mar 18 j 22:24 21° ₹31'28 -11954 Mar 01 j 05:03 14°**Д**03'20 2°24'57 morning rise opposition -11960 Apr 27 j 05:30 0°궁 -11954 Mar 01 j 10:30 14°**Д**01'36 4.23884 AU min. Earth dist. -11960 Jul 21 j 03:51 9°**궁**57'28 -11954 May 01 j 02:34 9°**Д**09'49 retrograde direct -11960 Sep 18 j 02:01 4°중59'04 -1°54'54 -11954 Sep 01 j 06:09 27°**I**17'24 opposition evening set min. Earth dist. -11960 Sep 18 j 03:38 4°る58'31 4.20958 AU -11960 Nov 10 j 06:26 30°R ✓ conjunction -11954 Sep 13 j 19:32 0°511'02 1°23'45 direct -11960 Nov 17 j 13:36 29° ₹ 54'53 minimum elong -11954 Sep 13 j 19:37 0°ഇ11'05 1°24'27 -11960 Nov 24 j 21:10 0°る -11954 Sep 13 j 00:25 0ಂತಾ -11959 Mar 26 j 21:31 18°₹45'17 max. Earth dist. -11954 Sep 13 j 19:58 0°511'17 6.19904 AU evening set -11954 Sep 26 j 11:11 3°506'01 morning rise -11959 Apr 09 j 08:27 21°₹46'31 -0°54'15 retrograde -11953 Feb 02 j 13:19 22°508'14 conjunction -11959 Apr 09 j 08:32 21°₹46'34 0°54'53 -11953 Apr 05 j 00:35 17°508'47 1°31'19 minimum elong opposition -11959 Apr 08 j 21:37 21° ₹ 40'25 6.24711 AU -11953 Apr 04 j 18:44 17°510'41 4.16040 AU max. Earth dist. min. Earth dist. -11959 Apr 22 j 16:25 24°る46'06 morning rise direct -11953 Jun 03 i 16:07 12°515'53 -11959 May 16 i 15:45 0°≈ -11953 Oct 01 i 10:45 $0^{\circ}\Omega$ evening set retrograde -11959 Aug 22 j 09:10 12°≈30'52 -11953 Oct 04 j 08:06 0°Ω40'06 -11959 Oct 20 i 18:48 7°≈36'00 -0°41'02 opposition min. Earth dist. -11959 Oct 21 j 05:47 7°≈32'23 4.28143 AU conjunction -11953 Oct 17 i 07:42 $3^{\circ}\Omega 41'32$ $0^{\circ}34'37$ direct -11959 Dec 21 j 10:10 2°≈32'16 minimum elong -11953 Oct 17 j 07:45 $3^{\circ}\Omega$ 41'34 $0^{\circ}35'12$ max. Earth dist. -11958 Apr 01 j 10:37 15°≈ -11953 Oct 17 j 22:25 3° Ω 50'07 6.12446 AU morning rise -11953 Oct 30 j 10:53 6°**Ω**44'57 evening set -11958 Apr 29 j 08:11 20°≈59'55 asc. node -11958 Apr 29 j 22:10 21°≈07'40 -11953 Dec 06 j 16:56 $15^{\circ}\Omega$ retrograde -11952 Mar 09 j 12:33 26°**Ω**23'07 conjunction -11958 May 12 j 11:24 23°≈55'31 0°01'52 opposition -11952 May 09 j 07:24 21° Ω 20'15 0° 04'44 -11958 May 12 j 11:24 23°≈55'31 0°01'26 min. Earth dist. -11952 May 08 j 16:52 $21^{\circ}\Omega$ 25'05 4.09510 AU minimum elong -11958 May 12 j 03:18 23°≈51'00 desc. node -11952 May 29 j 05:15 $18^{\circ}\Omega$ 49'13 behind sun begin -11958 May 12 j 19:30 24°≈00'01 -11952 Jul 06 j 22:57 $16^{\circ}\Omega$ 25'58 behind sun end direct max. Earth dist. -11958 May 11 j 14:18 23°≈43'43 6.30931 AU -11952 Oct 15 j 11:02 0° M morning rise -11958 May 25 j 11:01 26°≈49'17 evening set -11952 Nov 07 j 07:12 5° m 12'20 -11958 Jun 08 j 23:00 0° ₩ retrograde -11958 Sep 23 j 02:54 14° **∺** 10'43 conjunction -11952 Nov 20 j 17:13 8° m 20'32 -0°27'37 opposition -11958 Nov 22 j 05:53 9°**₩**18'17 0°43'16 minimum elong -11952 Nov 20 j 17:10 8°m/20'30 0°27'21 min. Earth dist. -11958 Nov 22 j 22:53 9°**)** 12'49 4.32886 AU max. Earth dist. -11952 Nov 21 j 19:50 8° Mp 36'07 6.07493 AU

-11952 Dec 04 j 06:34 11° My 30'33

morning rise

-11957 Jan 23 j 14:31 4° **∺** 16'41

direct

Planetary Pheno	omena of Jupiter fro	m -12400	through -11898	8 (UT). Astrodier	st AG 18-Feb-2025 14:23, page 40
					r 11952 BCE in historical counting style.
,	-11951 Mar 15 j 16:27	•		retrograde	-11946 Sep 27 j 13:00 18° ¥40'16
retrograde	-11951 Apr 14 j 16:35			opposition	-11946 Nov 26 j 18:43 13°) 47'58 0°54'27
C	-11951 May 14 j 08:08			min. Earth dist.	-11946 Nov 27 j 12:21 13°) 42'18 4.33351 AU
opposition	-11951 Jun 13 j 14:46		-1°25'21	direct	-11945 Jan 28 j 04:28 8° 光 46'41
min. Earth dist.	-11951 Jun 12 j 20:28			evening set	-11945 Jun 04 j 17:50 26° 米 53'37
direct	-11951 Aug 10 j 18:25			max. Earth dist.	-11945 Jun 16 j 08:29 29° 米 28′56 6.33916 AU
	-11951 Oct 26 j 16:46				,
evening set	-11951 Dec 13 j 22:41			conjunction	-11945 Jun 17 j 10:16 29° ★ 43'22 1°03'02
•	•			minimum elong	-11945 Jun 17 j 10:11 29°) 43'19 1°02'59
conjunction	-11951 Dec 27 j 14:32	13° ≏ 40'53	-1°20'31		-11945 Jun 18 j 16:01 0° Υ
minimum elong	-11951 Dec 27 j 14:25		1°20'39	morning rise	-11945 Jun 29 j 23:55 2° Υ '31'46
max. Earth dist.	-11951 Dec 28 j 17:37	13° ≏ 56'41	6.06909 AU	retrograde	-11945 Oct 29 j 12:31 19° Υ 54'43
morning rise	-11950 Jan 10 j 08:36			opposition	-11945 Dec 29 j 12:01 15° Υ '02'51 2°01'36
	-11950 Mar 13 j 19:56	0°M₊		min. Earth dist.	-11945 Dec 30 j 06:17 14° Υ 57'03 4.33550 AU
retrograde	-11950 May 20 j 05:06			direct	-11944 Feb 29 j 22:23 10° Υ '04'37
opposition	-11950 Jul 18 j 10:50		-2°24'23	evening set	-11944 Jul 04 j 20:35 28° Υ '03'20
min. Earth dist.	-11950 Jul 17 j 19:01		4.08533 AU		-11944 Jul 13 j 12:13 0°8
	-11950 Jul 29 j 18:24	30° Ŗ Ω		max. Earth dist.	-11944 Jul 16 j 06:42 0°837'29 6.31926 AU
direct	-11950 Sep 14 j 21:43	26° ≏ 31'03			•
	-11950 Nov 01 j 00:08	0°M		conjunction	-11944 Jul 17 j 05:55 0°850'35 1°37'44
	-11949 Jan 16 j 19:50			minimum elong	-11944 Jul 17 j 05:51 0°850'32 1°38'05
evening set	-11949 Jan 20 j 05:24			morning rise	-11944 Jul 29 j 14:16 3° 8 37'22
C	J.			C	-11944 Sep 23 j 07:45 15° 8
conjunction	-11949 Feb 02 j 22:38	18°M55'59	-1°43'52	retrograde	-11944 Nov 30 j 08:13 21° 8 24'43
minimum elong	-11949 Feb 02 j 22:36			opposition	-11943 Jan 30 j 20:37 16° 8 31'20 2°33'51
max. Earth dist.	-11949 Feb 03 j 18:10			min. Earth dist.	-11943 Jan 31 j 09:51 16° 8 27'09 4.29612 AU
morning rise	-11949 Feb 16 j 15:41				-11943 Feb 12 j 02:03 15°R 8
S	-11949 Mar 24 j 15:38			direct	-11943 Apr 02 j 15:46 11° 8 35'59
retrograde	-11949 Jun 23 j 15:59				-11943 May 20 j 23:34 15° 8
opposition	-11949 Aug 21 j 11:58	6° ∡ 10′05	-2°30'49	evening set	-11943 Aug 04 j 22:49 29° 8 36'02
min. Earth dist.	-11949 Aug 21 j 04:44		4.14386 AU	C	-11943 Aug 06 j 17:04 0° Ⅱ
direct	-11949 Oct 19 j 22:04				
evening set	-11948 Feb 25 j 18:28	20° ∡ 14′10		conjunction	-11943 Aug 17 j 07:19 2° Ⅲ 24'56 1°44'02
C	J			minimum elong	-11943 Aug 17 j 07:20 2° ∏ 24'57 1°44'37
conjunction	-11948 Mar 10 j 09:34	23° ∡ 19'40	-1°30'11	max. Earth dist.	-11943 Aug 16 j 19:37 2° Д 18'15 6.26280 AU
minimum elong	-11948 Mar 10 j 09:39	23° х 19'43	1°30'52	morning rise	-11943 Aug 29 j 16:24 5° Ⅲ 14'19
max. Earth dist.	-11948 Mar 10 j 12:52			retrograde	-11942 Jan 03 j 08:18 23° ∏ 40'13
morning rise	-11948 Mar 23 j 22:48	26° ∡ ¹24'04		opposition	-11942 Mar 06 j 00:54 18° Ⅲ 43'57 2°20'07
	-11948 Apr 09 j 02:39			min. Earth dist.	-11942 Mar 06 j 04:42 18° П 42'44 4.22662 AU
retrograde	-11948 Jul 25 j 17:21			direct	-11942 May 05 j 18:04 13° Ⅲ 50'40
opposition	-11948 Sep 22 j 17:11	9° ට 45'31	-1°46'05		-11942 Aug 27 j 23:45 0°5
min. Earth dist.	-11948 Sep 22 j 19:38	9° ⋜ 44'42	4.22095 AU	evening set	-11942 Sep 05 j 19:20 2°500'42
direct	-11948 Nov 22 j 08:36	4° ට 41'13			
evening set	-11947 Mar 31 j 16:35	23° る 28'02		conjunction	-11942 Sep 18 j 09:49 4°555'24 1°18'19
				minimum elong	-11942 Sep 18 j 09:55 4°555'27 1°19'00
conjunction	-11947 Apr 14 j 02:39	26° පි 28'26	-0°46'55	max. Earth dist.	-11942 Sep 18 j 11:29 4°556'21 6.18650 AU
minimum elong	-11947 Apr 14 j 02:44	26° る 28'29	0°47'33	morning rise	-11942 Oct 01 j 03:00 7°551'35
max. Earth dist.	-11947 Apr 13 j 14:44	26° පි 21'45	6.25844 AU	retrograde	-11941 Feb 07 j 14:07 27°500'09
morning rise	-11947 Apr 27 j 09:31	29° පි 27'08		opposition	-11941 Apr 09 j 23:12 22°500'10 1°20'37
	-11947 Apr 29 j 20:34	0° ≈		min. Earth dist.	-11941 Apr 09 j 15:51 22°502'34 4.14850 AU
	-11947 Jul 21 j 05:12	15° ≈		direct	-11941 Jun 08 j 11:04 17°507'12
retrograde	-11947 Aug 26 j 20:46	17° ≈ 06'51			-11941 Sep 14 j 12:04 0° Ω
	-11947 Oct 02 j 15:34	15°R ≈		evening set	-11941 Oct 09 j 03:31 5° Ω 34'47
opposition	-11947 Oct 25 j 08:10	12° ≈ 12'24	-0°29'15		
min. Earth dist.	-11947 Oct 25 j 20:25	12° ≈ 08′23	4.29136 AU	conjunction	-11941 Oct 22 j 04:49 8° Ω 37'24 0°26'12
direct	-11947 Dec 26 j 02:57	7° ≈ 08'53		minimum elong	-11941 Oct 22 j 04:52 8°Ω37'25 0°26'45
asc. node	-11946 Mar 09 j 16:27	14° ≈ 20′10		max. Earth dist.	-11941 Oct 22 j 22:52 8° Ω 47'56 6.11473 AU
	-11946 Mar 13 j 10:34	15° ≈		morning rise	-11941 Nov 04 j 09:36 11° Ω 41'59
evening set	-11946 May 03 j 21:22	25° ≈ 32'57			-11941 Nov 18 j 19:30 15° Ω
	-				-11940 Feb 13 j 11:49 0° m
conjunction	-11946 May 16 j 23:14	28° ≈ 27'41	0°09'58	retrograde	-11940 Mar 14 j 15:49 1° m 24'03
minimum elong	-11946 May 16 j 23:13	28° ≈ 27'40	0°09'35	desc. node	-11940 Apr 08 j 07:55 0° m 26'03
behind sun begin	-11946 May 16 j 16:32	28° ≈ 23'58			-11940 Apr 13 j 12:37 30°R Ω
behind sun end	-11946 May 17 j 05:54			opposition	-11940 May 14 j 07:22 26° Q 20'51 -0°08'32
max. Earth dist.	-11946 May 16 j 00:00	28° ≈ 14'43	6.31683 AU	min. Earth dist.	-11940 May 13 j 15:39 26° Q 26'05 4.08887 AU
	-11946 May 23 j 20:41	0° ∀		direct	-11940 Jul 11 j 19:50 21° Ω 26′21
morning rise	-11946 May 29 j 21:41	1° ∺ 20'40			-11940 Sep 26 j 10:09 0° Mp

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -11940 in astronomical counting style is the year 11941 BCE in historical counting style. minimum elong -11940 Nov 12 j 09:14 10° m 15'34 -11934 May 21 i 06:27 2°\(\pm\)48'03 0°17'17 evening set -11934 Jun 03 i 03:44 5° \(\frac{1}{2}\)40'26 morning rise conjunction -11940 Nov 25 j 20:10 13° m 24'17 -0°36'08 -11934 Oct 01 j 21:03 23° \(\) 00'07 retrograde -11934 Dec 01 j 04:10 18°**)** 08'05 1°04'53 -11940 Nov 25 j 20:06 13° m 24'15 0°35'56 minimum elong opposition 4.33262 AU -11940 Nov 26 j 23:06 13° Mp 40'03 6.07283 AU -11934 Dec 01 j 23:18 18°**米**01'56 max. Earth dist. min. Earth dist. -11933 Feb 01 j 15:22 13°**米**07'12 -11940 Dec 09 j 10:37 16° m 34'48 morning rise direct $0^{\circ}\Upsilon$ -11939 Feb 11 j 10:18 0°**♀** -11933 Jun 03 j 10:11 1°Y14'02 -11939 Apr 19 j 16:18 -11933 Jun 08 j 24:00 retrograde 6°**£**28'39 evening set 1°**£**23'45 -1°36'07 opposition -11939 Jun 18 j 13:13 -11933 Jun 21 j 15:19 4°**Υ**03'29 min. Earth dist. -11939 Jun 17 j 18:01 1°**2**30'18 4.06932 AU conjunction 1°09'02 -11939 Jun 28 j 23:01 30°R Mp minimum elong -11933 Jun 21 j 15:13 4°**Υ**03'26 1°09'02 -11939 Aug 15 j 17:03 26° Mp 26'12 3°**Y**48'13 6.33392 AU direct max. Earth dist. -11933 Jun 20 j 12:04 -11939 Oct 02 j 00:15 0°**♀** morning rise -11933 Jul 04 j 04:10 6°**Υ**51'44 evening set -11939 Dec 19 j 03:40 15°**△**33'44 retrograde -11933 Nov 02 j 23:21 24°**Υ**18'46 opposition -11932 Jan 03 j 00:39 19°**Υ**26'48 2°08'20 conjunction -11938 Jan 01 j 19:59 18° **△**44'21 -1°25'50 min. Earth dist. -11932 Jan 03 j 18:30 19°**Υ**21'08 4.32662 AU minimum elong -11938 Jan 01 j 19:53 18°**2**44'17 1°26'02 direct -11932 Mar 05 j 08:42 14°**Y**28'59 max. Earth dist. -11938 Jan 03 j 00:30 19°**2**00'56 6.07626 AU -11932 Jun 27 j 22:18 0°8 morning rise -11938 Jan 15 j 13:54 21° **2**55'47 evening set -11932 Jul 09 j 03:27 2°**8**29'32 -11938 Feb 20 j 23:46 0°M retrograde -11938 May 25 j 02:21 11° ML33'15 conjunction -11932 Jul 21 j 12:28 5°**8**17'03 1°40'22 opposition -11938 Jul 23 j 05:35 6°M 29'09 -2°28'29 minimum elong -11932 Jul 21 i 12:25 5°**8**17'01 1°40'44 min. Earth dist. -11938 Jul 22 j 15:06 6° ML34'07 4.09641 AU max. Earth dist. -11932 Jul 20 i 15:36 5°**8**05'15 6.30738 AU direct -11938 Sep 19 j 20:01 1°M28'12 morning rise -11932 Aug 02 j 20:27 8°**8**04'11 -11938 Dec 30 j 19:50 15°M -11932 Sep 03 j 21:03 15°8 -11937 Jan 25 j 08:00 20° ML41'30 -11932 Dec 05 j 00:49 25°858'14 retrograde evening set -11931 Feb 04 j 13:43 21°804'37 2°34'45 opposition -11937 Feb 08 j 00:54 23°M 50'09 -1°44'05 -11931 Feb 05 j 01:57 21°800'45 4.28223 AU conjunction min. Earth dist. -11937 Feb 08 j 00:53 23°M 50'08 1°44'37 -11931 Apr 07 j 05:40 16°**8**09'42 minimum elong direct max. Earth dist. -11937 Feb 08 j 17:56 23°ML59'56 6.12312 AU -11931 Jul 21 j 12:14 0°**Ⅱ** -11937 Feb 21 j 17:34 26°M58'31 -11931 Aug 09 j 08:59 morning rise evening set 4°**Ⅱ**12'37 -11937 Mar 07 j 03:06 0° **尽** -11931 Aug 21 j 17:52 7°**Ц**02'19 -11937 Jun 28 j 04:36 15°**尽** 56'49 1°42'14 retrograde conjunction -11931 Aug 21 j 17:54 7°**П**02'20 1°42'51 -11937 Aug 26 j 02:00 10° ₹ 55'35 -2°27'17 opposition minimum elong -11937 Aug 25 j 19:39 10° ₹ 57'45 4.15879 AU -11931 Aug 21 j 07:06 6°**Д**56'09 min. Earth dist. max. Earth dist. 6.24798 AU -11937 Oct 24 j 16:04 5° ₹ 52'05 -11931 Sep 03 j 03:56 9°**Д**52'42 direct morning rise -11936 Mar 01 j 14:36 24° ₹ 55'17 -11930 Jan 08 j 06:43 28°**Ⅲ**26'10 evening set retrograde opposition -11930 Mar 10 j 22:28 23°**Ⅲ**29'23 2°14'13 conjunction -11936 Mar 15 j 05:05 27° ₹ 59'55 -1°25'42 min. Earth dist. -11930 Mar 10 j 23:55 23°**II**28'55 4.21193 AU minimum elong -11936 Mar 15 j 05:11 27°**х** 59'58 1°26'23 direct -11930 May 10 j 10:56 18°**Д**36'15 max. Earth dist. -11936 Mar 15 j 05:36 28° ₹ 00'12 6.19586 AU -11930 Aug 10 j 17:33 -11936 Mar 24 j 01:08 0°**ਰ** -11930 Sep 10 j 10:26 6°9549'25 evening set morning rise -11936 Mar 28 j 17:29 1°**⋜**03'21 -11936 Jul 30 j 03:14 19°**♂**15'20 conjunction -11930 Sep 23 j 02:28 9°545'20 1°12'12 retrograde -11936 Sep 27 j 03:30 14° ₹ 17'55 -1°36'59 -11930 Sep 23 j 02:34 9°545'23 opposition minimum elong 1°12'52 -11936 Sep 27 j 08:38 14° ₹ 16'12 4.23434 AU -11930 Sep 23 j 08:28 9°548'48 min. Earth dist. max. Earth dist. 6.17340 AU -11936 Nov 27 j 00:01 9°る13'37 -11930 Oct 05 j 21:07 12°542'46 direct morning rise evening set -11935 Apr 05 j 05:55 27°る56'26 -11929 Jan 07 i 13:17 $0^{\circ}\Omega$ -11935 Apr 14 i 11:06 0°≈ retrograde -11929 Feb 12 j 17:10 $1^{\circ}\Omega$ 57'20 -11929 Mar 20 i 18:41 30° R € opposition -11935 Apr 18 i 15:06 0°≈56'03 -0°39'40 -11929 Apr 14 j 23:35 26°556'51 1°09'05 conjunction -11935 Apr 18 j 15:10 0°≈56'05 0°40'17 min. Earth dist. -11929 Apr 14 j 14:38 26°559'47 4.13791 AU minimum elong max. Earth dist. -11935 Apr 18 j 00:26 0°≈47'50 6.26915 AU direct -11929 Jun 13 j 07:24 22°503'49 morning rise -11935 May 01 j 20:55 3°≈53'55 -11929 Aug 26 j 04:33 0°**Ω** -11935 Jun 25 j 04:10 15°≈ evening set -11929 Oct 14 j 01:08 10° **Ω**34'09 retrograde -11935 Aug 31 j 02:07 21°≈29'28 opposition -11935 Oct 29 j 16:32 16°≈35'25 -0°17'53 conjunction -11929 Oct 27 j 03:48 13° Ω 37'44 0°17'27 min. Earth dist. -11935 Oct 30 j 05:56 16°≈31'01 4.29861 AU minimum elong -11929 Oct 27 j 03:50 13° Ω 37'45 0°17'58 -11935 Nov 11 j 01:23 15°R≈ max. Earth dist. -11929 Oct 27 j 22:58 13° **Ω**48'56 6.10740 AU -11935 Dec 30 j 13:15 11°≈32'05 -11929 Nov 02 j 00:37 15° Ω direct -11929 Nov 09 j 10:18 16° **Ω** 43'21 asc. node -11934 Jan 20 j 02:58 12°≈10'12 morning rise -11934 Feb 18 j 00:50 15°≈ -11928 Jan 11 j 22:16 0° m evening set -11934 May 08 j 05:50 29°≈53'59 desc. node -11928 Feb 16 j 09:28 4° Mp 51'16 -11934 May 08 j 16:43 0°**)**€ retrograde -11928 Mar 19 j 16:58 6° m 27'56 max. Earth dist. -11934 May 20 j 05:47 2°**₭**34'17 6.32010 AU opposition -11928 May 19 j 07:33 1° **m** $24'17 - 0^{\circ}21'53$ min. Earth dist. -11928 May 18 j 14:04 1° Mp 30'08 4.08523 AU -11934 May 21 j 06:29 2° **₭** 48'05 0°17'38 -11928 May 29 j 23:13 30°R**Ω** conjunction

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 42								
Attention, astronomi	ical year style is used: The		in astronomical co					
direct	-11928 Jul 16 j 17:48	26° Ω 29'23		max. Earth dist.	-11922 May 24 j 15:32		6.32296 AU	
	-11928 Sep 01 j 15:56	0° ™		morning rise	-11922 Jun 07 j 12:52			
evening set	-11928 Nov 17 j 12:08	15° Mp 20'42		retrograde	-11922 Oct 06 j 06:47			
				opposition	-11922 Dec 05 j 17:30		1°15'22	
conjunction	-11928 Dec 01 j 00:14			min. Earth dist.	-11922 Dec 06 j 12:01		4.33271 AU	
minimum elong	-11928 Dec 01 j 00:09			direct	-11921 Feb 06 j 04:12			
max. Earth dist.	-11928 Dec 02 j 05:27		6.07295 AU		-11921 May 17 j 22:59	0° Υ		
morning rise	-11928 Dec 14 j 15:20			evening set	-11921 Jun 13 j 09:21	5° Ƴ 42'34		
_	-11927 Jan 21 j 02:13	0∘ 亚						
retrograde	-11927 Apr 24 j 17:57			conjunction	-11921 Jun 25 j 23:31			
opposition	-11927 Jun 23 j 11:24			minimum elong	-11921 Jun 25 j 23:26		1°14'57	
min. Earth dist.	-11927 Jun 22 j 17:09		4.07313 AU	max. Earth dist.	-11921 Jun 24 j 21:10	8°Υ16'49	6.33126 AU	
direct	-11927 Aug 20 j 16:48	1° £ 29'46		morning rise	-11921 Jul 08 j 11:23			
evening set	-11927 Dec 24 j 08:50	20° 11 37′53		retrograde	-11921 Nov 07 j 13:52		201.412.5	
	110061 07:01:10	220 0 4011 4	1020124	opposition	-11920 Jan 07 j 16:32		2°14'35	
conjunction	-11926 Jan 07 j 01:18			min. Earth dist.	-11920 Jan 08 j 10:19		4.32167 AU	
minimum elong	-11926 Jan 07 j 01:12			direct	-11920 Mar 09 j 23:58			
max. Earth dist.	-11926 Jan 08 j 04:00		6.08302 AU	. ,	-11920 Jun 11 j 00:25			
morning rise	-11926 Jan 20 j 19:21			evening set	-11920 Jul 13 j 12:19	7° 8 00'56		
	-11926 Feb 03 j 00:17			aaniumatian	11020 Iul 25 : 20:50	9° 8 48'30	1°42'32	
	-11926 Apr 29 j 03:59			conjunction	-11920 Jul 25 j 20:50 -11920 Jul 25 j 20:48	9° 8 48'29	1°42'56	
retrograde	-11926 May 29 j 21:18			minimum elong max. Earth dist.	-11920 Jul 25 j 20:48 -11920 Jul 25 j 00:30	9° 6 48°29	6.30048 AU	
min. Earth dist.	-11926 Jun 29 j 06:59		4 10565 ATT		-11920 Jul 23 j 00:30 -11920 Aug 07 j 04:48	_	0.30048 AU	
opposition	-11926 Jul 27 j 10:01 -11926 Jul 28 j 00:15			morning rise	-11920 Aug 07 j 04.48 -11920 Aug 17 j 23:01			
direct	-11926 Sep 24 j 16:53		-2 31 36		-11920 Aug 17 j 23:01 -11920 Nov 20 j 06:31	13 Ο 0° Π		
direct	-11926 Dec 11 j 15:23			retrograde	-11920 Nov 20 j 00:31 -11920 Dec 09 j 17:54	0° П 34'53		
evening set	-11926 Dec 11 j 13:23 -11925 Jan 30 j 11:01			renograde	-11920 Dec 09 j 17:34 -11920 Dec 29 j 07:23			
evening set	-11923 Jan 30 J 11.01	23 11636 10		opposition	-11920 Bec 29 j 07:23 -11919 Feb 09 j 08:27		2°34'45	
conjunction	-11925 Feb 13 j 03:41	280M 16'10	10/12/28	min. Earth dist.	-11919 Feb 09 j 18:19			
minimum elong	-11925 Feb 13 j 03:42			direct	-11919 Apr 11 j 20:12		4.2/414 AO	
max. Earth dist.	-11925 Feb 13 j 18:09			direct	-11919 Jul 03 j 17:56	0°II		
man zarur uiov.	-11925 Feb 18 j 12:12		0.13 103 110	evening set	-11919 Aug 13 j 19:21	8° ∏ 49'49		
morning rise	-11925 Feb 26 j 19:50							
retrograde	-11925 Jul 02 j 20:54			conjunction	-11919 Aug 26 j 04:55	11° Ⅱ 40′07	1°39'52	
opposition	-11925 Aug 30 j 17:21		-2°22'52	minimum elong	-11919 Aug 26 j 04:58			
min. Earth dist.	-11925 Aug 30 j 13:35			max. Earth dist.	-11919 Aug 25 j 21:59			
direct	-11925 Oct 29 j 12:20			morning rise	-11919 Sep 07 j 15:38			
evening set	-11924 Mar 06 j 12:24	29° ∡ ¹41'17		•	-11919 Nov 27 j 12:10	0°©		
	-11924 Mar 07 j 21:42	0° ට		retrograde	-11918 Jan 13 j 04:41	3° 5 09'50		
					-11918 Mar 01 j 12:24	30°Ŗ Ⅱ		
conjunction	-11924 Mar 20 j 02:27	2° る 45'16	-1°20'38	opposition	-11918 Mar 15 j 19:24	28° Ⅱ 12'35	2°07'30	
minimum elong	-11924 Mar 20 j 02:33	2° る 45'20	1°21'19	min. Earth dist.	-11918 Mar 15 j 19:41	28° Ⅱ 12'29	4.20360 AU	
max. Earth dist.	-11924 Mar 20 j 00:59	2° る 44'27	6.20707 AU	direct	-11918 May 15 j 04:33	23° Ⅱ 19'36		
morning rise	-11924 Apr 02 j 14:02	5° る 47'56			-11918 Jul 22 j 02:55	0 \circ \odot		
retrograde	-11924 Aug 03 j 13:21	23° る 53'51		evening set	-11918 Sep 15 j 00:32	11° 5 33'48		
opposition	-11924 Oct 01 j 16:19	18° る 56'57	-1°27'10					
min. Earth dist.	-11924 Oct 01 j 22:09		4.24437 AU	conjunction	-11918 Sep 27 j 17:43		1°05'44	
direct	-11924 Dec 01 j 15:43	13° る 52'39		minimum elong	-11918 Sep 27 j 17:48		1°06'24	
	-11923 Mar 29 j 08:56	0° ≈		max. Earth dist.	-11918 Sep 28 j 00:43		6.16596 AU	
evening set	-11923 Apr 09 j 22:04	2° ≈ 32'33		morning rise	-11918 Oct 10 j 14:01			
					-11918 Dec 09 j 10:50	0 \circ Ω		
conjunction	-11923 Apr 23 j 06:08	5° ≈ 31'25		retrograde	-11917 Feb 17 j 14:56	6° Ω 47'34		
minimum elong	-11923 Apr 23 j 06:11	5° ≈ 31'27	0°32'34	opposition	-11917 Apr 19 j 20:54	1° Ω 46'31	0°57'21	
max. Earth dist.	-11923 Apr 22 j 12:45	5° ≈ 21'41	6.27741 AU	min. Earth dist.	-11917 Apr 19 j 09:41	1° Ω 50′12	4.13185 AU	
morning rise	-11923 May 06 j 10:59	8° ≈ 28'33			-11917 May 03 j 17:50			
	-11923 Jun 05 j 18:36			direct	-11917 Jun 18 j 00:48			
retrograde	-11923 Sep 04 j 13:19	26°≈00'52	000 (100		-11917 Aug 01 j 10:11	0°Ω		
opposition	-11923 Nov 03 j 04:56				-11917 Oct 17 j 00:19			
min. Earth dist.	-11923 Nov 03 j 20:21		4.30440 AU	evening set	-11917 Oct 18 j 19:57	15~ 6 (25'18		
asc. node	-11923 Dec 01 j 00:27				1101731 01:00:00	100 0 20142	0000151	
direct	-11922 Jan 04 j 05:34			conjunction	-11917 Nov 01 j 00:10		0°08'51	
avanina a-t	-11922 Apr 22 j 11:24	0°) (4°¥22!52		minimum elong	-11917 Nov 01 j 00:11		0°09'19	
evening set	-11922 May 12 j 17:24	4° ∺ 23'52		behind sun begin behind sun end	-11917 Oct 31 j 17:18			
conjunction	-11922 May 25 j 16:51	7° ₩ 17'19	0°25'30	max. Earth dist.	-11917 Nov 01 j 07:05 -11917 Nov 01 j 22:14		6.10329 AU	
minimum elong	-11922 May 25 j 16:49	7° X 17'19		morning rise	-11917 Nov 01 J 22.14 -11917 Nov 14 j 07:55		0.10347 AU	
mmmum ciong	11,22 May 23 J 10.49	, ,(1/10	J 2012		11/1/11/07 17 J 07.33	2. 365000		

Planetary Phenomena of Jupiter from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -11917 in astronomical counting style is the year 11918 BCE in historical counting style. -11917 Dec 22 i 05:12 0° m direct -11910 Jan 08 j 19:56 20°≈38'30 -11917 Dec 27 j 13:17 -11910 Apr 04 j 11:07 0°₩ desc node 1° m 05'15 -11916 Mar 24 j 17:04 11° m 22'12 -11910 May 17 j 05:46 8° **H** 56'27 retrograde evening set -11916 May 23 j 11:13 6° Mp 23'58 4.08335 AU -11910 May 29 j 01:31 11°**)** 34'34 min. Earth dist. max. Earth dist. 6.32558 AU -11916 May 24 j 04:13 6° Mp 18'16 -0°34'41 opposition -11916 Jul 21 j 13:43 -11910 May 30 j 03:45 11° **\(\)**49'13 0°33'17 direct 1° Mp 23'00 conjunction -11916 Nov 22 j 11:44 20° m/16'11 -11910 May 30 j 03:42 11° **\(\)**49'11 evening set minimum elong 0°33'02 -11910 Jun 11 j 22:38 14° **∺** 40'22 morning rise $0^{\circ}\Upsilon$ conjunction -11916 Dec 06 j 00:33 23° Mp 25'38 -0°52'12 -11910 Sep 04 j 15:23 minimum elong -11916 Dec 06 j 00:27 23° m 25'35 0°52'05 retrograde -11910 Oct 10 j 19:56 2°**Y**00′29 max. Earth dist. -11916 Dec 07 j 04:47 23° Mp 42'08 6.07321 AU -11910 Nov 16 j 09:09 30°R ₩ -11916 Dec 19 j 16:29 26° m 36'40 -11910 Dec 10 j 08:04 27° **米** 08'39 1°25'29 morning rise opposition -11915 Jan 03 j 11:35 0°**♀** -11910 Dec 11 j 03:19 27° ¥ 02'30 4.33359 AU min. Earth dist. retrograde -11915 Apr 29 j 13:59 16°**♀**27'13 direct -11909 Feb 10 j 20:21 22°**∺**08'35 min. Earth dist. -11915 Jun 27 j 11:12 11° **2**28'41 4.07574 AU -11909 Apr 29 j 05:39 0°**Υ** opposition -11915 Jun 28 j 05:46 11°**2**22'21 -1°55'18 evening set -11909 Jun 17 j 18:44 10°**Υ**13'07 direct -11915 Aug 25 j 10:58 6°**£**23'51 max. Earth dist. -11909 Jun 29 j 06:37 12°**Y**47'31 6.33008 AU evening set -11915 Dec 29 j 10:46 25°**♀**33'21 conjunction -11909 Jun 30 j 07:54 13°**Υ**01'43 1°20'20 conjunction -11914 Jan 12 j 03:28 28° **2**43'35 -1°34'31 minimum elong -11909 Jun 30 j 07:49 13°**Υ**'01'40 minimum elong -11914 Jan 12 j 03:23 28° **△**43'32 1°34'49 morning rise -11909 Jul 12 j 18:51 15°**Υ**49'17 max. Earth dist. -11914 Jan 13 j 04:22 28° **2**58'01 6.08753 AU -11909 Sep 25 i 06:52 0°8 -11914 Jan 17 j 15:18 0°M retrograde -11909 Nov 12 j 02:48 3°**8**22'00 morning rise -11914 Jan 25 j 21:25 1° ML54'21 -11909 Dec 31 i 06:39 30°RΥ -11914 Mar 29 j 15:49 15°M opposition -11908 Jan 12 j 08:41 28° Υ 29'44 2° 20'03 retrograde -11914 Jun 03 j 15:40 21°M22'23 min. Earth dist. -11908 Jan 13 j 00:34 28°**Y**24'42 4.31862 AU opposition -11914 Aug 01 j 16:17 16°ML18'56 -2°33'40 direct -11908 Mar 14 j 13:10 23°**Y**32'47 min. Earth dist. -11914 Aug 01 j 04:23 16°M23'00 4.11162 AU -11908 May 22 j 08:10 0°8 -11914 Aug 11 j 09:17 15°R**M** -11908 Jul 17 j 20:54 11° 832'39 evening set -11914 Sep 29 j 12:27 11°ML17'09 -11908 Jul 29 j 10:57 14°**8**09'56 6.29556 AU max. Earth dist. direct -11914 Nov 17 j 14:12 15°M -11908 Jul 30 j 05:06 14°**8**20'13 1°44'05 -11913 Feb 02 j 08:14 0° **尽** conjunction -11908 Jul 30 j 05:03 14°**8**20'12 1°44'32 -11913 Feb 04 j 11:31 0° ₹29'08 minimum elong evening set -11908 Aug 02 j 03:10 15°8 -11913 Feb 18 j 04:10 3° ₹36'53 -1°42'28 -11908 Aug 11 j 12:53 17°**8**07'42 conjunction morning rise -11913 Feb 18 j 04:12 3° ₹36'54 1°43'05 -11908 Oct 14 j 20:00 0°**Ⅱ** minimum elong -11913 Feb 18 j 17:06 3° ₹ 44'18 6.14097 AU -11908 Dec 14 j 12:16 5° **I**I 10'56 max. Earth dist. retrograde morning rise -11913 Mar 03 j 19:49 6°**х** 44'03 opposition -11907 Feb 14 j 02:34 0°**П**16'31 2°33'49 retrograde -11913 Jul 07 j 10:10 25° ₹30'08 min. Earth dist. -11907 Feb 14 j 12:09 0°**I**I13'29 4.26743 AU opposition -11913 Sep 04 j 07:21 20°**尽** 29'58 -2°17'35 -11907 Feb 16 j 06:38 30°R₩ min. Earth dist. -11913 Sep 04 j 04:15 20° ₹31'02 4.17758 AU direct -11907 Apr 16 j 12:10 25°822'12 -11913 Nov 03 j 04:43 15°**尽**26'08 -11907 Jun 12 j 00:48 0°**П** direct -11912 Feb 20j07:52 0°る -11907 Aug 18 j 05:15 13°**Д**26'00 evening set -11912 Mar 11 j 09:02 4°₹25'12 evening set conjunction -11907 Aug 30 j 15:25 16°**Д**16'54 1°36'55 -11912 Mar 24 j 22:24 7°る28'41 -1°15'03 -11907 Aug 30 j 15:28 16°**I**I16'56 1°37'34 conjunction minimum elong -11912 Mar 24 j 22:30 7°る28'44 1°15'45 -11907 Aug 30 i 09:17 16° **I**I 13'23 6.23151 AU minimum elong max. Earth dist. -11912 Mar 24 j 17:27 7°る25'53 6.21437 AU max. Earth dist. morning rise -11907 Sep 12 j 03:13 19°**Д**08'45 -11912 Apr 07 j 09:25 10°る30'48 -11907 Nov 02 j 13:36 0°5 morning rise retrograde -11912 Aug 08 i 02:11 28°₹32'22 retrograde -11906 Jan 17 i 23:53 7°\$52'23 opposition -11912 Oct 06 j 05:33 23°る35'58 -1°16'49 opposition -11906 Mar 20 j 15:08 2°554'33 2°00'01 min. Earth dist. -11912 Oct 06 j 13:32 23°る33'19 4.25090 AU min. Earth dist. -11906 Mar 20 j 13:05 2°55'12 4.19476 AU direct -11912 Dec 06 j 09:33 18°る31'47 -11906 Apr 13 j 21:33 30°RⅡ -11911 Mar 12 j 02:17 0°≈ direct -11906 May 19 j 19:13 28°**Д**01'37 -11906 Jun 24 j 07:20 0°១ evening set -11911 Apr 14 j 14:06 7°≈09'46 evening set -11906 Sep 19 j 14:08 16°517'22 conjunction -11911 Apr 27 j 21:21 10°≈08'04 -0°24'05 -11911 Apr 27 j 21:23 10°≈08'05 0°24'37 -11906 Oct 02 j 08:52 19°515'10 0°58'53 minimum elong conjunction -11911 Apr 27 j 03:56 9°≈58'19 6.28294 AU -11906 Oct 02 j 08:57 19°515'13 0°59'33 max. Earth dist. minimum elong -11911 May 11 j 00:59 13°≈04'31 -11906 Oct 02 j 18:50 19°520'58 morning rise max. Earth dist. 6.15721 AU -11911 May 19 j 17:56 15°≈ morning rise -11906 Oct 15 j 06:35 22°514'42 -11911 Aug 21 j 02:45 0°**∀** -11906 Nov 19 j 07:34 $0^{\circ}\Omega$ retrograde -11911 Sep 08 j 23:06 0°**)** 34'33 retrograde -11905 Feb 22 j 14:47 11°**Ω**37'40 -11911 Sep 27 j 21:05 30°R≈ opposition -11905 Apr 24 j 17:55 6°**£**36′09 0°45'17 asc. node -11911 Oct 11 j 06:57 28°≈56'30 min. Earth dist. -11905 Apr 24 j 06:43 6°**Ω**39'50 4.12363 AU -11911 Nov 07 j 18:05 25°≈41'14 0°05'56 direct -11905 Jun 22 j 19:42 1°**Ω**42'43 opposition

-11905 Sep 30 j 08:45 15°**Ω**

min. Earth dist.

-11911 Nov 08 j 09:03 25°≈36'22 4.30861 AU

ttention, astronomical year style is used: The year -11905 in astronomical counting style is the year 11906 BCE in historical counting style.

•		e year -11905 in astronomical
evening set	-11905 Oct 23 j 15:35	
evening set	11703 001 23 j 13.33	20 001/2/
conjunction	-11905 Nov 05 j 21:05	23° Ω 22'45 0°00'08
minimum elong	-11905 Nov 05 j 21:07	23°Ω22'45 0°00'34
behind sun begin	-11905 Nov 05 j 12:53	23° Ω 17'58
behind sun end	-11905 Nov 06 j 05:20	23° Ω 27'33
desc. node	-11905 Nov 06 j 05:20	23° Ω 33'33
max. Earth dist.	-11905 Nov 06 j 19:33	23° Ω 35'45 6.09642 AU
morning rise	-11905 Nov 19 j 06:25	26°Ω30'05
morning rise	-11905 Dec 04 j 13:02	0° m
retrograde	-11904 Mar 29 j 15:50	16° Mp 18'29
min. Earth dist.	-11904 May 28 j 06:47	11° Mp 20'24 4.07858 AU
opposition	-11904 May 29 j 00:58	11° mp 14'17 -0°47'18
direct	-11904 Jul 26 j 08:04	6° Mp 18'34
evening set	-11904 Nov 27 j 13:12	25° Mp 15'00
evening set	-11704 NOV 27 J 13.12	23 mg 13 00
conjunction	-11904 Dec 11 j 02:55	28° m/24'54 -0°59'38
minimum elong	-11904 Dec 11 j 02:48	28° m 24'50 0°59'36
max. Earth dist.	-11904 Dec 12 j 07:03	28° Mp 41'20 6.07082 AU
max. Lartii dist.	-11904 Dec 12 j 07:03	0°₽
morning rise	-11904 Dec 17 j 21:48	0 — 1° — 36'15
retrograde	-11903 May 04 j 13:03	21° 2 26′02
min. Earth dist.	-11903 May 04 j 13:03 -11903 Jul 02 j 08:30	16° 2 27'02 4.07595 AU
opposition	-11903 Jul 02 j 08:30	16° £ 21'10 -2°03'40
direct	-11903 Jul 03 j 01:39 -11903 Aug 30 j 08:32	11° £ 22'07
direct	-11903 Aug 30 j 08:32 -11902 Jan 01 j 04:12	0°ML
evening set	-11902 Jan 01 j 04.12 -11902 Jan 03 j 15:01	0°M33'49
evening set	-11902 Jan 03 j 13.01	0 11633 49
conjunction	-11902 Jan 17 j 08:04	3°M44'01 -1°37'52
minimum elong	-11902 Jan 17 j 07:59	3°M43'58 1°38'12
max. Earth dist.	-11902 Jan 17 J 07:39 -11902 Jan 18 j 08:22	3°M58'05 6.09016 AU
morning rise	-11902 Jan 31 j 01:56	6°M54'36
morning rise	-11902 Jan 31 j 01:30 -11902 Mar 08 j 17:49	15°M
retrograde	-11902 Wai 08 j 17.49 -11902 Jun 08 j 11:02	26°M18'43
opposition	-11902 Juli 08 j 11:02 -11902 Aug 06 j 10:28	21°M15'38 -2°34'41
min. Earth dist.	-11902 Aug 00 j 10:28 -11902 Aug 05 j 23:00	21°M19'34 4.11653 AU
direct	-11902 Aug 03 j 23:00 -11902 Oct 04 j 08:01	16°M13'29
direct	-11902 Oct 04 j 08:01 -11901 Jan 16 j 04:39	0° ₹
evening set	-11901 Jan 10 j 04:39 -11901 Feb 09 j 14:42	5° ₹ 25'37
evening set	-117011 CO 07 j 14.42	3 × 2331
conjunction	-11901 Feb 23 j 06:58	8° ₹ 32'58 -1°40'34
minimum elong	-11901 Feb 23 j 07:01	8° × 33'00 1°41'11
max. Earth dist.	-11901 Feb 23 j 16:19	8° ₹ 38'19 6.14764 AU
morning rise	-11901 Mar 08 j 22:20	11° ₹ 39'40
morning rise	-11901 Jun 27 j 21:52	0° る
retrograde	-11901 Jul 12 j 02:52	0° ろ 20'23
retrograde	-11901 Jul 26 j 06:26	30°R ₹
opposition	-11901 Sep 08 j 23:54	25° ₹ 20'43 -2°11'17
min. Earth dist.	-11901 Sep 08 j 22:41	25° ₹21'08 4.18533 AU
direct	-11901 Nov 08 j 02:07	20° ₹ 16'42
	-11900 Feb 01 j 20:00	0°る
evening set	-11900 Mar 16 j 07:51	9° ප 14'00
e , enning sec	11900 1.141 10 j 07.01	<i>y</i> C 1.00
conjunction	-11900 Mar 29 j 20:46	12°る16'57 -1°08'53
minimum elong	-11900 Mar 29 j 20:52	12°る17'00 1°09'34
max. Earth dist.	-11900 Mar 29 j 15:35	12°る14'01 6.22299 AU
morning rise	-11900 Apr 12 j 06:47	15° る 18'22
morning rise	-11900 Jun 27 j 22:06	0°≈
retrograde	-11900 Aug 12 j 15:20	3°≈14'54
renograde	-11900 Sep 27 j 21:57	30°R♂
opposition	-11900 Oct 10 j 20:44	28°る19'02 -1°05'49
min. Earth dist.	-11900 Oct 11 j 04:48	28°る16'22 4.25968 AU
direct	-11900 Dec 11 j 03:37	23°る15'01
	-11899 Feb 19 j 20:00	0°≈
evening set	-11899 Apr 19 j 07:39	
<i>3</i>	r - J	-
conjunction	-11899 May 02 j 13:35	14°≈47'31 -0°15'57
•	J J	

minimum elong -11899 May 02 j 13:36 14°≈47'32 0°16'27 max. Earth dist. -11899 May 01 j 17:56 14°≈36'32 6.29140 AU -11899 May 03 j 11:53 15°≈ -11899 May 15 j 16:12 17°**≈**43'12 morning rise -11899 Jul 16 j 06:57 0°**ℋ** -11899 Aug 20 j 15:26 4°**米** 15'32 asc. node -11899 Sep 13 j 12:13 5°**光** 10'06 retrograde -11899 Nov 12 j 08:53 0°**光** 17'04 0°17'56 opposition -11899 Nov 13 j 00:56 0°**米**11'52 4.31615 AU min. Earth dist. -11899 Nov 14 j 13:30 30°R≈