Attention, astronomical year style is used: The year -8400 in astronomical counting style is the year 8401 BCE in historical counting style. -8400 May 08 j 04:50 23° **€** 37'48 evening set -8395 Oct 13 j 15:24 2° m 39'28 evening set 26°\(\dagger)35'38 -0°01'33 -8400 May 21 j 14:12 -8395 Oct 26 j 09:51 0°35'30 5° m 38'38 conjunction conjunction -8400 May 21 j 14:12 -8395 Oct 26 j 09:54 0°35'46 26°₩35'38 0°01'39 5° m 38'40 minimum elong minimum elong -8400 May 21 j 06:00 -8395 Oct 26 j 13:40 behind sun begin 26°**∺**31'07 max. Earth dist. 5° Mp 40'51 6.12632 AU -8400 May 21 j 22:24 behind sun end 26°**)** 40′10 morning rise -8395 Nov 08 j 06:52 8°m/39'18 max. Earth dist. -8400 May 20 j 21:18 26°**¥**26′16 6.31562 AU retrograde -8394 Mar 18 j 11:37 28° Mp 10'06-8400 Jun 02 j 01:43 asc. node 29°**)**€08'16 opposition -8394 May 18 j 12:08 23°M 09'50 0°10'55 morning rise -8400 Jun 03 j 20:20 29°**)** 31'46 min. Earth dist. -8394 May 18 j 01:58 23° Mp 13'10 4.09136 AU $0^{\circ}\Upsilon$ -8400 Jun 05 j 23:38 desc. node -8394 Jul 08 j 04:00 18° Mp 24'04 retrograde -8400 Oct 02 j 17:06 16°**Y**52'55 direct -8394 Jul 16 j 14:25 18° Mp 16'55 $11^{\circ} \mathbf{Y} 58'50$ -8394 Oct 16 j 17:39 opposition -8400 Dec 01 j 10:58 0°34'50 0°Ω 11°**Y**53'33 -8394 Nov 16 j 22:34 min. Earth dist. -8400 Dec 02 j 03:09 4.33982 AU evening set 7°**≏**04'17 direct -8399 Feb 01 j 12:11 6°Y55'24 evening set -8399 Jun 09 j 18:33 25°Y04'53 conjunction -8394 Nov 30 j 01:51 10°₽10'00 -0°20'40 minimum elong -8394 Nov 30 j 01:49 10°**≙**09'59 0°20'42 conjunction -8399 Jun 22 j 18:29 27°Υ57'15 0°48'25 max. Earth dist. -8394 Dec 01 j 01:00 10°**£**23'40 6.06599 AU minimum elong -8399 Jun 22 j 18:25 27°**Y**57'13 0°48'37 morning rise -8394 Dec 13 j 08:44 13°**♀**17'39 max. Earth dist. -8399 Jun 21 j 12:57 27°**Ƴ**40'53 6.35281 AU -8393 Mar 08 j 05:49 -8399 Jul 02 j 00:03 0°8 retrograde -8393 Apr 24 j 01:20 3°M₁7′25 morning rise -8399 Jul 05 j 14:49 0°847'53 -8393 Jun 09 j 23:56 -8399 Sep 19 j 14:44 15°8 opposition -8393 Jun 23 i 11:57 28° **2**13'40 -1°12'02 retrograde -8399 Nov 03 i 02:38 17°**8**59'21 min. Earth dist. -8393 Jun 22 i 14:37 28°**♀**20'50 4.05308 AU -8399 Dec 18 j 10:23 15°R₩ direct -8393 Aug 20 i 18:15 23°**₽**19'09 -8398 Jan 02 j 11:11 13°**8**07'26 1°39'50 -8393 Oct 26 j 03:55 0°M opposition -8398 Jan 03 j 10:40 -8393 Dec 22 j 22:30 12°M21'52 min. Earth dist. 12°**8**59'54 4 35526 AU evening set -8398 Mar 05 j 23:56 8°806'11 -8392 Jan 03 j 04:09 direct 15°M. -8398 May 17 j 05:04 15°8 evening set -8398 Jul 11 j 08:03 26°**8**09'06 -8392 Jan 05 j 09:32 15°MJ31'23 -1°10'06 conjunction max. Earth dist. -8398 Jul 22 j 11:04 28°**8**37'51 -8392 Jan 05 j 09:27 6.34395 AU minimum elong 15°M₂31'20 1°10'26 -8392 Jan 06 j 22:58 max. Earth dist. 15°M53'23 6.05244 AU -8398 Jul 23 j 22:45 -8392 Jan 18 j 23:31 conjunction 28°**8**57'48 1°24'02 18°M42'27 morning rise -8398 Jul 23 j 22:41 28°**8**57'46 1°24'28 -8392 Mar 11 j 00:53 0°**∡** minimum elong -8398 Jul 28 j 14:03 $0^{\circ}\Pi$ -8392 May 29 j 06:23 8°**∡**′41′11 retrograde 3°**∡**36′03 -2°08′47 -8398 Aug 05 j 11:06 -8392 Jul 27 j 23:42 morning rise 1°**Ⅱ**45'22 opposition -8398 Dec 05 j 05:43 -8392 Jul 26 j 23:42 retrograde 19°**Ⅱ**11′06 min. Earth dist. 3°**х** 44'14 4.06710 AU -8397 Feb 04 j 03:33 -8392 Aug 26 j 17:28 opposition 14°**Ⅱ**19'30 2°16'26 30°RM min. Earth dist. -8397 Feb 05 j 04:23 14°**П**11'36 4.32392 AU direct -8392 Sep 24 j 03:36 28°M38'27 -8397 Apr 07 j 12:37 9°**Ⅲ**21′06 -8392 Oct 22 j 17:00 0°**⊼** direct -8397 Aug 11 j 12:05 27°**Ⅲ**26′07 evening set -8391 Jan 27 j 21:13 17°**∡**¹46'26 evening set -8397 Aug 22 j 20:12 0ಂತಾ -8391 Feb 10 j 12:53 20°**∡** 56′05 -1°33′43 conjunction -8397 Aug 23 j 22:06 0°9514'42 1°35'31 -8391 Feb 10 j 12:52 20°**∡** 56′04 1°34′15 conjunction minimum elong 21°**∡**16′29 -8397 Aug 23 j 22:06 0°514'42 1°36'04 -8391 Feb 12 j 00:05 minimum elong max. Earth dist. 6.09118 AU -8397 Aug 22 j 16:38 29°**I**57'59 6.29172 AU -8391 Feb 24 j 06:22 24°**₹**06′29 max. Earth dist. morning rise -8397 Sep 05 i 07:03 morning rise 3°902'55 -8391 Mar 22 j 13:20 0°궁 retrograde -8396 Jan 07 j 12:59 21°9502'43 retrograde -8391 Jul 03 i 03:20 13°る32'48 opposition -8396 Mar 08 j 21:09 16°909'33 2°13'20 opposition -8391 Aug 31 i 10:11 8°중28'47 -2°17'55 min. Earth dist. -8396 Mar 09 j 14:31 16°504'03 4.25454 AU min. Earth dist. -8391 Aug 30 i 15:06 8°る35'19 4.12723 AU -8396 May 09 i 10:36 11°9514'10 direct -8391 Oct 29 j 05:23 3°**♂**27'44 direct -8396 Sep 11 j 00:34 29°528'32 -8390 Mar 05 j 12:49 22°る27'12 evening set evening set -8396 Sep 13 j 07:26 $0^{\circ}\Omega$ -8390 Mar 19 j 06:21 25°**ප**34'19 -1°23'30 conjunction conjunction -8396 Sep 23 j 11:56 2°Ω20'59 1°18'20 minimum elong -8390 Mar 19 i 06:25 25°る34'22 1°24'02 minimum elong -8396 Sep 23 j 12:00 $2^{\circ}\Omega$ 21'01 1°18'51 max. Earth dist. -8390 Mar 20 j 04:16 25°る46'48 6.16748 AU max. Earth dist. -8396 Sep 22 j 19:29 2°**Ω**11'29 6.21110 AU morning rise -8390 Apr 01 j 23:24 28°る41'04 -8396 Oct 06 j 00:23 0°**≈** 5°**Ω**14'06 -8390 Apr 07 j 19:52 morning rise -8396 Nov 20 j 08:56 15°Ω -8390 Jun 28 j 12:14 15°≈ -8395 Feb 10 j 09:48 23°**Ω**59'45 -8390 Aug 05 j 13:35 17°≈17'23 retrograde retrograde -8395 Apr 12 j 18:19 19°**Ω**03'24 1°27'57 -8390 Sep 12 j 08:37 opposition 15°R≈ 19°**Ω**01'47 4.16752 AU -8390 Oct 03 j 16:05 min. Earth dist. -8395 Apr 12 j 23:20 opposition 12°≈16'31 -1°39'34 -8395 May 20 j 03:42 15°RΩ min. Earth dist. -8390 Oct 03 j 09:02 12°≈18'55 4.21150 AU direct -8395 Jun 12 j 03:34 14°**Ω**10′00 direct -8390 Dec 02 j 15:19 7°≈13'04 -8395 Jul 04 j 23:07 15°€ -8389 Feb 16 j 01:47 15°≈ -8395 Oct 02 j 02:44 0° m evening set -8389 Apr 09 j 22:47 25°≈54'25

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8389 in astronomical counting style is the year 8390 BCE in historical counting style. -8389 Apr 23 i 13:59 28°≈57'06 -0°45'31 retrograde -8383 Feb 15 i 08:16 28°**Ω**47'26 conjunction -8389 Apr 23 i 14:03 28°≈57'09 0°45'51 -8383 Apr 17 j 16:53 23°**Ω**50'34 1°18'39 minimum elong opposition 28°≈57'25 6.25374 AU -8389 Apr 23 j 14:32 min. Earth dist. -8383 Apr 17 j 19:20 23°**Ω**49'47 4.15834 AU max. Earth dist. -8383 Jun 16 j 21:24 -8389 Apr 28 j 06:25 0°**)**€ direct 18°**Ω**57'23 -8383 Sep 14 j 22:11 -8389 May 07 j 02:54 1°**)** 58'31 morning rise 0° m -8389 Sep 06 j 14:40 19°**)** 47′15 -8383 Oct 18 j 07:12 retrograde evening set 7° m 28'07 -8389 Nov 04 j 23:19 opposition 14°**¥**50′14 -0°30′56 -8383 Oct 31 j 02:37 min. Earth dist. -8389 Nov 05 j 05:05 14°**)**48'19 4.29148 AU conjunction 10° Mp 28'03 0°28'06 -8383 Oct 31 j 02:40 direct -8388 Jan 05 j 03:46 9°**)**46'01 minimum elong 10° Mp 28'05 0°28'20 asc. node -8388 Apr 12 j 01:23 21°**)** 36'16 max. Earth dist. -8383 Oct 31 j 08:31 10°M 31'30 6.11902 AU evening set -8388 May 12 j 18:50 28°**)** 08'17 morning rise -8383 Nov 13 j 01:00 13° m 29'37 -8388 May 21 j 05:09 $0^{\circ}\Upsilon$ 0∘**⊽** -8382 Feb 05 j 23:06 -8388 May 25 j 08:26 0° Y55'04 -8382 Mar 23 j 11:29 max. Earth dist. 6.32208 AU retrograde 3°**2**04'29 -8382 May 08 j 07:31 30°R, M) conjunction -8388 May 26 j 03:06 1° **Y**05'25 0°05'50 desc. node -8382 May 19 j 07:20 28° M 36'28 minimum elong -8388 May 26 j 03:04 1°Y05'24 0°05'47 opposition -8382 May 23 j 11:19 28° Mp 03'37 -0°00'54 behind sun begin -8388 May 25 j 19:16 1°Y01'05 min. Earth dist. -8382 May 22 j 23:12 28° M 07'36 4.08645 AU behind sun end -8388 May 26 j 10:52 1°Y09'42 direct -8382 Jul 21 j 10:44 23°m/10'33 morning rise -8388 Jun 08 j 07:53 4°**Υ**00'45 -8382 Sep 26 j 23:41 0∘**ত** retrograde -8388 Oct 07 j 01:34 21°**Y**19'32 evening set -8382 Nov 21 j 19:03 11°**♀**59'11 opposition -8388 Dec 05 j 21:04 16°**Y**25'53 0°44'58 min. Earth dist. -8388 Dec 06 j 14:48 16°**Y**20′07 4.34315 AU conjunction -8382 Dec 04 i 23:34 15° **2**05'28 -0°28'20 direct -8387 Feb 06 i 01:02 11°**Y**22'42 minimum elong -8382 Dec 04 i 23:32 15°**♀**05'27 0°28'25 evening set -8387 Jun 14 i 04:56 29° Y 31'17 max. Earth dist. -8382 Dec 06 i 02:06 15°**♀**21'07 6.06391 AU -8387 Jun 16 j 09:05 0°8 morning rise -8382 Dec 18 j 07:27 18°**£**13'39 -8387 Jun 25 j 19:29 2°805'20 6.35258 AU -8381 Feb 10 j 18:25 max. Earth dist. o°m. -8381 Apr 29 j 01:38 8°M14'06 retrograde -8387 Jun 27 j 03:27 2°**8**23'04 0°54'29 -8381 Jun 27 j 11:57 3°ML17'19 4.05420 AU conjunction min. Earth dist. -8387 Jun 27 j 03:23 -8381 Jun 28 j 09:30 3°M10'05 -1°22'00 2°**8**23'01 0°54'43 opposition minimum elong -8387 Jul 09 j 22:41 5°813'13 -8381 Jul 24 j 02:14 morning rise 30°R <u>Ω</u> -8381 Aug 25 j 14:56 -8387 Aug 26 j 13:06 28°**£**15'14 15°8 direct -8381 Sep 27 j 01:12 -8387 Nov 07 j 13:03 retrograde 22°**8**25'56 0°M -8386 Jan 06 j 23:29 17°**8**34'08 1°46'58 -8381 Dec 17 j 23:22 15°M opposition -8386 Jan 07 j 23:34 17°**8**26'25 4.35184 AU -8381 Dec 27 j 22:40 min. Earth dist. evening set 17°ML18'37 15°₹**8** -8386 Jan 28 j 02:02 -8386 Mar 10 j 12:34 12°**8**33'14 -8380 Jan 10 j 10:18 20°M28'14 -1°15'10 direct conjunction -8386 Apr 20 j 20:45 -8380 Jan 10 j 10:13 15°**8** minimum elong 20°M28'11 1°15'32 -8386 Jul 12 j 22:51 $0^{\circ}II$ max. Earth dist. -8380 Jan 11 j 22:27 20°M49'27 6.05622 AU evening set -8386 Jul 15 j 16:49 0°**I**I36'32 morning rise -8380 Jan 24 j 01:05 23°M39'23 max. Earth dist. -8386 Jul 26 j 20:45 3°**П**06'04 6.33765 AU -8380 Feb 21 j 01:58 0°**∡**7 retrograde -8380 Jun 03 j 01:22 13°**х** 35′04 -8386 Jul 28 j 06:41 3°II25'05 1°27'14 -8380 Aug 01 j 17:53 8°**₹**29'57 -2°13'02 conjunction opposition -8386 Jul 28 j 06:38 3°**I**I25′03 1°27′42 min. Earth dist. -8380 Jul 31 j 17:49 8°**≯**38'10 4.07332 AU minimum elong -8386 Aug 09 j 18:05 6°**Ⅲ**12'31 -8380 Sep 28 j 22:40 3°**∡**31'51 morning rise direct -8386 Dec 09 j 19:05 23°**Ⅱ**42'19 -8379 Feb 01 j 21:48 22°×39'33 retrograde evening set -8385 Feb 08 i 19:14 18°**耳**50'39 2°18'32 opposition -8385 Feb 09 i 18:53 -8379 Feb 15 i 14:00 25°**х** 49'02 -1°34'18 min. Earth dist. 18°**I**I43'09 4.31544 AU conjunction direct -8385 Apr 12 j 02:19 13°**I**I52'46 minimum elong -8379 Feb 15 i 14:00 25°**х** 49′02 1°34′50 -8385 Aug 07 j 01:10 0ಂತಾ max. Earth dist. -8379 Feb 17 i 00:15 26°**₹**'08'51 6.09929 AU -8385 Aug 15 j 21:29 1°958'51 -8379 Mar 01 i 07:29 28°×759'05 evening set morning rise 4°**©**31'19 6.28181 AU -8385 Aug 27 j 02:22 -8379 Mar 05 i 18:02 0°궁 max. Earth dist. -8379 Jul 07 j 20:13 18°る19'48 retrograde -8385 Aug 28 j 07:09 4°947'42 1°34'50 -8379 Sep 04 j 08:03 13°る21'53 4.13636 AU conjunction min. Earth dist. -8379 Sep 05 j 00:45 minimum elong -8385 Aug 28 j 07:10 4°9547'42 1°35'23 opposition 13°る16'10 -2°15'13 -8385 Sep 09 j 16:19 7°936'23 direct -8379 Nov 02 j 23:25 8°**궁**14'46 morning rise -8384 Jan 12 j 08:30 25°9541'54 evening set -8378 Mar 10 j 11:07 27°る12'57 retrograde -8384 Mar 13 j 16:54 20°5548'21 2°09'25 -8378 Mar 22 j 17:56 0°≈ opposition -8384 Mar 14 j 08:43 20°5643'19 4.24387 AU min. Earth dist. -8384 May 14 j 03:24 15°953'16 -8378 Mar 24 j 04:38 0°≈19'42 -1°19'40 direct conjunction -8384 Aug 28 j 02:33 $0^{\circ}\Omega$ -8378 Mar 24 j 04:43 minimum elong 0°≈19'45 1°20'11 evening set -8384 Sep 15 j 12:03 4°**Ω**08'55 max. Earth dist. -8378 Mar 24 j 23:31 0°**≈**30'25 6.17693 AU max. Earth dist. -8384 Sep 27 j 11:34 6°**Ω**54'47 6.20081 AU morning rise -8378 Apr 06 j 21:28 3°≈25'56 -8378 Jun 01 j 17:06 15°≈ conjunction -8384 Sep 28 j 00:14 7°**Ω**02'07 1°13'42 retrograde -8378 Aug 10 j 00:00 21°≈56'15 minimum elong -8384 Sep 28 j 00:18 7°**Ω**02'10 1°14'11 opposition -8378 Oct 08 j 03:37 16°≈55'56 -1°31'26

-8384 Oct 10 j 13:30

-8384 Nov 02 j 02:23

morning rise

9°**£**56′05

15°**Ω**

min. Earth dist.

-8378 Oct 07 j 21:41

-8378 Oct 22 j 20:14

16°≈57'56 4.22049 AU

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direct	-8378 Dec 07 j 05:43	11° ≈ 52'18	in astronomicai ce	minimum elong	-8372 Oct 02 j 11:47	$11^{\circ}\Omega41'52$	1°09'06
direct	-8377 Jan 22 j 01:58	11 ≈32 18 15°≈		max. Earth dist.	-8372 Oct 02 j 11:47	$11^{\circ} \Omega 35'05$	6.19041 AU
	-8377 Apr 12 j 07:02	0° ∺		morning rise	-8372 Oct 02 j 00:04 -8372 Oct 15 j 02:08	14° Ω 36'43	0.19041 AU
evening set	-8377 Apr 12 j 07:02 -8377 Apr 14 j 17:02	0°) 32'07		morning rise	-8372 Oct 15 j 02:08	14 δ <i>t</i> 30 43	
evening set	-03// Apr 14 J 17.02	0 /(3207			-8371 Jan 01 j 18:59	0° m)	
agniumation	9277 Am. 29:07:25	3°){ 34'14	0929151	retrograde	-8371 Jan 01 j 18:59 -8371 Feb 20 j 06:13	0°100/ 3°100/33'59	
conjunction minimum elong	-8377 Apr 28 j 07:35	3°) ₹34'16		retrograde	,	30°RΩ	
max. Earth dist.	-8377 Apr 28 j 07:39 -8377 Apr 28 j 05:10	3°) (34 10		opposition	-8371 Apr 11 j 15:58 -8371 Apr 22 j 14:13	28° Ω 36'30	1°08'54
morning rise	-8377 May 11 j 19:41	6° ∺ 34'59	0.20183 AU	min. Earth dist.	-8371 Apr 22 j 14:13	28° Ω 36'24	4.14788 AU
retrograde	-8377 Sep 11 j 01:11	24° ¥ 19′27		direct	-8371 Jun 21 j 14:29	23°Ω43'22	4.14/66 AU
opposition	-8377 Nov 09 j 09:54	19° ¥ 23'00	0.50,50	direct	-8371 Aug 25 j 21:40	0° m)	
min. Earth dist.	-8377 Nov 09 j 09:54		4.29803 AU	evening set	-8371 Oct 22 j 22:35	12° Mp 16'15	
direct	-8376 Jan 09 j 18:45	14° X 18'53	4.27003 AC	evening set	-03/1 Oct 22 j 22.33	12 11/1013	
asc. node	-8376 Feb 21 j 04:57	16°) 56'19		conjunction	-8371 Nov 04 j 19:25	15° m 17'10	0°20'33
ase. Hode	-8376 May 05 j 03:24	0°Υ		minimum elong	-8371 Nov 04 j 19:27	15° My 17'11	0°20'46
evening set	-8376 May 17 j 08:51	2° Υ 39'46		max. Earth dist.	-8371 Nov 05 j 05:09	15° m) 22'52	6.10960 AU
evening set	-03/0 Way 1/ J 00.31	2 13740		morning rise	-8371 Nov 17 j 19:02	18° m 19'44	0.10700 AC
conjunction	-8376 May 30 j 15:57	5° Ƴ 36'13	0°13'04	morning risc	-8370 Jan 11 j 02:44	0° <u>ت</u>	
minimum elong	-8376 May 30 j 15:55	5° Υ 36'13	0°13'04	retrograde	-8370 Mar 28 j 12:53	0 = 7° £ 59'24	
behind sun begin	-8376 May 30 j 11:06	5° Υ 33'33	0 13 04	desc. node	-8370 Mar 30 j 11:38	7° ⊆ 59'02	
behind sun end	-8376 May 30 j 20:45	5° Υ 38'52		opposition	-8370 May 28 j 10:15	2° £ 58'02	-0°12'42
max. Earth dist.	-8376 May 29 j 19:18	5° Υ 24'47	6.32656 AU	min. Earth dist.	-8370 May 27 j 21:14		4.07890 AU
morning rise	-8376 Jun 12 j 19:31	8° Υ 30'53	0.32030 AO	iiiii. Eartii dist.	-8370 Jun 21 j 15:39	30°R, m)	4.07890 AU
retrograde	-8376 Oct 11 j 09:48	25° Υ 48'06		direct	-8370 Jul 26 j 06:36	28° m) 04'49	
opposition	-8376 Dec 10 j 08:01	20° Υ '54'46	0°54'52	direct	-8370 Aug 29 j 13:24	0° ⊽	
min. Earth dist.	-8376 Dec 11 j 02:08	20°Υ48'53	4.34558 AU	evening set	-8370 Nov 26 j 16:30	0 — 16° Ω 55'58	
direct	-8375 Feb 10 j 13:27	15° Υ 51'50	4.54550710	evening set	0370 110V 20 J 10:30	10 = 33 30	
	-8375 May 31 j 04:39	0°8		conjunction	-8370 Dec 09 j 22:00	20° ჲ 02'57	-0°35'50
evening set	-8375 Jun 18 j 15:47	3° 8 59'37		minimum elong	-8370 Dec 09 j 21:57	20° ♀ 02'55	
max. Earth dist.	-8375 Jun 30 j 05:15	_	6.35273 AU	max. Earth dist.	-8370 Dec 11 j 00:52	20° ≙ 18'47	6.05869 AU
				morning rise	-8370 Dec 23 j 07:13	23° ≏ 11'52	
conjunction	-8375 Jul 01 j 12:57	6° 8 50'49	1°00'16	Č	-8369 Jan 22 j 07:15	0°M₊	
minimum elong	-8375 Jul 01 j 12:53	6° 8 50'46	1°00'32	retrograde	-8369 May 04 j 01:30	13°ML14'07	
morning rise	-8375 Jul 14 j 06:51	9° 8 40'24		min. Earth dist.	-8369 Jul 02 j 08:50	8° ™ 17'31	4.05198 AU
C	-8375 Aug 08 j 00:54	15° 8		opposition	-8369 Jul 03 j 07:48	8°M09'46	-1°31'27
retrograde	-8375 Nov 11 j 23:52	26° 8 54'09		direct	-8369 Aug 30 j 11:25	3° M ₊14'28	
opposition	-8374 Jan 11 j 12:15	22° 8 02'30	1°53'29		-8369 Nov 30 j 12:03	15° M	
min. Earth dist.	-8374 Jan 12 j 12:43	21° 8 54'42	4.34979 AU	evening set	-8368 Jan 02 j 00:50	22°M19'55	
direct	-8374 Mar 15 j 02:13	17° 8 02'01		_	-		
	-8374 Jun 26 j 15:02	Π $^{\circ}0$		conjunction	-8368 Jan 15 j 13:26	25°M29'51	-1°19'44
evening set	-8374 Jul 20 j 01:33	5° Ⅱ 04'57		minimum elong	-8368 Jan 15 j 13:21	25°M29'48	1°20'09
max. Earth dist.	-8374 Jul 31 j 03:48	7° Ⅱ 33'50	6.33320 AU	max. Earth dist.	-8368 Jan 17 j 02:45	25° M 51'44	6.05707 AU
				morning rise	-8368 Jan 29 j 04:43	28° M 41'09	
conjunction	-8374 Aug 01 j 14:25	7° Ⅱ 53'15	1°29'57		-8368 Feb 03 j 20:57	0° ∡ ¹	
minimum elong	-8374 Aug 01 j 14:22	7° Ⅱ 53'13	1°30'26	retrograde	-8368 Jun 08 j 00:46	18° ≯ ³34'36	
morning rise	-8374 Aug 14 j 01:15	10° Ⅱ 40′35		opposition	-8368 Aug 06 j 14:03	13° ≯ 29'30	-2°16'26
retrograde	-8374 Dec 14 j 09:00	28° Ⅱ 13'51		min. Earth dist.	-8368 Aug 05 j 15:26	13° ∡ ³37'14	4.07714 AU
opposition	-8373 Feb 13 j 10:54	23° Ⅱ 21'57	2°19'49	direct	-8368 Oct 03 j 20:36	8° ₰ ³30'55	
min. Earth dist.	-8373 Feb 14 j 09:36	23° Ⅱ 14'45	4.30883 AU	evening set	-8367 Feb 07 j 01:22	27° ∡ ³39′05	
direct	-8373 Apr 16 j 15:53	18° Ⅲ 24′24			-8367 Feb 17 j 06:01	8°0	
	-8373 Jul 21 j 09:01	0∘ ত				_	
evening set	-8373 Aug 20 j 05:50	6° © 30'47		conjunction	-8367 Feb 20 j 18:01	0° る 48'30	
				minimum elong	-8367 Feb 20 j 18:02	0° る 48'30	1°34'45
conjunction	-8373 Sep 01 j 15:34	9° © 19'57	1°33'36	max. Earth dist.	-8367 Feb 22 j 02:49	1° る 07'26	6.10564 AU
minimum elong	-8373 Sep 01 j 15:35	9° © 19'58	1°34'09	morning rise	-8367 Mar 06 j 11:47	3°₹58'20	
max. Earth dist.	-8373 Aug 31 j 13:49	9°505'17	6.27345 AU	retrograde	-8367 Jul 12 j 13:16	23°る13'34	2017/22
morning rise	-8373 Sep 14 j 00:44	12°509'02		opposition	-8367 Sep 09 j 17:51	18°る10'18	
	-8372 Jan 02 j 11:23	0° N		min. Earth dist.	-8367 Sep 09 j 01:26	18°る15'54	4.14466 AU
retrograde	-8372 Jan 17 j 02:34	0° Ω 19'46		direct	-8367 Nov 07 j 18:37	13° そ 08'31	
	-8372 Jan 31 j 17:38	30°₹©	2004142		-8366 Mar 06 j 03:54	0°≈ 2°2 205120	
opposition	-8372 Mar 18 j 11:40	25°525'50	2°04'42	evening set	-8366 Mar 15 j 12:15	2° ≈ 05'28	
min. Earth dist.	-8372 Mar 19 j 02:09	25°521'14	4.23410 AU		0266 M 20 : 05 20	5011147	1015111
direct	-8372 May 18 j 18:36	20° © 31'05 0° Ω		conjunction	-8366 Mar 29 j 05:38	5°≈11'47	
	-8372 Aug 10 j 12:13	006		minimum elong	-8366 Mar 29 j 05:43	5°≈11'50	1°15'39
evening set				_		50~~20140	6 18677 ATT
evening set	-8372 Sep 19 j 22:56	8° Ω 47'54		max. Earth dist.	-8366 Mar 29 j 21:32	5°≈20'48 8°≈17'29	6.18677 AU
evening set			1°08'38	_		5°≈20'48 8°≈17'29 15°≈	6.18677 AU

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8366 in astronomical counting style is the year 8367 BCE in historical counting style. -8366 Aug 14 j 15:23 26°≈41'31 min. Earth dist. -8360 Mar 23 j 16:11 29°951'28 4.22530 AU retrograde opposition -8366 Oct 12 j 18:17 21°≈41'44 -1°22'31 -8360 May 23 j 05:57 25°901'04 direct -8366 Oct 12 j 14:40 21°≈42'58 4.23087 AU -8360 Jul 20 j 19:11 min. Earth dist. $0^{\circ}\Omega$ 13°**Ω**19′08 -8366 Dec 12 j 01:34 16°≈37'59 evening set -8360 Sep 24 j 06:49 direct -8365 Mar 26 j 06:55 0°**)**€ -8360 Oct 01 j 13:16 15°Ω evening set -8365 Apr 19 j 13:32 5°**X**15'19 16°**Ω**13'54 1°03'17 -8360 Oct 06 j 20:35 conjunction -8365 May 03 j 03:26 8°\;\;\\16'44\ -0°31'49 -8360 Oct 06 j 20:39 conjunction minimum elong 16°**Ω**13'57 1°03'42 -8365 May 03 j 03:29 minimum elong 8°**升**16'46 0°32'05 max. Earth dist. -8360 Oct 06 j 11:54 16°**Ω**08'52 6.17998 AU max. Earth dist. -8365 May 02 j 23:51 8°**升**14'44 6.27241 AU morning rise -8360 Oct 19 j 11:54 19°**Ω**09'41 morning rise -8365 May 16 j 14:27 11°**)** 16′38 -8360 Dec 09 j 03:39 0° m -8365 Sep 15 j 10:59 -8359 Feb 25 j 02:21 8°m 13'09 retrograde 28°**升**55'50 retrograde -8359 Apr 27 j 08:42 opposition -8365 Nov 13 j 22:27 23°**¥**59′52 -0°09′28 opposition 3° Mp 15'14 0°58'57 min. Earth dist. -8365 Nov 14 j 06:42 23°**)** 57'09 4.30814 AU min. Earth dist. -8359 Apr 27 j 08:31 3° Mp 15'18 4.13642 AU asc. node -8364 Jan 01 j 02:34 19°**升**12'30 -8359 May 24 j 22:41 30°R€ direct -8364 Jan 14 j 10:02 18°\£55'53 direct -8359 Jun 26 j 05:20 28°**Ω**22'14 -8364 Apr 17 j 17:51 $0^{\circ}\Upsilon$ -8359 Jul 28 j 03:36 0° m evening set -8364 May 22 j 00:08 7°Υ13'49 evening set -8359 Oct 27 j 11:59 16° m 58'07 max. Earth dist. -8364 Jun 03 j 07:23 9°Y56'55 6.33568 AU conjunction -8359 Nov 09 j 09:52 20°M 00'03 0°13'05 conjunction -8364 Jun 04 j 05:46 10°**℃**09'19 0°20'18 minimum elong -8359 Nov 09 j 09:53 20°M 00'03 0°13'15 minimum elong -8364 Jun 04 i 05:44 10°**℃**09'18 0°20'20 behind sun begin -8359 Nov 09 i 05:05 19° m 57'14 morning rise -8364 Jun 17 j 08:00 13°Y03'03 behind sun end -8359 Nov 09 i 14:42 20° m 02'52 -8364 Oct 02 j 12:04 0°8 max. Earth dist. -8359 Nov 09 i 20:02 20° M 06'01 6.09822 AU -8364 Oct 15 j 20:15 0°**8**17'09 morning rise -8359 Nov 22 j 11:02 23° m 03'46 retrograde -8364 Oct 29 j 03:25 30°RY -8359 Dec 23 j 04:22 0∘**⊽** opposition -8364 Dec 14 j 19:56 25°**Y**24'10 -8358 Feb 09 j 17:48 8°**£**53'34 1°04'25 desc node -8364 Dec 15 j 15:32 25°**Y**17'49 -8358 Apr 02 j 10:31 min. Earth dist. 4.35308 AU retrograde 12°<u>₽49</u>'13 -8363 Feb 15 j 04:54 20°Y21'33 -8358 Jun 02 j 06:35 direct opposition 7°**2**47'26 -0°24'10 -8358 Jun 01 j 15:30 -8363 May 13 j 14:04 0°8 min. Earth dist. 7°**♀**52'25 4.06874 AU -8363 Jun 23 j 01:51 8°**8**26'28 -8358 Jul 30 j 22:54 2°**£**54'03 evening set direct -8358 Dec 01 j 12:54 21°**-**49′16 evening set -8363 Jul 05 j 21:41 conjunction 11°**8**16'52 1°05'38 -8363 Jul 05 j 21:37 11°**8**16'49 1°05'57 -8358 Dec 14 j 19:43 24° **2**57'09 -0°42'55 minimum elong conjunction -8363 Jul 04 j 13:19 10°**8**58'54 6.35784 AU -8358 Dec 14 j 19:39 max. Earth dist. minimum elong 24°**£**57'06 0°43'05 -8363 Jul 18 j 14:18 14°**8**05'43 -8358 Dec 16 j 01:15 morning rise max. Earth dist. 25°**£**14'35 6.05079 AU -8363 Jul 22 j 16:56 -8358 Dec 28 j 05:54 15°**8** morning rise 28°**≏**06'52 -8363 Oct 18 j 04:21 $0^{\circ}II$ -8357 Jan 05 j 08:20 0°M -8363 Nov 16 j 08:38 1°**Ⅱ**19'07 -8357 Mar 24 j 03:08 15°M retrograde -8363 Dec 15 j 17:58 30°R₩ retrograde -8357 May 09 j 02:46 18°M12'01 -8362 Jan 16 j 00:22 26°**8**27'30 1°59'11 -8357 Jun 23 j 23:36 15°RM opposition min. Earth dist. -8362 Jan 17 j 00:13 26°819'54 4.35232 AU min. Earth dist. -8357 Jul 07 j 06:20 13°ML15'05 4.04732 AU direct -8362 Mar 19 j 13:43 21°**8**27'23 -8357 Jul 08 j 04:53 13°ML07'28 -1°40'05 opposition -8362 Jun 08 j 19:24 $\mathbb{I}^{\circ 0}$ -8357 Sep 04 j 07:52 8°M11'48 direct -8362 Jul 24 j 08:18 9°**Ⅲ**28'23 -8357 Nov 10 j 09:34 evening set 15°M max. Earth dist. -8362 Aug 04 j 11:01 11°**Д**57'36 6.33283 AU evening set -8356 Jan 07 i 02:57 27°M20'29 -8356 Jan 18 j 11:45 0°×7 conjunction -8362 Aug 05 j 20:18 12°**Ⅱ**16'17 1°32'03 -8362 Aug 05 j 20:15 0°**∡**30'48 -1°23'38 minimum elong 12°**Ⅱ**16'16 1°32'32 conjunction -8356 Jan 20 j 16:20 -8362 Aug 18 j 06:20 15°**Ⅱ**03'19 minimum elong -8356 Jan 20 i 16:15 0°**х** 30'46 1°24'05 morning rise -8362 Nov 06 j 15:52 0ಂತಾ max. Earth dist. -8356 Jan 22 j 05:59 0° ₹ 52'52 6.05599 AU -8362 Dec 18 j 21:06 2°938'54 -8356 Feb 03 j 08:23 3°**х** 42′26 retrograde morning rise -8361 Jan 30 j 19:10 30°RⅡ -8356 Jun 12 j 21:48 23°×734'03 retrograde opposition -8361 Feb 18 j 00:22 27°**II**46'54 2°20'09 min. Earth dist. -8356 Aug 10 j 10:23 18°**≯**37'03 4.08005 AU -8356 Aug 11 j 09:42 min. Earth dist. -8361 Feb 18 j 23:14 27°**Ⅲ**39'39 4.30545 AU opposition 18° **₹** 29'04 -2°18'44 13°**х** 30′03 direct -8361 Apr 21 j 04:22 22°**Ⅱ**49'46 direct -8356 Oct 08 j 16:05 0ಂಣ -8361 Jul 02 j 20:33 -8355 Jan 31 j 13:12 0°궁 -8361 Aug 24 j 11:43 10°955'34 -8355 Feb 12 j 04:58 2°る38'56 evening set evening set -8361 Sep 05 j 21:19 -8355 Feb 25 j 21:56 5°る48'13 -1°33'23 conjunction 13°9544'57 1°31'49 conjunction -8361 Sep 05 j 21:22 minimum elong 13°**©**44'58 1°32'22 minimum elong -8355 Feb 25 j 21:57 5°₹48'14 1°33'57 max. Earth dist. -8361 Sep 04 j 19:15 13°930'04 6.26724 AU max. Earth dist. -8355 Feb 27 j 04:53 6°る06'04 6.11223 AU morning rise -8361 Sep 18 j 06:55 16°534'26 morning rise -8355 Mar 11 j 15:51 8°**る**57'48 -8361 Nov 24 j 11:50 0° Ω retrograde -8355 Jul 17 j 07:27 28°る07'17 retrograde -8360 Jan 21 j 17:19 4°**Ω**49'54 opposition -8355 Sep 14 j 10:44 23°る04'21 -2°06'53 -8360 Mar 22 j 13:25 30°Rூ min. Earth dist. -8355 Sep 13 j 20:05 23°**る**09'21 4.15405 AU -8360 Mar 23 j 03:19 29°555'34 1°59'19 -8355 Nov 12 j 16:14 18°る02'10 opposition direct

•	mena of Jupiter Iro		•	/ /		, .	ge 3
Attention, astronomic	cal year style is used: Th	•	n astronomical cou				
	-8354 Feb 16 j 13:21	0° ≈		direct	-8349 Apr 25 j 16:17	27° Ⅱ 21'04	
evening set	-8354 Mar 20 j 12:45	6° ≈ 57'07			-8349 Jun 07 j 05:46	0 \circ 6	
				evening set	-8349 Aug 28 j 20:30	15° © 28'27	
conjunction	-8354 Apr 03 j 06:05	10° ≈ 02'55	-1°10'11	max. Earth dist.	-8349 Sep 09 j 06:56	18° © 05'00	6.25491 AU
minimum elong	-8354 Apr 03 j 06:10	10° ≈ 02'58	1°10'38				
max. Earth dist.	-8354 Apr 03 j 21:11	10°≈11'27	6.19826 AU	conjunction	-8349 Sep 10 j 06:23	18°5518'26	1°29'29
morning rise	-8354 Apr 16 j 22:00	13° ≈ 07'53		minimum elong	-8349 Sep 10 j 06:26	18° © 18'27	1°30'01
morning rist	-8354 Apr 25 j 07:06	15° ≈		morning rise	-8349 Sep 22 j 16:19	21°508'37	1 30 01
	-8354 Jul 20 j 13:33	0° ∀		morning risc	-8349 Nov 02 j 19:56	0°Ω	
	-				3		
retrograde	-8354 Aug 19 j 03:25	1°) €24'46		retrograde	-8348 Jan 26 j 14:40	9° Ω 30'53	
	-8354 Sep 17 j 13:21	30°R ≈		opposition	-8348 Mar 27 j 23:38	• • • • • •	1°53'03
opposition	-8354 Oct 17 j 07:38	26° ≈ 25′28		min. Earth dist.	-8348 Mar 28 j 11:54	4° Ω 32'15	4.21147 AU
min. Earth dist.	-8354 Oct 17 j 04:36	26° ≈ 26′29	4.24308 AU		-8348 May 14 j 03:05	30° ₹જી	
direct	-8354 Dec 16 j 18:31	21° ≈ 21'31		direct	-8348 May 27 j 23:14	29° © 41'58	
	-8353 Mar 07 j 11:24	0°) €			-8348 Jun 10 j 17:49	$0^{\circ}\Omega$	
evening set	-8353 Apr 24 j 08:33	9° ¥ 55'35			-8348 Sep 15 j 11:46	15° Ω	
8 - 1 - 2 - 1	, , , , , , , , , , , , , , , , , , ,			evening set	-8348 Sep 28 j 19:54	18° Ω 02'48	
conjunction	-8353 May 07 j 21:21	12° ¥ 56′07	0°24'30	evening set	оз то вер 20 ј 17.5 г	10 0002 10	
	• •	12° X 56'08	0°24'52		-8348 Oct 11 j 10:33	200 0 50125	0057!10
minimum elong	-8353 May 07 j 21:24			conjunction	,	20° Ω 58'35	0°57'18
max. Earth dist.	-8353 May 07 j 13:55	12°) € 51'59	6.28413 AU	minimum elong	-8348 Oct 11 j 10:38	20° Ω 58'37	0°57'41
morning rise	-8353 May 21 j 07:26	15° ¥ 55′07		max. Earth dist.	-8348 Oct 11 j 03:17	20° Ω 54'20	6.16603 AU
	-8353 Aug 03 j 03:26	0 ° Υ		morning rise	-8348 Oct 24 j 03:16	23° Ω 55'33	
retrograde	-8353 Sep 19 j 21:43	3° Y 28'54			-8348 Nov 20 j 03:59	0° m ∕	
	-8353 Nov 07 j 06:41	30° Ŗ ₩		retrograde	-8347 Mar 02 j 02:11	13° m 06'07	
asc. node	-8353 Nov 11 j 11:44	29°) 27'44		opposition	-8347 May 02 j 08:27	8° Mp 07'40	0°48'07
opposition	-8353 Nov 18 j 09:48	28°) 33′21	0°01'21	min. Earth dist.	-8347 May 02 j 05:12	8° m 08'44	4.12361 AU
min. Earth dist.	-8353 Nov 18 j 20:35	28° H 29'47	4.31811 AU	direct	-8347 Jun 30 j 23:44	3° M) 14'46	1.12301710
	3	23° H 29'21	4.51011 AO		•	21° m) 54'00	
direct	-8352 Jan 19 j 02:12	23 π 2921 0° Υ		evening set	-8347 Nov 01 j 07:21	21 11/13400	
	-8352 Mar 28 j 17:39						
evening set	-8352 May 26 j 13:15	11° Y 44'23		conjunction	-8347 Nov 14 j 06:40	24° m 57'00	0°05'09
				minimum elong	-8347 Nov 14 j 06:40	24° m 57'00	0°05'16
conjunction	-8352 Jun 08 j 17:40	14° Y 39'02	0°27'22	behind sun begin	-8347 Nov 13 j 22:48	24° m 52′23	
minimum elong	-8352 Jun 08 j 17:37	14° Y 39'01	0°27'26	behind sun end	-8347 Nov 14 j 14:33	25° Mp 01'37	
max. Earth dist.	-8352 Jun 07 j 18:16	14° Y 26'06	6.34286 AU	max. Earth dist.	-8347 Nov 14 j 21:05	25° m 05'28	6.08802 AU
morning rise	-8352 Jun 21 j 18:22	17° Ƴ 31'53		morning rise	-8347 Nov 27 j 09:06	28° Mp 01'46	
morning rist	-8352 Aug 24 j 11:32	0°8		morning not	-8347 Dec 05 j 20:44	0∘ ಹ	
retrograde	-8352 Oct 20 j 03:46	4° 8 43'52		desc. node	-8347 Dec 20 j 04:28	° – 3° ⊆ 14'45	
retrograde	•				3		
	-8352 Dec 18 j 03:11	30°RƳ		retrograde	-8346 Apr 07 j 15:53	17° ≙ 52'00	
opposition	-8352 Dec 19 j 06:39	29° Y 51′08	1°13'35	opposition	-8346 Jun 07 j 08:15	12° ≏ 49'46	
min. Earth dist.	-8352 Dec 20 j 02:30	29° Ƴ 44'43	4.35708 AU	min. Earth dist.	-8346 Jun 06 j 16:11	12° ≏ 55'07	4.06239 AU
direct	-8351 Feb 19 j 16:09	24° Ƴ 48'45		direct	-8346 Aug 04 j 22:33	7° ≏ 56'14	
	-8351 Apr 22 j 12:05	0°8		evening set	-8346 Dec 06 j 14:27	26° ≙ 53'49	
evening set	-8351 Jun 27 j 11:14	12° 8 52'11					
•	-8351 Jul 07 j 02:08	15° 8		conjunction	-8346 Dec 19 j 22:17	0°ML02'13	-0°50'00
max. Earth dist.	-8351 Jul 08 j 19:52		6.35811 AU	minimum elong	-8346 Dec 19 j 22:12	0°ML02'10	0°50'12
man. Darm dist.	0001041 00 j 17.02	10 020 12	0.55011110	g	-8346 Dec 19 j 18:32	0°M	0 00 12
agniumation	0251 11 10:05.20	15° 8 41'58	1°10'40	may Earth dist	•	0°M20'59	6.04900 AU
conjunction	-8351 Jul 10 j 05:38			max. Earth dist.	-8346 Dec 21 j 06:06		6.04900 AU
minimum elong	-8351 Jul 10 j 05:34	15° 8 41'55	1°11'01	morning rise	-8345 Jan 02 j 09:36	3°M12'26	
morning rise	-8351 Jul 22 j 21:07	18° 8 30'18			-8345 Feb 25 j 21:06	15°M	
	-8351 Sep 18 j 07:32	Π $^{\circ}0$		retrograde	-8345 May 14 j 03:59	23°M17'12	
retrograde	-8351 Nov 20 j 20:29	5° Ⅱ 45'07		min. Earth dist.	-8345 Jul 12 j 04:25	18° M 20'41	4.05083 AU
opposition	-8350 Jan 20 j 12:53	0° Ⅲ 53'35	2°04'22	opposition	-8345 Jul 13 j 04:46	18°M12'26	-1°48'13
min. Earth dist.	-8350 Jan 21 j 14:11	0° ∏ 45'32	4.34889 AU		-8345 Aug 08 j 01:40	15°RM₊	
	-8350 Jan 27 j 13:57	30° ₹ 8		direct	-8345 Sep 09 j 06:04	13°M16'24	
direct	-8350 Mar 24 j 02:56	25° 8 53'48			-8345 Oct 11 j 12:22	15° M ₊	
direct	-8350 May 17 j 08:11	0°II			-8344 Jan 01 j 19:58	0° ∡ ¹	
. ,				. ,			
evening set	-8350 Jul 28 j 15:55	13° Ⅲ 54'53		evening set	-8344 Jan 12 j 07:22	2° ∡ ¹24'59	
max. Earth dist.	-8350 Aug 08 j 17:48	16° Ⅱ 23'56	6.32576 AU	_		=	
				conjunction	-8344 Jan 25 j 21:18	5° ≯ 35'10	
conjunction	-8350 Aug 10 j 03:17	16° Ⅱ 42'45	1°33'42	minimum elong	-8344 Jan 25 j 21:14	5° ∡ ³35′07	1°27'29
minimum elong	-8350 Aug 10 j 03:15	16° ∐ 42'44	1°34'13	max. Earth dist.	-8344 Jan 27 j 10:48	5° ∡ ¹57'05	6.06424 AU
morning rise	-8350 Aug 22 j 12:55	19° Ⅱ 29'53		morning rise	-8344 Feb 08 j 13:44	8° ∡ ¹46'31	
	-8350 Oct 12 j 09:22	0°€		retrograde	-8344 Jun 17 j 18:14	28° ∡ ³32'16	
retrograde	-8350 Dec 23 j 10:59	7°9510'06		min. Earth dist.	-8344 Aug 15 j 06:50	23° ∡ ³35′00	4.09218 AU
opposition	-8349 Feb 22 j 16:15		2°19'49	opposition	-8344 Aug 16 j 05:01	23° × ⁷ 27'24	
min. Earth dist.	-8349 Feb 23 j 13:37	2°9511'03	4.29530 AU	direct	-8344 Oct 13 j 15:13	18° x 27 24	- 1/3/
mm. Latui uist.	3	2°€11'03 30°R∏	7.47330 AU	uncci	•		
	-8349 Mar 13 j 13:03	30 KT			-8343 Jan 13 j 22:50	0°₹	

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 6 Attention, astronomical year style is used: The year -8343 in astronomical counting style is the year 8344 BCE in historical counting style.

	nical year style is used: Th	-	in astronomical co				
evening set	-8343 Feb 17 j 06:56	7° る 33'57		max. Earth dist.	-8338 Aug 13 j 01:10	20° ∏ 51′06	6.31291 AU
	004034 00:0044	100710111	1001150		0000 4 14:10.01	210T00120	100 4146
conjunction	-8343 Mar 03 j 00:14	10°る42'41		conjunction	-8338 Aug 14 j 10:01	21° I 109'39	1°34'46
minimum elong	-8343 Mar 03 j 00:16	10°る42'42		minimum elong	-8338 Aug 14 j 09:59	21° Ⅱ 09'38	1°35'17
max. Earth dist.	-8343 Mar 04 j 06:46	11°る00'13	6.12717 AU	morning rise	-8338 Aug 26 j 19:24	23° ∏ 57'11	
morning rise	-8343 Mar 16 j 17:54	13°る51'30			-8338 Sep 23 j 14:15	0.02	
	-8343 Jun 09 j 00:56	0°≈		retrograde	-8338 Dec 28 j 04:52	11°5544'10	2010126
retrograde	-8343 Jul 21 j 21:16	2°≈52'14		opposition	-8337 Feb 27 j 09:30	6°951'42	2°18'36
	-8343 Sep 02 j 13:00	30°Rる		min. Earth dist.	-8337 Feb 28 j 06:44	6°9544'58	4.28016 AU
min. Earth dist.	-8343 Sep 18 j 10:56	27° る 54'23	4.17017 AU	direct	-8337 Apr 30 j 07:15	1°955'22	
opposition	-8343 Sep 19 j 00:29	27°る49'46	-2°01′28	evening set	-8337 Sep 02 j 06:46	20° © 05'53	
direct	-8343 Nov 17 j 09:36	22° ප් 47'17			00000	222	100 (100
	-8342 Jan 28 j 00:18	0° ≈		conjunction	-8337 Sep 14 j 17:05	22°556'42	1°26'30
evening set	-8342 Mar 25 j 08:56	11° ≈ 38′02		minimum elong	-8337 Sep 14 j 17:09	22°556'44	1°27'01
				max. Earth dist.	-8337 Sep 13 j 19:32	22°5544'20	6.23885 AU
conjunction	-8342 Apr 08 j 01:44	14° ≈ 42'59		morning rise	-8337 Sep 27 j 03:45	25°9547'52	
minimum elong	-8342 Apr 08 j 01:49	14°≈43'02	1°05'21		-8337 Oct 15 j 21:30	$0^{\circ}\Omega$	
max. Earth dist.	-8342 Apr 08 j 11:59	14° ≈ 48'46	6.21414 AU	retrograde	-8336 Jan 31 j 11:51	14°Ω18'05	
	-8342 Apr 09 j 07:54	15° ≈		opposition	-8336 Apr 01 j 22:01	9° Ω 22'53	1°45'52
morning rise	-8342 Apr 21 j 17:12	17° ≈ 47'04		min. Earth dist.	-8336 Apr 02 j 06:55	9° Ω 20′02	4.19576 AU
	-8342 Jun 20 j 21:55	0° ∀		direct	-8336 Jun 01 j 15:58	4° Ω 29'00	
retrograde	-8342 Aug 23 j 12:25	5° ¥ 56'12			-8336 Aug 28 j 20:51	15° Ω	
opposition	-8342 Oct 21 j 17:06	0° ¥ 57'25		evening set	-8336 Oct 03 j 11:16	22° Ω 53′03	
min. Earth dist.	-8342 Oct 21 j 16:54	0° ∺ 57'29	4.25711 AU			_	
	-8342 Oct 28 j 21:10	30°R ≈		conjunction	-8336 Oct 16 j 03:03	25° Ω 49'55	
direct	-8342 Dec 21 j 09:10	25°≈53'19		minimum elong	-8336 Oct 16 j 03:07	25° Ω 49'57	0°51'08
	-8341 Feb 12 j 20:10	0° ∀		max. Earth dist.	-8336 Oct 16 j 00:00	25° Ω 48′08	6.15216 AU
evening set	-8341 Apr 28 j 22:17	14°) €23'50		morning rise	-8336 Oct 28 j 20:58	28° Ω 48'04	
					-8336 Nov 03 j 01:38	0° m)	
conjunction	-8341 May 12 j 10:18	17° ¥ 23'33		retrograde	-8335 Mar 07 j 06:44	18° Mp 05'27	
minimum elong	-8341 May 12 j 10:20	17°) €23'34		opposition	-8335 May 07 j 10:37	13° Mp 06'25	0°36'40
max. Earth dist.	-8341 May 12 j 00:50	17°) 18'17	6.29533 AU	min. Earth dist.	-8335 May 07 j 05:37	13° m 08'03	4.11255 AU
morning rise	-8341 May 25 j 19:05	20° ∺ 21'37		direct	-8335 Jul 05 j 23:02	8° Mp 13'31	
	-8341 Jul 11 j 09:37	0° Y		desc. node	-8335 Oct 28 j 18:51	24° m 57'41	
asc. node	-8341 Sep 23 j 13:37	7° Y 50'55		evening set	-8335 Nov 06 j 04:45	26° Mp 55'11	
retrograde	-8341 Sep 24 j 02:54	7° Ƴ 50'57					
opposition	-8341 Nov 22 j 17:03	2° Y 55'55	0°11'43	conjunction	-8335 Nov 19 j 05:17	29° m 59'02	
min. Earth dist.	-8341 Nov 23 j 05:15	2° Y 51'54	4.32564 AU	minimum elong	-8335 Nov 19 j 05:16	29° m 59'01	0°03'03
	-8341 Dec 16 j 13:56	30° ₹		behind sun begin	-8335 Nov 18 j 21:08	29° m 54'15	
direct	-8340 Jan 23 j 11:27	27° ¥ 52′05		behind sun end	-8335 Nov 19 j 13:23	0° ჲ 03'47	
	-8340 Mar 01 j 18:32	0° Y			-8335 Nov 19 j 07:00	0∘ ⊽	
evening set	-8340 May 30 j 22:30	16° Y 05′27		max. Earth dist.	-8335 Nov 19 j 22:52	0° ჲ 09'23	6.08068 AU
max. Earth dist.	-8340 Jun 11 j 22:03	18° Ƴ 44'14	6.34597 AU	morning rise	-8335 Dec 02 j 09:08	3° ჲ 04'43	
				retrograde	-8334 Apr 12 j 19:08	22° ჲ 58'02	
conjunction	-8340 Jun 13 j 01:27	18° Ƴ 59'24	0°34'00	opposition	-8334 Jun 12 j 10:24	17° ≏ 55'17	
minimum elong	-8340 Jun 13 j 01:24	18° Ƴ 59'22	0°34'07	min. Earth dist.	-8334 Jun 11 j 15:47	18° ≏ 01'29	4.05960 AU
morning rise	-8340 Jun 26 j 01:03	21° Y 51'37		direct	-8334 Aug 09 j 21:08	13° ഫ 01'29	
	-8340 Aug 03 j 22:27	0°8			-8334 Dec 03 j 02:30	0° M	
retrograde	-8340 Oct 24 j 11:56	9° 8 03'24		evening set	-8334 Dec 11 j 16:59	2°M00'12	
opposition	-8340 Dec 23 j 15:04	4° 8 10'59	1°22'04				
min. Earth dist.	-8340 Dec 24 j 13:19	4° 8 03'48	4.35577 AU	conjunction	-8334 Dec 25 j 01:42	5°M08'53	
	-8339 Jan 31 j 05:23	30° ₹ Υ		minimum elong	-8334 Dec 25 j 01:37	5° ™ 08'51	0°57'01
direct	-8339 Feb 24 j 02:21	29° Y 08'53		max. Earth dist.	-8334 Dec 26 j 10:58	5° ™ 28'30	6.05050 AU
	-8339 Mar 20 j 02:16	0°B		morning rise	-8333 Jan 07 j 13:52	8°M19'22	
	-8339 Jun 21 j 15:24	15° 8			-8333 Feb 06 j 00:43	15°M	
evening set	-8339 Jul 01 j 17:56	17° 8 12'45		retrograde	-8333 May 19 j 04:46	28°M22'17	
max. Earth dist.	-8339 Jul 13 j 01:29	19° 8 43'26	6.35227 AU	min. Earth dist.	-8333 Jul 17 j 03:47		4.05644 AU
		4 4		opposition	-8333 Jul 18 j 04:01	23°M17'17	-1°55'33
conjunction	-8339 Jul 14 j 11:24	20° 8 02'19		direct	-8333 Sep 14 j 06:35	18°M20'45	
minimum elong	-8339 Jul 14 j 11:19	20° 8 02'16	1°15'32		-8333 Dec 15 j 01:54	0° ∡	
morning rise	-8339 Jul 27 j 01:47	22° 8 50'27		evening set	-8332 Jan 17 j 11:22	7° ≯ 28'40	
	-8339 Aug 29 j 18:09	$\Pi^{\circ}0$					
retrograde	-8339 Nov 25 j 06:06	10° Ⅱ 09'05		conjunction	-8332 Jan 31 j 01:59	10° ≯ 38'41	
opposition	-8338 Jan 25 j 00:46	5° Ⅱ 17'35		minimum elong	-8332 Jan 31 j 01:56	10° х 38′39	
min. Earth dist.	-8338 Jan 26 j 01:19	5° Ⅱ 09'46	4.33922 AU	max. Earth dist.	-8332 Feb 01 j 16:31	11° ≯ 01'08	6.07329 AU
direct	-8338 Mar 28 j 11:58	0° Ⅱ 18'15		morning rise	-8332 Feb 13 j 18:39	13° ∡ ′49'41	
evening set	-8338 Aug 01 j 23:15	18° Ⅱ 21'31			-8332 May 05 j 22:01	0°る	

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8332 in astronomical counting style is the year 8333 BCE in historical counting style. retrograde -8332 Jun 22 j 14:42 3°る29'19 direct -8326 Apr 02 j 01:43 4°**Ⅱ**47'07 -8332 Aug 09 j 04:13 30°R*X* -8326 Aug 06 j 07:52 22°**I**151′29 evening set opposition -8332 Aug 20 j 23:40 28°**₹**24'41 -2°20'20 max. Earth dist. -8326 Aug 17 j 11:35 25°**Ⅲ**22'25 6.30347 AU -8332 Aug 20 j 02:19 28°**✗**31'59 4.10387 AU min. Earth dist. -8332 Oct 18 j 12:11 23°**х** 24′42 direct conjunction -8326 Aug 18 j 18:22 25°**Ⅲ**39'49 1°35'20 0°ჳ -8326 Aug 18 j 18:21 25°**Ⅲ**39'49 -8332 Dec 24 j 10:45 minimum elong 1°35'53 -8326 Aug 31 j 03:28 evening set -8331 Feb 22 j 08:37 12°る28'20 morning rise 28°**Ⅲ**27'38 -8326 Sep 07 j 00:34 0ಂತಾ -8325 Jan 01 j 20:53 conjunction -8331 Mar 08 j 01:52 15°る36'30 -1°29'57 retrograde 16°9520'08 minimum elong -8331 Mar 08 j 01:55 15°る36'32 1°30'29 opposition -8325 Mar 04 j 03:44 11°9527'25 2°16'34 max. Earth dist. -8331 Mar 09 j 04:30 15°**る**51'45 6.14037 AU min. Earth dist. -8325 Mar 04 j 22:31 11°9521'27 4.26949 AU -8331 Mar 21 j 19:34 morning rise 18°₹44'41 direct -8325 May 04 j 21:28 6°531'34 -8331 May 14 j 07:47 0°≈ evening set -8325 Sep 06 j 17:21 24°9543'31 retrograde -8331 Jul 26 j 10:58 7°**≈**37'40 max. Earth dist. -8325 Sep 18 j 08:59 27°9524'00 6.22799 AU opposition -8331 Sep 23 j 14:25 2°≈35'38 -1°55'22 min. Earth dist. -8331 Sep 23 j 02:50 2°≈39'34 4.18360 AU conjunction -8325 Sep 19 j 04:00 27°934'57 1°23'02 -8331 Oct 13 j 16:39 30°Rる minimum elong -8325 Sep 19 j 04:04 27°534'59 1°23'32 direct -8331 Nov 22 j 04:03 27°る32'46 -8325 Sep 29 j 16:23 $0^{\circ}\Omega$ -8330 Jan 01 j 01:59 0°≈ morning rise -8325 Oct 01 j 15:23 0°Ω26'53 -8330 Mar 24 j 04:57 15°≈ -8325 Dec 14 j 10:24 15°€ evening set -8330 Mar 30 j 05:36 16°≈20'25 retrograde -8324 Feb 05 j 10:38 19°**Ω**03'17 -8324 Mar 30 j 23:21 15°RΩ conjunction -8330 Apr 12 j 22:07 19°≈24'43 -0°59'14 opposition -8324 Apr 06 j 19:55 14°Ω07'35 1°38'03 -8324 Apr 07 j 03:19 minimum elong -8330 Apr 12 j 22:12 19°≈24'46 0°59'39 min. Earth dist. 14°**Ω**05'13 4.18530 AU max. Earth dist. -8330 Apr 13 j 06:21 19°≈29'20 6.22705 AU direct -8324 Jun 06 j 11:04 9°**Ω**13'57 -8330 Apr 26 j 12:45 22°≈27'56 -8324 Aug 08 j 06:28 morning rise 15°Ω -8330 May 31 j 16:31 0°**₩** -8324 Oct 08 j 01:34 27°Ω39'29 evening set -8330 Aug 27 j 22:21 10°**)** € 30′25 -8324 Oct 18 j 02:45 retrograde O° m -8330 Oct 26 j 03:41 5°**)** 32'12 -0°53'44 opposition -8330 Oct 26 j 05:25 -8324 Oct 20 j 18:27 0° m 37'13 0° 44'02 min. Earth dist. 5°**₭**31'38 4.26833 AU conjunction -8324 Oct 20 j 18:31 -8330 Dec 25 j 23:25 0°**)**28'04 minimum elong 0° m 37'15 0° 44'21 direct -8329 May 03 j 13:41 18°**¥**55'56 max. Earth dist. -8324 Oct 20 j 18:39 0° Mp 37'20 6.14325 AU evening set 6.30400 AU max. Earth dist. -8329 May 16 j 10:47 21°**)**(47'13 -8324 Nov 02 j 13:40 3° Mp 36'20 morning rise -8323 Mar 12 j 06:35 22° m 58'32 retrograde -8329 May 17 j 00:34 21°**)** 54'52 -0°10'24 -8323 May 12 j 09:51 17° m 58'58 0°25'13 conjunction opposition -8329 May 17 j 00:35 21°**X**54'52 0°10'33 -8323 May 12 j 02:06 18° Mp 01'30 4.10596 AU minimum elong min. Earth dist. -8329 May 16 j 18:15 21° **★** 51'22 -8323 Jul 10 j 17:37 13° Mp 06'07 behind sun begin direct behind sun end -8329 May 17 j 06:55 21°**)** 58'22 desc. node -8323 Sep 08 j 01:44 18° Mp 27'14 -8329 May 30 j 08:23 24°\ 52'09 -8323 Nov 03 j 04:30 0∘**⊽** morning rise -8329 Jun 23 j 03:42 $0^{\circ}\Upsilon$ evening set -8323 Nov 11 j 00:00 1°**£**49'08 asc. node -8329 Aug 04 j 03:16 7°**Υ**44'04 -8329 Sep 28 j 11:24 12°Y17'56 -8323 Nov 24 j 01:37 4°**2**53'39 -0°10'58 retrograde conjunction -8329 Nov 27 j 02:48 7°**Υ**23'19 0°22'13 -8323 Nov 24 j 01:36 4°**2**53'38 0°10'56 opposition minimum elong min. Earth dist. -8329 Nov 27 j 17:12 7°Υ18'36 4.33128 AU behind sun begin -8323 Nov 23 j 19:25 4°**£**50'00 behind sun end -8328 Jan 28 j 00:18 2°Y19'36 -8323 Nov 24 j 07:47 4°**£**57'16 direct -8323 Nov 24 j 21:19 evening set -8328 Jun 04 i 09:30 20°Y31'36 max. Earth dist. 5°**£**05'15 6.07687 AU -8323 Dec 07 i 06:43 max. Earth dist. -8328 Jun 16 i 07:34 23°**Y**09'35 6.34818 AU morning rise 8°**♀**00'02 retrograde -8322 Apr 17 j 19:10 27°**£**55'18 23°**Y**24'56 conjunction -8328 Jun 17 j 11:16 0°40'37 opposition -8322 Jun 17 j 08:51 22°**£**52'05 -0°58'42 -8328 Jun 17 j 11:13 23°Y24'54 0°40'47 min. Earth dist. -8322 Jun 16 i 13:21 22°**£**58'37 4.05885 AU minimum elong -8328 Jun 30 j 09:23 26°**Y**16′29 direct -8322 Aug 14 j 18:09 17°**£**58'00 morning rise -8328 Jul 17 j 13:38 0°8 -8322 Nov 15 j 23:20 0°M -8322 Dec 16 j 16:09 -8328 Oct 28 j 20:17 13°**8**28'22 retrograde evening set 6°M57'34 opposition -8328 Dec 28 j 02:00 8°**8**36'12 1°30'19 min. Earth dist. -8328 Dec 29 j 00:30 8°**8**28'58 4.35464 AU conjunction -8322 Dec 30 j 01:54 10°M06'33 -1°02'52 direct -8327 Feb 28 j 13:31 3°**8**34'30 minimum elong -8322 Dec 30 j 01:49 10°ML06'30 1°03'11 -8327 Jun 04 j 22:55 15°8 max. Earth dist. -8322 Dec 31 j 13:21 10°M27′25 6.05275 AU -8327 Jul 06 j 02:56 21°**8**38'26 -8321 Jan 12 j 14:47 13°M17'12 evening set morning rise -8327 Jul 17 j 07:40 24°**8**07'52 -8321 Jan 19 j 23:54 15°M max. Earth dist. 6.34776 AU -8321 Apr 07 j 12:19 0°**∡**7 -8327 Jul 18 j 19:04 3°**х** 18′07 conjunction 24°**8**27'37 1°19'22 retrograde -8321 May 24 j 03:01 minimum elong -8327 Jul 18 j 19:00 24°**8**27'35 1°19'46 -8321 Jul 09 j 14:01 30°RM morning rise -8327 Jul 31 j 08:38 27°**8**15'33 opposition -8321 Jul 22 j 23:30 28°M13'05 -2°01'49 -8327 Aug 12 j 20:11 $0^{\circ}II$ min. Earth dist. -8321 Jul 21 j 23:36 28°M21'12 4.06166 AU retrograde -8327 Nov 29 j 19:38 14°**Ⅲ**37'31 direct -8321 Sep 19 j 02:22 23°M16'08 -8326 Jan 29 j 14:58 9°II46'01 2°12'34 -8321 Nov 25 j 01:01 0°**∡**7 opposition min. Earth dist. -8326 Jan 30 j 16:04 9°**Ц**38'02 4.33189 AU -8320 Jan 22 j 12:17 evening set 12°**₹**'23'55

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8320 in astronomical counting style is the year 8321 BCE in historical counting style. -8320 Feb 05 i 03:15 15° ₹33'46 -1°31'50 -8315 Jul 27 j 23:27 $0^{\circ}II$ conjunction -8320 Feb 05 j 03:13 15°**₹**33'44 1°32'21 -8315 Aug 04 j 15:36 1°**Ⅱ**42'37 minimum elong morning rise -8320 Feb 06 j 15:06 15°**₹**'54'36 -8315 Dec 04 j 07:28 19°**Ⅱ**07'22 max. Earth dist. 6.08066 AU retrograde -8314 Feb 03 j 05:39 18°**х** 44'34 14°**Ⅱ**15'46 -8320 Feb 18 j 20:24 2°15'35 morning rise opposition -8320 Apr 11 j 08:21 4.32650 AU 0°정 -8314 Feb 04 j 05:40 14°**Ⅱ**08'09 min. Earth dist. -8320 Jun 27 j 06:50 9°**Ⅱ**17'18 retrograde 8°る18'58 direct -8314 Apr 06 j 15:06 3°る14'36 -2°19'43 opposition -8320 Aug 25 j 15:05 evening set -8314 Aug 10 j 16:13 27°**Ⅲ**21'41 min. Earth dist. -8320 Aug 24 j 18:49 29°**Ⅲ**52'47 3°る21'32 4.11271 AU max. Earth dist. -8314 Aug 21 j 19:37 6.29615 AU -8320 Sep 20 j 13:05 30°R*x* -8314 Aug 22 j 08:20 0°9 direct -8320 Oct 23 j 06:21 28° **₹**14'09 -8320 Nov 25 j 07:05 0°궁 conjunction -8314 Aug 23 j 02:10 0°9510'06 1°35'21 17°る16'39 -8314 Aug 23 j 02:10 evening set -8319 Feb 27 j 07:40 minimum elong 0°9510'06 1°35'54 -8314 Sep 04 j 11:16 morning rise 2°958'10 conjunction -8319 Mar 13 j 01:14 20°る24'32 -1°27'21 retrograde -8313 Jan 06 j 14:03 20°955'25 minimum elong -8319 Mar 13 j 01:18 20°る24'34 1°27'53 opposition -8313 Mar 08 j 21:34 16°9502'18 2°13'41 max. Earth dist. -8319 Mar 14 j 02:14 20°る38'49 6.15016 AU min. Earth dist. -8313 Mar 09 j 15:28 15°956'37 4.26046 AU morning rise -8319 Mar 26 j 18:40 23°る32'13 direct -8313 May 09 j 13:04 11°9506'42 -8319 Apr 25 j 04:10 0°≈ evening set -8313 Sep 11 j 03:04 29°9519'30 retrograde -8319 Jul 31 j 00:39 12°≈18'55 -8313 Sep 14 j 01:45 $0^{\circ}\Omega$ opposition -8319 Sep 28 j 02:39 7°≈17'25 -1°48'39 min. Earth dist. -8319 Sep 27 j 17:21 7°≈20'35 4.19326 AU conjunction -8313 Sep 23 j 14:23 2°**Ω**11'36 1°19'04 direct -8319 Nov 26 j 19:54 2°≈14'20 minimum elong -8313 Sep 23 i 14:27 2°Ω11'38 1°19'34 -8318 Mar 07 j 08:44 15°≈ max. Earth dist. -8313 Sep 22 i 22:16 2°**Ω**02'18 6.21804 AU evening set -8318 Apr 04 j 00:49 21°≈00'15 morning rise -8313 Oct 06 i 02:26 5°**Ω**04'17 -8313 Nov 21 j 09:32 15°Ω -8318 Apr 17 j 16:53 24°≈04'02 -0°53'15 -8312 Feb 10 j 06:48 23°Ω46'20 conjunction retrograde -8318 Apr 17 j 16:58 24°≈04'05 0°53'36 -8312 Apr 11 j 16:29 18°**Ω**50'08 1°29'39 minimum elong opposition -8318 Apr 17 j 21:19 24°≈06'31 6.23594 AU min. Earth dist. -8312 Apr 11 j 21:40 18° **Ω**48'28 4.17505 AU max. Earth dist. -8318 May 01 j 07:01 27°≈06'41 -8312 May 16 j 04:00 15°RΩ morning rise -8318 May 14 j 09:19 0°**∀** -8312 Jun 11 j 02:54 13°**Ω**56'42 direct -8318 Sep 01 j 07:21 15°**)**€04'10 -8312 Jul 06 j 22:08 15°Ω retrograde -8312 Oct 02 j 05:25 -8318 Oct 30 j 14:08 10°**)** €06'27 -0°43'36 0° m opposition min. Earth dist. -8318 Oct 30 j 17:25 10°**₭**05'22 4.27579 AU evening set -8312 Oct 12 j 15:18 2° m 23'55 -8318 Dec 30 j 12:58 5°**₩**02'16 direct -8317 May 08 j 04:43 23°**)** 28'40 -8312 Oct 25 j 09:10 5° m 22'32 0°37'03 evening set conjunction -8312 Oct 25 j 09:14 5° m 22'34 0°37'20 minimum elong 26°**∺**26′58 -0°03′09 -8312 Oct 25 j 11:04 5° Mg 23'38 6.13356 AU conjunction -8317 May 21 j 14:37 max. Earth dist. -8317 May 21 j 14:37 26°¥26'58 0°03'15 morning rise -8312 Nov 07 j 05:45 8°m 22'39 minimum elong behind sun begin -8317 May 21 j 06:28 26°**¥**22'28 retrograde -8311 Mar 17 j 06:28 27° m 50'10 behind sun end -8317 May 21 j 22:46 26°**₩**31'28 opposition -8311 May 17 j 08:19 22° Mp 49'59 0°13'39 max. Earth dist. -8317 May 20 j 23:29 26°**)** 18′34 6.30973 AU min. Earth dist. -8311 May 16 j 22:59 22° m 53'03 4.09745 AU -8317 Jun 03 j 21:10 29°**¥**23'31 -8311 Jul 15 j 12:48 17° m 57'00 morning rise direct -8317 Jun 06 j 15:27 $0^{\circ}\Upsilon$ desc. node -8311 Jul 20 j 01:06 17° m 59'04 -8317 Jun 14 j 04:34 1°Y38'53 -8311 Oct 17 j 06:16 0∘**ত** asc. node -8317 Oct 02 j 20:21 16°**Y**46'49 -8311 Nov 15 j 19:11 6°**£**42′23 retrograde evening set 11°Υ52'38 0°32'36 opposition -8317 Dec 01 i 13:11 -8311 Nov 28 j 22:07 9°**£**47'42 -0°18'45 min. Earth dist. -8317 Dec 02 i 04:49 11°**Y**47'32 4.33496 AU conjunction 6°**Y**49'11 -8311 Nov 28 j 22:06 direct -8316 Feb 01 i 13:32 minimum elong 9°**2**47'41 0°18'46 10°**2**01'13 6.07039 AU evening set -8316 Jun 08 j 21:06 25°Y00'11 max. Earth dist. -8311 Nov 29 j 21:03 -8311 Dec 12 i 04:23 12°**£**54'54 morning rise -8316 Jun 21 j 21:26 27°**Υ**'52'53 0°47'01 -8310 Mar 10 j 03:16 0°M conjunction -8316 Jun 21 j 21:22 27°Υ′52'51 0°47'13 -8310 Apr 22 j 20:23 2°M52'56 minimum elong retrograde max. Earth dist. -8316 Jun 20 j 15:31 27°**Υ**36'18 6.34941 AU -8310 Jun 05 j 11:35 -8316 Jul 01 j 10:54 0°8 min. Earth dist. -8310 Jun 21 j 11:10 27°**£**56'06 4.05522 AU -8310 Jun 22 j 07:16 morning rise -8316 Jul 04 j 18:24 0°**8**43'52 opposition 27°**△**49'22 -1°09'19 -8316 Sep 19 j 05:30 15°8 direct -8310 Aug 19 j 14:31 22°**£**54'58 retrograde -8316 Nov 02 j 06:20 17°**8**56'04 -8310 Oct 27 j 05:34 0°M -8316 Dec 17 j 01:48 15°R -8310 Dec 21 j 16:54 11°M56'44 evening set -8315 Jan 01 j 14:02 13°**8**04'02 1°38'06 -8309 Jan 03 j 17:02 15°M opposition -8315 Jan 02 j 13:06 12°**8**56'37 min. Earth dist. 4.35362 AU 8°**8**02'38 -8309 Jan 04 j 03:23 15°M06'05 -1°08'36 direct -8315 Mar 05 j 02:34 conjunction -8315 May 16 j 15:36 15°8 minimum elong -8309 Jan 04 j 03:18 15° M.06'021°08'55 evening set -8315 Jul 10 j 11:55 26°**8**06'08 max. Earth dist. -8309 Jan 05 j 14:02 15°M26'28 6.05193 AU max. Earth dist. -8315 Jul 21 j 17:28 28°**8**36'11 6.34443 AU morning rise -8309 Jan 17 j 17:13 18°M17'05 -8309 Mar 12 j 23:16 0°**∡** -8315 Jul 23 j 03:07 28°**8**54'59 -8309 May 29 j 00:49 8°**х** 16′54 conjunction 1°23'08 retrograde -8315 Jul 23 j 03:03 28°**8**54'57 1°23'34 -8309 Jul 27 j 19:51 3°**∡**11'46 -2°07'18 minimum elong opposition

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8309 in astronomical counting style is the year 8310 BCE in historical counting style. min. Earth dist. -8309 Jul 26 i 19:39 3°**х** 20′01 4.06387 AU -8303 Apr 20 j 10:34 15°8 -8309 Aug 22 j 10:23 -8303 Jul 12 j 10:27 $\Pi^{\circ}0$ 30°RM. -8309 Sep 23 j 23:05 28°MJ4'16 -8303 Jul 14 j 20:11 0°**Ⅲ**31′56 direct evening set -8303 Jul 25 j 23:26 3°**I**100'50 -8309 Oct 26 j 14:47 0°**∡** max. Earth dist. 6.34543 AU -8308 Jan 27 j 15:17 evening set 17°**х** 23′07 -8303 Jul 27 j 10:10 3°**Ⅱ**20'15 conjunction 1°26'21 -8308 Feb 10 j 07:00 -8303 Jul 27 j 10:07 conjunction 20°**₹**33'01 -1°33'15 minimum elong 3°**Ⅲ**20′13 1°26'49 6°**Ⅱ**07'29 minimum elong -8308 Feb 10 j 06:58 20°**х** 33′00 1°33'47 morning rise -8303 Aug 08 j 21:52 max. Earth dist. -8308 Feb 11 j 18:52 20°**₹**53'51 6.08564 AU retrograde -8303 Dec 08 j 18:39 23°**Ⅲ**33'48 18°**Ⅱ**42'06 morning rise -8308 Feb 24 j 00:18 23°×743'39 opposition -8302 Feb 07 j 19:01 2°17'40 -8308 Mar 23 j 00:37 0°궁 min. Earth dist. -8302 Feb 08 j 18:39 18°**Ⅲ**34'36 4.32482 AU -8308 Jul 02 j 03:20 13°る13'28 -8302 Apr 11 j 03:30 retrograde direct 13°**Ⅲ**43'59 opposition -8308 Aug 30 j 08:49 8°る09'24 -2°18'09 -8302 Aug 06 j 22:29 0ಂತಾ min. Earth dist. -8308 Aug 29 j 14:25 8°る15'41 4.11983 AU evening set -8302 Aug 14 j 22:33 1°9547'22 direct -8308 Oct 28 j 02:55 3°**る**08'32 max. Earth dist. -8302 Aug 26 j 04:10 4°9519'50 6.29193 AU evening set -8307 Mar 04 j 09:22 22°る10'20 conjunction -8302 Aug 27 j 08:22 4°935'50 1°34'46 conjunction -8307 Mar 18 j 03:00 25°る17'55 -1°24'06 minimum elong -8302 Aug 27 j 08:22 4°935'51 1°35'18 minimum elong -8307 Mar 18 j 03:04 25°**る**17'57 1°24'38 morning rise -8302 Sep 08 j 17:15 7°524'03 max. Earth dist. -8307 Mar 19 j 01:22 25°る30'40 6.15881 AU retrograde -8301 Jan 11 j 04:04 25°525'08 morning rise -8307 Mar 31 j 20:22 28°る25'10 opposition -8301 Mar 13 j 12:58 20°931'45 2°10'00 -8307 Apr 07 j 20:52 0°≈ min. Earth dist. -8301 Mar 14 i 05:56 20°9526'22 4.25377 AU -8307 Jun 29 i 08:05 15°≈ direct -8301 May 14 i 01:30 15°936'31 -8307 Aug 04 j 14:20 17°≈05'46 -8301 Aug 29 j 10:58 $0^{\circ}\Omega$ retrograde -8307 Sep 09 j 16:08 15°R≈ -8301 Sep 15 j 10:27 3°Ω49'40 evening set -8307 Oct 02 j 17:24 12°≈04'46 -1°41'04 opposition -8307 Oct 02 j 08:54 4.20267 AU -8301 Sep 27 j 22:10 6°Ω42'20 1°14'42 min. Earth dist. 12°≈07'39 conjunction -8307 Dec 01 j 13:41 7°≈01'28 -8301 Sep 27 j 22:14 1°15'11 direct minimum elong 6° \$\O42'23 -8301 Sep 27 j 06:24 -8306 Feb 16 j 00:04 15°≈≈ max. Earth dist. 6°**Ω**33'14 6.20946 AU -8306 Apr 08 j 22:46 -8301 Oct 10 j 11:11 25°≈45'38 morning rise 9°**Ω**35'48 evening set -8301 Nov 03 j 14:24 15°Ω -8306 Apr 22 j 14:16 -8300 Feb 15 j 01:21 conjunction 28°≈48'48 -0°46'46 retrograde 28°**£**23′26 -8300 Apr 16 j 10:15 -8306 Apr 22 j 14:21 28°≈48'50 0°47'06 23°**Ω**26'44 1°20'52 minimum elong opposition 28°≈49'58 6.24581 AU -8306 Apr 22 j 16:21 -8300 Apr 16 j 14:02 23°**Ω**25'30 4.16488 AU max. Earth dist. min. Earth dist. -8306 Apr 27 j 21:18 0°**∀** -8300 Jun 15 j 16:37 18°**£**33′23 direct -8306 May 06 j 03:35 morning rise 1°**)** 50'43 -8300 Sep 15 j 17:05 0° m -8300 Oct 17 j 02:42 retrograde -8306 Sep 05 j 20:06 19°**)** 42′46 evening set 7° Mp 02'45 -8306 Nov 04 j 03:02 14°\(\dagger45'39\) -0°32'59 opposition min. Earth dist. -8306 Nov 04 j 08:18 14°**)** 43'54 4.28531 AU conjunction -8300 Oct 29 j 21:53 10° Mg 02'22 0°30'00 -8305 Jan 04 j 06:37 9°**)**41'34 minimum elong -8300 Oct 29 j 21:56 10° m 02'24 0°30'14 direct -8305 Apr 23 j 05:14 23°¥50'16 max. Earth dist. -8300 Oct 30 j 02:51 10° **m** 05'17 6.12301 AU asc. node -8305 May 12 j 21:39 28°**₭**05'32 -8300 Nov 11 j 19:38 13° m 03'31 evening set morning rise -8305 May 21 j 12:46 $0^{\circ}\Upsilon$ -8299 Feb 08 j 08:54 0∘**ত** -8299 Mar 22 j 04:30 2°**£**36'42 retrograde -8305 May 26 j 06:23 1°Y03'00 0°04'23 -8299 May 03 j 02:20 conjunction 30°R, M) -8305 May 26 i 06:22 minimum elong 1°\bar{\gamma}03'00 0°04'20 opposition -8299 May 22 j 04:02 27° m 36'06 0°02'16 -8305 May 25 j 22:20 behind sun begin 0°Y58'34 min. Earth dist. -8299 May 21 j 17:57 27° m 39'25 4.08743 AU behind sun end -8305 May 26 j 14:24 1°**Y**07′26 desc. node -8299 Jun 01 j 16:09 26° m 14'23 -8305 May 25 j 13:27 max. Earth dist. 0°**Υ**53'37 6.31838 AU direct -8299 Jul 20 i 04:43 22° m 43'04 -8305 Jun 08 j 11:40 3°Y58'42 -8299 Sep 28 j 05:53 0∘**⊽** morning rise -8305 Oct 07 j 05:21 21°Y18'34 -8299 Nov 20 j 13:13 11°**♀**31'55 retrograde evening set -8305 Dec 06 j 01:17 16°**Y**′24'46 0°42'52 opposition -8305 Dec 06 j 17:14 16°**Υ**19'34 4.34240 AU -8299 Dec 03 j 17:12 14°**2**38'07 -0°26'14 min. Earth dist. conjunction 11°Y21'33 direct -8304 Feb 06 j 03:55 minimum elong -8299 Dec 03 j 17:10 14°**△**38'06 0°26'19 29°**Y**30'05 -8304 Jun 13 j 09:05 max. Earth dist. -8299 Dec 04 j 16:16 14°**£**51'44 6.06178 AU evening set -8304 Jun 15 j 15:27 0° 8 -8299 Dec 17 j 00:53 17°**-**46′17 morning rise max. Earth dist. -8304 Jun 25 j 02:18 2°**8**05'29 6.35512 AU -8298 Feb 11 j 21:10 0°M -8298 Apr 27 j 18:54 retrograde 7°M47'59 -8304 Jun 26 j 07:58 2°**8**21'56 0°53'10 -8298 Jun 26 j 06:16 2°M51'21 4.04907 AU conjunction min. Earth dist. -8304 Jun 26 j 07:54 2°**8**21'53 0°53'23 -8298 Jun 27 j 03:49 2°M44'06 -1°19'15 minimum elong opposition -8304 Jul 09 j 03:26 5°**8**12'05 morning rise -8298 Jul 18 j 19:13 30°RΩ -8304 Aug 25 j 21:32 15°8 direct -8298 Aug 24 j 08:45 27°**£**49'20 retrograde -8304 Nov 06 j 16:03 22°**8**23'19 -8298 Sep 29 j 17:35 0°M opposition -8303 Jan 06 j 02:22 17°**8**31'29 1°45'13 -8298 Dec 18 j 11:48 15°M min. Earth dist. -8303 Jan 07 j 01:53 17°**8**23'58 4.35726 AU evening set -8298 Dec 26 j 16:53 16°M54'34 -8303 Jan 26 j 18:59 15°R8

direct

-8303 Mar 09 j 16:39

12°**8**30'32

conjunction

-8297 Jan 09 j 04:30 20°M 04'29 -1°13'42

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 10 Attention, astronomical year style is used: The year -8297 in astronomical counting style is the year 8298 BCE in historical counting style.

-	ical vear style is used: Th		_		r 8298 BCE in historical c	_	C
minimum elong	-8297 Jan 09 j 04:24	20°M04'26		opposition	-8291 Jan 10 j 14:06	21° 8 56'38	1°51'49
max. Earth dist.	-8297 Jan 10 j 17:06	20°M26'01	6.04888 AU	min. Earth dist.	-8291 Jan 11 j 13:36	21° 8 49'07	4.35642 AU
morning rise	-8297 Jan 22 j 18:59	23°M15'55	0.04000710	direct	-8291 Mar 14 j 03:46	16° 8 55'58	4.55042 110
morning risc	-8297 Feb 21 j 13:43	0° ₹		direct	-8291 Jun 26 j 07:46	0°Ⅱ	
retrograde	-8297 Jun 03 j 00:31	13° ₹ 15'23		evening set	-8291 Jul 19 j 03:55	4° ∏ 56'53	
opposition	-8297 Aug 01 j 15:48	8° ₹ 10'15	-2°11'45	max. Earth dist.	-8291 Jul 30 j 07:10	7° П 26'00	6.34096 AU
min. Earth dist.	-8297 Jul 31 j 16:30		4.06438 AU	max. Earth dist.	-8291 Jul 30 J 07.10	7 1120 00	0.34090 AO
direct	-8297 Sep 28 j 19:56	3° ₹ 1012	4.00436 AC	conjunction	-8291 Jul 31 j 17:01	7° Ⅱ 44'58	1°29'08
evening set	-8296 Feb 01 j 18:24	22° × ⁷ 22'44		minimum elong	-8291 Jul 31 j 16:58	7° П 44'56	1°29'38
evening set	02701 c 0 01 j 10.24	22 × 22		morning rise	-8291 Aug 13 j 03:52	10° Ⅲ 32'01	1 2750
conjunction	-8296 Feb 15 j 10:35	25° ∡ 32'40	-1°33'55	retrograde	-8291 Dec 13 j 08:18	28°耳02'00	
minimum elong	-8296 Feb 15 j 10:35	25° × 32'40		opposition	-8290 Feb 12 j 09:47	23° Ⅱ 10'12	2°19'07
max. Earth dist.	-8296 Feb 16 j 21:28	25° ₹ 52'54		min. Earth dist.	-8290 Feb 13 j 09:38	23° I I02'39	4.31698 AU
morning rise	-8296 Feb 29 j 04:19	28° х 43'16	0.00002110	direct	-8290 Apr 15 j 16:51	18° Ⅱ 12'30	51070110
morning rise	-8296 Mar 05 j 18:17	0°る		uncer	-8290 Jul 21 j 11:15	0°95	
retrograde	-8296 Jul 06 j 20:38	18° පි 08'24		evening set	-8290 Aug 19 j 06:29	6°9316'51	
min. Earth dist.	-8296 Sep 03 j 07:33		4.12698 AU	max. Earth dist.	-8290 Aug 30 j 11:42	8° 5 49'32	6.28121 AU
opposition	-8296 Sep 04 j 02:05	13° ප 04'36		man. Darun diot.	02901148 00 111.12	0 0 .752	0.20121110
direct	-8296 Nov 01 j 22:00	8° ප 03'19	2 10 01	conjunction	-8290 Aug 31 j 16:04	9° 5 05'40	1°33'41
evening set	-8295 Mar 09 j 10:58	27° る 04'07		minimum elong	-8290 Aug 31 j 16:05	9° © 05'41	1°34'13
evening sec	-8295 Mar 22 j 08:46	0°≈		morning rise	-8290 Sep 13 j 01:17	11°954'25	1 3 . 13
	0290 11111 22) 00.10	0.0		morning rise	-8289 Jan 11 j 13:31	0° Ω	
conjunction	-8295 Mar 23 j 04:36	0° ≈ 11'17	-1°20'14	retrograde	-8289 Jan 15 j 22:08	0° Ω 01'46	
minimum elong	-8295 Mar 23 j 04:41	0°≈11'20		renograde	-8289 Jan 20 j 06:46	30°R.55	
max. Earth dist.	-8295 Mar 24 j 00:40	0°≈22'42		opposition	-8289 Mar 18 j 07:37	25° © 07'59	2°05'31
morning rise	-8295 Apr 05 j 21:43	3°≈18'00		min. Earth dist.	-8289 Mar 18 j 22:47	25°903'10	4.24086 AU
	-8295 Jun 01 j 08:24	15° ≈		direct	-8289 May 18 j 15:31	20°513'04	
retrograde	-8295 Aug 09 j 05:29	21° ≈ 51'47			-8289 Aug 12 j 00:18	0°N	
opposition	-8295 Oct 07 j 07:49	16° ≈ 51'13	-1°32'49	evening set	-8289 Sep 19 j 21:31	8° Ω 28'39	
min. Earth dist.	-8295 Oct 07 j 01:30	16° ≈ 53'21	4.21393 AU		1 3		
	-8295 Oct 21 j 08:42	15°R≈		conjunction	-8289 Oct 02 j 10:10	11° Ω 22'16	1°09'45
direct	-8295 Dec 06 j 09:24	11° ≈ 47'39		minimum elong	-8289 Oct 02 j 10:15	11° Ω 22'18	1°10'12
	-8294 Jan 21 j 17:42	15° ≈		max. Earth dist.	-8289 Oct 01 j 22:03	11° Ω 15'14	6.19567 AU
	-8294 Apr 11 j 15:18	0°) €		morning rise	-8289 Oct 15 j 00:03	14° Ω 16'44	
evening set	-8294 Apr 13 j 19:17	0°) 28′50			-8289 Oct 18 j 03:27	15° Ω	
					-8288 Jan 04 j 08:26	0° ™	
conjunction	-8294 Apr 27 j 10:14	3°) €31'16	-0°40'02	retrograde	-8288 Feb 20 j 01:36	3° m 11'39	
minimum elong	-8294 Apr 27 j 10:18	3° ∺ 31'18	0°40'20		-8288 Apr 07 j 09:54	30° R Ω	
max. Earth dist.	-8294 Apr 27 j 10:46	3°) €31'34	6.25749 AU	opposition	-8288 Apr 21 j 08:54	28° Ω 14'30	1°11'12
morning rise	-8294 May 10 j 22:35	6°) 32′19		min. Earth dist.	-8288 Apr 21 j 11:23	28° Ω 13'42	4.15123 AU
retrograde	-8294 Sep 10 j 05:06	24° ∺ 18'19		direct	-8288 Jun 20 j 11:03	23° Ω 21′23	
opposition	-8294 Nov 08 j 14:49	19° ∺ 21'37	-0°22'16		-8288 Aug 26 j 20:38	0° m)	
min. Earth dist.	-8294 Nov 08 j 20:38	19° 米 19'41	4.29616 AU	evening set	-8288 Oct 21 j 19:38	11° m 54'03	
direct	-8293 Jan 08 j 21:34	14° 米 17'29					
asc. node	-8293 Mar 02 j 18:43	18° ∺ 15'11		conjunction	-8288 Nov 03 j 15:54	14° m 54'43	0°22'25
	-8293 May 05 j 09:37	0 ° $\mathbf{\Upsilon}$		minimum elong	-8288 Nov 03 j 15:56	14° m 54'44	0°22'38
evening set	-8293 May 17 j 12:35	2° Y 38'19		max. Earth dist.	-8288 Nov 03 j 22:26	14° m 58'33	6.11081 AU
				morning rise	-8288 Nov 16 j 15:15	17° m 57'06	
conjunction	-8293 May 30 j 19:55	5° Ƴ 34'51	0°11'40		-8287 Jan 11 j 23:53	0∘ ⊽	
minimum elong	-8293 May 30 j 19:54	5° Ƴ 34'51	0°11'40	retrograde	-8287 Mar 27 j 06:35	7° ≏ 36′21	
behind sun begin	-8293 May 30 j 14:10	5° Y 31'41		desc. node	-8287 Apr 12 j 01:11	7° ≏ 12'48	
behind sun end	-8293 May 31 j 01:37	5° Ƴ 38'00		opposition	-8287 May 27 j 05:10	2° ≏ 35'15	-0°09'43
max. Earth dist.	-8293 May 30 j 00:24	5° Y 24'03	6.32734 AU	min. Earth dist.	-8287 May 26 j 16:11	2° ჲ 39'32	4.07806 AU
morning rise	-8293 Jun 12 j 23:54	8° Y 29'38			-8287 Jun 16 j 22:42	30°R, Mp	
retrograde	-8293 Oct 11 j 15:00	25° Y 46′15		direct	-8287 Jul 25 j 01:34	27° m 42'10	
opposition	-8293 Dec 10 j 12:07	20° Y 52'47	0°52'49		-8287 Aug 31 j 17:28	0∘ ⊽	
min. Earth dist.	-8293 Dec 11 j 06:11	20° Y 46'55	4.34865 AU	evening set	-8287 Nov 25 j 12:41	16° ≏ 34'08	
direct	-8292 Feb 10 j 18:30	15° Y 49'46					
	-8292 May 30 j 14:02	0°8		conjunction	-8287 Dec 08 j 18:00	19° ≙ 41'08	
evening set	-8292 Jun 17 j 19:20	3° 8 56'12		minimum elong	-8287 Dec 08 j 17:57	19° ≏ 41'06	
max. Earth dist.	-8292 Jun 29 j 09:39	6° 8 30'01	6.35780 AU	max. Earth dist.	-8287 Dec 09 j 21:22	19° ≏ 57'17	6.05635 AU
_				morning rise	-8287 Dec 22 j 02:41	22° △ 49'59	
conjunction	-8292 Jun 30 j 16:54	6° 8 47'21	0°58'58	_	-8286 Jan 22 j 18:28	0°M	
minimum elong	-8292 Jun 30 j 16:49	6° 8 47'18	0°59'14	retrograde	-8286 May 02 j 23:30	12°M53'36	40.00
morning rise	-8292 Jul 13 j 11:05	9° 8 36'51		min. Earth dist.	-8286 Jul 01 j 06:47	7°M56'51	4.04862 AU
	0000 . 0= : : = = =	1			000671 00101	70W 40	1000150
retrograde	-8292 Aug 07 j 12:58 -8292 Nov 11 j 01:00	15° 8 26° 8 48'23		opposition direct	-8286 Jul 02 j 04:45 -8286 Aug 29 j 09:09	7°ጤ49'27 2°ጤ54'24	-1°28'59

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 11 Attention, astronomical year style is used: The year -8286 in astronomical counting style is the year 8287 BCE in historical counting style.

Attention, astronom	nical year style is used: Th	ne year -8286 i	in astronomical co	ounting style is the year	8287 BCE in historical c	ounting style.	
	-8286 Nov 30 j 20:59	15°M			-8280 Jul 22 j 13:47	15° ∀	
evening set	-8286 Dec 31 j 21:01	22°M00'44			-8280 Oct 19 j 06:14	Π °0	
				retrograde	-8280 Nov 15 j 10:42	1° Ⅱ 08'44	
conjunction	-8285 Jan 14 j 09:17	25° ™ 10'44			-8280 Dec 12 j 16:32	30° ₹ 8	
minimum elong	-8285 Jan 14 j 09:12	25° ™ 10'42		opposition	-8279 Jan 14 j 23:59	26° 8 17'08	1°57'37
max. Earth dist.	-8285 Jan 15 j 22:52		6.05335 AU	min. Earth dist.	-8279 Jan 16 j 01:16	26° 8 09'04	4.34959 AU
morning rise	-8285 Jan 28 j 00:31	28°M22'12		direct	-8279 Mar 18 j 14:02	21° 8 16'50	
. 1	-8285 Feb 04 j 01:23	0° 🖍			-8279 Jun 08 j 17:10	0°II	
retrograde	-8285 Jun 07 j 22:12	18° ₹ 17'38	2015117	evening set	-8279 Jul 23 j 10:02	9° Ⅱ 19'18	
opposition	-8285 Aug 06 j 12:54	13°× 12'32			9270 A 04:22-26	120 Полго	1921121
min. Earth dist. direct	-8285 Aug 05 j 12:35 -8285 Oct 03 j 17:20	8° ∡ ′2030	4.07374 AU	conjunction minimum elong	-8279 Aug 04 j 22:26 -8279 Aug 04 j 22:24	12° ∏ 07'28 12° ∏ 07'27	
evening set	-8284 Feb 06 j 21:57	27° ₹ 22'43		max. Earth dist.	-8279 Aug 04 j 22.24 -8279 Aug 03 j 12:04	12 II 0727 11° II 48'10	6.33000 AU
evening set	-8284 Feb 18 j 06:44	0°る		morning rise	-8279 Aug 03 j 12:04	14° ∏ 54'45	0.55000 AC
	-02041'00 10 100.44	0 0		morning risc	-8279 Nov 06 j 21:53	0°95	
conjunction	-8284 Feb 20 j 14:25	0° る 32'12	-1°33'57	retrograde	-8279 Dec 17 j 21:23	2° 9 30'37	
minimum elong	-8284 Feb 20 j 14:26	0° る 32'12		rearograde	-8278 Jan 28 j 13:36	30°RⅡ	
max. Earth dist.	-8284 Feb 21 j 23:49	0° る 51'30		opposition	-8278 Feb 17 j 00:14	27° I I38'38	2°19'45
morning rise	-8284 Mar 05 j 08:11	3° る 42'10		min. Earth dist.	-8278 Feb 17 j 22:42	27° I I31'30	4.30286 AU
retrograde	-8284 Jul 11 j 13:21	22° る 59'11		direct	-8278 Apr 20 j 03:07	22° Ⅱ 41'19	
opposition	-8284 Sep 08 j 18:02	17° る 55'43	-2°11'57		-8278 Jul 02 j 15:51	0° ©	
min. Earth dist.	-8284 Sep 08 j 01:34	18° る 01'21	4.14257 AU	evening set	-8278 Aug 23 j 14:56	10° © 48'45	
direct	-8284 Nov 06 j 19:02	12° る 54'02		max. Earth dist.	-8278 Sep 03 j 23:11	13° 5 23'41	6.26517 AU
	-8283 Mar 06 j 03:36	0° ≈					
evening set	-8283 Mar 14 j 09:15	1° ≈ 50'43		conjunction	-8278 Sep 05 j 00:44	13° © 38'17	1°31'57
				minimum elong	-8278 Sep 05 j 00:46	13° © 38'18	1°32'30
conjunction	-8283 Mar 28 j 02:48	4° ≈ 57'07	-1°15'57	morning rise	-8278 Sep 17 j 10:13	16° 5 27'50	
minimum elong	-8283 Mar 28 j 02:53	4° ≈ 57'10	1°16'26		-8278 Nov 24 j 07:43	$0^{\circ}\Omega$	
max. Earth dist.	-8283 Mar 28 j 21:15		6.18531 AU	retrograde	-8277 Jan 20 j 19:42	4° Ω 43′08	
morning rise	-8283 Apr 10 j 19:20	8° ≈ 02'53			-8277 Mar 21 j 17:21	30° ₹ 5	
	-8283 May 12 j 19:11	15° ≈		opposition	-8277 Mar 23 j 03:58	29° © 48'59	2°00'09
retrograde	-8283 Aug 13 j 14:25	26° ≈ 28'02		min. Earth dist.	-8277 Mar 23 j 18:08	29°5544'28	4.22395 AU
opposition	-8283 Oct 11 j 18:26	21° ≈ 28′01		direct	-8277 May 23 j 08:23	24°954'24	
min. Earth dist.	-8283 Oct 11 j 13:13		4.22992 AU		-8277 Jul 21 j 13:53	0° U	
direct	-8283 Dec 10 j 23:53	16°≈24'16		evening set	-8277 Sep 24 j 10:41	13° Ω 13'31	
	-8282 Mar 26 j 07:19	0°) (-8277 Oct 02 j 02:41	15° Ω	
evening set	-8282 Apr 18 j 11:10	5° ₩ 01'14			-8277 Oct 07 j 00:10	160 000112	1904/12
conjunction	-8282 May 02 j 01:07	8° ₩ 02'43	0°22'10	conjunction minimum elong	-8277 Oct 07 j 00:10		
minimum elong	-8282 May 02 j 01:10	8° H 02'45		max. Earth dist.	-8277 Oct 07 j 00:14		6.17948 AU
max. Earth dist.	-8282 May 01 j 20:50	8°\(\frac{1}{2}\)	6.27155 AU	morning rise	-8277 Oct 00 j 14:02 -8277 Oct 19 j 15:25	19° Ω 03'57	0.17948 AU
morning rise	-8282 May 15 j 12:35	11°) 02'48	0.27133710	morning rise	-8277 Dec 09 j 19:15	0° m)	
retrograde	-8282 Sep 14 j 12:18	28°) (42'47		retrograde	-8276 Feb 25 j 02:11	8° Mp 06'41	
opposition	-8282 Nov 12 j 22:20	23°) (46'36	-0°11'53	opposition	-8276 Apr 26 j 09:49	3° m) 08'54	1°00'47
min. Earth dist.	-8282 Nov 13 j 07:22		4.30705 AU	min. Earth dist.	-8276 Apr 26 j 08:41	3° m) 09'16	4.13704 AU
asc. node	-8281 Jan 12 j 16:42	18°) 42′31			-8276 May 22 j 22:03	30°R Ω	
direct	-8281 Jan 13 j 10:09	18°) 42′28		direct	-8276 Jun 25 j 06:31	28° Ω 15'54	
	-8281 Apr 18 j 18:57	$0^{\circ}\mathbf{\Upsilon}$			-8276 Jul 28 j 07:15	0° m	
evening set	-8281 May 21 j 22:34	7° Y '00'36		evening set	-8276 Oct 26 j 15:09	16° m 51'45	
max. Earth dist.	-8281 Jun 03 j 07:15	9° Ƴ 44'25	6.33412 AU				
				conjunction	-8276 Nov 08 j 12:50	19° m 53'29	0°14'31
conjunction	-8281 Jun 04 j 04:49	9° Y 56'22	0°18'36	minimum elong	-8276 Nov 08 j 12:51	19° m 53'29	0°14'41
minimum elong	-8281 Jun 04 j 04:47	9° Ƴ 56′20	0°18'38	behind sun begin	-8276 Nov 08 j 09:20	19° m 51'26	
morning rise	-8281 Jun 17 j 07:23	12° Y 50'19		behind sun end	-8276 Nov 08 j 16:22	19° m 55'33	
	-8281 Oct 08 j 14:52	0°8		max. Earth dist.	-8276 Nov 09 j 00:20	20° Mp 00'14	6.10000 AU
retrograde	-8281 Oct 15 j 19:26	0° 8 05'02		morning rise	-8276 Nov 21 j 13:27	22° m 56'55	
	-8281 Oct 23 j 00:25	30°RΥ	1000:0-		-8276 Dec 22 j 19:46	0° ⊽	
opposition	-8281 Dec 14 j 19:15	25° Y 11'55	1°02'05	desc. node	-8275 Feb 19 j 06:57	10° 2 07'48	
min. Earth dist.	-8281 Dec 15 j 14:09	25° Y 05'47	4.35104 AU	retrograde	-8275 Apr 01 j 12:28	12° £ 41'01	0021152
direct	-8280 Feb 15 j 02:07	20° Y 09'08		opposition	-8275 Jun 01 j 07:54	7° Ω 39'21	
avaning sat	-8280 May 13 j 14:12	0°8 8°815'02		min. Earth dist.	-8275 May 31 j 17:39	7° £ 44'04 2° £ 46'03	4.07151 AU
evening set	-8280 Jun 22 j 02:01	8° 8 15'03		direct evening set	-8275 Jul 30 j 02:20 -8275 Nov 30 j 14:15	2° 22 46'03 21° 2 39'55	
conjunction	-8280 Jul 04 j 22:12	11° 8 05'43	1°04'15	evening set	0213 110V 30 J 14.13	21 - 3933	
minimum elong	-8280 Jul 04 j 22:08	11° 8 05'40	1°04'34	conjunction	-8275 Dec 13 j 20:34	24° ≏ 47'26	-0°41'25
max. Earth dist.	-8280 Jul 03 j 12:53		6.35544 AU	minimum elong	-8275 Dec 13 j 20:30	24° ⊆ 47'24	
morning rise	-8280 Jul 17 j 15:19	13° 8 54'51		max. Earth dist.	-8275 Dec 15 j 20:58		6.05432 AU
		. 05.51					

-	ical year style is used: Th					_	50 12
morning rise	-8275 Dec 27 j 06:28	27° £ 56'51		retrograde	-8269 Oct 20 j 05:21	4° 8 30'07	
C	-8274 Jan 05 j 02:16	0° M .		C	-8269 Dec 16 j 07:32	30° ₹ Υ	
	-8274 Mar 24 j 13:51	15° M ₊		opposition	-8269 Dec 19 j 05:40	29° Ƴ 37'21	1°11'17
retrograde	-8274 May 08 j 01:20	18°ML00'17		min. Earth dist.	-8269 Dec 20 j 02:47	29° Ƴ 30'31	4.35234 AU
Č	-8274 Jun 21 j 10:31	15°RML		direct	-8268 Feb 19 j 14:56	24° Ƴ 34'51	
min. Earth dist.	-8274 Jul 06 j 05:44		4.05140 AU		-8268 Apr 22 j 20:54	$B_{\circ O}$	
opposition	-8274 Jul 07 j 05:32	12°M55'48	-1°38'05	evening set	-8268 Jun 26 j 11:21	12° 8 40'24	
direct	-8274 Sep 03 j 08:03	8°ML00'18		Č	-8268 Jul 06 j 23:20	15° 8	
	-8274 Nov 10 j 12:55	15° M ₊		max. Earth dist.	-8268 Jul 07 j 21:10	15° 8 12'08	6.35307 AU
evening set	-8273 Jan 06 j 01:30	27°MJ06'41			,		
C	-8273 Jan 18 j 10:03	0° ∡ ¹		conjunction	-8268 Jul 09 j 06:27	15° 8 30'39	1°09'21
	3			minimum elong	-8268 Jul 09 j 06:23	15° 8 30'36	1°09'42
conjunction	-8273 Jan 19 j 14:27	0° ∡ 16'38	-1°22'38	morning rise	-8268 Jul 21 j 22:18	18° 8 19'23	
minimum elong	-8273 Jan 19 j 14:23	0° ∡ 16'36	1°23'05	C	-8268 Sep 18 j 09:26	Π°	
max. Earth dist.	-8273 Jan 21 j 04:07	0° ∡ ³38'42	6.06021 AU	retrograde	-8268 Nov 19 j 20:56	5° Ⅱ 35'38	
morning rise	-8273 Feb 02 j 06:09	3° ∡ ¹27'56		opposition	-8267 Jan 19 j 12:48	0° Ⅱ 44'08	2°02'58
retrograde	-8273 Jun 12 j 20:22	23° ∡ 18'27		min. Earth dist.	-8267 Jan 20 j 13:16	0° Ⅱ 36′20	4.34411 AU
min. Earth dist.	-8273 Aug 10 j 10:35	18° ∡ '21'15	4.08387 AU		-8267 Jan 25 j 07:46	30°R ႘	
opposition	-8273 Aug 11 j 09:35	18° ∡ 13'23		direct	-8267 Mar 23 j 00:46	25° 8 44'18	
direct	-8273 Oct 08 j 17:16	13° ∡ 14'30			-8267 May 17 j 09:44	0°II	
	-8272 Feb 01 j 17:00	ರ°0		evening set	-8267 Jul 27 j 18:34	13° Ⅱ 47'41	
evening set	-8272 Feb 12 j 01:08	2° ට 21'06		max. Earth dist.	-8267 Aug 07 j 20:30	16° Ⅱ 16'53	6.32180 AU
conjunction	-8272 Feb 25 j 18:02	5° ප 30'10	-1°33'22	conjunction	-8267 Aug 09 j 06:11	16° Ⅲ 35'51	1°33'07
minimum elong	-8272 Feb 25 j 18:03	5° ට 30'11	1°33'55	minimum elong	-8267 Aug 09 j 06:09	16° Ⅲ 35'50	1°33'38
max. Earth dist.	-8272 Feb 27 j 02:50	5° ರ 49'04	6.11537 AU	morning rise	-8267 Aug 21 j 16:08	19° Ⅱ 23'16	
morning rise	-8272 Mar 10 j 11:42	8° る 39'32		•	-8267 Oct 12 j 02:09	0ංම	
retrograde	-8272 Jul 16 j 05:20	27° ප් 48'48		retrograde	-8267 Dec 22 j 14:33	7° 5 04'14	
opposition	-8272 Sep 13 j 09:35	22° る 45'48	-2°07'36	opposition	-8266 Feb 21 j 17:21	2° © 12'07	2°19'35
min. Earth dist.	-8272 Sep 12 j 18:07	22° る 51'04	4.15626 AU	min. Earth dist.	-8266 Feb 22 j 15:42	2° © 05'02	4.29261 AU
direct	-8272 Nov 11 j 13:39	17° ප 43'46			-8266 Mar 11 j 17:26	30°RⅡ	
	-8271 Feb 16 j 22:37	0° ≈		direct	-8266 Apr 24 j 18:28	27° Ⅱ 15′18	
evening set	-8271 Mar 19 j 08:10	6° ≈ 37'21			-8266 Jun 07 j 02:03	0°ಅ	
				evening set	-8266 Aug 28 j 00:38	15° 5 24'14	
conjunction	-8271 Apr 02 j 01:20	9° ≈ 43'04	-1°11'12	max. Earth dist.	-8266 Sep 08 j 10:47	18° © 00'41	6.25390 AU
minimum elong	-8271 Apr 02 j 01:25	9° ≈ 43'07	1°11'39				
max. Earth dist.	-8271 Apr 02 j 15:02	9° ≈ 50'49	6.19914 AU	conjunction	-8266 Sep 09 j 10:36	18° © 14'19	1°29'43
morning rise	-8271 Apr 15 j 17:33	12° ≈ 48′05		minimum elong	-8266 Sep 09 j 10:39	18°9514'20	1°30'15
C	-8271 Apr 25 j 14:26	15° ≈		morning rise	-8266 Sep 21 j 20:36	21° © 04'32	
	-8271 Jul 23 j 02:16	0° ∀		•	-8266 Nov 02 j 08:13	$0^{\circ}\Omega$	
retrograde	-8271 Aug 18 j 02:15	1° ₩ 05'52		retrograde	-8265 Jan 25 j 14:49	9° £ 26′10	
	-8271 Sep 12 j 21:22	30°R ≈		opposition	-8265 Mar 28 j 00:51	4° Ω 31'34	1°54'00
opposition	-8271 Oct 16 j 06:09	26°≈06'23	-1°15'10	min. Earth dist.	-8265 Mar 28 j 11:50	4° Ω 28'04	4.21262 AU
min. Earth dist.	-8271 Oct 16 j 03:43	26° ≈ 07'12	4.24259 AU		-8265 May 12 j 13:04	30° ℝ ∽	
direct	-8271 Dec 15 j 16:48	21° ≈ 02'26		direct	-8265 May 28 j 00:15	29° © 37'22	
	-8270 Mar 08 j 00:25	0° ∀			-8265 Jun 12 j 12:06	$0^{\circ}\Omega$	
evening set	-8270 Apr 23 j 04:13	9° ∺ 36'26			-8265 Sep 15 j 23:47	15° Ω	
C	1 ,			evening set	-8265 Sep 28 j 23:52	17° Ω 58'11	
conjunction	-8270 May 06 j 17:32	12°) 37′12	-0°26'19	-			
minimum elong	-8270 May 06 j 17:34	12°) 37′14	0°26'32	conjunction	-8265 Oct 11 j 14:18	20° Ω 53'44	0°58'18
max. Earth dist.	-8270 May 06 j 11:29	12°) 33′50	6.28232 AU	minimum elong	-8265 Oct 11 j 14:23	20° Ω 53'46	0°58'42
morning rise	-8270 May 20 j 03:49	15°) ₹36′25		max. Earth dist.	-8265 Oct 11 j 08:06	20° Ω 50′07	6.16927 AU
	-8270 Aug 04 j 06:07	0° Υ		morning rise	-8265 Oct 24 j 06:34	23° Ω 50′24	
retrograde	-8270 Sep 18 j 20:09	3° Ƴ 11'39			-8265 Nov 20 j 17:16	0° m)	
	-8270 Nov 03 j 21:52	30° ₹ ₩		retrograde	-8264 Mar 01 j 03:23	12° m 58'45	
opposition	-8270 Nov 17 j 08:08	28° ¥ 16′00	-0°01'15	opposition	-8264 May 01 j 09:14	8° Mp 00'27	0°50'05
min. Earth dist.	-8270 Nov 17 j 18:18	28°) 12'39	4.31514 AU	min. Earth dist.	-8264 May 01 j 06:47	8° m 01'14	4.12861 AU
asc. node	-8270 Nov 23 j 17:19	27°) € 25'42		direct	-8264 Jun 30 j 03:28	3° m 07'31	
direct	-8269 Jan 17 j 22:10	23°) 12′00		evening set	-8264 Oct 31 j 09:02	21° Mp 44'52	
	-8269 Mar 30 j 06:52	0° Y					
evening set	-8269 May 26 j 11:00	11° Y 28'15		conjunction	-8264 Nov 13 j 07:51	24° Mp 47'23	0°06'43
				minimum elong	-8264 Nov 13 j 07:51	24° m 47'23	0°06'49
conjunction	-8269 Jun 08 j 15:47	14° Y 23'16	0°25'36	behind sun begin	-8264 Nov 13 j 00:16	24° m 42'57	
minimum elong	-8269 Jun 08 j 15:45	14° Ƴ 23'14	0°25'40	behind sun end	-8264 Nov 13 j 15:25	24° m 51'49	
max. Earth dist.	-8269 Jun 07 j 14:35	14° Y 09'18	6.33887 AU	max. Earth dist.	-8264 Nov 13 j 21:44	24° My $55'32$	6.09411 AU
morning rise	-8269 Jun 21 j 17:12	17° Ƴ 16'31		morning rise	-8264 Nov 26 j 09:53	27° m 51'41	
	-8269 Aug 26 j 00:48	0° 8			-8264 Dec 05 j 15:11	0∘ ⊽	

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8263 in astronomical counting style is the year 8264 BCE in historical counting style. opposition -8264 Dec 30 j 12:30 5°**£**31'20 -8258 Nov 21 j 18:16 2°**Y**45'58 0°09'21 desc. node -8263 Apr 06 j 12:44 17°**♀**38'47 min. Earth dist. -8258 Nov 22 j 06:28 2°**Y**41'57 4.31988 AU retrograde 30°**₹**₩ -8263 Jun 06 j 07:12 12°**♀**36'38 -0°33'29 -8258 Dec 14 j 01:33 opposition -8263 Jun 05 j 14:31 direct 27°**)** 42'03 min. Earth dist. 12°**£**42'10 4.06887 AU -8257 Jan 22 j 11:31 -8257 Mar 03 j 06:12 $0^{\circ}\Upsilon$ direct -8263 Aug 03 j 21:52 7°**£**43'09 -8263 Dec 05 j 12:40 15°**Y**57'16 evening set 26°**♀**38'00 evening set -8257 May 30 j 23:31 -8257 Jun 12 j 01:57 18°**Ƴ**37'42 max. Earth dist. 6.34130 AU -8263 Dec 18 j 19:58 conjunction 29°**£**45'54 -0°48'23 18°**Y**51'40 minimum elong -8263 Dec 18 j 19:53 29°**£**45'51 0°48'36 conjunction -8257 Jun 13 j 03:09 0°32'28 -8257 Jun 13 j 03:06 18° **Y**51'38-8263 Dec 19 j 19:53 0°M minimum elong 0°32'35 21°**Υ**44'15 max. Earth dist. -8263 Dec 20 j 02:55 0°ML04'086.05485 AU morning rise -8257 Jun 26 j 03:06 -8257 Aug 04 j 15:12 morning rise -8262 Jan 01 j 06:45 2°M55'37 0°8 -8257 Oct 24 j 14:05 -8262 Feb 26 j 07:59 15°M⋅ retrograde 8°**8**57'21 retrograde -8262 May 13 j 00:04 22°M58'17 opposition -8257 Dec 23 j 16:59 4°804'50 1°20'06 min. Earth dist. -8262 Jul 11 j 02:57 18°M01'28 4.05508 AU min. Earth dist. -8257 Dec 24 j 14:03 3°**8**58'03 4.35252 AU opposition -8262 Jul 12 j 02:23 17°M53'31 -1°46'10 -8256 Jan 29 j 20:36 30°RY -8262 Aug 04 j 00:14 15°RM direct -8256 Feb 24 j 02:49 29°Y02'42 direct -8262 Sep 08 j 05:27 12°M57'35 -8256 Mar 20 j 13:56 0°8 -8262 Oct 13 j 09:17 15°M -8256 Jun 21 j 03:51 15°8 -8261 Jan 02 j 03:37 0°×7 evening set -8256 Jun 30 j 21:11 17°807'44 evening set -8261 Jan 11 j 02:23 2°**₹**'04'01 max. Earth dist. -8256 Jul 12 j 04:21 19°**8**38'16 6.35080 AU conjunction -8261 Jan 24 i 16:05 5° ₹13'58 -1°26'06 conjunction -8256 Jul 13 j 14:52 19°**8**57'30 1°14'04 minimum elong -8261 Jan 24 j 16:01 5° **₹**13'56 1°26'33 minimum elong -8256 Jul 13 j 14:48 19°**8**57'27 1°14'26 max. Earth dist. -8261 Jan 26 j 06:29 5°**∡**36'24 6.06655 AU morning rise -8256 Jul 26 j 05:47 22°845'52 -8261 Feb 07 j 08:09 8°×725'05 -8256 Aug 29 j 07:19 $0^{\circ}\Pi$ morning rise -8261 Jun 17 j 15:13 28°**х** 10′55 -8256 Nov 24 j 09:48 10°**Ⅱ**04'20 retrograde retrograde min. Earth dist. -8261 Aug 15 j 04:09 23°**✗**13'40 4.09238 AU -8255 Jan 24 j 02:49 opposition 5°∏12'48 2°07'37 -8261 Aug 16 j 02:23 -8255 Jan 25 j 03:49 23°×106'04 -2°19'25 min. Earth dist. 5°**Ⅱ**04'50 4.33963 AU opposition -8261 Oct 13 j 11:36 18°**∡**06'43 -8255 Mar 27 j 15:05 0°**Ⅱ**13'19 direct direct -8255 Aug 01 j 03:03 -8260 Jan 15 j 11:03 0°궁 evening set 18°**Ⅲ**16'42 -8260 Feb 17 j 01:14 -8255 Aug 12 j 06:20 6.31532 AU 7°る12'12 max. Earth dist. 20°**Ⅱ**46'54 evening set -8260 Mar 01 j 18:15 10°る20'56 -1°32'09 -8255 Aug 13 j 14:11 21°**I**104'52 1°34'21 conjunction conjunction 10°**ට**20'58 1°32'42 -8260 Mar 01 j 18:17 -8255 Aug 13 j 14:09 21°**Ⅱ**04'51 minimum elong minimum elong 1°34'53 -8260 Mar 02 j 23:08 10°る37'32 6.12514 AU -8255 Aug 25 j 23:37 23°**II**52'20 max. Earth dist. morning rise 13°**る**29'54 -8255 Sep 23 j 04:19 morning rise -8260 Mar 15 j 12:08 0ಂತಾ -8260 Jun 10 j 14:14 0°≈ retrograde -8255 Dec 27 j 04:40 11°937'30 retrograde -8260 Jul 20 j 19:05 2°≈32'47 -8254 Feb 26 j 10:12 6°5645'05 2°18'33 opposition -8260 Aug 29 j 18:00 30°Ŗ⋜ min. Earth dist. -8254 Feb 27 j 06:24 6°938'41 4.28451 AU opposition -8260 Sep 17 j 22:43 27°る30'10 -2°02'34 direct -8254 Apr 29 j 08:06 1°5948'40 min. Earth dist. -8260 Sep 17 j 09:21 27°る34'44 4.16625 AU -8254 Sep 01 j 10:02 19°958'12 evening set -8260 Nov 16 j 07:01 22°る27'45 direct -8259 Jan 28 j 14:56 -8254 Sep 13 j 20:09 22°5048'43 1°26'56 0°≈ conjunction -8259 Mar 24 j 04:31 -8254 Sep 13 j 20:12 22°5548'45 evening set 11°≈19'33 minimum elong 1°27'27 -8254 Sep 12 j 22:15 max. Earth dist. 22°536'10 6.24471 AU 25°539'33 conjunction -8259 Apr 06 j 21:39 14°≈24'50 -1°06'04 morning rise -8254 Sep 26 i 06:38 minimum elong -8259 Apr 06 j 21:44 14°≈24'53 1°06'30 -8254 Oct 15 i 16:07 $0^{\circ}\Omega$ max. Earth dist. -8259 Apr 07 i 09:38 14°≈31'35 6.20888 AU retrograde -8253 Jan 30 j 11:27 14°Ω06'41 -8259 Apr 09 j 11:57 15°**≈** -8253 Apr 01 j 20:56 9°Ω11'37 1°47'09 opposition -8259 Apr 20 j 13:13 17°≈29'13 min. Earth dist. -8253 Apr 02 j 07:02 9°Ω08'24 4.20259 AU morning rise 4°**Ω**17'38 -8259 Jun 21 j 10:24 0°₩ direct -8253 Jun 01 j 17:50 -8259 Aug 22 j 12:54 -8253 Aug 29 j 22:04 15°**Ω** retrograde 5°\ 41'16 22°**Ω**39'47 opposition -8259 Oct 20 j 16:52 0°**)**(42'21 -1°05'46 evening set -8253 Oct 03 j 12:07 min. Earth dist. -8259 Oct 20 j 16:06 0°**)**42'36 4.25115 AU -8259 Oct 25 j 23:25 30°R≈ conjunction -8253 Oct 16 j 03:34 25°**Ω**36'12 0°52'05 direct -8259 Dec 20 j 06:40 25°≈38'20 minimum elong -8253 Oct 16 j 03:38 25°**Ω**36'14 0°52'27 0°\ -8253 Oct 15 j 23:44 25°**Ω**33'58 6.15938 AU -8258 Feb 13 j 10:29 max. Earth dist. -8258 Apr 27 j 20:36 14°**)** 10'39 28° **Q**33'50 evening set morning rise -8253 Oct 28 j 21:04 -8253 Nov 04 j 02:38 0° m -8258 May 11 j 08:54 17° **₩** 10'46 -0°19'14 conjunction retrograde -8252 Mar 06 j 01:43 17° mp 47'41 minimum elong -8258 May 11 j 08:56 17°**升** 10'47 0°19'24 opposition -8252 May 06 j 07:20 12° Mp 48'500°39'08 max. Earth dist. -8258 May 10 j 22:46 17°**₩**05'08 6.28914 AU min. Earth dist. -8252 May 06 j 02:17 12° m 50'29 4.11960 AU morning rise -8258 May 24 j 18:21 20°**₩**09'19 direct -8252 Jul 04 j 20:35 7° m 55'58 -8258 Jul 11 j 10:04 0° γ evening set -8252 Nov 05 j 02:34 26° m 35'24 -8258 Sep 23 j 05:21 7°**Υ**41'12 -8252 Nov 09 j 19:43 27° m 41'43 retrograde desc. node

-8258 Oct 04 j 18:47

asc. node

7°**Y**27'56

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8252 in astronomical counting style is the year 8253 BCE in historical counting style. -8252 Nov 18 i 02:34 29° m 38'46 -0°01'12 behind sun end -8246 May 16 j 07:54 21° ¥ 52'45 conjunction -8252 Nov 18 j 02:32 29° m 38'45 0°01'09 -8246 May 15 j 15:13 minimum elong max Earth dist 21°**)** 43'30 6.29757 AU 29° m 33'58 -8252 Nov 17 j 18:23 -8246 May 29 j 10:31 24° **) (**47'24 behind sun begin morning rise -8246 Jun 22 j 14:12 $0^{\circ}\Upsilon$ -8252 Nov 18 j 10:42 29° m 43'31 behind sun end 29° **m** 48'09 -8246 Aug 14 j 11:05 max. Earth dist. 9°Y15'13 -8252 Nov 18 j 18:32 6.08678 AU asc. node -8246 Sep 27 j 16:10 12°Y15'29 -8252 Nov 19 j 14:38 0∘**⊽** retrograde 7° Y20'46 0°20'04 morning rise -8252 Dec 01 j 05:51 2°**2**43′56 opposition -8246 Nov 26 j 06:36 7°**Y**16'27 retrograde -8251 Apr 11 j 13:24 22°**£**34'45 min. Earth dist. -8246 Nov 26 j 19:46 4.32724 AU 2°**Y**17'07 opposition -8251 Jun 11 j 05:43 17°**△**32'07 -0°44'52 direct -8245 Jan 27 j 03:00 min. Earth dist. -8251 Jun 10 j 12:18 17°**≏**37'55 4.06381 AU evening set -8245 Jun 04 j 13:12 20°Y30'07 direct -8251 Aug 08 j 18:28 12°**₽**38'21 -8245 Jun 17 j 15:18 23°**Y**23'40 -8251 Dec 03 j 15:54 0° M conjunction 0°39'13 -8245 Jun 17 j 15:15 evening set -8251 Dec 10 j 11:42 1°M35'31 minimum elong 23°**Y**23'38 0°39'23 max. Earth dist. -8245 Jun 16 j 12:02 23°**Y**08'34 6.34699 AU conjunction -8251 Dec 23 j 20:07 4°M43'57 -0°55'01 morning rise -8245 Jun 30 j 13:59 26°Y15'29 minimum elong -8251 Dec 23 j 20:02 4°M43'54 0°55'17 -8245 Jul 17 j 20:09 0°8 max. Earth dist. -8251 Dec 25 j 05:11 5° M03'266.05251 AU retrograde -8245 Oct 29 j 00:18 13°**8**27'12 morning rise -8250 Jan 06 j 07:48 7°M54'09 opposition -8245 Dec 28 j 05:35 8°**8**34'53 1°28'28 -8250 Feb 06 j 17:21 15°M min. Earth dist. -8245 Dec 29 j 03:18 8°**8**27'54 4.35646 AU retrograde -8250 May 17 j 23:53 27°M56'51 direct -8244 Feb 28 j 17:20 3°**8**33'04 opposition -8250 Jul 16 j 23:24 22°M51'59 -1°53'34 -8244 Jun 04 j 06:23 15°8 min. Earth dist. -8250 Jul 15 i 23:47 22°M59'59 4.05593 AU -8244 Jul 05 i 06:56 21°836'11 evening set direct -8250 Sep 13 j 01:41 17°ML55'37 -8250 Dec 15 j 19:26 0°×7 conjunction -8244 Jul 17 j 23:31 24°**8**25'20 1°18'20 -8249 Jan 16 j 04:51 7°**х** 03′26 -8244 Jul 17 j 23:26 24°**8**25'18 1°18'44 evening set minimum elong -8244 Jul 16 j 14:31 24°**8**06'57 6.35259 AU max. Earth dist. -8249 Jan 29 j 19:04 10° **₹**13'27 -1°28'57 -8244 Jul 30 j 13:07 27°**8**13'08 conjunction morning rise -8249 Jan 29 j 19:01 -8244 Aug 12 j 05:41 minimum elong 10° ₹13'25 1°29'26 0°П -8249 Jan 31 j 07:22 -8244 Nov 28 j 20:03 14°**Ⅲ**32'33 max. Earth dist. 10°**х** 34'38 6.07012 AU retrograde -8249 Feb 12 j 11:46 -8243 Jan 28 j 16:24 9°II41'00 2°11'24 13°**х** 24'36 opposition morning rise -8249 May 08 j 14:31 -8243 Jan 29 j 16:32 4.33924 AU 0°궁 min. Earth dist. 9°**∏**33'21 -8249 Jun 22 j 10:43 3°**る**06'45 -8243 Apr 01 j 04:09 4° **1**1′59 retrograde direct -8249 Aug 06 j 02:34 -8243 Aug 05 j 10:30 22°**Ⅱ**43'59 30°R*x*⁷ evening set -8249 Aug 20 j 20:38 opposition 28°**₹**02'04 -2°20'02 -8249 Aug 19 j 23:12 -8243 Aug 17 j 20:52 25°**II**31'58 1°34'59 min. Earth dist. 28°**✗**09'24 4.09829 AU conjunction -8243 Aug 17 j 20:52 direct -8249 Oct 18 j 08:17 23°**х** 02′13 minimum elong 25°**Ⅲ**31'58 1°35'32 -8243 Aug 16 j 12:50 -8249 Dec 26 j 07:17 0°궁 max. Earth dist. 25°**Ⅱ**13'53 6.31254 AU evening set -8248 Feb 22 j 03:16 12°る07'33 morning rise -8243 Aug 30 j 06:06 28°**Ⅱ**19'26 -8243 Sep 06 j 18:21 0ಂತಾ conjunction -8248 Mar 06 j 20:44 15°る16'07 -1°30'16 retrograde -8243 Dec 31 j 19:13 16°907'51 -8248 Mar 06 j 20:47 15°る16'09 1°30'47 opposition -8242 Mar 03 j 01:52 11°9515'08 2°16'38 minimum elong -8248 Mar 08 j 00:50 15°る32'14 6.13300 AU min. Earth dist. -8242 Mar 03 j 21:43 11°9508'50 max. Earth dist. 4.27931 AU -8248 Mar 20 j 14:26 18°る24'41 -8242 May 03 j 22:22 6°9519'00 morning rise direct 24°9528'14 -8248 May 14 j 19:33 evening set -8242 Sep 05 j 17:14 -8248 Jul 25 j 12:10 max. Earth dist. -8242 Sep 17 j 08:10 27°**©**07'56 retrograde 7°**≈**21'43 6.23761 AU opposition -8248 Sep 22 j 14:00 2°≈19'37 -1°56'36 min. Earth dist. -8248 Sep 22 i 02:27 2°≈23'33 4.17513 AU conjunction -8242 Sep 18 i 03:48 27°9519'12 1°23'39 -8248 Oct 10 j 09:12 30°Rる minimum elong -8242 Sep 18 i 03:51 27°9519'14 1°24'10 direct -8248 Nov 21 i 01:38 27°る16'56 -8242 Sep 29 i 20:14 $0^{\circ}\Omega$ -8247 Jan 02 j 03:35 -8242 Sep 30 j 14:46 0°Ω10'35 0°≈≈ morning rise -8242 Dec 15 j 14:39 15°Ω -8247 Mar 24 j 02:51 15°≈ -8247 Mar 29 j 03:33 -8241 Feb 04 j 04:02 18°**Ω**42'35 evening set 16°≈07'19 retrograde -8241 Mar 28 j 00:06 15°RΩ conjunction -8247 Apr 11 j 20:16 19°≈12'06 -1°00'23 opposition -8241 Apr 06 j 14:35 13°Ω47'04 1°39'43 minimum elong -8247 Apr 11 j 20:21 19°≈12'09 1°00'47 min. Earth dist. -8241 Apr 06 j 22:48 13°**Ω**44'26 4.19396 AU max. Earth dist. -8247 Apr 12 j 04:41 19°**≈**16'50 6.21818 AU direct -8241 Jun 06 j 07:09 8°**£**53′18 -8247 Apr 25 j 11:24 22°≈15'54 -8241 Aug 10 j 06:03 15°€ morning rise -8247 May 31 j 13:16 0°**)**€ -8241 Oct 07 j 22:31 27°**Ω**16'39 evening set -8241 Oct 19 j 15:05 retrograde -8247 Aug 27 j 00:43 10°**)** 22′20 0° m opposition -8247 Oct 25 j 05:56 5°**★**23'58 -0°55'46 -8241 Oct 20 j 14:50 min. Earth dist. -8247 Oct 25 j 06:34 5°**∺**23'45 4.26015 AU conjunction 0° m 13'52 0°45'39 -8247 Dec 24 j 23:12 0°**H**19'53 minimum elong -8241 Oct 20 j 14:54 0° Mp 13'54 0°45'59 direct evening set -8246 May 02 j 14:57 18°****50'17 max. Earth dist. -8241 Oct 20 j 12:18 0° M 12'236.15000 AU morning rise -8241 Nov 02 j 09:34 3° m 12'27 conjunction -8246 May 16 j 02:20 21°**)**49'41 -0°11'52 retrograde -8240 Mar 10 j 23:09 22° m 31'47 -8246 May 16 j 02:21 21°**)**(49'41 -8240 May 11 j 02:49 minimum elong 0°12'01 opposition 17° **m** 32'23 0°28'09 -8246 May 15 j 20:49 -8240 May 10 j 20:47 behind sun begin 21°**)** 46'37 min. Earth dist. 17° Mp 34'21 4.11003 AU

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8240 in astronomical counting style is the year 8241 BCE in historical counting style. direct -8240 Jul 09 j 12:46 12° m 39'25 conjunction -8234 May 20 j 17:59 26° \(\frac{1}{24}\)'38 -0°04'31 -8240 Sep 21 j 10:21 20° m 36'47 -8234 May 20 j 18:00 26°**)**€24'38 0°04'37 desc. node minimum elong -8240 Nov 03 j 22:25 0∘**⊽** -8234 May 20 j 09:59 26°¥20'12 behind sun begin -8240 Nov 09 j 18:19 -8234 May 21 j 02:01 1°**2**21'36 behind sun end 26°**¥**29'04 evening set -8234 May 20 j 04:24 26°**¥**17′06 max. Earth dist. 6.30745 AU -8240 Nov 22 j 19:37 4° \$\oldsymbol{\Omega} 25'52 -0°08'52 -8234 Jun 03 j 00:58 conjunction morning rise 29°**H**21'27 -8240 Nov 22 j 19:37 $0^{\circ}\Upsilon$ minimum elong 4°**Ω**25'52 0°08'50 -8234 Jun 05 j 22:59 3°Y51'36 behind sun begin -8240 Nov 22 j 12:34 4°**£**21'44 asc. node -8234 Jun 23 j 20:25 16°**Y**45′23 behind sun end -8240 Nov 23 j 02:39 4°**₽**30'00 retrograde -8234 Oct 02 j 00:07 max. Earth dist. -8240 Nov 23 j 14:16 4°**£**36'51 6.07806 AU opposition -8234 Nov 30 j 17:35 11°**Υ**50'59 0°30'34 morning rise -8240 Dec 06 j 00:12 7°**£**32'01 min. Earth dist. -8234 Dec 01 j 07:40 11°**Υ**46'23 4.33508 AU -8233 Jan 31 j 16:45 6°**Y**47'28 retrograde -8239 Apr 16 j 12:43 27°**£**26'58 direct 24°Y58'05 min. Earth dist. -8239 Jun 15 j 08:05 22°**₽**30′03 4.05700 AU evening set -8233 Jun 09 j 00:56 opposition -8239 Jun 16 j 02:16 22°**₽**23'59 -0°55'42 max. Earth dist. -8233 Jun 20 j 21:39 27°**Y**35'18 6.35199 AU direct -8239 Aug 13 j 11:48 17°**2**29'59 -8239 Nov 16 j 20:03 0°M conjunction -8233 Jun 22 j 01:39 27°**Y**50'49 0°45'41 evening set -8239 Dec 15 j 09:47 6°M30'22 minimum elong -8233 Jun 22 j 01:35 27°**Y**50'47 0°45'53 -8233 Jul 01 j 18:57 0°8 conjunction -8239 Dec 28 j 19:04 9°M39'24 -1°01'08 morning rise -8233 Jul 04 j 22:52 0°841'50 minimum elong -8239 Dec 28 j 18:59 9°M39'21 1°01'26 -8233 Sep 19 j 19:02 15°8 max. Earth dist. -8239 Dec 30 j 03:41 9°M58'38 6.04803 AU retrograde -8233 Nov 02 j 09:28 17°**8**52'42 morning rise -8238 Jan 11 i 07:51 12°M50'12 -8233 Dec 16 j 17:21 15°R₩ -8238 Jan 20 j 15:30 15°M opposition -8232 Jan 01 j 16:59 13°800'38 1°36'18 -8238 Apr 09 j 11:42 0°×7 min. Earth dist. -8232 Jan 02 j 15:42 12°**8**53'20 4.35819 AU -8238 May 22 j 21:49 2° x 53'46 direct -8232 Mar 04 j 06:22 7°**8**59'11 retrograde -8238 Jul 05 j 03:55 -8232 May 16 j 04:09 15°8 30°RM. -8238 Jul 21 j 19:22 -8232 Jul 09 j 15:16 27°M48'45 -2°00'00 evening set 26°801'10 opposition -8238 Jul 20 j 19:15 max. Earth dist. -8232 Jul 20 j 19:47 6.35055 AU min. Earth dist. 27°M56'57 4.05450 AU 28°**8**30'28 direct -8238 Sep 17 j 21:25 22°M51'55 -8232 Jul 22 j 06:36 28°**8**49'53 1°22'10 -8238 Nov 25 j 23:38 0°**∡**¹ conjunction 12°**∡**01'58 -8232 Jul 22 j 06:32 -8237 Jan 21 j 07:00 28°**8**49'51 1°22'36 evening set minimum elong -8232 Jul 27 j 12:18 $0^{\circ}\Pi$ -8237 Feb 03 j 22:05 15°**х** 12′14 -1°31′06 -8232 Aug 03 j 19:25 1°**Ⅲ**37'23 conjunction morning rise -8237 Feb 03 j 22:02 -8232 Dec 03 j 08:07 18°**Ⅱ**59'28 minimum elong 15° **₹**12'12 1°31'37 retrograde -8237 Feb 05 j 11:23 -8231 Feb 02 j 06:09 max. Earth dist. 15°**✗**33'58 6.07200 AU opposition 14°**I**107′52 2°14′34 -8237 Feb 17 j 15:04 -8231 Feb 03 j 06:20 morning rise 18°**∡** 23′25 min. Earth dist. 14°**I**100′11 4.33364 AU -8237 Apr 12 j 20:41 0°ਰ direct -8231 Apr 05 j 16:43 9°**Ⅱ**09′12 retrograde -8237 Jun 27 j 07:50 8°**ප**02'12 evening set -8231 Aug 09 j 18:01 27°**Ⅲ**11'43 -8237 Aug 25 j 14:38 2°る57'44 -2°19'34 max. Earth dist. -8231 Aug 20 j 22:14 29°**Ⅱ**42'58 6.30380 AU opposition min. Earth dist. -8237 Aug 24 j 18:31 3°る04'38 4.10334 AU -8237 Sep 17 j 20:36 30°R.**✓** conjunction -8231 Aug 22 j 04:10 29°**I**59'54 1°35'07 -8237 Oct 23 j 04:31 27°**∡** 57′28 -8231 Aug 22 j 04:10 29°**Ⅲ**59'54 direct minimum elong 1°35'39 -8237 Nov 27 j 18:53 0°る -8231 Aug 22 j 04:21 0ಂತಾ -8236 Feb 27 j 05:28 17°**る**02'41 -8231 Sep 03 j 13:05 2°5947'38 evening set morning rise -8230 Jan 05 j 11:10 20°5541'28 retrograde conjunction -8236 Mar 11 j 23:05 20° ත11'01 -1°27'41 opposition -8230 Mar 07 j 19:05 15°9548'32 2°13'59 minimum elong -8236 Mar 11 j 23:09 20° ත11'03 1°28'13 min. Earth dist. -8230 Mar 08 j 13:51 15°9542'35 4.26797 AU max. Earth dist. -8236 Mar 13 j 00:58 20°る25'50 6.14082 AU direct -8230 May 08 j 12:09 10°952'50 morning rise -8236 Mar 25 i 16:53 23°る19'15 -8230 Sep 10 i 03:05 29°904'01 evening set -8236 Apr 25 j 01:29 -8230 Sep 14 j 04:52 $0^{\circ}\Omega$ 0°≈≈ -8236 Jul 30 j 02:16 12°≈10'06 retrograde -8236 Sep 27 j 05:09 7°≈08'22 -1°49'47 -8230 Sep 22 j 14:01 1°Ω55'43 1°19'49 opposition conjunction -8236 Sep 26 j 18:06 7°≈12'08 4.18489 AU -8230 Sep 22 j 14:05 1°Ω55'45 1°20'19 min. Earth dist. minimum elong 2°≈05'22 -8230 Sep 21 j 19:09 direct -8236 Nov 25 j 19:55 max. Earth dist. 1°**Ω**44'51 6.22463 AU -8235 Mar 06 j 23:34 15°≈ morning rise -8230 Oct 05 j 01:55 4°Ω48'02 -8235 Apr 03 j 01:45 20°≈53'32 -8230 Nov 21 j 20:46 15°**Ω** evening set retrograde -8229 Feb 09 j 02:33 23°**Ω**27'11 -8235 Apr 16 j 18:04 23°≈57'42 -0°54'17 -8229 Apr 11 j 11:57 18°Ω31'12 1°31'28 conjunction opposition -8229 Apr 11 j 18:25 18°**Ω**29'07 4.18007 AU minimum elong -8235 Apr 16 j 18:09 23°≈57'44 0°54'39 min. Earth dist. -8229 May 12 j 05:12 max. Earth dist. -8235 Apr 17 j 00:34 24°≈01'21 6.22927 AU 15°R€ 13°**Ω**37'38 morning rise -8235 Apr 30 j 08:28 27°≈00'44 direct -8229 Jun 10 j 23:59 -8235 May 13 j 21:19 0°**)**€ -8229 Jul 10 j 12:57 15°€ retrograde -8235 Aug 31 j 13:04 15°**)**€00'52 -8229 Oct 03 j 13:57 0° m opposition -8235 Oct 29 j 18:37 10° **★**02'58 -0°45'26 evening set -8229 Oct 12 j 13:07 2° Mp 04'05 min. Earth dist. -8235 Oct 29 j 21:14 10°**)**€02'05 4.27118 AU -8229 Oct 25 j 06:47 5° № 02'26 direct -8235 Dec 29 j 16:45 4°**)**₹58'50 conjunction 0°38'41

-8234 May 07 j 07:43

evening set

23°**¥**26′06

-8229 Oct 25 j 06:50

minimum elong

5° m 02'28 0°38'57

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8229 in astronomical counting style is the year 8230 BCE in historical counting style. -8229 Oct 25 j 08:08 5° Mp 03'13 6.13674 AU retrograde -8223 Sep 04 i 18:32 19°\ 29'03 max. Earth dist. -8229 Nov 07 j 02:47 -8223 Nov 03 j 02:50 14°**)** 31'39 -0°35'15 8° m 02'13 opposition morning rise -8228 Mar 16 j 01:48 min. Earth dist. -8223 Nov 03 j 06:46 14°**)** 30′20 4.28506 AU 27° m 28'20 retrograde -8222 Jan 03 j 04:41 -8228 May 16 j 03:26 22° Mp 28'290°16'28 direct 9°**)**€27'26 opposition -8228 May 15 j 19:35 -8222 May 05 j 00:08 min. Earth dist. 22° m 31'03 4.09863 AU asc. node 26°**H**21'37 -8228 Jul 14 j 08:43 -8222 May 11 j 19:32 direct 17° m 35'36 evening set 27°**米**51'01 $0^{\circ}\Upsilon$ desc. node -8228 Aug 01 j 07:27 18° m 07'38 -8222 May 21 j 12:54 0°**Ƴ**39'05 -8228 Oct 17 j 18:20 0∘ଫ max. Earth dist. -8222 May 24 j 11:20 6.31797 AU evening set -8228 Nov 14 j 15:55 6°**£**21'12 conjunction -8222 May 25 j 04:34 0°**Υ**48'38 0°02'42 0° Y48'37 conjunction -8228 Nov 27 j 18:19 9°**2**26'23 -0°16'48 minimum elong -8222 May 25 j 04:32 0°02'38 -8228 Nov 27 j 18:17 -8222 May 24 j 20:22 0°Υ44'07 minimum elong 9°**2**26'22 0°16'49 behind sun begin -8228 Nov 28 j 14:32 0°Y53'08 max. Earth dist. 9°**₽**38'18 6.06963 AU behind sun end -8222 May 25 j 12:42 morning rise -8228 Dec 11 j 00:21 12°**△**33'30 morning rise -8222 Jun 07 j 10:18 3°Y44'30 -8227 Mar 11 j 19:54 0°M retrograde -8222 Oct 06 j 06:09 21° Y 04'44 retrograde -8227 Apr 21 j 15:23 $2^{\circ}M_{\circ}32'08$ opposition -8222 Dec 05 j 00:30 16°**Y**10'45 0°40'26 -8227 Jun 01 j 09:31 30°**₽**Ω min. Earth dist. -8222 Dec 05 j 17:22 16°**Y**05′15 4.34147 AU min. Earth dist. -8227 Jun 20 j 07:05 27°**△**35'37 4.05281 AU direct -8221 Feb 05 j 03:29 11° **Y**07'22 opposition -8227 Jun 21 j 03:31 27°**£**28'46 -1°06'38 evening set -8221 Jun 13 j 08:03 29°Y16'18 0°8 direct -8227 Aug 18 j 10:48 22°**₽**34'32 -8221 Jun 16 j 15:25 -8227 Oct 27 j 21:25 0°M max. Earth dist. -8221 Jun 25 j 00:54 1°851'27 6.35343 AU evening set -8227 Dec 20 j 13:04 11°ML37'10 conjunction -8221 Jun 26 i 07:30 2°**8**08'25 0°51'37 conjunction -8226 Jan 02 j 23:28 14°ML46'37 -1°07'04 minimum elong -8221 Jun 26 i 07:25 2°**8**08'22 0°51'51 minimum elong -8226 Jan 02 j 23:23 14°M46'34 1°07'24 morning rise -8221 Jul 09 j 03:28 4°858'50 -8226 Jan 03 j 22:12 15°M -8221 Aug 27 j 03:00 15°8 max. Earth dist. -8226 Jan 04 j 11:30 -8221 Nov 06 j 15:22 15°ML07'49 6.04871 AU retrograde 22°810'26 -8220 Jan 06 j 01:10 -8226 Jan 16 j 12:53 17°M.57'40 17°**8**18'30 1°43'21 morning rise opposition -8220 Jan 07 j 00:34 -8226 Mar 13 j 10:43 0°×7 min. Earth dist. 17°**8**11'00 4.35492 AU -8226 May 28 j 00:06 7°**∡**′59'19 retrograde -8220 Jan 24 j 18:55 15°R₩ -8226 Jul 26 j 18:22 2°**∡**754'15 -2°05'44 -8220 Mar 08 j 14:05 direct 12°**8**17'18 opposition -8226 Jul 25 j 18:28 3°**✗**02'23 4.06040 AU -8220 Apr 21 j 06:15 min. Earth dist. 15°8 -8226 Aug 18 j 15:11 -8220 Jul 12 j 08:37 $0^{\circ}\Pi$ 30°RM -8226 Sep 22 j 21:36 -8220 Jul 13 j 20:49 0°**I**I20′03 direct 27°M57'01 evening set 2°**Ⅱ**49′18 -8220 Jul 25 j 00:41 -8226 Oct 28 j 04:37 0°**√** max. Earth dist. 6.34268 AU 17°**∡**¹06′18 evening set -8225 Jan 26 j 11:44 3°Ⅱ08'39 -8220 Jul 26 j 11:16 conjunction 1°25'25 conjunction -8225 Feb 09 j 03:11 20°**∡**16'17 -1°32'40 minimum elong -8220 Jul 26 j 11:12 3°**耳**08′37 1°25'53 -8225 Feb 09 j 03:10 20°**∡**16'16 1°33'11 morning rise -8220 Aug 07 j 23:12 5°**I**I56′06 minimum elong max. Earth dist. -8225 Feb 10 j 15:45 20°**х** 37'31 6.08242 AU retrograde -8220 Dec 07 j 19:35 23°**Ⅲ**22'50 -8225 Feb 22 j 20:34 23°**х** 27′05 -8219 Feb 06 j 18:18 18°**耳**31'12 2°16'54 morning rise opposition -8225 Mar 24 j 03:11 0°정 -8219 Feb 07 j 19:01 18°**Ⅲ**23'22 4.32179 AU min. Earth dist. -8225 Jul 02 j 01:12 12°る58'45 -8219 Apr 10 j 03:13 13°**Ⅲ**32'55 retrograde direct -8225 Aug 30 j 08:41 7°る54'30 -2°18'06 -8219 Aug 06 j 17:39 opposition 0ಂತಾ -8225 Aug 29 j 12:21 8°る01'28 4.11736 AU -8219 Aug 14 j 00:52 1°538'03 min. Earth dist. evening set direct -8225 Oct 28 i 00:52 2°る53'47 max. Earth dist. -8219 Aug 25 i 04:28 4°≌09'32 6.28877 AU evening set -8224 Mar 03 j 06:22 21°る55'27 conjunction -8219 Aug 26 j 10:46 4°9्526'44 1°34'40 conjunction -8224 Mar 16 j 23:57 25°る03'04 -1°24'34 minimum elong -8219 Aug 26 j 10:47 4°9526'44 1°35'12 -8224 Mar 17 i 00:01 25°**ප**03'06 1°25'06 -8219 Sep 07 i 19:58 7°915'09 minimum elong morning rise max. Earth dist. -8224 Mar 17 j 23:28 25°る16'29 6.15724 AU retrograde -8218 Jan 10 j 05:02 25°916'36 -8224 Mar 30 j 17:23 28°る10'24 -8218 Mar 12 j 12:58 20°523'18 2°10'29 morning rise opposition -8218 Mar 13 j 06:00 -8224 Apr 07 j 20:18 min. Earth dist. 4.25084 AU 0°≈≈ 20°9517'52 -8224 Jun 30 j 10:11 15°≈ direct -8218 May 13 j 01:10 15°9527'54 -8224 Aug 03 j 15:07 retrograde 16°≈52'12 -8218 Aug 29 j 03:10 $0^{\circ}\Omega$ -8224 Sep 06 j 13:13 15°R≈ evening set -8218 Sep 14 j 13:54 3°**Ω**42′50 opposition -8224 Oct 01 j 17:47 11°≈50'57 -1°42'25 max. Earth dist. -8218 Sep 26 j 10:56 6°**Ω**27'04 6.20707 AU min. Earth dist. -8224 Oct 01 j 09:20 11°≈53'49 4.20183 AU -8218 Sep 27 j 01:44 direct -8224 Nov 30 j 14:14 6°≈47'39 conjunction 6°**Ω**35'37 1°15'24 -8218 Sep 27 j 01:49 -8223 Feb 16 j 04:44 15°≈ minimum elong 6°**£**35'39 1°15'53 evening set -8223 Apr 07 j 20:03 25°≈31'09 morning rise -8218 Oct 09 j 14:28 9°**Ω**29'04 -8218 Nov 03 j 05:45 15°€ conjunction -8223 Apr 21 j 11:48 28°≈34'24 -0°48'04 retrograde -8217 Feb 14 j 03:34 28°**Ω**16'44 minimum elong -8223 Apr 21 j 11:53 28°**≈**34'27 0°48'25 opposition -8217 Apr 16 j 11:22 23°**Ω**20′14 1°22'25 max. Earth dist. -8223 Apr 21 j 15:33 28°**≈**36'30 6.24538 AU min. Earth dist. -8217 Apr 16 j 15:57 23°**Ω**18'46 4.16340 AU 0°**)**€ -8217 Jun 15 j 18:47 18°**Ω**26'55 -8223 Apr 27 j 20:35 direct -8223 May 05 j 01:18 1°**)** 36′24 -8217 Sep 16 j 07:39 0° M morning rise

Planetary Pheno	rigal year style is used: Th	0 MOOR 9217 i	n actronomical ac	unting style is the year	9219 DCE in historical a	ounting style	
evening set	nical year style is used: Th -8217 Oct 17 j 06:34	6° Mp 57'13	n astronomicai co	conjunction	-8211 Apr 26 j 06:23	3° ∺ 13′29	-0°41'31
evening set	-8217 Oct 17 J 00.34	U 11/3/13		minimum elong	-8211 Apr 26 j 06:27	3° ∺ 13'31	0°41'49
conjunction	-8217 Oct 30 j 01:18	9° m 56'42	0°31'16	max. Earth dist.	-8211 Apr 26 j 05:36	3° ★ 13'03	6.25793 AU
minimum elong	-8217 Oct 30 j 01:10	9° m) 56'44	0°31'31	morning rise	-8211 May 09 j 19:08	6° H 14'39	0.23773 AU
max. Earth dist.	-8217 Oct 30 j 04:57	9° m ₂ 58'51	6.12248 AU	retrograde	-8211 Sep 09 j 05:12	24°) (01'29	
morning rise	-8217 Nov 11 j 22:54	12° m 57'47	0.122 10 710	opposition	-8211 Nov 07 j 13:31	19°) (04'40	-0°24'45
morning rise	-8216 Feb 09 j 07:42	0° ರ		min. Earth dist.	-8211 Nov 07 j 20:26		4.29526 AU
retrograde	-8216 Mar 21 j 05:01	2° ₽ 30'29		direct	-8210 Jan 07 j 20:25	14°) (00'29	29020110
	-8216 May 01 j 06:21	30°R, M)		asc. node	-8210 Mar 15 j 00:30	19°) 59'39	
opposition	-8216 May 21 j 05:54	27° m 29'59	0°04'24		-8210 May 05 j 13:37	$_{0}$ ° γ	
min. Earth dist.	-8216 May 20 j 18:47	27° m 33'38	4.08808 AU	evening set	-8210 May 16 j 09:31	2° Υ 21'40	
desc. node	-8216 Jun 10 j 17:43	24° m 56'53		8	· · · · · · · · · · · · · · · · · · ·		
direct	-8216 Jul 19 j 06:48	22° m/ 37'01		conjunction	-8210 May 29 j 17:28	5° Υ 18'31	0°09'54
	-8216 Sep 27 j 22:02	0∘ ⊽		minimum elong	-8210 May 29 j 17:27	5° Ƴ 18'31	0°09'54
evening set	-8216 Nov 19 j 15:54	11° ≏ 25'31		behind sun begin	-8210 May 29 j 10:52	5° Ƴ 14'52	
S	J			behind sun end	-8210 May 30 j 00:03	5° Y 22'09	
conjunction	-8216 Dec 02 j 19:42	14° ≏ 31'32	-0°24'46	max. Earth dist.	-8210 May 28 j 22:26	5° Ƴ 07'58	6.32510 AU
minimum elong	-8216 Dec 02 j 19:40	14° £ 31'30		morning rise	-8210 Jun 11 j 21:50	8° Υ 13'35	
max. Earth dist.	-8216 Dec 03 j 20:45	14° ≏ 46'19	6.06364 AU	retrograde	-8210 Oct 10 j 13:28	25° Ƴ 31'24	
morning rise	-8216 Dec 16 j 02:49	17° £ 39'24		opposition	-8210 Dec 09 j 10:32	20° Ƴ 37'51	0°50'21
Ü	-8215 Feb 11 j 14:36	0° M .		min. Earth dist.	-8210 Dec 10 j 04:01	20° Υ 32'10	4.34529 AU
retrograde	-8215 Apr 26 j 21:18	7° M .40'03		direct	-8209 Feb 09 j 14:35	15° Ƴ 34'44	
min. Earth dist.	-8215 Jun 25 j 08:51		4.05193 AU	411001	-8209 May 31 j 14:49	0°8	
opposition	-8215 Jun 26 j 05:53	2°M36'15		evening set	-8209 Jun 17 j 18:29	3° 8 42'47	
opp	-8215 Jul 16 j 17:42	30° RΩ	,	max. Earth dist.	-8209 Jun 29 j 08:09	6° 8 16'21	6.35360 AU
direct	-8215 Aug 23 j 12:22	27° £ 41'40				. •	
4	-8215 Sep 29 j 23:16	0°M		conjunction	-8209 Jun 30 j 16:29	6° 8 34'18	0°57'29
	-8215 Dec 18 j 04:38	15° M ₊		minimum elong	-8209 Jun 30 j 16:24	6° 8 34'16	0°57'45
evening set	-8215 Dec 25 j 17:34	16°ML45'10		morning rise	-8209 Jul 13 j 11:15	9° 8 24'12	0 07 10
evening sec	0210 200 20 11.5	10 110 10 10		morning rise	-8209 Aug 08 j 13:12	15° 8	
conjunction	-8214 Jan 08 j 04:39	19° M 54'45	-1°12'33	retrograde	-8209 Nov 11 j 02:55	26° 8 37'01	
minimum elong	-8214 Jan 08 j 04:34	19°ML54'42		opposition	-8208 Jan 10 j 13:19	21° 8 45'20	1°50'06
max. Earth dist.	-8214 Jan 09 j 17:22	20°M16'19	6.05241 AU	min. Earth dist.	-8208 Jan 11 j 14:15	21° 8 37'22	4.35161 AU
morning rise	-8214 Jan 21 j 18:57	23°ML05'54	0.03211710	direct	-8208 Mar 13 j 03:12	16° 8 44'33	1.55101710
morning risc	-8214 Feb 21 j 08:42	0° ⊼ ¹		uncet	-8208 Jun 26 j 03:06	0°Ⅱ	
retrograde	-8214 Jun 01 j 23:25	13° ∡ *04'08		evening set	-8208 Jul 18 j 05:22	4° ∏ 47'45	
opposition	-8214 Jul 31 j 17:02	7° × 758'59	-2°10'32	max. Earth dist.	-8208 Jul 29 j 08:03	7° Ⅱ 16'40	6.33599 AU
min. Earth dist.	-8214 Jul 30 j 16:12		4.06837 AU	max. Earth dist.	0200 Jul 27 J 00.03	7 110 40	0.55577710
direct	-8214 Sep 27 j 20:15	3° × ⁷ 01'16	4.00037 AC	conjunction	-8208 Jul 30 j 18:56	7° Ⅱ 36'13	1°28'10
evening set	-8213 Jan 31 j 16:30	22° × ⁷ 09'18		minimum elong	-8208 Jul 30 j 18:53	7° I I36'11	1°28'48
evening set	-0215 Juli 51 j 10.50	22 × 07 10		morning rise	-8208 Aug 12 j 06:12	10° I I23'39	1 20 40
conjunction	0212 F. 1. 14:00.22	_	1022125	•	-8208 Aug 12 J 00.12		
minimum elong		250 27 1 2 2 5 6		ratrograda	9209 Dec 12 i 00:30	27° ∏ 5/1/17	
-	-8213 Feb 14 j 08:23	25° ₹ 18'56		retrograde	-8208 Dec 12 j 09:30	27° I 54'47	2018133
may Farth dist	-8213 Feb 14 j 08:23	25° ∡ 18'56	1°34'06	opposition	-8207 Feb 11 j 10:06	23° II 03'02	2°18'33
max. Earth dist.	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37	25° х 18′56 25° х 39′21		opposition min. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20	23°Щ03'02 22°Щ55'40	2°18'33 4.31249 AU
max. Earth dist. morning rise	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52	25° ₹18'56 25° ₹39'21 28° ₹29'15	1°34'06	opposition	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36	23°Д03'02 22°Д55'40 18°Д05'14	
morning rise	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38	25° ₹18'56 25° ₹39'21 28° ₹29'15 0° ₹	1°34'06	opposition min. Earth dist. direct	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07	23°П03'02 22°П55'40 18°П05'14 0°©	
morning rise	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18	25° メ 18'56 25° メ 39'21 28° メ 29'15 0°る 17°る53'45	1°34'06 6.09367 AU	opposition min. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36	23°Д03'02 22°Д55'40 18°Д05'14	
morning rise retrograde min. Earth dist.	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21	25° 🖈 18'56 25° 🖈 39'21 28° 🖈 29'15 0° ರ 17° ರ 53'45 12° ರ 56'01	1°34'06 6.09367 AU 4.13056 AU	opposition min. Earth dist. direct evening set	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10	23°П03'02 22°П55'40 18°П05'14 0°© 6°©11'51	4.31249 AU
morning rise retrograde min. Earth dist. opposition	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25	25° 🖈 18'56 25° 🖈 39'21 28° 🗷 29'15 0° ರ 17° ರ 53'45 12° ರ 56'01 12° ರ 49'50	1°34'06 6.09367 AU 4.13056 AU	opposition min. Earth dist. direct evening set conjunction	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01	23° \$\Pi\$03'02 22° \$\Pi\$55'40 18° \$\Pi\$05'14 0° \$\sigma\$6° \$\sigma\$11'51 9° \$\sigma\$00'54	4.31249 AU 1°33'40
morning rise retrograde min. Earth dist. opposition direct	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10	25° \$\frac{18'56}{25° \$\frac{3}{39'21}} 28° \$\frac{3}{29'15} 0° \$\frac{1}{0}\$ \$\frac{1}{5}\$ \$	1°34'06 6.09367 AU 4.13056 AU	opposition min. Earth dist. direct evening set conjunction minimum elong	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02	23°M03'02 22°M55'40 18°M05'14 0°S 6°S11'51 9°S00'54 9°S00'55	4.31249 AU 1°33'40 1°34'12
morning rise retrograde min. Earth dist. opposition	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25	25° 🖈 18'56 25° 🖈 39'21 28° 🗷 29'15 0° ರ 17° ರ 53'45 12° ರ 56'01 12° ರ 49'50	1°34'06 6.09367 AU 4.13056 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37	23° M 03'02 22° M 55'40 18° M 05'14 0° S 6° S 11'51 9° S 00'54 9° S 00'55 8° S 45'18	4.31249 AU 1°33'40
morning rise retrograde min. Earth dist. opposition direct evening set	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 08 j 07:20	25° \$\frac{18'56}{25° \$\frac{3}{39'21}} 28° \$\frac{2}{329'15} 0° \$\frac{3}{53'45}} 12° \$\frac{5}{56'01}} 12° \$\frac{4}{549'50}} 7° \$\frac{5}{48'42}} 26° \$\frac{5}{47'27}	1°34'06 6.09367 AU 4.13056 AU -2°15'43	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12	23° M 03'02 22° M 55'40 18° M 05'14 0° 96 6° 95 11'51 9° 9500'54 9° 9500'55 8° 9545'18 11° 9549'48	4.31249 AU 1°33'40 1°34'12
retrograde min. Earth dist. opposition direct evening set conjunction	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 08 j 07:20	25° \$\times 18'56 25° \$\times 39'21 28° \$\times 29'15 0° \$\times 17° \$\times 53'45 12° \$\times 56'01 12° \$\times 49'50 7° \$\times 48'42 26° \$\times 47'27 29° \$\times 54'29	1°34'06 6.09367 AU 4.13056 AU -2°15'43	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27	23°M03'02 22°M55'40 18°M05'14 0°S 6°S11'51 9°S00'54 9°S00'55 8°S45'18 11°S49'48 29°S57'26	4.31249 AU 1°33'40 1°34'12 6.27782 AU
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retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 08 j 07:20 -8212 Mar 22 j 01:00 -8212 Mar 22 j 01:05 -8212 Mar 22 j 10:43 -8212 Mar 22 j 22:34 -8212 Apr 04 j 18:03 -8212 Jun 01 j 20:15 -8212 Aug 08 j 03:11 -8212 Oct 06 j 06:56 -8212 Oct 05 j 23:33 -8212 Oct 18 j 02:35	25° \$\frac{18'56} 25° \$\frac{3}39'21} 28° \$\frac{3}29'15} 0° \$\frac{3}53'45} 12° \$\frac{5}56'01} 12° \$\frac{5}49'50} 7° \$\frac{5}48'42} 26° \$\frac{5}47'27} 29° \$\frac{5}54'29} 29° \$\frac{5}54'31} 0° \$\times 0' \$\times 0'104} 15° \$\times 21' \$\times 34'56} 16° \$\times 34'15} 16° \$\times 36'46} 15° \$\times \$\times 6*\$	1°34'06 6.09367 AU 4.13056 AU -2°15'43 -1°20'55 1°21'25 6.17142 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27 -8206 Mar 17 j 09:01 -8206 Mar 18 j 01:02 -8206 May 17 j 18:17 -8206 Aug 11 j 11:14 -8206 Sep 19 j 02:12 -8206 Oct 01 j 14:37 -8206 Oct 01 j 14:41 -8206 Oct 01 j 01:28	23°M03'02 22°M55'40 18°M05'14 0°S 6°S11'51 9°S00'54 9°S00'55 8°S45'18 11°S49'48 29°S57'26 25°S03'50 24°S58'45 20°S08'53 0°A 8°A25'35 11°A19'08 11°A19'11 11°A11'31	4.31249 AU 1°33'40 1°34'12 6.27782 AU 2°06'08 4.23905 AU
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 08 j 07:20 -8212 Mar 22 j 01:00 -8212 Mar 22 j 01:05 -8212 Mar 22 j 10:43 -8212 Mar 22 j 22:34 -8212 Mar 22 j 22:34 -8212 Jun 01 j 20:15 -8212 Aug 08 j 03:11 -8212 Oct 06 j 06:56 -8212 Oct 18 j 02:35 -8212 Dec 05 j 06:48	25° \$\frac{18'56} 25° \$\frac{3}39'21} 28° \$\frac{3}29'15} 0° \$\frac{3}{6} 17° \$\frac{5}53'45} 12° \$\frac{5}56'01} 12° \$\frac{5}49'50} 7° \$\frac{7}48'42} 26° \$\frac{5}47'27} 29° \$\frac{5}54'29} 29° \$\frac{5}54'31} 0° \$\approx 0° \approx 06'44} 3° \$\approx 01'04\ 15° \$\approx 21° \$\approx 34'15\ 16° \$\approx 36'46\ 15° \$\approx 10'47\ 11° \$\approx 30'47\	1°34'06 6.09367 AU 4.13056 AU -2°15'43 -1°20'55 1°21'25 6.17142 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27 -8206 Mar 17 j 09:01 -8206 Mar 18 j 01:02 -8206 May 17 j 18:17 -8206 Aug 11 j 11:14 -8206 Sep 19 j 02:12 -8206 Oct 01 j 14:37 -8206 Oct 01 j 14:41 -8206 Oct 01 j 01:28 -8206 Oct 14 j 04:28	23°M03'02 22°M55'40 18°M05'14 0°S 6°S11'51 9°S00'54 9°S00'55 8°S45'18 11°S49'48 29°S57'26 25°S03'50 24°S58'45 20°S08'53 0°A 8°A25'35 11°A19'08 11°A19'11 11°A11'31 14°A13'33	4.31249 AU 1°33'40 1°34'12 6.27782 AU 2°06'08 4.23905 AU 1°10'30 1°10'57
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 22 j 01:00 -8212 Mar 22 j 01:05 -8212 Mar 22 j 01:05 -8212 Mar 22 j 01:05 -8212 Mar 22 j 22:34 -8212 Mar 22 j 22:34 -8212 Apr 04 j 18:03 -8212 Jun 01 j 20:15 -8212 Aug 08 j 03:11 -8212 Oct 06 j 06:56 -8212 Oct 18 j 02:35 -8212 Dec 05 j 06:48 -8211 Jan 22 j 18:59	25° \$\frac{18'56}{25° \$\frac{18'56}{25° \$\frac{139'21}{28° \$\frac{1}{32'9'15}}} 0° \$\frac{1}{0°} \$\frac{1}{553'45}} 12° \$\frac{1}{556'01}} 12° \$\frac{1}{54'50}} 7° \$\frac{1}{54'27}} 29° \$\frac{1}{554'29}} 29° \$\frac{1}{554'29}} 29° \$\frac{1}{554'31}} 0° \$\approx 0° \approx 06'44} 3° \$\approx 01'04} 15° \$\approx 21° \$\approx 34'15} 16° \$\approx 36'46} 15° \$\approx 11° \$\approx 30'47} 15° \$\approx 15° \$\ap	1°34'06 6.09367 AU 4.13056 AU -2°15'43 -1°20'55 1°21'25 6.17142 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27 -8206 Mar 17 j 09:01 -8206 Mar 18 j 01:02 -8206 May 17 j 18:17 -8206 Aug 11 j 11:14 -8206 Sep 19 j 02:12 -8206 Oct 01 j 14:37 -8206 Oct 01 j 14:41 -8206 Oct 01 j 01:28 -8206 Oct 14 j 04:28 -8206 Oct 17 j 13:24	23°M03'02 22°M55'40 18°M05'14 0°G 6°G11'51 9°G00'54 9°G00'55 8°G45'18 11°G49'48 29°G57'26 25°G03'50 24°G58'45 20°G08'53 0°A 8°A25'35 11°A19'08 11°A19'11 11°A11'31 14°A13'33 15°A	4.31249 AU 1°33'40 1°34'12 6.27782 AU 2°06'08 4.23905 AU 1°10'30 1°10'57
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 22 j 01:00 -8212 Mar 22 j 01:05 -8212 Mar 22 j 10:43 -8212 Mar 22 j 10:43 -8212 Mar 22 j 22:34 -8212 Mar 22 j 23:35 -8212 Oct 06 j 06:56 -8212 Oct 18 j 02:35 -8212 Dec 05 j 06:48 -8211 Jan 22 j 18:59 -8211 Apr 11 j 19:32	25° \$\times 18'56 25° \$\times 39'21 28° \$\times 29'15 0° \$\times 17° \$\times 53'45 12° \$\times 56'01 12° \$\times 49'50 7° \$\times 48'42 26° \$\times 47'27 29° \$\times 54'29 29° \$\times 54'31 0° \$\times 0° \$\times 06'44 3° \$\times 01'04 15° \$\times 21° \$\times 34'56 16° \$\times 34'15 16° \$\times 36'46 15° \$\times 11° \$\times 30'47 15° \$\times 0° \$\tim	1°34'06 6.09367 AU 4.13056 AU -2°15'43 -1°20'55 1°21'25 6.17142 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27 -8206 Mar 17 j 09:01 -8206 Mar 18 j 01:02 -8206 May 17 j 18:17 -8206 Aug 11 j 11:14 -8206 Sep 19 j 02:12 -8206 Oct 01 j 14:37 -8206 Oct 01 j 14:41 -8206 Oct 01 j 01:28 -8206 Oct 17 j 13:24 -8206 Oct 17 j 13:24 -8205 Jan 03 j 23:42	23°M03'02 22°M55'40 18°M05'14 0°S 6°S11'51 9°S00'54 9°S00'55 8°S45'18 11°S49'48 29°S57'26 25°S03'50 24°S58'45 20°S08'53 0°A 8°A25'35 11°A19'08 11°A19'11 11°A11'31 14°A13'33 15°A 0°M	4.31249 AU 1°33'40 1°34'12 6.27782 AU 2°06'08 4.23905 AU 1°10'30 1°10'57
retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8213 Feb 14 j 08:23 -8213 Feb 15 j 19:37 -8213 Feb 28 j 01:52 -8213 Mar 06 j 16:38 -8213 Jul 06 j 20:18 -8213 Sep 03 j 08:21 -8213 Sep 04 j 02:25 -8213 Nov 01 j 23:10 -8212 Mar 22 j 01:00 -8212 Mar 22 j 01:05 -8212 Mar 22 j 01:05 -8212 Mar 22 j 01:05 -8212 Mar 22 j 22:34 -8212 Mar 22 j 22:34 -8212 Apr 04 j 18:03 -8212 Jun 01 j 20:15 -8212 Aug 08 j 03:11 -8212 Oct 06 j 06:56 -8212 Oct 18 j 02:35 -8212 Dec 05 j 06:48 -8211 Jan 22 j 18:59	25° \$\frac{18'56}{25° \$\frac{18'56}{25° \$\frac{139'21}{28° \$\frac{1}{32'9'15}}} 0° \$\frac{1}{0°} \$\frac{1}{553'45}} 12° \$\frac{1}{556'01}} 12° \$\frac{1}{54'50}} 7° \$\frac{1}{54'27}} 29° \$\frac{1}{554'29}} 29° \$\frac{1}{554'29}} 29° \$\frac{1}{554'31}} 0° \$\approx 0° \approx 06'44} 3° \$\approx 01'04} 15° \$\approx 21° \$\approx 34'15} 16° \$\approx 36'46} 15° \$\approx 11° \$\approx 30'47} 15° \$\approx 15° \$\ap	1°34'06 6.09367 AU 4.13056 AU -2°15'43 -1°20'55 1°21'25 6.17142 AU	opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8207 Feb 11 j 10:06 -8207 Feb 12 j 09:20 -8207 Apr 14 j 15:36 -8207 Jul 21 j 01:07 -8207 Aug 18 j 10:10 -8207 Aug 30 j 20:01 -8207 Aug 30 j 20:02 -8207 Aug 29 j 16:37 -8207 Sep 12 j 05:12 -8206 Jan 15 j 01:27 -8206 Mar 17 j 09:01 -8206 Mar 18 j 01:02 -8206 May 17 j 18:17 -8206 Aug 11 j 11:14 -8206 Sep 19 j 02:12 -8206 Oct 01 j 14:37 -8206 Oct 01 j 14:41 -8206 Oct 01 j 01:28 -8206 Oct 14 j 04:28 -8206 Oct 17 j 13:24	23°M03'02 22°M55'40 18°M05'14 0°G 6°G11'51 9°G00'54 9°G00'55 8°G45'18 11°G49'48 29°G57'26 25°G03'50 24°G58'45 20°G08'53 0°A 8°A25'35 11°A19'08 11°A19'11 11°A11'31 14°A13'33 15°A	4.31249 AU 1°33'40 1°34'12 6.27782 AU 2°06'08 4.23905 AU 1°10'30 1°10'57

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8205 in astronomical counting style is the year 8206 BCE in historical counting style. -8205 Apr 21 j 10:31 28°Ω10'16 1°12'49 conjunction -8199 Apr 30 j 23:35 7°**)**(49'08 -0°34'48 opposition -8205 Apr 21 j 11:47 28°**Ω**09'52 4.15326 AU -8199 Apr 30 j 23:39 7°**¥**49′10 0°35'04 min. Earth dist. minimum elong -8205 Jun 20 j 13:01 23°**Ω**17'08 -8199 Apr 30 j 21:11 7°**¥**47'47 direct max. Earth dist. 6.26602 AU -8199 May 14 j 11:17 -8205 Aug 27 j 10:05 0° M 10°¥49'35 morning rise -8205 Oct 21 j 23:11 -8199 Sep 13 j 13:41 evening set 11° Mp 49'06 retrograde 28°**H**32'09 -8199 Nov 11 j 23:30 opposition 23°\(\frac{1}{35}\)'50 -0°14'12 -8199 Nov 12 j 07:24 conjunction -8205 Nov 03 j 19:13 14° Mp 49'28 0°23'46 min. Earth dist. 23°**₭**33'14 4.30141 AU minimum elong -8205 Nov 03 j 19:16 14° Mp 49'29 0°23'59 direct -8198 Jan 12 j 08:35 18°**)** 31'44 -8205 Nov 04 j 03:25 max. Earth dist. 14° Mp 54'16 6.11468 AU asc. node -8198 Jan 23 j 16:00 18°**)** 43'34 morning rise -8205 Nov 16 j 17:59 17° m 51'26 -8198 Apr 18 j 14:13 $0^{\circ}\Upsilon$ 6°**Y**51'44 -8204 Jan 12 j 16:35 0∘**⊽** evening set -8198 May 20 j 23:20 -8198 Jun 02 j 07:35 9°**Υ**35'31 retrograde -8204 Mar 26 j 07:46 7°**≏**28'15 max. Earth dist. 6.32888 AU desc. node -8204 Apr 21 j 14:12 6°**£**23'37 opposition -8204 May 26 j 06:10 2°**2**27'13 -0°07'26 conjunction -8198 Jun 03 j 05:55 9°**Ƴ**47'54 0°17'03 min. Earth dist. -8204 May 25 j 18:04 2°**£**31'13 4.08321 AU minimum elong -8198 Jun 03 j 05:53 9°**Υ**47'53 0°17'04 -8204 Jun 14 j 19:23 30°R, Mp morning rise -8198 Jun 16 j 09:11 12° Y 42'20 direct -8204 Jul 24 j 05:16 27° m/34'07 retrograde -8198 Oct 15 j 00:05 29°Y58'52 -8204 Sep 01 j 00:03 0∘**⊽** opposition -8198 Dec 13 j 21:36 25°**Y**05'40 1°00'00 24°**Y**59'21 evening set -8204 Nov 24 j 13:36 16°**£**23'46 min. Earth dist. -8198 Dec 14 j 17:05 4.34664 AU direct -8197 Feb 14 j 04:19 20°Y02'48 0°8 conjunction -8204 Dec 07 j 18:20 19°**♀**30'17 -0°32'20 -8197 May 14 j 03:44 minimum elong -8204 Dec 07 i 18:17 19°**△**30'15 0°32'28 -8197 Jun 22 i 05:04 8°810'21 evening set max. Earth dist. -8204 Dec 08 j 20:43 19°**£**45'50 6.06194 AU max. Earth dist. -8197 Jul 03 j 18:01 10°**8**43'40 6.35233 AU morning rise -8204 Dec 21 i 02:41 22°**♀**38'41 -8203 Jan 22 j 16:26 0°M conjunction -8197 Jul 05 i 01:55 11°**8**01'23 1°03'01 -8203 May 01 j 20:18 12°MJ39'38 -8197 Jul 05 j 01:50 11°**8**01'20 1°03'20 retrograde minimum elong -8203 Jun 30 j 05:19 -8197 Jul 17 j 19:20 13°**8**50'48 7°M-43'09 4 05382 AU morning rise min. Earth dist. -8203 Jul 01 j 04:04 7°ML35'30 -1°26'48 -8197 Jul 23 j 01:08 15°8 opposition -8197 Oct 20 j 03:33 -8203 Aug 28 j 08:27 2°M-40'30 $0^{\circ}\Pi$ direct -8203 Dec 01 j 00:15 -8197 Nov 15 j 13:14 1°**I**I05′13 15°M retrograde -8203 Dec 30 j 18:35 -8197 Dec 12 j 02:15 21°M44'21 30°₹**८** evening set opposition -8196 Jan 15 j 02:32 26°**8**13'36 1°56'13 -8202 Jan 13 j 06:27 24°ML53'58 -1°17'18 -8196 Jan 16 j 02:26 26°**8**05'58 4.34813 AU conjunction min. Earth dist. -8202 Jan 13 j 06:22 -8196 Mar 17 j 15:01 minimum elong 24°M53'55 1°17'43 direct 21°**8**13'14 -8202 Jan 14 j 19:26 -8196 Jun 08 j 03:32 max. Earth dist. 25°M15'40 6.05741 AU $0^{\circ}\Pi$ -8202 Jan 26 j 21:14 morning rise 28°M05'04 evening set -8196 Jul 22 j 14:37 9°**Ⅱ**16'32 -8202 Feb 04 j 04:07 0° **₹** max. Earth dist. -8196 Aug 02 j 17:09 11°**Ⅱ**45'41 6.33045 AU retrograde -8202 Jun 06 j 19:55 17°**х** 59'34 -8202 Aug 05 j 11:34 12°**∡** 54'24 -2°14'15 conjunction -8196 Aug 04 j 03:12 12°**Ⅲ**04'48 1°30'43 opposition min. Earth dist. -8202 Aug 04 j 12:16 13°**✗**02'22 4.07595 AU minimum elong -8196 Aug 04 j 03:10 12°**Ⅲ**04'47 1°31'12 -8202 Oct 02 j 17:23 7°**х** 756′09 morning rise -8196 Aug 16 j 13:50 14°**Ⅲ**52'10 direct -8201 Feb 05 j 17:24 27°**х** 03′14 -8196 Nov 06 j 13:00 0ಂತಾ evening set -8201 Feb 18 j 11:55 0°る -8196 Dec 17 j 01:24 2°527'06 retrograde -8195 Jan 27 j 03:22 30°R∏ -8201 Feb 19 j 09:47 0°る12'38 -1°33'48 -8195 Feb 16 j 02:32 27°**II**35'13 2°19'21 conjunction opposition minimum elong -8201 Feb 19 i 09:47 0°る12'38 1°34'20 min. Earth dist. -8195 Feb 17 i 01:48 27°**Ⅲ**27'50 4.30515 AU max. Earth dist. -8201 Feb 20 j 20:10 0°る32'30 6.10307 AU direct -8195 Apr 19 i 07:01 22°**Ⅲ**37'49 morning rise -8201 Mar 05 i 03:22 3°る22'33 -8195 Jul 02 i 03:37 0ಂತಾ retrograde -8201 Jul 11 i 11:30 22°る40'40 evening set -8195 Aug 22 j 19:23 10°9544'55 -8201 Sep 08 j 16:48 17°る37'08 -2°12'32 max. Earth dist. -8195 Sep 03 j 03:05 13°919'25 6.26912 AU opposition min. Earth dist. -8201 Sep 07 j 23:42 17°る42'59 4.14090 AU -8201 Nov 06 j 15:53 12°る35'36 -8195 Sep 04 j 05:13 13°934'19 1°32'07 direct conjunction -8200 Mar 06 j 08:22 -8195 Sep 04 j 05:15 13°934'20 1°32'40 0°≈≈ minimum elong -8195 Sep 16 j 14:43 -8200 Mar 13 j 05:19 1°≈32'30 morning rise 16°523'42 evening set -8195 Nov 24 j 01:30 $0^{\circ}\Omega$ conjunction -8200 Mar 26 j 22:46 4°≈39'03 -1°16'49 retrograde -8194 Jan 19 j 19:02 4°**Ω**36'38 minimum elong -8200 Mar 26 j 22:51 4°≈39'06 1°17'18 -8194 Mar 19 j 21:47 30°R95 -8200 Mar 27 j 15:45 -8194 Mar 22 j 04:34 29°5642'34 2°00'58 max. Earth dist. 4°≈48'41 6.18185 AU opposition 7°≈45'05 -8194 Mar 22 j 17:50 morning rise -8200 Apr 09 j 15:38 min. Earth dist. 29°938'21 4.22944 AU 24°9547'57 -8200 May 13 j 01:29 15°≈ direct -8194 May 22 j 09:16 -8194 Jul 21 j 09:36 retrograde -8200 Aug 12 j 15:13 26°≈12'41 $0^{\circ}\Omega$ -8200 Oct 10 j 18:21 21°≈12'31 -1°26'05 evening set -8194 Sep 23 j 13:38 13°**Ω**05'43 opposition min. Earth dist. -8200 Oct 10 j 13:45 21°≈14'04 4.22515 AU -8194 Oct 01 j 19:24 15°€ direct -8200 Dec 09 j 23:14 16°**≈**08'48 -8199 Mar 26 j 08:28 0°**)**€ conjunction -8194 Oct 06 j 02:52 16°**Ω**00'02 1°05'12 -8199 Apr 17 j 09:07 4°**)**€47'14 -8194 Oct 06 j 02:57 16°**Ω**00'05 1°05'36 evening set minimum elong

max. Earth dist.

-8194 Oct 05 j 17:08

15°**Ω**54'23 6.18597 AU

-	ical year style is used: Th		•	· · ·		, .	gc 1)
morning rise	-8194 Oct 18 j 17:36	18° Ω 55'18		opposition	-8188 Oct 15 j 07:53	25°≈56'33	-1°16'59
	-8194 Dec 09 j 18:06	0° m)		min. Earth dist.	-8188 Oct 15 j 04:35	25°≈57'40	4.23413 AU
retrograde	-8193 Feb 24 j 01:23	7° m 54'48		direct	-8188 Dec 14 j 15:49	20° ≈ 52'44	
opposition	-8193 Apr 26 j 08:39	2° m 57'13	1°02'48		-8187 Mar 07 j 18:07	0°)	
min. Earth dist.	-8193 Apr 26 j 09:02	2° m 57'06	4.14392 AU	evening set	-8187 Apr 22 j 04:48	9° ∺ 29'21	
	-8193 May 20 j 23:00	30° R Ω					
direct	-8193 Jun 25 j 08:32	28° Ω 04'11		conjunction	-8187 May 05 j 18:21	12°) 30′36	
	-8193 Jul 30 j 05:44	0° ™		minimum elong	-8187 May 05 j 18:24	12° ∺ 30'37	
evening set	-8193 Oct 26 j 15:16	16° Mp 37'57		max. Earth dist.	-8187 May 05 j 12:10	12° ∺ 27'09	6.27436 AU
				morning rise	-8187 May 19 j 05:17	15°) 30′22	
conjunction	-8193 Nov 08 j 12:24	19° m 39'10			-8187 Aug 03 j 20:47	0°Υ •••••••	
minimum elong	-8193 Nov 08 j 12:25	19° mp 39'11	0°16'20	retrograde	-8187 Sep 18 j 01:20	3° Y ′08'43	
max. Earth dist.	-8193 Nov 08 j 22:15	19° Mp 44'57	6.10658 AU	*,*	-8187 Nov 02 j 15:52	30° ₹ ₩	0002121
morning rise	-8193 Nov 21 j 12:37	22° Tp 42'07		opposition	-8187 Nov 16 j 12:06	28° ¥ 12'52	
daga mada	-8193 Dec 23 j 23:37	0∘ ⊽		min. Earth dist.	-8187 Nov 16 j 21:47	28°) €09'40 26°) €01'47	4.30860 AU
desc. node	-8192 Mar 02 j 13:32 -8192 Mar 31 j 07:33	11° Ω 06'44 12° Ω 23'12		asc. node direct	-8187 Dec 03 j 15:04 -8186 Jan 17 j 00:45	23°\(\chi\)01'47 23°\(\chi\)08'52	
retrograde opposition	-8192 May 31 j 04:53	7° £ 21'42	0°10'00	direct	-8186 Mar 29 j 14:53	23 γ (08 32 0° γ	
min. Earth dist.	-8192 May 30 j 14:25		4.07720 AU	evening set	-8186 May 25 j 14:28	11° Υ 26'59	
direct	-8192 Jul 28 j 23:44	2° £ 28'28	4.07720 AC	evening set	-0100 May 25 j 14.20	11 12037	
evening set	-8192 Nov 29 j 11:07	21° ⊆ 20'18		conjunction	-8186 Jun 07 j 19:53	14° Ƴ 22'24	0°24'12
evening set	01921107 29 11:07	21 -2010		minimum elong	-8186 Jun 07 j 19:51	14° Υ '22'22	0°24'16
conjunction	-8192 Dec 12 j 17:00	24° ₽ 27'26	-0°39'39	max. Earth dist.	-8186 Jun 06 j 21:46	14° Υ 10'08	6.33466 AU
minimum elong	-8192 Dec 12 j 16:56	24° ₽ 27'24		morning rise	-8186 Jun 20 j 21:36	17° Y 15'59	0.55 .00 110
max. Earth dist.	-8192 Dec 13 j 21:14	24° Ω 44'06	6.05844 AU		-8186 Aug 25 j 05:21	0°8	
morning rise	-8192 Dec 26 j 02:21	27° Ω 36'26		retrograde	-8186 Oct 19 j 09:48	4° 8 30'37	
Č	-8191 Jan 05 j 09:46	0°M		Č	-8186 Dec 15 j 13:16	30° ₽ Υ	
	-8191 Mar 26 j 06:23	15° ™		opposition	-8186 Dec 18 j 10:11	29° Y '37'43	1°09'24
retrograde	-8191 May 06 j 20:56	17°M38'38		min. Earth dist.	-8186 Dec 19 j 05:27	29° Y 31'29	4.35087 AU
	-8191 Jun 17 j 06:24	15°RM		direct	-8185 Feb 18 j 18:03	24° Y 35'12	
min. Earth dist.	-8191 Jul 05 j 03:28	12° M 41'47	4.05321 AU		-8185 Apr 22 j 23:57	0° 8	
opposition	-8191 Jul 06 j 01:54	12°M34'12	-1°35'48	evening set	-8185 Jun 26 j 16:29	12° 8 40'57	
direct	-8191 Sep 02 j 05:55	7° ™ 38'49			-8185 Jul 07 j 03:32	15° 8	
	-8191 Nov 11 j 08:24	15° M ₊		max. Earth dist.	-8185 Jul 08 j 02:33	15° 8 12'48	6.35459 AU
evening set	-8190 Jan 04 j 20:04	26°M44'12					
				conjunction	-8185 Jul 09 j 11:47	_	1°08'14
conjunction	-8190 Jan 18 j 08:48	29°M54'04		minimum elong	-8185 Jul 09 j 11:42	15° 8 31'13	1°08'35
minimum elong	-8190 Jan 18 j 08:43	29°M54'02	1°21'57	morning rise	-8185 Jul 22 j 04:07	18° 8 20'05	
E d E	-8190 Jan 18 j 18:55	0° ∡ ¹	6.05060 ATT		-8185 Sep 18 j 14:54	0°П 50П25101	
max. Earth dist.	-8190 Jan 19 j 22:44	0° ₹ 16'18	6.05960 AU	retrograde	-8185 Nov 20 j 01:38	5° Ⅱ 35'01	2001120
morning rise	-8190 Feb 01 j 00:11	3°×705'17		opposition	-8184 Jan 19 j 16:30	0° П 43'25 0° П 35'35	2°01'38
retrograde min. Earth dist.	-8190 Jun 11 j 17:13 -8190 Aug 09 j 07:39	22° х 57'01 17° х 59'52	4.08087 AU	min. Earth dist.	-8184 Jan 20 j 17:05 -8184 Jan 25 j 09:03	0° д 35°35	4.34837 AU
opposition	-8190 Aug 10 j 06:44	17 x 59 32		direct	-8184 Mar 22 j 06:03	25° 8 43'24	
direct	-8190 Oct 07 j 13:05	17 × 32 00 12° × 53'17	-2 1/03	direct	-8184 May 16 j 17:22	0°Ⅱ	
direct	-8189 Feb 02 j 00:19	0°る		evening set	-8184 Jul 26 j 23:00	13° Ⅱ 45'15	
evening set	-8189 Feb 10 j 19:53	2°号00'33		max. Earth dist.	-8184 Aug 07 j 02:25	16° Ⅱ 14'59	6.32849 AU

conjunction	-8189 Feb 24 j 12:32	5° る 09'47	-1°33'21	conjunction	-8184 Aug 08 j 10:55	16° Ⅲ 33'15	1°32'33
minimum elong	-8189 Feb 24 j 12:33	5° る 09'48	1°33'53	minimum elong	-8184 Aug 08 j 10:53	16° Ⅲ 33'14	1°33'03
max. Earth dist.	-8189 Feb 25 j 19:41	5° る 27'45	6.11009 AU	morning rise	-8184 Aug 20 j 20:51	19° Ⅲ 20′25	
morning rise	-8189 Mar 10 j 06:26	8° る 19'28			-8184 Oct 11 j 16:08	0ಂತಾ	
retrograde	-8189 Jul 16 j 04:34	27° る 32'06		retrograde	-8184 Dec 21 j 13:49	6° ॐ 58′03	
opposition	-8189 Sep 13 j 08:46	22° る 28'56	-2°08'25	opposition	-8183 Feb 20 j 18:15	2° © 05'53	2°19'13
min. Earth dist.	-8189 Sep 12 j 17:30	22° る 34'09	4.14915 AU	min. Earth dist.	-8183 Feb 21 j 15:36	1° 9 59'07	4.30112 AU
direct	-8189 Nov 11 j 12:02	17° る 26'58			-8183 Mar 09 j 20:47	30°RⅡ	
	-8188 Feb 18 j 00:56	0° ≈		direct	-8183 Apr 23 j 20:09	27° Ⅱ 08'54	
evening set	-8188 Mar 18 j 05:10	6° ≈ 22'46			-8183 Jun 07 j 03:05	0 \circ \odot	
_				evening set	-8183 Aug 27 j 03:13	15° © 15'17	
conjunction	-8188 Mar 31 j 22:44	9° ≈ 28'58					4.00
minimum elong	-8188 Mar 31 j 22:49	9°≈29'01	1°12'35	conjunction	-8183 Sep 08 j 12:59	18°904'54	1°29'59
max. Earth dist.	-8188 Apr 01 j 14:29	9°≈37'53	6.19096 AU	minimum elong	-8183 Sep 08 j 13:01	18°904'55	1°30'31
morning rise	-8188 Apr 14 j 15:04	12° ≈ 34'27		max. Earth dist.	-8183 Sep 07 j 12:25	17° © 50'52	6.26330 AU
	0100 4 25 12 22	150		ma o ma i	0102 0 20 : 22 47		
	-8188 Apr 25 j 12:22	15° ≈		morning rise	-8183 Sep 20 j 22:45	20°©54'39	
ratrograda	-8188 Jul 24 j 06:00	0° ℋ			-8183 Nov 02 j 09:09	$0^{\circ}\Omega$	
retrograde	1 0			morning rise retrograde opposition			1°55'04

•	oinena of Jupiter III oical vear style is used: Th		•		r 8183 BCE in historical c		.gc 20
min. Earth dist.	-8182 Mar 27 j 11:20	-	4.22187 AU	direct	-8177 Nov 16 j 07:04	22°る17'44	
mm. Earth dist.	-8182 May 07 j 03:22	30°R95	4.22107 110	uncer	-8176 Jan 29 j 10:49	0°≈	
direct	-8182 May 27 j 01:18	29° 5 23'05		evening set	-8176 Mar 23 j 04:58	0 ∞ 11°≈12'05	
direct	-8182 Jun 15 j 20:12	0°Ω		evening set	-0170 Wai 25 j 04.50	11 ~12 03	
	-8182 Sep 16 j 04:39	15° Ω		conjunction	-8176 Apr 05 j 22:12	14° ≈ 17'48	1006'54
evening set	-8182 Sep 10 j 04:39	17° Ω 41'23		minimum elong	-8176 Apr 05 j 22:17	14°≈17'51	1°07'21
evening set	-6162 Sep 27 J 23.23	1/ 0(4123		max. Earth dist.	-8176 Apr 05 j 22.17	14 ≈1731 14°≈24'55	6.20082 AU
conjunction	-8182 Oct 10 j 13:28	20° Ω 36'25	0°59'33	max. Earth dist.	-8176 Apr 09 j 00:54	14 ∞24 33 15°≈	0.20082 AU
minimum elong	-8182 Oct 10 j 13:28	20° Ω 36'27		morning rise	-8176 Apr 19 j 14:14	17°≈22'41	
max. Earth dist.	-8182 Oct 10 j 15:35	20° Ω 30'27	6.17747 AU	morning risc	-8176 Jun 20 j 23:43	0°)	
morning rise	-8182 Oct 10 j 05:21	20 δ <i>t</i> 31 42 23° Ω 32'32	0.17/47 AU	retrograde	-8176 Aug 21 j 17:05	5° ∺ 38'08	
morning rise	-8182 Nov 21 j 02:33	0°M)		opposition	-8176 Oct 19 j 21:15	0° ¥ 39'00	1007'23
retrograde	-8181 Feb 28 j 20:40	12° Mp 37'11		min. Earth dist.	-8176 Oct 19 j 19:16		4.24456 AU
opposition	-8181 May 01 j 04:15	7° Mg 39'04	0°52'32	mm. Lartii dist.	-8176 Oct 24 j 17:28	30°R≈	4.24430 AC
min. Earth dist.	-8181 May 01 j 02:16	7°Mg39'43	4.13507 AU	direct	-8176 Dec 19 j 09:10	25°≈35'00	
direct	-8181 Jun 29 j 23:17	2°Mp46'05	4.13307 AC	direct	-8175 Feb 12 j 20:57	0° ∺	
evening set	-8181 Oct 31 j 05:36	21°M)21'47		evening set	-8175 Apr 26 j 23:39	14° ¥ 09'02	
evening set	-8181 Oct 31 J 03.30	21 Hy214/		evening set	-01/3 Apr 20 J 23.39	14 /(0902	
conjunction	-8181 Nov 13 j 03:56	24° m 23'54	0°08'37	conjunction	-8175 May 10 j 12:22	17° ¥ 09'29	-0°20'28
minimum elong	-8181 Nov 13 j 03:56	24° m) 23'54	0°08'43	minimum elong	-8175 May 10 j 12:24	17° X 09'30	0°20'39
behind sun begin	-8181 Nov 12 j 20:54	24° mp 19'47	0 00 15	max. Earth dist.	-8175 May 10 j 05:05	17° ₩ 05'26	6.28463 AU
behind sun end	-8181 Nov 13 j 10:58	24° Mp 28'01		morning rise	-8175 May 23 j 22:03	20°) €08'21	0.20103710
max. Earth dist.	-8181 Nov 13 j 15:46	24° m ₀ 30'51	6.09821 AU	morning risc	-8175 Jul 10 j 14:53	20 γ (0821	
morning rise	-8181 Nov 26 j 05:24	27° m) 27'47	0.07021710	retrograde	-8175 Sep 22 j 11:19	7° Υ 41'48	
morning rise	-8181 Dec 07 j 04:33	0° <u>م</u>		asc. node	-8175 Oct 13 j 18:53	6° Υ 57'21	
desc. node	-8180 Jan 13 j 03:28	o <u>−</u> 7° ≏ 56'04		opposition	-8175 Nov 20 j 23:35	2° Υ 46'26	0°07'26
retrograde	-8180 Apr 05 j 06:54	17° £ 13′26		min. Earth dist.	-8175 Nov 20 j 25:35	2° Υ 42'49	4.31760 AU
min. Earth dist.	-8180 Jun 04 j 10:46	17 □ 13 20 12° □ 16'23	4.06997 AU	mm. Lartii dist.	-8175 Dec 13 j 07:59	30° ₹	4.51700 AC
opposition	-8180 Jun 05 j 01:42	12° ⊆ 10'25		direct	-8174 Jan 21 j 15:42	27°) 42'34	
direct	-8180 Aug 02 j 18:17	7° Ω 17'57	-0 3032	uncet	-8174 Mar 02 j 08:25	27 γ (42 34	
evening set	-8180 Dec 04 j 07:26	26° £ 12'42		evening set	-8174 May 30 j 04:04	15°Υ58'05	
evening set	-0100 DCC 04 J 07.20	20 -12 42		max. Earth dist.	-8174 Jun 11 j 06:53	18° Υ 38'44	6.34127 AU
conjunction	-8180 Dec 17 j 14:27	29° ჲ 20'32	-0°46'33	man. Bartin digt.	017.10411 1119 00.005	10 120	0.5 .127 110
minimum elong	-8180 Dec 17 j 14:23	29° Ω 20'30		conjunction	-8174 Jun 12 j 07:59	18° Y ′52'38	0°31'10
max. Earth dist.	-8180 Dec 18 j 20:32			minimum elong	-8174 Jun 12 j 07:56	18° Y ′52'36	0°31'17
	-8180 Dec 20 j 09:21	0°M		morning rise	-8174 Jun 25 j 08:28	21° Y '45'24	
morning rise	-8180 Dec 31 j 00:52	2°M30'13			-8174 Aug 03 j 18:26	0°8	
3	-8179 Feb 27 j 07:49	15° ™		retrograde	-8174 Oct 23 j 19:13	8° 8 58'11	
retrograde	-8179 May 11 j 19:58	22°M34'10		opposition	-8174 Dec 22 j 21:37	4° 8 05'31	1°18'18
opposition	-8179 Jul 10 j 22:16	17°M29'35	-1°43'59	min. Earth dist.	-8174 Dec 23 j 18:16	3° 8 58'51	4.35462 AU
min. Earth dist.	-8179 Jul 09 j 23:16	17° M 37'21	4.05062 AU		-8173 Jan 29 j 04:04	30° ₹ Υ	
	-8179 Jul 30 j 06:58	15°RM		direct	-8173 Feb 23 i 07:37	29° Y °03'15	
direct	-8179 Sep 07 j 00:24	12°M33'49			-8173 Mar 20 j 15:23	0° ႘	
	-8179 Oct 15 j 14:30	15°M			-8173 Jun 21 j 08:45	15° 8	
	-8178 Jan 02 j 13:41	0°⊀		evening set	-8173 Jul 01 j 01:54	17° 8 07'31	
evening set	-8178 Jan 09 j 21:27	1° ∡ ′41'46		max. Earth dist.	-8173 Jul 12 j 11:27	19° 8 39'09	6.35490 AU
-	·				-		
conjunction	-8178 Jan 23 j 10:49	4° ∡ ′51'55		conjunction	-8173 Jul 13 j 20:03	19° 8 57'16	1°13'01
minimum elong	-8178 Jan 23 j 10:45	4° ₹ 51'53	1°25'31	minimum elong	-8173 Jul 13 j 19:59	19° 8 57'14	1°13'23
max. Earth dist.	-8178 Jan 24 j 23:14	5° ∡ 13'14	6.05982 AU	morning rise	-8173 Jul 26 j 11:03	22° 8 45'34	
morning rise	-8178 Feb 06 j 02:57	8° ₮ 03'22			-8173 Aug 29 j 14:18	Π °0	
retrograde	-8178 Jun 16 j 13:33	27° ₹ 52'57		retrograde	-8173 Nov 24 j 11:41	10° Ⅲ 02′01	
min. Earth dist.	-8178 Aug 14 j 02:46	22° ₹ 55'43	4.08405 AU	opposition	-8172 Jan 24 j 05:27	5° Ⅱ 10′29	2°06'23
opposition	-8178 Aug 15 j 01:16	22° х 48′01	-2°18'47	min. Earth dist.	-8172 Jan 25 j 05:43	5° Ⅱ 02'46	4.34528 AU
direct	-8178 Oct 12 j 09:32	17° ∡ ⁴48'49		direct	-8172 Mar 26 j 18:12	0° Ⅱ 10′56	
	-8177 Jan 15 j 15:01	0°る		evening set	-8172 Jul 31 j 06:59	18° Ⅱ 12'42	
evening set	-8177 Feb 15 j 22:17	6° る 56'51		max. Earth dist.	-8172 Aug 11 j 08:44	20° Ⅱ 41'53	6.32198 AU
	017734 01:15.55	1007000	102211		0172 4 12:10:00	2101100000	1022152
conjunction	-8177 Mar 01 j 15:33	10° ろ 06'04		conjunction	-8172 Aug 12 j 18:03	21° I I00'38	1°33'53
minimum elong	-8177 Mar 01 j 15:35	10° ろ 06'05		minimum elong	-8172 Aug 12 j 18:02	21° I I00'38	1°34'25
max. Earth dist.	-8177 Mar 02 j 22:47	10°る24'03	6.11616 AU	morning rise	-8172 Aug 25 j 03:41	23° ∏ 47'54	
morning rise	-8177 Mar 15 j 09:24	13° る 15'29			-8172 Sep 22 j 18:08	0°©	
ratra a J-	-8177 Jun 12 j 03:04	0°≈ 2°222145		retrograde	-8172 Dec 26 j 05:34	11°930'05	2010124
retrograde	-8177 Jul 20 j 22:43	2°≈22'45		opposition	-8171 Feb 25 j 10:26	6°937'43	2°18'24
min F4l- U /	-8177 Aug 28 j 09:44	30°Rる 270 そ 24146	4 15745 ATT	min. Earth dist.	-8171 Feb 26 j 07:50	6°930'56	4.29154 AU
min. Earth dist.	-8177 Sep 17 j 10:53	27°る24'46 27°る20'00	4.15745 AU 2°03'21	direct	-8171 Apr 28 j 10:41	1° © 41'05 19° © 48'55	
opposition	-8177 Sep 18 j 00:51	27 02000	-2 03 21	evening set	-8171 Aug 31 j 12:05	17 = 48 33	

2	iical year style is used: Th		m antronomical ac	unting style is the year	9172 DCE in historical a		ge 21
conjunction	-8171 Sep 12 j 22:15	22°©39'09		unting style is the year	-8165 May 15 j 20:06	ounting style. 0°≈	
minimum elong	-8171 Sep 12 j 22:18	22° © 39'11	1°27'51	ratra ara da	-8165 Jul 25 j 11:44	0 ≈ 7°≈10'56	
max. Earth dist.	-8171 Sep 12 j 22.18 -8171 Sep 11 j 23:49	22 \$3911 22°\$26'19	6.25151 AU	retrograde opposition	-8165 Sep 22 j 15:35	7 ≈10 36 2°≈08'34	1057120
morning rise	-8171 Sep 11 j 23.49 -8171 Sep 25 j 08:28	25°\$29'37	0.23131 AU	min. Earth dist.	-8165 Sep 22 j 02:24		4.17416 AU
morning risc	-8171 Oct 15 j 13:01	23 3 2937		mm. Earm dist.	-8165 Oct 08 j 22:30	2 ≈13 04 30°Rる	4.17410 AC
retrograde	-8170 Jan 29 j 08:08	13° Ω 53'33		direct	-8165 Nov 21 j 01:51	30 KO 27° る 05'55	
opposition	-8170 Mar 31 j 18:36	8° Ω 58'40	1°48'24	direct	-8164 Jan 03 j 15:18	27 3 03 33	
min. Earth dist.	-8170 Apr 01 j 05:15	8° Ω 55'16	4.20863 AU		-8164 Mar 23 j 22:22	0 ~ 15° ≈	
direct	-8170 May 31 j 16:28	4°Ω04'35	4.20803 AU	evening set	-8164 Mar 28 j 02:13	15 ≈ 15° ≈ 55'41	
direct	-8170 Aug 30 j 00:49	15° Ω		evening set	-010+ Wiai 20 J 02.13	13 ~33 41	
evening set	-8170 Oct 02 j 12:21	22° Ω 25'32		conjunction	-8164 Apr 10 j 19:04	19° ≈ 00'29	1001/24
evening set	-8170 Oct 02 j 12.21	22 0 (23 32		minimum elong	-8164 Apr 10 j 19:09	19 ≈00 29 19°≈00'32	1°01'48
conjunction	-8170 Oct 15 j 03:22	25° Ω 21'34	0°53'22	max. Earth dist.	-8164 Apr 11 j 05:08	19°≈06'09	6.21820 AU
minimum elong	-8170 Oct 15 j 03:22	$25^{\circ}\Omega 21'37$	0°53'44	morning rise	-8164 Apr 24 j 10:18	22°≈04'19	0.21020 AC
max. Earth dist.	-8170 Oct 14 j 21:20	25°Ω18'04	6.16400 AU	morning risc	-8164 May 31 j 11:41	0° \	
morning rise	-8170 Oct 27 j 20:29	28°Ω18'50	0.10 1 00 AC	retrograde	-8164 Aug 26 j 02:30	10° ∺ 11'12	
morning risc	-8170 Nov 04 j 04:25	0° m)		opposition	-8164 Oct 24 j 07:16	5° ₩ 12'35	0°57'42
retrograde	-8169 Mar 05 j 22:55	17° Mp 30'37		min. Earth dist.	-8164 Oct 24 j 07:49		4.26074 AU
opposition	-8169 May 06 j 04:00	12° mg 31'58	0°41'34	direct	-8164 Dec 24 j 00:27	0° ₩ 08'28	4.20074 AC
min. Earth dist.	-8169 May 06 j 00:33	12° m) 33'06	4.12227 AU	evening set	-8163 May 01 j 13:42	18° \(\frac{1}{37'56}\)	
direct	-8169 Jul 04 j 19:10	7° m ₀ 39'02	4.12227 AU	evening set	-6103 May 01 J 13.42	18 7(3730	
evening set	-8169 Nov 05 j 00:56	26° m) 18'11		conjunction	-8163 May 15 j 01:23	21°) 37′24	0012125
evening set	-8109 NOV US J UU.30	20 11/1811		minimum elong	-8163 May 15 j 01:24	21° X 37'24 21° X 37'25	
conjunction	-8169 Nov 18 j 00:39	29° m 21'23	0°00'39	behind sun begin	-8163 May 14 j 20:59	21° X 37'23	0 13 33
minimum elong	-8169 Nov 18 j 00:38	29° my 21'22	0°00'43	behind sun end	-8163 May 15 j 05:49	21° X 39'51	
behind sun begin	-8169 Nov 17 j 16:30	29° m 16'36	0 0043	max. Earth dist.	-8163 May 14 j 14:21	21° X 3931	6.29823 AU
behind sun begin	-8169 Nov 17 j 16.30	29° m) 26'08			-8163 May 14 j 14.21 -8163 May 28 j 09:57	24° H 35'14	0.29823 AU
max. Earth dist.	,	29° my 30'23	6.08752 AU	morning rise	, ,	24 π 33 14 0° Υ	
max. Earm dist.	-8169 Nov 18 j 15:59	0° ⊽	0.08/32 AU	asc. node	-8163 Jun 22 j 13:26	10° Υ 25'33	
JJ.	-8169 Nov 20 j 18:15				-8163 Aug 25 j 13:50	10 γ 23 33 12° γ 03'22	
desc. node	-8169 Nov 22 j 10:57 -8169 Dec 01 j 03:30	0° ჲ 23'58 2° ჲ 26'21		retrograde opposition	-8163 Sep 26 j 15:42 -8163 Nov 25 j 06:52	7° Y 08'23	0°17'42
morning rise	3	2 2 26 21 22° 2 16'54		min. Earth dist.	·	7° Υ 04'13	4.32764 AU
retrograde min. Earth dist.	-8168 Apr 10 j 10:38 -8168 Jun 09 j 10:16	17° £ 20'05	4.06277 AU	direct	-8163 Nov 25 j 19:34 -8162 Jan 26 j 02:15	2°Υ04'33	4.32704 AU
	-8168 Jun 10 j 03:01	17 = 20 03 17° = 14'31		evening set	-8162 Jun 03 j 12:31	2 1 04 33 20° Υ 17'21	
opposition direct	-8168 Aug 07 j 15:33	17 ≥ 14 31 12° ⊆ 20'56	-0 4211	evening set	-8102 Juli 03 J 12.31	20 11/21	
direct	-8168 Dec 03 j 18:49	0°M₁		conjunction	-8162 Jun 16 j 15:07	23° Υ 11'05	0°37'38
evening set	-8168 Dec 09 j 09:31	1°M 18'39		minimum elong	-8162 Jun 16 j 15:04	23°Υ11'03	0°37'48
evening set	-0100 Dec 09 J 09.31	1 1161039		max. Earth dist.	-8162 Jun 15 j 12:11	23°Υ56'10	6.34689 AU
conjunction	-8168 Dec 22 j 17:29	4°M27'04	0052125	morning rise	-8162 Jun 29 j 14:09	26° Υ 03'03	0.34069 AU
minimum elong	-8168 Dec 22 j 17:24	4°M27'01	0°53'40	morning rise	-8162 Jul 17 j 19:55	0° 8	
max. Earth dist.	-8168 Dec 24 j 00:36	4°M45'25	6.05004 AU	retrograde	-8162 Oct 28 j 00:33	13° 8 14'46	
morning rise	-8167 Jan 05 j 05:02	7°M37'19	0.03004 AC	opposition	-8162 Dec 27 j 04:55		1°26'25
morning risc	-8167 Feb 06 j 21:15	15°M		min. Earth dist.	-8162 Dec 28 j 03:16	8° 8 15'13	4.35553 AU
retrograde	-8167 May 16 j 21:52	27°M41'27		direct	-8161 Feb 27 j 16:37	3° 8 20'25	4.55555 AO
opposition	-8167 Jul 15 j 22:30	22°M36'40	-1°51'42	uncet	-8161 Jun 05 j 06:30	15° 8	
min. Earth dist.	-8167 Jul 14 j 22:19		4.05257 AU	evening set	-8161 Jul 05 j 07:28	21° 8 24'19	
direct	-8167 Sep 12 j 00:42	17°M40'29	4.03237 110	max. Earth dist.	-8161 Jul 16 j 12:57	23° 8 53'59	6.35069 AU
direct	-8167 Dec 15 j 20:54	0°×7		max. Earth dist.	0101341 10 112.57	23 03337	0.55007710
evening set	010/ DCC 13 j 20.3 i						
	-8166 Jan 15 i 02:35			conjunction	-8161 Jul 18 i 00·24	24° 8 13'44	1°17'13
_	-8166 Jan 15 j 02:35	6° ∡ ¹48'59		conjunction	-8161 Jul 18 j 00:24	24° 8 13'44	1°17'13 1°17'36
conjunction	•	6° ₰ 48'59	-1°28'07	minimum elong	-8161 Jul 18 j 00:20	24° 8 13'41	1°17'13 1°17'36
conjunction	-8166 Jan 28 j 16:48	6° ⊀ '48'59 9° ⊀ '59'08		-	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35	24° 8 13'41 27° 8 01'48	
minimum elong	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45	6° ₹ 48'59 9° ₹ 59'08 9° ₹ 59'06	1°28'35	minimum elong morning rise	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57	24° 8 13'41 27° 8 01'48 0°П	
minimum elong max. Earth dist.	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25	6° \$\tilde{x}^48'59 9° \$\tilde{x}^59'08 9° \$\tilde{x}^59'06 10° \$\tilde{x}^221'40		minimum elong morning rise	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02	24° 8 13'41 27° 8 01'48 0°П 14°П21'32	1°17'36
minimum elong	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12	6° \$\times^48'59 9° \$\times^59'08 9° \$\times^59'06 10° \$\times^221'40 13° \$\times^110'21	1°28'35	minimum elong morning rise retrograde opposition	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48	24° 8 13'41 27° 8 01'48 0°П 14°П21'32 9°П29'59	1°17'36 2°10'18
minimum elong max. Earth dist. morning rise	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57	6°\$\frac{48'59} 9°\$\frac{7}{59'08} 9°\$\frac{7}{59'06} 10°\$\frac{7}{21'40} 13°\$\frac{7}{10'21} 0°\$\frac{7}{59'06}	1°28'35	minimum elong morning rise retrograde opposition min. Earth dist.	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02	1°17'36
minimum elong max. Earth dist.	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19	6° 🖈 48'59 9° 🖈 59'08 9° 🖈 59'06 10° 🗷 21'40 13° 🖈 10'21 0° 云 2° 云 54'25	1°28'35	minimum elong morning rise retrograde opposition min. Earth dist. direct	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26	24°႘313'41 27°႘301'48 0°Ⅲ 14°Ⅲ21'32 9°Ⅲ29'59 9°Ⅲ22'02 4°Ⅲ30'44	1°17'36 2°10'18
minimum elong max. Earth dist. morning rise retrograde	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33	6° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹₹	1°28'35 6.06679 AU	minimum elong morning rise retrograde opposition min. Earth dist.	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02	1°17'36 2°10'18
minimum elong max. Earth dist. morning rise retrograde opposition	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41	6° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹₹ 27° ₹49'39	1°28'35 6.06679 AU -2°19'32	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28	24° 8 13'41 27° 8 01'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29	1°17'36 2°10'18 4.33645 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55	9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹ 27° ₹49'39 27° ₹57'06	1°28'35 6.06679 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45	1°17'36 2°10'18 4.33645 AU 1°34'38
minimum elong max. Earth dist. morning rise retrograde opposition	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40	9° ₹ 59'08 9° ₹ 59'06 10° ₹ 21'40 13° ₹ 10'21 0° ₹ 2° ₹ 54'25 30° ₹ ₹ 27° ₹ 49'39 27° ₹ 57'06 22° ₹ 50'01	1°28'35 6.06679 AU -2°19'32	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 16 j 23:17	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45 25°Π22'45	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40 -8166 Dec 26 j 09:42	9° ₹ 59'08 9° ₹ 59'06 10° ₹ 21'40 13° ₹ 10'21 0° ₹ 2° ₹ 54'25 30° R ₹ 27° ₹ 49'39 27° ₹ 57'06 22° ₹ 50'01 0° ₹	1°28'35 6.06679 AU -2°19'32	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 16 j 23:17 -8160 Aug 15 j 15:35	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45 25°Π22'45 25°Π04'50	1°17'36 2°10'18 4.33645 AU 1°34'38
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40	9° ₹ 59'08 9° ₹ 59'06 10° ₹ 21'40 13° ₹ 10'21 0° ₹ 2° ₹ 54'25 30° ₹ ₹ 27° ₹ 49'39 27° ₹ 57'06 22° ₹ 50'01	1°28'35 6.06679 AU -2°19'32	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 15 j 15:35 -8160 Aug 29 j 08:35	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45 25°Π22'45 25°Π04'50 28°Π10'25	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40 -8166 Dec 26 j 09:42 -8165 Feb 21 j 01:37	6° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹ ₹ 27° ₹49'39 27° ₹50'01 0° ₹ 11° ₹55'20	1°28'35 6.06679 AU -2°19'32 4.09551 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:17 -8160 Aug 15 j 15:35 -8160 Aug 29 j 08:35 -8160 Sep 06 j 13:01	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45 25°Π22'45 25°Π04'50 28°Π10'25 0°9	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40 -8166 Dec 26 j 09:42 -8165 Feb 21 j 01:37	9° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹ ₹ 27° ₹49'39 27° ₹57'06 22° ₹50'01 0° ₹ 11° ₹555'20	1°28'35 6.06679 AU -2°19'32 4.09551 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 16 j 23:17 -8160 Aug 15 j 15:35 -8160 Aug 29 j 08:35 -8160 Sep 06 j 13:01 -8160 Dec 30 j 20:05	24° 813'41 27° 801'48 0° Π 14° Π21'32 9° Π29'59 9° Π22'02 4° Π30'44 22° Π34'29 25° Π22'45 25° Π22'45 25° Π04'50 28° Π10'25 0° 95 15° 959'24	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10 6.30915 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40 -8166 Dec 26 j 09:42 -8165 Feb 21 j 01:37 -8165 Mar 06 j 18:54 -8165 Mar 06 j 18:54	9° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹ ₹ 27° ₹49'39 27° ₹57'06 22° ₹50'01 0° ₹ 11° ₹555'20 15° ₹03'56 15° ₹03'56	1°28'35 6.06679 AU -2°19'32 4.09551 AU -1°30'24 1°30'56	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 16 j 23:17 -8160 Aug 15 j 15:35 -8160 Aug 29 j 08:35 -8160 Sep 06 j 13:01 -8160 Dec 30 j 20:05 -8159 Mar 02 j 01:57	24°813'41 27°801'48 0°Π 14°Π21'32 9°Π29'59 9°Π22'02 4°Π30'44 22°Π34'29 25°Π22'45 25°Π22'45 25°Π04'50 28°Π10'25 0°9	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10 6.30915 AU 2°16'45
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-8166 Jan 28 j 16:48 -8166 Jan 28 j 16:45 -8166 Jan 30 j 07:25 -8166 Feb 11 j 09:12 -8166 May 09 j 04:57 -8166 Jun 21 j 12:19 -8166 Aug 03 j 11:33 -8166 Aug 19 j 21:41 -8166 Aug 18 j 23:55 -8166 Oct 17 j 08:40 -8166 Dec 26 j 09:42 -8165 Feb 21 j 01:37	9° ₹48'59 9° ₹59'08 9° ₹59'06 10° ₹21'40 13° ₹10'21 0° ₹ 2° ₹54'25 30° ₹ ₹ 27° ₹49'39 27° ₹57'06 22° ₹50'01 0° ₹ 11° ₹555'20	1°28'35 6.06679 AU -2°19'32 4.09551 AU	minimum elong morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-8161 Jul 18 j 00:20 -8161 Jul 30 j 14:35 -8161 Aug 13 j 03:57 -8161 Nov 28 j 21:02 -8160 Jan 28 j 15:48 -8160 Jan 29 j 16:48 -8160 Mar 31 j 03:26 -8160 Aug 04 j 12:28 -8160 Aug 16 j 23:18 -8160 Aug 16 j 23:17 -8160 Aug 15 j 15:35 -8160 Aug 29 j 08:35 -8160 Sep 06 j 13:01 -8160 Dec 30 j 20:05	24° 813'41 27° 801'48 0° Π 14° Π21'32 9° Π29'59 9° Π22'02 4° Π30'44 22° Π34'29 25° Π22'45 25° Π22'45 25° Π04'50 28° Π10'25 0° 9 15° 959'24 11° 906'51	1°17'36 2°10'18 4.33645 AU 1°34'38 1°35'10 6.30915 AU

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 22 Attention, astronomical year style is used: The year -8159 in astronomical counting style is the year 8160 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -8159	in astronomical co	unting style is the year	8160 BCE in historical c	ounting style.	
evening set	-8159 Sep 04 j 21:00	24°522'01		evening set	-8153 Feb 26 j 04:45	16° る 53'19	
max. Earth dist.	-8159 Sep 16 j 09:57	27° © 00'46	6.23383 AU				
				conjunction	-8153 Mar 11 j 22:12	20° る 01'22	-1°28'01
conjunction	-8159 Sep 17 j 07:28	27° © 13'09	1°24'07	minimum elong	-8153 Mar 11 j 22:16	20° ට 01'24	1°28'33
minimum elong	-8159 Sep 17 j 07:32	27° © 13'11	1°24'36	max. Earth dist.	-8153 Mar 13 j 00:47	20° る 16'35	6.14498 AU
morning rise	-8159 Sep 29 j 18:33	0° Ω 04'42		morning rise	-8153 Mar 25 j 15:51	23° る 09'22	
	-8159 Sep 29 j 10:20	$0^{\circ}\Omega$			-8153 Apr 25 j 20:08	0° ≈	
	-8159 Dec 15 j 09:03	15° Ω		retrograde	-8153 Jul 30 j 03:51	11° ≈ 59'37	
retrograde	-8158 Feb 03 j 06:55	18° Ω 37'23		opposition	-8153 Sep 27 j 06:49	6° ≈ 57'46	-1°50'54
	-8158 Mar 26 j 09:14	15°R Ω		min. Earth dist.	-8153 Sep 26 j 20:18	7° ≈ 01'20	4.18853 AU
opposition	-8158 Apr 05 j 16:00	13° Ω 42′02	1°40'57	direct	-8153 Nov 25 j 22:02	1° ≈ 54'51	
min. Earth dist.	-8158 Apr 06 j 00:45	13° Ω 39'14	4.19040 AU		-8152 Mar 06 j 20:49	15° ≈	
direct	-8158 Jun 05 j 09:04	8° Ω 48'11		evening set	-8152 Apr 01 j 23:51	20° ≈ 41′08	
	-8158 Aug 09 j 19:44	15° Ω					
evening set	-8158 Oct 07 j 03:11	27° Ω 13′28		conjunction	-8152 Apr 15 j 16:17	23° ≈ 45′12	
				minimum elong	-8152 Apr 15 j 16:22	23° ≈ 45′15	
conjunction	-8158 Oct 19 j 19:30	0° Mp 10′47		max. Earth dist.	-8152 Apr 15 j 23:28	23° ≈ 49'14	6.23193 AU
minimum elong	-8158 Oct 19 j 19:34	0° m 10'49	0°47'02	morning rise	-8152 Apr 29 j 06:47	26° ≈ 48'11	
	-8158 Oct 19 j 01:03	0° ™			-8152 May 13 j 19:02	0° ∀	
max. Earth dist.	-8158 Oct 19 j 17:53	0°Mp09'50	6.14709 AU	retrograde	-8152 Aug 30 j 11:45	14° ¥ 48'15	
morning rise	-8158 Nov 01 j 13:54	3°Mp09'23		opposition	-8152 Oct 28 j 18:50	9° ∺ 50'11	
retrograde	-8157 Mar 11 j 02:39	22° m 29'06		min. Earth dist.	-8152 Oct 28 j 20:37		4.27275 AU
opposition	-8157 May 11 j 05:51	17° m 29'56	0°30'02	direct	-8152 Dec 28 j 15:34	4°) 46′03	
min. Earth dist.	-8157 May 10 j 23:52	17° Mp 31'52	4.10821 AU	evening set	-8151 May 06 j 05:52	23°) 12'38	
direct	-8157 Jul 09 j 15:52	12° m 37'05					
desc. node	-8157 Sep 30 j 22:47	22° m 25'38		conjunction	-8151 May 19 j 16:22	26° ⊁ 11'16	-0°06'09
	-8157 Nov 04 j 05:56	0∘ ⊽		minimum elong	-8151 May 19 j 16:23	26° ∺ 11'16	0°06'16
evening set	-8157 Nov 09 j 23:07	1° ≏ 20'02		behind sun begin	-8151 May 19 j 08:38	26° ∺ 07'00	
				behind sun end	-8151 May 20 j 00:07	26° ¥ 15'33	
conjunction	-8157 Nov 22 j 23:59	4° ≏ 24'11	-0°07'32	max. Earth dist.	-8151 May 19 j 02:05	26°) €03'21	6.30775 AU
minimum elong	-8157 Nov 22 j 23:58	4° ≏ 24'11	0°07'30	morning rise	-8151 Jun 01 j 23:45	29°) €08'13	
behind sun begin	-8157 Nov 22 j 16:32	4° ≏ 19'49			-8151 Jun 05 j 21:54	0° Y	
behind sun end	-8157 Nov 23 j 07:24	4° ≏ 28'32		asc. node	-8151 Jul 05 j 11:33	6° Y 14'31	
max. Earth dist.	-8157 Nov 23 j 17:49	4° £ 34'42	6.07741 AU	retrograde	-8151 Oct 01 j 01:19	16° Ƴ 32'38	
morning rise	-8157 Dec 06 j 04:21	7° Ω 30'15		opposition	-8151 Nov 29 j 17:14	11° Y ′38′10	0°28'08
retrograde	-8156 Apr 15 j 14:59	27° Ω 25'03		min. Earth dist.	-8151 Nov 30 j 08:28	11° Y '33'10	4.33403 AU
min. Earth dist.	-8156 Jun 14 j 10:53	22° Ω 28'34	4.05761 AU	direct	-8150 Jan 30 j 16:38	6° Ƴ 34'31	
opposition	-8156 Jun 15 j 06:10	22° Ω 22'08	-0°53'44	evening set	-8150 Jun 08 j 00:10	24° Y '45'45	
direct	-8156 Aug 12 j 16:16	17° ≏ 28'15		max. Earth dist.	-8150 Jun 19 j 20:14		6.34950 AU
	-8156 Nov 16 j 03:56	0°M			J		
evening set	-8156 Dec 14 j 13:20	6°M27'57		conjunction	-8150 Jun 21 j 01:26	27° Ƴ 38'48	0°44'07
S	J			minimum elong	-8150 Jun 21 j 01:23	27° Ƴ 38'46	0°44'19
conjunction	-8156 Dec 27 j 22:27	9°M36'49	-0°59'58		-8150 Jul 01 j 16:31	0°8	
minimum elong	-8156 Dec 27 j 22:22	9°M36'46	1°00'16	morning rise	-8150 Jul 03 j 23:10	0° 8 30'08	
max. Earth dist.	-8156 Dec 29 j 09:27	9°M57'26	6.04996 AU	. <i>&</i>	-8150 Sep 20 j 07:41	15° 8	
morning rise	-8155 Jan 10 j 10:43	12°M47'21		retrograde	-8150 Nov 01 j 09:40	17° 8 41'53	
5 5	-8155 Jan 19 j 23:26	15° ™			-8150 Dec 14 j 03:37	15°R₩	
	-8155 Apr 09 j 01:26	0° ∡ 7		opposition	-8150 Dec 31 j 16:31	12° 8 49'44	1°34'23
retrograde	-8155 May 22 j 01:51	2° х 50′04		min. Earth dist.	-8149 Jan 01 j 15:20	12° 8 42'24	4.35453 AU
	-8155 Jul 03 j 19:15	30°RM₊		direct	-8149 Mar 04 j 04:25	7° 8 48'04	
opposition	-8155 Jul 20 j 23:18	27°M45'06	-1°58'37		-8149 May 17 j 04:03	15° 8	
min. Earth dist.	-8155 Jul 19 j 23:14		4.05753 AU	evening set	-8149 Jul 09 j 16:38	25° 8 51'57	
direct	-8155 Sep 17 j 02:17	22°M48'28		max. Earth dist.	-8149 Jul 20 j 21:46	28° 8 21'40	6.34611 AU
ancer	-8155 Nov 25 j 11:54	0° √		max. Earth dist.	0117 Jul 20 j 21:10	20 021 10	0.5 1011 110
evening set	-8154 Jan 20 j 08:31	11° х 56'30		conjunction	-8149 Jul 22 j 08:29	28° 8 41'03	1°21'10
2.06 500	515. Juli 20 J 00.51	7 5050		minimum elong	-8149 Jul 22 j 08:25	28° 8 41'00	1°21'35
conjunction	-8154 Feb 02 j 23:08	15° ∡ 06'25	-1°30'32	manniam ciong	-8149 Jul 28 j 05:53	0°Ⅱ	1 21 33
minimum elong	-8154 Feb 02 j 23:05	15° ₹ 06′23		morning rise	-8149 Aug 03 j 21:35	1° Ⅱ 28'52	
max. Earth dist.	-8154 Feb 02 j 23:05 -8154 Feb 04 j 12:35	15°×'06'24 15°×'28'13		retrograde	-8149 Aug 03 j 21:33	1°Щ28′32 18°Щ52′02	
	-	18° × '28'13	0.01314 AU	-	•	18°Щ32'02 14°Щ00'31	2°13'40
morning rise	-8154 Feb 16 j 16:01	18°×11/22		opposition min. Earth dist.	-8148 Feb 02 j 06:39	14°Щ00'31 13°Щ52'32	4.32876 AU
natna a J-	-8154 Apr 12 j 11:54				-8148 Feb 03 j 07:50		4.328/0 AU
retrograde	-8154 Jun 26 j 08:06	7°る55'09	2010/10	direct	-8148 Apr 04 j 17:17	9° Ⅱ 01'44	
opposition	-8154 Aug 24 j 17:31	2°る50'35		evening set	-8148 Aug 08 j 21:44	27° Ⅱ 06'39	6 20004 111
min. Earth dist.	-8154 Aug 23 j 19:49		4.10749 AU	max. Earth dist.	-8148 Aug 20 j 00:15	29° Ⅱ 37'07	6.29894 AU
1:	-8154 Sep 15 j 22:03	30°₹ ⋌ 7			0140 4 21:00.02	200 T 5 5100	102/452
direct	-8154 Oct 22 j 06:23	27° ₹ 50′29		conjunction	-8148 Aug 21 j 08:03	29° Ⅱ 55'08	1°34'53
	-8154 Nov 27 j 22:54	0°₹		minimum elong	-8148 Aug 21 j 08:03	29° Ⅱ 55'08	1°35'25

Attention, astronom	ical year style is used: Th	e vear -8148 i	in astronomical co	unting style is the year	8149 BCE in historical c	ounting style.	
usu onom	-8148 Aug 21 j 16:39	0°95	an agur on onn car co	morning rise	-8142 Feb 21 j 18:33	23°×713'45	
morning rise	-8148 Sep 02 j 17:20	2°9543'10			-8142 Mar 24 j 02:22	0°る	
retrograde	-8147 Jan 04 j 14:24	20°937'59		retrograde	-8142 Jul 01 j 02:04	12° る 45'40	
opposition	-8147 Mar 06 j 20:58	15°937'97	2°14'15	opposition	-8142 Aug 29 j 09:43	7°る41'21	-2°18'09
min. Earth dist.	-8147 Mar 07 j 15:39	15°939'11	4.26379 AU	min. Earth dist.	-8142 Aug 28 j 14:22	7°る47'58	4.11777 AU
direct	-8147 May 07 j 13:29	10°9549'17	4.20377 AU	direct	-8142 Oct 27 j 02:29	2°る40'46	4.11/// AO
evening set	-8147 Sep 09 j 08:27	29° © 02'33		evening set	-8141 Mar 03 j 04:09	21°る41'47	
evening set	-8147 Sep 13 j 12:44	0°Ω		evening set	-0141 Wai 05 j 04.09	21 04147	
	-6147 Sep 15 j 12.44	0 86		conjunction	-8141 Mar 16 j 21:48	24° る 49'28	1°25'06
conjunction	-8147 Sep 21 j 19:34	1° Ω 54'25	1°20'20	minimum elong	-8141 Mar 16 j 21:52	24°る49'30	
minimum elong	-8147 Sep 21 j 19:38			max. Earth dist.	-8141 Mar 17 j 22:08	24 04930 25° る 03'21	6.15585 AU
max. Earth dist.	-8147 Sep 21 j 19:38	1°Ω44'20	6.22171 AU	morning rise	-8141 Mar 30 j 15:15	27° る 56'54	0.13363 AU
morning rise	-8147 Oct 04 j 07:14	4°Ω46'47	0.22171 AU	morning risc	-8141 Apr 08 j 18:17	27 ⊙ 30 34	
morning risc	-8147 Nov 21 j 03:58	15° Ω			-8141 Jul 02 j 09:17	0 ∞ 15° ≈	
retrograde	-8146 Feb 08 j 06:35	23° Ω 25'58		retrograde	-8141 Aug 03 j 15:31	16° ≈ 40'25	
opposition	-8146 Apr 10 j 15:00	18° Ω 30'08	1°32'44	retrograde	-8141 Sep 04 j 16:21	15°R≈	
min. Earth dist.	-8146 Apr 10 j 21:50		4.17894 AU	opposition	-8141 Oct 01 j 19:05	13 ‰ 11°≈39'05	10/13/40
iiiii. Eartii dist.	-8146 May 11 j 03:48	15°RΩ	4.17694 AU	min. Earth dist.	-8141 Oct 01 j 19:03		4.19898 AU
direct	-8146 Jun 10 j 04:00	13° Ω 36'35		direct	-8141 Nov 30 j 13:09	6°≈35'55	4.19090 AU
direct	-8146 Jul 09 j 21:40	15° Ω		direct	-8140 Feb 17 j 04:43	0 ≈33 33 15°≈	
	-8146 Oct 02 j 20:27	0° m		evening set	-8140 Apr 06 j 19:17	15 ≈ 25° ≈ 20'16	
evening set	-8146 Oct 11 j 18:57	2° Mg 03'39		evening set	-0140 Apr 00 J 19.17	23 ≈20 10	
evening set	-8146 Oct 11 j 18:5/	Z*11JU3*39		agniumation	9140 Apr. 20 : 11:07	28° ≈ 23'45	0940120
agniumation	9146 Oct 24: 12:10	5° m 01'49	0°39'47	conjunction minimum elong	-8140 Apr 20 j 11:07 -8140 Apr 20 j 11:12	28°≈23'48	
conjunction minimum elong	-8146 Oct 24 j 12:10 -8146 Oct 24 j 12:13	5° My 01'51	0°40'03	max. Earth dist.			6.24133 AU
max. Earth dist.	-8146 Oct 24 j 12:33	5° My 02'03	6.13742 AU	max. Earth dist.	-8140 Apr 20 j 13:51 -8140 Apr 27 j 14:49	28 ≈ 23 17 0° ∺	0.24133 AU
	•	8° Mp 01'26	0.13742 AU	marning rise	-8140 Apr 27 j 14.49	0 X 1° ¥ 26'05	
morning rise	-8146 Nov 06 j 08:00			morning rise	, ,	1° ∺ 26'05 19° ∺ 21'07	
retrograde	-8145 Mar 16 j 03:28	27° Mp 26'17 22° Mp 26'27	0°18'25	retrograde opposition	-8140 Sep 03 j 22:53	14° H 21'07	0027121
opposition	-8145 May 16 j 06:39			* *	-8140 Nov 02 j 05:25		4.28026 AU
min. Earth dist.	-8145 May 15 j 21:47	22° Tp 29'21 17° Tp 33'33	4.10111 AU	min. Earth dist. direct	-8140 Nov 02 j 10:06 -8139 Jan 02 j 06:54	9° ¥ 19'27	4.28020 AU
direct desc. node	-8145 Jul 14 j 12:44 -8145 Aug 10 j 22:52	17 ily 33 33 18° Mp 47'12		evening set	-8139 May 10 j 20:48	27°) 44'38	
desc. node	-8145 Oct 18 j 03:49	0° ⊽		asc. node	-8139 May 10 j 20:48	28°) 45'15	
evening set	-8145 Nov 14 j 19:54	0 = 6° £ 17'56		asc. Houc	-8139 May 13 j 10:37	26 γ (43 13	
evening set	-0143 NOV 14 J 17.34	0 =1730			-0137 Way 21 J 01.33	0 1	
conjunction	01.4537 07:00.04	00.000145	001.510.4				0001111
	-8145 Nov 2/122:04	9°3222'47	-0°15'24	conjunction	-8139 May 24 i 06:25	0°'Y'42'40	0~01'11
-	-8145 Nov 27 j 22:04 -8145 Nov 27 j 22:02	9° Ω 22'47 9° Ω 22'46		conjunction minimum elong	-8139 May 24 j 06:25 -8139 May 24 j 06:24	0° Y 42'40 0° Y 42'39	0°01'11 0°01'08
minimum elong	-8145 Nov 27 j 22:02	9° ≏ 22'46		minimum elong	-8139 May 24 j 06:24	0° Y 42'39	0°01'11 0°01'08
minimum elong behind sun begin	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38	9° £ 22'46 9° £ 21'21		minimum elong behind sun begin	-8139 May 24 j 06:24 -8139 May 23 j 22:12	0° Υ 42'39 0° Υ 38'08	
minimum elong behind sun begin behind sun end	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26	9° £ 22'46 9° £ 21'21 9° £ 24'10	0°15'25	minimum elong behind sun begin behind sun end	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36	0° Υ 42'39 0° Υ 38'08 0° Υ 47'11	0°01'08
minimum elong behind sun begin behind sun end max. Earth dist.	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13	9° £ 22'46 9° £ 21'21 9° £ 24'10 9° £ 35'50		minimum elong behind sun begin behind sun end max. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48	
minimum elong behind sun begin behind sun end	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29	9° £ 22'46 9° £ 21'21 9° £ 24'10 9° £ 35'50 12° £ 29'29	0°15'25	minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56	0°01'08
minimum elong behind sun begin behind sun end max. Earth dist. morning rise	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33	9° £ 22'46 9° £ 21'21 9° £ 24'10 9° £ 35'50 12° £ 29'29 0° M	0°15'25	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14	0°01'08 6.31291 AU
minimum elong behind sun begin behind sun end max. Earth dist.	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55	9° \(\Omega\) 22'46 9° \(\Omega\) 21'21 9° \(\Omega\) 24'10 9° \(\Omega\) 35'50 12° \(\Omega\) 29'29 0° \(\Omega\) 2° \(\Omega\) 25'54	0°15'25	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56	0°01'08
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \)	0°15'25 6.07356 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04	0°01'08 6.31291 AU 0°38'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist.	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\R \Omega \) 27° \(\Omega \) 29'08	0°15'25 6.07356 AU 4.05747 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46	0°01'08 6.31291 AU 0°38'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \)	0°15'25 6.07356 AU 4.05747 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28	0°01'08 6.31291 AU 0°38'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 29'08 27° \(\Omega \) 22'33	0°15'25 6.07356 AU 4.05747 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8	0°01'08 6.31291 AU 0°38'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 29'08 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21	0°15'25 6.07356 AU 4.05747 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 15 j 22:37	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°\	0°01'08 6.31291 AU 0°38'21 4.33673 AU
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 29'08 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Omega \)	0°15'25 6.07356 AU 4.05747 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 15 j 22:37	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°\	0°01'08 6.31291 AU 0°38'21 4.33673 AU
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 29'08 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Omega \)	0°15'25 6.07356 AU 4.05747 AU -1°04'33	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 24 j 05:16 -8138 Jun 25 j 11:47	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Omega \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Omega \) 11° \(\Omega \) 28'37	0°15'25 6.07356 AU 4.05747 AU -1°04'33	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 15 j 22:37 -8138 Jun 24 j 05:16	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Oct 27 j 15:13 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Dmathrm{L}\) 25'54 30° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Dmathrm{L}\) 11° \(\Dmathrm{L}\) 28'37	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 24 j 05:16 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'56	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21
minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09 -8143 Jan 02 j 00:04	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 35'50 12° \(\Omega \) 29'29 0° \(\Dma \) 2° \(\Dma \) 25'54 30° \(\Omega \) 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Dma \) 11° \(\Dma \) 37'38 14° \(\Dma \) 37'38	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 24 j 05:16 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43 -8138 Jul 08 j 08:16	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'54 4°857'44	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21
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minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde min. Earth dist. opposition direct evening set conjunction minimum elong max. Earth dist. morning rise	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:04 -8143 Jan 02 j 00:04 -8143 Jan 03 j 11:10 -8143 Jan 03 j 14:11 -8143 Jan 15 j 13:21 -8143 Mar 13 j 08:53	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 25'50 12° \(\Omega \) 29'29 0° \(\mu \) 2° \(\Omega \) 25'54 30° \(\Omega \) 27° \(\Omega \) 29'08 27° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\mu \) 11° \(\mu \) 37'38 14° \(\mu \) 37'35 14° \(\mu \) 37'35 14° \(\mu \) 37'35 11° \(\mu \) 48'20 0° \(\omega \)	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11 6.05318 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 24 j 14:36 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 12 j 11:58 -8138 Jun 24 j 05:16 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43 -8138 Jul 08 j 08:16 -8138 Aug 26 j 09:15 -8138 Nov 05 j 21:40 -8137 Jan 05 j 05:19 -8137 Jan 06 j 05:22	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'54 4°857'44 15°8 22°810'23 17°818'30 17°810'47	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21 0°50'34
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minimum elong behind sun begin behind sun end 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.	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09 -8143 Jan 02 j 00:04 -8143 Jan 03 j 11:10 -8143 Jan 03 j 11:10 -8143 Jan 15 j 13:21 -8143 Mar 13 j 08:53 -8143 May 26 j 22:52 -8143 Jul 25 j 19:37 -8143 Jul 24 j 18:47 -8143 Aug 16 j 01:15	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 24'10 9° \(\Omega \) 25'50 12° \(\Omega \) 29'29 0° \(\mathred \) 2° \(\mathred \) 22'33 22° \(\Omega \) 28'21 0° \(\mathred \) 11° \(\mathred \) 37'38 14° \(\mathred \) 37'38	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11 6.05318 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 12 j 11:58 -8138 Jun 24 j 05:16 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:47 -8138 Jul 08 j 08:16 -8138 Aug 26 j 09:15 -8138 Nov 05 j 21:40 -8137 Jan 05 j 05:19 -8137 Jan 06 j 05:22 -8137 Jan 08 j 18:37 -8137 Apr 21 j 09:45 -8137 Jul 12 j 12:09	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'54 4°857'44 15°8 22°810'23 17°818'30 17°810'47 15°88 12°817'14	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21 0°50'34
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minimum elong behind sun begin behind sun end 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	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09 -8143 Jan 02 j 00:09 -8143 Jan 03 j 11:10 -8143 Jan 03 j 11:10 -8143 Jan 15 j 13:21 -8143 Mar 13 j 08:53 -8143 May 26 j 22:52 -8143 Jul 25 j 19:37 -8143 Aug 16 j 01:15 -8143 Sep 21 j 22:19 -8143 Oct 28 j 20:59 -8142 Jan 25 j 10:16	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 25'50 12° \(\Omega \) 29'29 0° \(\mathred{M} \) 2° \(\Omega \) 29'54 30° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\mathred{M} \) 11° \(\mathred{M} \) 37'38 14° \(\mathred{M} \) 37'38 14° \(\mathred{M} \) 37'38 14° \(\mathred{M} \) 37'35 16° \(\mathred{A} \) 30° \(\mathred{M} \) 20° \(\mathred{A} \) 30° \(\mathred{M} \) 30° \(\mathred{A} \) 30° \(\mathred{M} \) 30° \(\mathred	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11 6.05318 AU -2°04'22 4.06397 AU	minimum elong behind sun begin behind sun end max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set max. Earth dist. conjunction minimum elong morning rise retrograde opposition min. Earth dist. direct	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 12 j 11:58 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43 -8138 Jun 08 j 08:16 -8138 Aug 26 j 09:15 -8138 Nov 05 j 21:40 -8137 Jan 05 j 05:19 -8137 Jan 06 j 05:22 -8137 Jan 23 j 22:24 -8137 Mar 08 j 18:37 -8137 Jul 12 j 12:09 -8137 Jul 12 j 12:09 -8137 Jul 25 j 06:33 -8137 Jul 26 j 17:18	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'54 4°857'44 15°8 22°810'23 17°818'30 17°818'30 17°810'47 15°88 12°817'14 15°8 0°II 0°II21'13 2°II50'37	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21 0°50'34 1°41'49 4.35215 AU 6.34129 AU 1°24'38
minimum elong behind sun begin behind sun end 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	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09 -8143 Jan 02 j 00:09 -8143 Jan 03 j 11:10 -8143 Jan 03 j 11:10 -8143 Jan 15 j 13:21 -8143 Mar 13 j 08:53 -8143 May 26 j 22:52 -8143 Jul 25 j 19:37 -8143 Aug 16 j 01:15 -8143 Sep 21 j 22:19 -8143 Oct 28 j 20:59 -8142 Jan 25 j 10:16	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 23'50 12° \(\Omega \) 29'29 0° \(\Omega \) 25'54 30° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Omega \) 10° \(\Omega \) 28'37 14° \(\Omega \) 37'38 14° \(\Omega \) 37'38 14° \(\Omega \) 37'35 15° \(\Omega \) 37'35 15° \(\Omega \) 37'35 16° \(\Omega \) 37'35 16° \(\Omega \) 37'35	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11 6.05318 AU -2°04'22 4.06397 AU	minimum elong behind sun begin behind sun end max. Earth dist. 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. conjunction min. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43 -8138 Jul 08 j 08:16 -8138 Aug 26 j 09:15 -8138 Nov 05 j 21:40 -8137 Jan 06 j 05:22 -8137 Jan 23 j 22:24 -8137 Jan 23 j 22:24 -8137 Jul 12 j 12:09 -8137 Jul 12 j 12:09 -8137 Jul 12 j 12:09 -8137 Jul 26 j 17:18 -8137 Jul 26 j 17:18	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'54 4°857'44 15°8 22°810'23 17°818'30 17°810'47 15°88 12°817'14 15°8 0°I 0°I21'13 2°I50'37	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21 0°50'34 1°41'49 4.35215 AU
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minimum elong behind sun begin behind sun end 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	-8145 Nov 27 j 22:02 -8145 Nov 27 j 19:38 -8145 Nov 28 j 00:26 -8145 Nov 28 j 20:13 -8145 Dec 11 j 03:29 -8144 Mar 11 j 17:33 -8144 Apr 20 j 17:55 -8144 May 30 j 13:39 -8144 Jun 19 j 10:20 -8144 Jun 20 j 05:59 -8144 Aug 17 j 15:13 -8144 Oct 27 j 15:17 -8144 Dec 19 j 14:20 -8143 Jan 02 j 00:09 -8143 Jan 02 j 00:09 -8143 Jan 03 j 11:10 -8143 Jan 03 j 11:10 -8143 Jan 15 j 13:21 -8143 Mar 13 j 08:53 -8143 May 26 j 22:52 -8143 Jul 25 j 19:37 -8143 Aug 16 j 01:15 -8143 Sep 21 j 22:19 -8143 Oct 28 j 20:59 -8142 Jan 25 j 10:16	9° \(\Omega \) 22'46 9° \(\Omega \) 21'21 9° \(\Omega \) 25'50 12° \(\Omega \) 29'29 0° \(\Omega \) 25'54 30° \(\Omega \) 22'33 22° \(\Omega \) 28'21 0° \(\Omega \) 28'21 0° \(\Omega \) 28'37 14° \(\Omega \) 37'38 15° \(\Omega \) 40'48'13 2° \(\Zeta \) 43'13 2° \(\Zeta \) 43'13 2° \(\Zeta \) 53'25 20° \(\Zeta \) 03'09 20° \(\Zeta \) 33'09	0°15'25 6.07356 AU 4.05747 AU -1°04'33 -1°05'52 1°06'11 6.05318 AU -2°04'22 4.06397 AU	minimum elong behind sun begin behind sun end max. Earth dist. 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. conjunction min. Earth dist.	-8139 May 24 j 06:24 -8139 May 23 j 22:12 -8139 May 23 j 14:27 -8139 Jun 06 j 12:31 -8139 Oct 05 j 09:34 -8139 Dec 04 j 03:57 -8139 Dec 04 j 19:34 -8138 Feb 04 j 04:28 -8138 Jun 12 j 11:58 -8138 Jun 25 j 11:47 -8138 Jun 25 j 11:43 -8138 Jul 08 j 08:16 -8138 Aug 26 j 09:15 -8138 Nov 05 j 21:40 -8137 Jan 06 j 05:22 -8137 Jan 23 j 22:24 -8137 Jan 23 j 22:24 -8137 Jul 12 j 12:09 -8137 Jul 12 j 12:09 -8137 Jul 12 j 12:09 -8137 Jul 26 j 17:18 -8137 Jul 26 j 17:18	0°Y42'39 0°Y38'08 0°Y47'11 0°Y33'48 3°Y38'56 21°Y01'14 16°Y07'10 16°Y02'04 11°Y03'46 29°Y14'28 0°8 1°850'00 2°806'56 2°806'54 4°857'44 15°8 22°810'23 17°818'30 17°810'47 15°88 12°817'14 15°8 0°I 0°I21'13 2°I50'37	0°01'08 6.31291 AU 0°38'21 4.33673 AU 6.34956 AU 0°50'21 0°50'34 1°41'49 4.35215 AU 6.34129 AU 1°24'38

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8136 in astronomical counting style is the year 8137 BCE in historical counting style. -8136 Feb 06 j 22:27 18°**Ⅲ**32'40 2°16'13 conjunction -8130 Feb 13 j 04:44 25° ₹02'15 -1°33'14 opposition 18°**Ⅲ**25′08 -8136 Feb 07 j 22:08 -8130 Feb 13 j 04:43 25°**₹**02'15 1°33'45 min. Earth dist. 4.32205 AU minimum elong -8136 Apr 09 j 06:27 25°**∡**°23′02 13°**Ⅲ**34'18 -8130 Feb 14 j 16:34 6.09075 AU direct max. Earth dist. 0ಂತಾ 28°**х** 12'40 -8136 Aug 05 j 20:43 -8130 Feb 26 j 22:06 morning rise -8130 Mar 06 j 17:51 -8136 Aug 13 j 07:08 evening set 1°939'46 0°ಕ 17°る39'24 retrograde -8130 Jul 05 j 20:01 12°る41'49 conjunction -8136 Aug 25 j 17:13 4°9528'26 1°34'33 min. Earth dist. -8130 Sep 02 j 07:49 4.12570 AU minimum elong -8136 Aug 25 j 17:13 4°9528'26 1°35'05 opposition -8130 Sep 03 j 02:34 12°る35'24 -2°16'01 6.29081 AU max. Earth dist. -8136 Aug 24 j 12:15 4°9511'59 direct -8130 Oct 31 j 21:07 7°る34'23 morning rise -8136 Sep 07 j 02:19 7°9516'46 evening set -8129 Mar 08 j 05:10 26°る34'27 retrograde -8135 Jan 09 j 09:32 25°516'40 -8135 Mar 11 j 16:23 -8129 Mar 21 j 22:47 29°る41'46 -1°21'33 opposition 20°**©**23'30 2°10'51 conjunction min. Earth dist. -8135 Mar 12 j 10:11 20°917'51 4.25453 AU minimum elong -8129 Mar 21 j 22:51 29°**る**41'49 1°22'03 direct -8135 May 12 j 06:17 15°528'04 max. Earth dist. -8129 Mar 22 j 19:09 29°る53'22 6.16486 AU -8135 Aug 28 j 09:28 $0^{\circ}\Omega$ -8129 Mar 23 j 06:48 0°≈ evening set -8135 Sep 13 j 19:32 3°**Ω**42'11 morning rise -8129 Apr 04 j 16:11 2°≈48'46 -8129 Jun 02 j 19:55 15°**≈** conjunction -8135 Sep 26 j 07:04 6°**Ω**34'41 1°16'03 retrograde -8129 Aug 08 j 06:43 21°≈26'11 minimum elong -8135 Sep 26 j 07:09 6°**Ω**34'43 1°16'32 opposition -8129 Oct 06 j 09:19 16°≈25'19 -1°35'57 max. Earth dist. -8135 Sep 25 j 14:44 6°**Ω**25'15 6.21199 AU min. Earth dist. -8129 Oct 06 j 02:28 16°≈27'38 4.20801 AU morning rise -8135 Oct 08 j 19:42 9°**Ω**27'51 -8129 Oct 17 j 00:40 15°R≈ -8135 Nov 02 j 13:54 15°Ω direct -8129 Dec 05 i 08:30 11°≈21'51 retrograde -8134 Feb 13 i 03:30 28°**Ω**12'47 -8128 Jan 23 i 20:13 15°**≈** opposition -8134 Apr 15 j 13:00 23°Ω16'24 1°23'55 -8128 Apr 11 j 16:08 0°\ 04'29 evening set min. Earth dist. -8134 Apr 15 j 17:00 23°**Ω**15′07 4.16928 AU -8128 Apr 11 j 08:05 0°) -8134 Jun 14 j 21:14 direct 18°**Ω**23'02 -8134 Sep 15 j 20:29 -8128 Apr 25 j 07:37 3°\(\)407'27 -0°42'44 0° m conjunction -8134 Oct 16 j 09:52 -8128 Apr 25 j 07:41 3°\colon 0°43'03 6° m 51'38 minimum elong evening set -8128 Apr 25 j 09:05 3°**升**08'16 6.24994 AU max. Earth dist. -8134 Oct 29 j 04:21 9° m 50'42 0°32'37 -8128 May 08 j 20:36 6°\;\;09'05 conjunction morning rise -8128 Sep 08 j 09:58 -8134 Oct 29 j 04:24 9° m 50'43 0°32'51 retrograde 23°**¥**59'15 minimum elong -8128 Nov 06 j 17:58 -8134 Oct 29 j 08:44 max. Earth dist. 9° ከ 53'16 6.12878 AU opposition 19°**)** €02'17 -0°26'42 -8128 Nov 06 j 23:23 19°**米**00'29 4.28780 AU -8134 Nov 11 j 01:18 12° **m** 51'15 min. Earth dist. morning rise -8133 Feb 09 j 15:15 -8127 Jan 06 j 21:55 0∘**⊽** direct 13°**H** 58'10 2°**≏**20'55 -8133 Mar 21 j 05:14 -8127 Mar 24 j 10:22 21°**)**43'38 retrograde asc. node -8127 May 04 j 17:57 $0^{\circ}\Upsilon$ -8133 Apr 29 j 20:04 30°R, My 2°**Y**21'39 opposition -8133 May 21 j 06:05 27° m 20'36 0°06'44 evening set -8127 May 15 j 13:37 min. Earth dist. -8133 May 20 j 20:27 27° m 23'45 4.09414 AU desc. node -8133 Jun 21 j 19:46 23° Mp 41'34 conjunction -8127 May 28 j 21:51 5°**Ƴ**18'54 0°08'34 direct -8133 Jul 19 j 09:52 22° m 27'38 minimum elong -8127 May 28 j 21:50 5°**Y**18'54 0°08'34 -8133 Sep 28 j 21:18 0∘**⊽** behind sun begin -8127 May 28 j 14:44 5°Y14'58 -8133 Nov 19 j 16:12 11°**≙**13'56 behind sun end -8127 May 29 j 04:56 5°Y22'49 evening set -8127 May 28 j 02:50 5°**Y**08′21 6.31898 AU max. Earth dist. -8133 Dec 02 j 19:24 14° **1**9'29 -0°23'08 -8127 Jun 11 j 02:51 8°Y14'26 conjunction morning rise -8133 Dec 02 j 19:21 -8127 Oct 09 j 21:34 25° Y 34'15 minimum elong 14°**£**19'27 0°23'12 retrograde 20° \(\gamma 40'35 \) 0° 48' 31 max. Earth dist. -8133 Dec 03 j 18:28 14°**£**33'05 6.06878 AU opposition -8127 Dec 08 i 16:36 20°**Ƴ**34'53 morning rise -8133 Dec 16 j 02:12 17°**£**26'56 min. Earth dist. -8127 Dec 09 i 10:06 4.34115 AU 15°**Ƴ**37'24 -8132 Feb 12 j 19:03 0°M direct -8126 Feb 08 i 20:27 retrograde -8132 Apr 25 j 17:55 7°M25'28 -8126 May 30 j 13:58 0°8 -8132 Jun 24 j 07:15 2°ML28'57 4.05559 AU -8126 Jun 17 j 00:42 3°846'35 min. Earth dist. evening set -8132 Jun 25 j 04:42 2°M21'45 -1°14'51 opposition -8132 Jul 13 j 14:43 30°R**≏** -8126 Jun 29 j 23:17 6°838'23 0°56'21 conjunction -8126 Jun 29 j 23:13 -8132 Aug 22 j 11:08 27°**₽**27'13 direct minimum elong 6°**8**38'21 0°56'37 -8132 Sep 30 j 23:29 0°M max. Earth dist. -8126 Jun 28 j 17:15 6°**8**21'43 6.35203 AU 9°**8**28'30 -8132 Dec 18 j 05:55 15°M morning rise -8126 Jul 12 j 18:20 -8132 Dec 24 j 15:08 16°M29'06 -8126 Aug 07 j 12:00 15°8 evening set retrograde -8126 Nov 10 j 08:11 26°841'11 -8131 Jan 07 j 01:54 19°M38'26 -1°11'16 -8125 Jan 09 j 19:07 21°**8**49'23 conjunction opposition 1°48'41 -8131 Jan 07 j 01:49 -8125 Jan 10 j 18:11 21°**8**42'00 4.35281 AU minimum elong 19°**™**38'22 1°11'38 min. Earth dist. -8131 Jan 08 j 13:56 -8125 Mar 13 j 07:47 16°**8**48'31 max. Earth dist. 19°**™**59'36 6.05416 AU direct $0^{\circ}\Pi$ morning rise -8131 Jan 20 j 15:44 22°M49'20 -8125 Jun 26 j 02:53 -8131 Feb 21 j 12:28 0°**∡** evening set -8125 Jul 18 j 12:20 4°**Ⅲ**51'14 retrograde -8131 May 31 j 21:58 12°**х** 47'37 max. Earth dist. -8125 Jul 29 j 15:55 7°**Ⅲ**20'32 6.33998 AU opposition -8131 Jul 30 j 16:00 7°**х** 42′27 -2°09′17 min. Earth dist. -8131 Jul 29 j 16:29 7°**х** 50′29 4.06775 AU conjunction -8125 Jul 31 j 02:00 7°**Ⅲ**39'37 1°27'37 -8131 Sep 26 j 20:16 2°**₹**44'49 -8125 Jul 31 j 01:57 7°**Ⅱ**39'36 1°28'06 direct minimum elong

-8130 Jan 30 j 12:57

evening set

21°×752'34

-8125 Aug 12 j 13:28

morning rise

10°**I**I26'57

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 25 Attention, astronomical year style is used: The year -8125 in astronomical counting style is the year 8126 BCE in historical counting style.

Attention, astronom	ical year style is used: Th	ne year -8125 i	n astronomical co	unting style is the year	8126 BCE in historical c	ounting style.	
retrograde	-8125 Dec 12 j 14:43	27° Ⅲ 55'48		evening set	-8118 Feb 04 j 15:35	26° ₹ 50′19	
opposition	-8124 Feb 11 j 14:24	23° Ⅱ 04'04	2°17'54				
min. Earth dist.	-8124 Feb 12 j 14:17	22° Ⅱ 56′29	4.31875 AU	conjunction	-8118 Feb 18 j 07:48	0° ರ 00'02	-1°33'32
direct	-8124 Apr 13 j 22:06	18° Ⅱ 06′07		minimum elong	-8118 Feb 18 j 07:48	0° ろ 00'02	1°34'03
	-8124 Jul 20 j 07:26	0°ಅ			-8118 Feb 18 j 07:45	0°ರ	
evening set	-8124 Aug 17 j 15:43	6°910'45		max. Earth dist.	-8118 Feb 19 j 17:08	0° る 19'19	6.09529 AU
max. Earth dist.	-8124 Aug 28 j 21:27		6.28569 AU	morning rise	-8118 Mar 04 j 01:36	3° る 10'23	
	C J			retrograde	-8118 Jul 10 j 14:28	22° る 32'37	
conjunction	-8124 Aug 30 j 01:33	8° 9 59'31	1°33'38	opposition	-8118 Sep 07 j 19:31	17° る 28'57	-2°12'54
minimum elong	-8124 Aug 30 j 01:34	8° © 59'31	1°34'10	min. Earth dist.	-8118 Sep 07 j 02:17		4.13245 AU
morning rise	-8124 Sep 11 j 10:44	11° 5 48'04		direct	-8118 Nov 05 j 17:54	12° る 27'31	
retrograde	-8123 Jan 14 j 01:05	29° © 51'57			-8117 Mar 06 j 19:31	0° ≈	
opposition	-8123 Mar 16 j 10:13	24° © 58'22	2°06'37	evening set	-8117 Mar 13 j 06:10	1° ≈ 26'57	
min. Earth dist.	-8123 Mar 17 j 01:39	24° © 53'28	4.24783 AU	C	,		
direct	-8123 May 16 j 20:17	20°903'16		conjunction	-8117 Mar 27 j 00:00	4° ≈ 33'59	-1°17'25
	-8123 Aug 11 j 04:19	$0^{\circ}\Omega$		minimum elong	-8117 Mar 27 j 00:05	4° ≈ 34'02	1°17'52
evening set	-8123 Sep 18 j 05:14	8° Ω 17'32		max. Earth dist.	-8117 Mar 27 j 19:48	4° ≈ 45'14	6.17361 AU
Č	1 3			morning rise	-8117 Apr 09 j 16:59	7° ≈ 40'28	
conjunction	-8123 Sep 30 j 17:26	11° Ω 10'36	1°11'20	. 8	-8117 May 13 j 10:18	15° ≈	
minimum elong	-8123 Sep 30 j 17:31	11° Ω 10'39		retrograde	-8117 Aug 12 j 21:21	26°≈11'45	
max. Earth dist.	-8123 Sep 30 j 04:03		6.20439 AU	opposition	-8117 Oct 10 j 23:31	21°≈11'26	-1°27'24
morning rise	-8123 Oct 13 j 06:48	14° Ω 04'28	0.20.07.110	min. Earth dist.	-8117 Oct 10 j 17:38		4.21780 AU
morning rise	-8123 Oct 17 j 07:50	15° Ω		direct	-8117 Dec 10 j 01:56	16° ≈ 07'49	21,00110
	-8122 Jan 04 j 13:44	0° m)		4.1.001	-8116 Mar 25 j 11:05	0° ∀	
retrograde	-8122 Feb 18 j 00:38	2° m/54'22		evening set	-8116 Apr 16 j 13:06	4°) 48'18	
	-8122 Apr 03 j 23:56	30°R Ω		7 · · · · · · · · · · · · · · · · · · ·	pj	. , , , , , , , ,	
opposition	-8122 Apr 20 j 09:01		1°14'39	conjunction	-8116 Apr 30 j 03:44	7° ¥ 50'33	-0°35'52
min. Earth dist.	-8122 Apr 20 j 12:27	27° Ω 56'24	4.16097 AU	minimum elong	-8116 Apr 30 j 03:47	7° ¥ 50'35	
direct	-8122 Jun 19 j 14:42	23° Ω 04'16	1.100) / 110	max. Earth dist.	-8116 Apr 30 j 01:28	7° ¥ 49'17	
	-8122 Aug 27 j 16:58	0° m)		morning rise	-8116 May 13 j 15:59	10°) €51'26	0.20003 110
evening set	-8122 Oct 20 j 23:12	11° m)34'11		retrograde	-8116 Sep 12 j 21:23	28° H 36'17	
evening set	0122 Oct 20 j 25.12	11 11 11 11 11 11 11		opposition	-8116 Nov 11 j 06:18	23°) 39'45	-0°15'54
conjunction	-8122 Nov 02 j 18:42	14° m) 34'05	0°25'21	min. Earth dist.	-8116 Nov 11 j 13:42		4.29719 AU
minimum elong	-8122 Nov 02 j 18:44			direct	-8115 Jan 11 j 14:27	18° ¥ 35'36	1.25715110
max. Earth dist.	-8122 Nov 03 j 00:07	14° Mp 37'15	6.12062 AU	asc. node	-8115 Jan 31 j 21:07	19° ¥ 13′21	
morning rise	-8122 Nov 15 j 17:06	17° mp 35'36	0.12002 710	use. Houe	-8115 Apr 17 j 10:38	0°Υ	
morning rise	-8121 Jan 13 j 04:42	0∘ ⊽		evening set	-8115 May 20 j 05:04	6°Υ56'32	
retrograde	-8121 Mar 26 j 02:54	o — 7° Ω 09'56		evening set	0113 May 20 J 03.04	0 1 30 32	
desc. node	-8121 May 03 j 19:02	4° £ 55'03		conjunction	-8115 Jun 02 j 12:12	9° Ƴ 52'58	0°15'51
opposition	-8121 May 26 j 03:03	2° ₾ 09'08	-0°04'46	minimum elong	-8115 Jun 02 j 12:10	9° Υ 52'58	
min. Earth dist.	-8121 May 25 j 15:11		4.08684 AU	behind sun begin	-8115 Jun 02 j 11:25	9° Υ ′52'33	0 10 00
mm. Earth dist.	-8121 Jun 12 j 02:18	30°RM)	4.00004 710	behind sun end	-8115 Jun 02 j 12:55	9° Υ '53'22	
direct	-8121 Jul 24 j 02:23	27° Mp 16'04		max. Earth dist.	-8115 Jun 01 j 16:48	9° Υ 42'13	6.32681 AU
direct	-8121 Sep 03 j 09:29	0° ⊽		morning rise	-8115 Jun 15 j 15:40	12° Υ 47'36	0.32001710
evening set	-8121 Nov 24 j 11:09	ა _ 16° ჲ 04'52		morning rise	-8115 Oct 07 j 09:35	0°8	
evening see	01211107 21 11:09	10 -0.32		retrograde	-8115 Oct 14 j 06:30	0° 8 04'35	
conjunction	-8121 Dec 07 j 15:33	19° ₽ 11'10	-0°30'33	retrograde	-8115 Oct 21 j 03:02	30°RΥ	
minimum elong	-8121 Dec 07 j 15:30	19° ₽ 11'08		opposition	-8115 Dec 13 j 04:14	25° Υ 11'14	0°58'18
max. Earth dist.	-8121 Dec 08 j 16:32		6.06300 AU	min. Earth dist.	-8115 Dec 13 j 22:04	25°Υ°05'26	4.34671 AU
morning rise	-8121 Dec 20 j 23:23	22° ♀ 19'21	0.00500110	direct	-8114 Feb 13 j 09:31	20° Υ '08'19	
morning rise	-8120 Jan 24 j 01:17	0°M		uncer	-8114 May 12 j 22:48	0°8	
retrograde	-8120 Apr 30 j 18:02	12°M20'28		evening set	-8114 Jun 21 j 11:48	8° 8 15'35	
min. Earth dist.	-8120 Jun 29 j 04:29		4.05197 AU	max. Earth dist.	-8114 Jul 03 j 00:26	10° 8 48'41	6.35444 AU
opposition	-8120 Jun 30 j 01:32	7°M16'28		max. Earth dist.	0111341 05 3 00.20	10 0 10 11	0.55111110
direct	-8120 Aug 27 j 07:06	2°M21'35	1 2427	conjunction	-8114 Jul 04 j 08:48	11° 8 06'39	1°01'59
direct	-8120 Dec 01 j 07:28	15°M		minimum elong	-8114 Jul 04 j 08:44	11° 8 06'36	1°02'17
evening set	-8120 Dec 29 j 15:24	21°M26'09		morning rise	-8114 Jul 17 j 02:42	13° 8 56'08	1 02 17
evening set	0120 Dec 27 j 15.24	21 1102009		morning rise	-8114 Jul 21 j 22:52	15° 8	
conjunction	-8119 Jan 12 j 03:06	24°M35'55	-1°16'04		-8114 Oct 18 j 13:21	0°Ⅱ	
minimum elong	-8119 Jan 12 j 03:00	24°M35'52		retrograde	-8114 Oct 18 j 13.21 -8114 Nov 14 j 19:52	1° 耳 09'17	
max. Earth dist.	-8119 Jan 13 j 15:54		6.05303 AU	ronogrado	-8114 Nov 14 j 19.32 -8114 Dec 12 j 03:46	30°R 8	
morning rise	-8119 Jan 25 j 17:43	27°M47'10	0.05505 AU	opposition	-8113 Jan 14 j 07:58	26° 8 17'35	1°54'55
morning rise	-8119 Jan 23 j 17:43 -8119 Feb 04 j 07:28	27 11647 10 0° √ 1		min. Earth dist.	-8113 Jan 15 j 08:25		4.35193 AU
retrograde	-8119 Jun 05 j 19:30	17° ∡ ¹44'18		direct	-8113 Mar 17 j 21:48	20 8 0943	1.55175 AU
min. Earth dist.	-8119 Aug 03 j 11:33	17 × 44 18 12° × 47'19	4.06958 AU	uncot	-8113 Jun 08 j 02:35	0°Ⅱ	
opposition	-8119 Aug 04 j 11:14	12° × ⁷ 715		evening set	-8113 Jul 22 j 20:48	9° Ⅱ 19'09	
direct	-8119 Oct 01 j 15:06	7° × ⁷ 41'12	2 13 11	max. Earth dist.	-8113 Aug 03 j 00:18		6.33560 AU
******	5.1. 5 51 j 15.00	12				050	

-	ical year style is used: Th					_	50 20
conjunction	-8113 Aug 04 j 09:43	12° I 107'20			-8107 Jan 18 j 11:30	0° ∡ 7	
minimum elong	-8113 Aug 04 j 09:41	12° II 07'19	1°30'35	max. Earth dist.	-8107 Jan 18 j 21:41	0° ∡ ¹05'58	6.05617 AU
morning rise	-8113 Aug 16 j 20:23	14° Ⅱ 54'32		morning rise	-8107 Jan 31 j 00:09	2° ∡ ¹55'41	
	-8113 Nov 06 j 16:44	0ංම		retrograde	-8107 Jun 10 j 19:06	22° ∡ ¹49'22	
retrograde	-8113 Dec 17 j 03:22	2° 5 26'56		min. Earth dist.	-8107 Aug 08 j 09:50	17° ∡ 52′25	4.07753 AU
	-8112 Jan 27 j 06:01	30°RⅡ		opposition	-8107 Aug 09 j 09:34	17° ∡ ¹44'18	-2°16'13
opposition	-8112 Feb 16 j 05:43	27° Ⅱ 35'01	2°18'51	direct	-8107 Oct 06 j 15:48	12° ∡ ¹45'47	
min. Earth dist.	-8112 Feb 17 j 04:12	27° II 27'53	4.31127 AU		-8106 Feb 01 j 13:44	5°0	
direct	-8112 Apr 18 j 10:29	22° Ⅱ 37'28		evening set	-8106 Feb 09 j 20:33	1° る 53'27	
	-8112 Jul 01 j 10:43	0 \circ \odot					
evening set	-8112 Aug 22 j 00:19	10° © 42'56		conjunction	-8106 Feb 23 j 13:17	5° る 02'49	
max. Earth dist.	-8112 Sep 02 j 07:08	13° © 16'43	6.27560 AU	minimum elong	-8106 Feb 23 j 13:18	5° る 02'49	
				max. Earth dist.	-8106 Feb 24 j 23:31	5° る 22'34	6.10758 AU
conjunction	-8112 Sep 03 j 10:03	13° © 32'03	1°32'12	morning rise	-8106 Mar 09 j 06:58	8° る 12'33	
minimum elong	-8112 Sep 03 j 10:05	13°532'04	1°32'45	retrograde	-8106 Jul 15 j 08:56	27° る 26'43	
morning rise	-8112 Sep 15 j 19:27	16°ණ21'07		opposition	-8106 Sep 12 j 12:46	22° る 23'25	
	-8112 Nov 23 j 16:52	0 \circ Ω		min. Earth dist.	-8106 Sep 11 j 20:35		4.14785 AU
retrograde	-8111 Jan 18 j 20:48	4° Ω 31'02		direct	-8106 Nov 10 j 14:54	17° る 21'37	
	-8111 Mar 18 j 05:28	30° ₹ 5		_	-8105 Feb 17 j 13:21	0° ≈	
opposition	-8111 Mar 21 j 05:37	29°537'04	2°01'40	evening set	-8105 Mar 18 j 06:22	6°≈16'54	
min. Earth dist.	-8111 Mar 21 j 20:42	29°532'16	4.23557 AU				
direct	-8111 May 21 j 13:14	24°9542'14		conjunction	-8105 Mar 31 j 23:48	9° ≈ 23'05	
	-8111 Jul 21 j 03:56	0°Ω		minimum elong	-8105 Mar 31 j 23:53	9° ≈ 23'08	1°13'16
evening set	-8111 Sep 22 j 16:44	12° Ω 58'36		max. Earth dist.	-8105 Apr 01 j 16:03	9°≈32'17	6.19077 AU
	-8111 Oct 01 j 10:59	15° Ω		morning rise	-8105 Apr 14 j 16:26	12°≈28'38	
	0111 0 . 05:05.46	1.50 0.5010.6	100 (10 =		-8105 Apr 26 j 00:12	15° ≈	
conjunction	-8111 Oct 05 j 05:46	15° Ω 52'36			-8105 Jul 25 j 13:35	0° \	
minimum elong	-8111 Oct 05 j 05:50	15° Ω 52'38	1°06'31	retrograde	-8105 Aug 17 j 07:33	0° ¥ 50′52	
max. Earth dist.	-8111 Oct 04 j 18:11	15° Ω 45'53	6.19113 AU	*.*	-8105 Sep 08 j 22:08	30°R≈	1010100
morning rise	-8111 Oct 17 j 20:14	18° Ω 47'30		opposition	-8105 Oct 15 j 11:37	25°≈51'00	
. 1	-8111 Dec 09 j 15:18	0°M)		min. Earth dist.	-8105 Oct 15 j 07:28	25°≈52'25	4.23499 AU
retrograde	-8110 Feb 22 j 23:16	7° Mp 44'26	1904142	direct	-8105 Dec 14 j 18:58	20° ≈ 47'09 0° 米	
opposition min. Earth dist.	-8110 Apr 25 j 07:53	2° Mp 47'01 2° Mp 46'50	1°04'42 4.14774 AU	avanina aat	-8104 Mar 07 j 08:37 -8104 Apr 21 j 05:54	9° ∺ 22'46	
IIIII. Eartii dist.	-8110 Apr 25 j 08:29	2 11√46 30 30°RΩ	4.14//4 AU	evening set	-8104 Apr 21 J 05.54	9 X2240	
direct	-8110 May 18 j 07:20 -8110 Jun 24 j 08:11	30 κδι 27° Ω 53'55		conjunction	-8104 May 04 j 19:44	12° ∺ 24'00	0.50,00
direct	-8110 Jul 30 j 20:50	0° m		minimum elong	-8104 May 04 j 19:47	12° X 24'01	0°29'13
evening set	-8110 Oct 25 j 16:35	16° Mp 27'00		max. Earth dist.	-8104 May 04 j 15:36		6.27602 AU
evening set	-8110 Oct 25 j 10.55	10 11/2/00		morning rise	-8104 May 04 j 15.30	15° H 23'44	0.27002 AC
conjunction	-8110 Nov 07 j 13:21	19° m) 27'58	0°17'42	morning rise	-8104 Aug 03 j 19:58	0°Υ	
minimum elong	-8110 Nov 07 j 13:23	19° m ₂ 27'59	0°17'52	retrograde	-8104 Sep 17 j 03:58	3° Y 01'49	
max. Earth dist.	-8110 Nov 07 j 21:50	19° m 32'57	6.10868 AU	ronogrado	-8104 Oct 31 j 19:43	30° R ₩	
morning rise	-8110 Nov 20 j 13:04	22° m/30'37	0.10000110	opposition	-8104 Nov 15 j 14:42	28° \ 05'49	-0°05'27
	-8110 Dec 23 j 21:55	0∘ ⊽		min. Earth dist.	-8104 Nov 15 j 23:58	28°) 02'45	4.31051 AU
desc. node	-8109 Mar 13 j 20:38	11° ≏ 42'15		asc. node	-8104 Dec 13 j 15:08	24°) 43′42	
retrograde	-8109 Mar 31 j 07:15	12° ♀ 10'52		direct	-8103 Jan 16 j 02:43	23° 米 01'46	
opposition	-8109 May 31 j 04:20	7° ≏ 09'31	-0°16'43		-8103 Mar 29 j 09:44	0° Υ	
min. Earth dist.	-8109 May 30 j 15:23	7° ≙ 13'48	4.07726 AU	evening set	-8103 May 24 j 15:33	11° Υ 18'56	
direct	-8109 Jul 29 j 00:52	2°₽16'18			•		
evening set	-8109 Nov 29 j 11:17	21° ≏ 08'25		conjunction	-8103 Jun 06 j 21:12	14° Ƴ 14'24	0°22'43
-	•			minimum elong	-8103 Jun 06 j 21:10	14° Ƴ 14'23	0°22'46
conjunction	-8109 Dec 12 j 16:54	24° ≙ 15'30	-0°38'05	max. Earth dist.	-8103 Jun 05 j 21:38	14° Ƴ 01'21	6.33621 AU
minimum elong	-8109 Dec 12 j 16:50	24° ≏ 15'28	0°38'14	morning rise	-8103 Jun 19 j 23:27	17° Y ′08'06	
max. Earth dist.	-8109 Dec 13 j 20:44	24° £ 31'56	6.05681 AU		-8103 Aug 25 j 05:11	9° 8	
morning rise	-8109 Dec 26 j 01:58	27° £ 24'29		retrograde	-8103 Oct 18 j 11:54	4° 8 22'21	
-	-8108 Jan 06 j 05:59	0° M			-8103 Dec 13 j 12:37	30° ₹Ƴ	
	-8108 Mar 26 j 19:42	15° M ₊		opposition	-8103 Dec 17 j 11:28	29° Y 29'19	1°07'19
retrograde	-8108 May 05 j 21:31	17°ML27'38		min. Earth dist.	-8103 Dec 18 j 07:32	29° Y ′22'48	4.35167 AU
	-8108 Jun 14 j 17:53	15°RML		direct	-8102 Feb 17 j 19:23	24° Y 26'35	
min. Earth dist.	-8108 Jul 04 j 04:07	12°MJ31'01	4.05039 AU		-8102 Apr 22 j 22:42	9° 8	
opposition	-8108 Jul 05 j 02:48	12°M23'23	-1°33'50	evening set	-8102 Jun 25 j 17:57	12° 8 32'26	
direct	-8108 Sep 01 j 05:50	7°M28'12			-8102 Jul 06 j 20:31	15° 8	
	-8108 Nov 11 j 07:18	15° M ₊		max. Earth dist.	-8102 Jul 07 j 04:57	15° 8 04'41	6.35440 AU
evening set	-8107 Jan 03 j 20:26	26°M34'25					
				conjunction	-8102 Jul 08 j 13:50	15° 8 22'58	1°07'01
conjunction	-8107 Jan 17 j 08:48	29°M44'21		minimum elong	-8102 Jul 08 j 13:46	15° 8 22'55	1°07'21
minimum elong	-8107 Jan 17 j 08:44	29°M44'18	1°20'57	morning rise	-8102 Jul 21 j 06:23	18° 8 11'56	

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Titterition, dollarion	-8102 Sep 18 j 13:23	0° I	usu onomicai cou	retrograde	-8096 May 11 j 01:11	22°M38'57	
retrograde	-8102 Nov 19 j 02:20	5° Ⅱ 26'44		min. Earth dist.	-8096 Jul 09 j 05:03		4.05149 AU
opposition	-8101 Jan 18 j 16:55	0° I 35'10	2°00'16	opposition	-8096 Jul 10 j 05:03	17°M34'21	
min. Earth dist.	-8101 Jan 19 j 17:44	0° П 27'15	4.34704 AU	оррозион	-8096 Jul 30 j 06:53	15°RM	1 42 33
mm. Larm dist.	-8101 Jan 23 j 07:27	30°R8	4.54704710	direct	-8096 Sep 06 j 08:01	12°M38'42	
direct	-8101 Mar 22 j 05:45	25° 8 35'02		direct	-8096 Oct 14 j 05:18	15°M	
direct	-8101 May 17 j 16:56	0°Ⅱ			-8095 Jan 01 j 12:35	15 llC 0° ∡ 7	
evening set	-8101 Jul 27 j 01:49	13° Ⅱ 38'07		evening set	-8095 Jan 09 j 02:49	1°×7'45'30	
max. Earth dist.	-8101 Aug 07 j 02:51	16° Ⅱ 06'39	6.32598 AU	evening set	-0075 Jan 07 J 02.47	1 7 43 30	
max. Earth dist.	-8101 Aug 07 J 02.31	10 110039	0.32398 AU	conjunction	-8095 Jan 22 j 16:04	4° ∡ 755′28	1024122
conjunction	-8101 Aug 08 j 13:53	16° Ⅲ 26′20	1°31'59	minimum elong	-8095 Jan 22 j 16:00	4° ×7 55'25	
minimum elong	-8101 Aug 08 j 13:51	16° I I26′19	1°32'29	max. Earth dist.	-8095 Jan 24 j 07:13	5° ₹ 18'22	6.06218 AU
morning rise	-8101 Aug 21 j 00:12	10 H 2019 19° H 13'44	1 32 29	morning rise	-8095 Feb 05 j 07:46	8° ∡ 1622	0.00218 AU
morning risc	-8101 Oct 12 j 09:46	0°9		retrograde	-8095 Jun 15 j 19:57	27° 🖈 55'23	
retrograde	-8101 Dec 21 j 17:04	6°951'50		min. Earth dist.	-8095 Aug 13 j 08:53	22° × 758'14	4.08762 AU
opposition	-8100 Feb 20 j 19:13	1°959'47	2°19'00	opposition	-8095 Aug 14 j 07:49	22° × 50'24	
min. Earth dist.	-8100 Feb 21 j 18:15	1°952'29	4.29752 AU	direct	-8095 Oct 11 j 16:22	17° × 51'23	-2 1013
iiiii. Lattii tist.	-8100 Mar 08 j 00:09	1 3 32 29	4.29732 AU	direct	-8094 Jan 14 j 17:24	17 × 31 23	
direct	-8100 Mar 08 j 00:09	30 KII 27°II02'37		evening set	-8094 Feb 15 j 01:42	6°る57'02	
direct	-8100 Apr 22 j 22:03 -8100 Jun 07 j 00:03	27 H0237 0°ම		evening set	-8094 Feb 13 J 01.42	0 03/02	
ovening set	-8100 Juli 07 J 00:03	୦ ୬ 15°911'11		agniumation	9004 Eak 20 : 19:25	10° る 05'55	1922112
evening set	-8100 Aug 20 J 07.23	13 291111		conjunction	-8094 Feb 28 j 18:35 -8094 Feb 28 j 18:36	10 303 33 10°る05'56	
	0100 0 07: 17:20	100001104	1920112	minimum elong	J		
conjunction	-8100 Sep 07 j 17:28	18°901'04	1°30'12	max. Earth dist.	-8094 Mar 02 j 01:55	10°る23'57	6.12043 AU
minimum elong	-8100 Sep 07 j 17:31	18°901'06	1°30'44	morning rise	-8094 Mar 14 j 12:27	13°る15'06 0°≈	
max. Earth dist.	-8100 Sep 06 j 16:21	17°546'43	6.25895 AU		-8094 Jun 11 j 11:08		
morning rise	-8100 Sep 20 j 03:14	20°951'01		retrograde	-8094 Jul 20 j 01:07	2°≈21'17	
	-8100 Nov 01 j 19:59	0°N		*,*	-8094 Aug 27 j 08:58	30°Rる	2002156
retrograde	-8099 Jan 23 j 15:15	9° Ω 09'16	1055157	opposition	-8094 Sep 17 j 05:56	27° ろ 18'22	
opposition	-8099 Mar 26 j 00:37		1°55'57	min. Earth dist.	-8094 Sep 16 j 14:46		4.16205 AU
min. Earth dist.	-8099 Mar 26 j 13:26	4° Ω 10′53	4.21723 AU	direct	-8094 Nov 15 j 11:36	22°る16'09	
	-8099 May 05 j 13:11	30°Rூ			-8093 Jan 28 j 19:30	0° ≈	
direct	-8099 May 26 j 02:45	29° © 20'31		evening set	-8093 Mar 23 j 06:33	11° ≈ 08′04	
	-8099 Jun 15 j 15:19	0°N			0000 4 05:00 40	1.40 1.010.0	1005144
	-8099 Sep 15 j 10:58	15° Ω		conjunction	-8093 Apr 05 j 23:48	14°≈13'32	
evening set	-8099 Sep 27 j 05:19	17° Ω 41'18		minimum elong	-8093 Apr 05 j 23:53	14°≈13'35	
	00000 0 . 00:10.15	200 02 (120	1000101	max. Earth dist.	-8093 Apr 06 j 13:28	14°≈21'15	6.20535 AU
conjunction	-8099 Oct 09 j 19:15	20° Ω 36′29	1°00'24		-8093 Apr 09 j 10:05	15° ≈	
minimum elong	-8099 Oct 09 j 19:19	20° Ω 36'32		morning rise	-8093 Apr 19 j 15:46	17°≈18'13	
max. Earth dist.	-8099 Oct 09 j 10:11		6.17282 AU		-8093 Jun 21 j 14:20	0° ∀	
morning rise	-8099 Oct 22 j 10:59	23° Ω 32'45		retrograde	-8093 Aug 21 j 20:34	5°) 32'47	
_	-8099 Nov 20 j 06:55	0° m		opposition	-8093 Oct 20 j 00:42	0° ∺ 33'30	
retrograde	-8098 Feb 28 j 02:39	12° m 38'33		min. Earth dist.	-8093 Oct 19 j 23:02	0°) 34′04	4.24849 AU
opposition	-8098 Apr 30 j 08:27	7° m 40'36	0°54'08		-8093 Oct 24 j 04:32	30°R≈	
min. Earth dist.	-8098 Apr 30 j 07:10	7° Mp 41'01	4.13078 AU	direct	-8093 Dec 19 j 12:45	25°≈29'32	
direct	-8098 Jun 29 j 04:25	2° Mp 47'37			-8092 Feb 13 j 14:55	0° ℋ	
evening set	-8098 Oct 30 j 12:17	21°m/25'11		evening set	-8092 Apr 26 j 00:20	14°) €01'47	
conjunction	-8098 Nov 12 j 10:28	24° m) 27'23	0°09'47	conjunction	-8092 May 09 j 13:13	17°) €02'12	-0°21'52
minimum elong	-8098 Nov 12 j 10:29	24° m) 27'23	0°09'53	minimum elong	-8092 May 09 j 13:15	17° X 02'12	0°22'03
behind sun begin	-8098 Nov 12 j 03:51	24° m) 23'31	0 0733	max. Earth dist.	-8092 May 09 j 05:15	16° X 57'46	6.28742 AU
behind sun end	-8098 Nov 12 j 17:06	24° m/2331'16		morning rise	-8092 May 09 j 03:13	20°\(\frac{10}{10}\)740	0.28742 AU
max. Earth dist.	-8098 Nov 12 j 17:00	24° m/34'51	6.09479 AU	morning risc	-8092 Jul 10 j 09:08	20 γ 01 03	
morning rise	-8098 Nov 25 j 11:40	27° Mp31'18	0.09479 AU	retrograde	-8092 Sep 21 j 12:28	7° Υ 34'10	
morning risc	-8098 Dec 06 j 04:21	ე∘ <u>ი</u>		asc. node	-8092 Oct 24 j 02:15	5° Υ 53'19	
desc. node	-8097 Jan 20 j 18:47	0 == 9° £ 35'34			•	2° Υ 38'37	0°05'14
		9 ≗ 33 34 17° £ 17'41		opposition	-8092 Nov 20 j 01:37	2° Υ 35'01	4.31914 AU
retrograde	-8097 Apr 05 j 12:47	17 = 1741 12° ⊆ 15'51	0020146	min. Earth dist.	-8092 Nov 20 j 12:31	2 13301 30°R ∺	4.31914 AU
opposition min. Earth dist.	-8097 Jun 05 j 07:43 -8097 Jun 04 j 16:08	12° £ 21'00	-0°2846 4.06793 AU	direct	-8092 Dec 11 j 05:26	27° ₩ 34'36	
	,	7° £ 22'32	4.00793 AU	ullect	-8091 Jan 20 j 17:00	2/°π34'36 0°Υ	
direct	-8097 Aug 02 j 23:32			avaning set	-8091 Mar 02 j 14:03	0°Υ 15° Υ 49'40	
evening set	-8097 Dec 04 j 14:12	26° £ 17'44		evening set	-8091 May 29 j 04:50		6 2/1// ATT
aaniumatian	9007 Dec 17: 20:40	200 0 25127	0045126	max. Earth dist.	-8091 Jun 10 j 08:11	18° Ƴ 30'30	6.34146 AU
conjunction minimum elong	-8097 Dec 17 j 20:49 -8097 Dec 17 j 20:44	29° Ω 25'27 29° Ω 25'25	-0°45'26 0°45'38	conjunction	-8091 Jun 11 j 09:13	18° Ƴ 44'22	0°29'40
max. Earth dist.	-8097 Dec 17 j 20:44 -8097 Dec 19 j 02:35	29° £ 23′23	6.05249 AU	minimum elong	-8091 Jun 11 j 09:13	18° γ 44'22 18° γ 44'20	0°29'47
man. Dartii Uist.	-8097 Dec 20 j 07:20	29° 32 43 02 0° M	0.03447 AU	morning rise	-8091 Jun 24 j 10:00	21° Y 37'17	U 474/
morning rise	-8097 Dec 20 j 07:20	2°M35'04		morning 1150	-8091 Juli 24 j 10.00	0° 8	
morning 1150	-8097 Dec 31 j 07.03 -8096 Feb 27 j 03:10	2 11633 04 15°M		retrograde	-8091 Oct 22 j 21:15	8° 8 50'15	
	50701CU 2/JUS.10	10 110		renograuc	5071 OCT 22 J 21.13	0 00010	

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -8091 in astronomical counting style is the year 8092 BCE in historical counting style. -8091 Dec 21 j 22:52 3°**8**57'32 1°16'18 conjunction -8085 Dec 22 j 22:28 4°M27'52 -0°52'16 opposition min. Earth dist. -8091 Dec 22 j 20:15 -8085 Dec 22 j 22:23 0°52'31 3°850'38 4 35334 AU minimum elong 4°M,27'50 -8090 Jan 26 j 10:26 30°RY -8085 Dec 24 j 07:38 6.05367 AU max. Earth dist. 4°M.47'26 -8090 Feb 22 j 08:39 28°Y55'08 7°MJ37'45 direct -8084 Jan 05 j 09:29 morning rise -8090 Mar 21 j 10:59 0° 8 -8084 Feb 07 j 01:29 15°M₀ 27°M40'18 -8090 Jun 21 j 00:14 15°8 retrograde -8084 May 16 j 02:50 evening set -8090 Jun 30 j 04:04 17°**8**00'19 min. Earth dist. -8084 Jul 14 j 03:52 22°M43'32 4.05639 AU max. Earth dist. -8090 Jul 11 j 11:23 19°**8**30'47 6.35210 AU opposition -8084 Jul 15 j 03:35 22°M35'30 -1°50'15 direct -8084 Sep 11 j 06:49 17°M39'26 conjunction -8090 Jul 12 j 22:34 19°**8**50'22 1°11'54 -8084 Dec 15 j 05:09 0°×7 minimum elong -8090 Jul 12 j 22:30 19°**8**50'19 1°12'16 evening set -8083 Jan 14 j 05:22 6°**∡**¹45'47 -8090 Jul 25 j 14:09 22°**8**38'58 morning rise -8083 Jan 27 j 19:04 -8090 Aug 29 j 06:15 $0^{\circ}\Pi$ conjunction 9°**х** 55'36 -1°27'28 -8083 Jan 27 j 19:01 retrograde -8090 Nov 23 j 14:54 9°**Ⅱ**56'10 minimum elong 9° ₹ 55'34 1°27'56 opposition -8089 Jan 23 j 06:58 5°**Ⅱ**04'38 2°05'13 max. Earth dist. -8083 Jan 29 j 08:38 10°**∡**17'31 6.06992 AU min. Earth dist. -8089 Jan 24 j 08:15 4°**Ⅲ**56'34 4.34124 AU morning rise -8083 Feb 10 j 11:22 13°**∡**06'37 direct -8089 Mar 26 j 19:31 0°**I**I04'50 -8083 May 08 j 21:04 0°정 evening set -8089 Jul 31 j 11:04 18°**Ⅱ**08'48 retrograde -8083 Jun 20 j 14:14 2°る50'05 -8083 Aug 02 j 01:18 30°R ×7 conjunction -8089 Aug 12 j 22:39 20°II57'05 1°33'26 min. Earth dist. -8083 Aug 18 j 03:07 27°**₹**53'01 4.09753 AU minimum elong -8089 Aug 12 j 22:37 20°**Ⅱ**57'04 1°33'58 opposition -8083 Aug 19 j 01:47 27°**х** 45′15 -2°19′09 max. Earth dist. -8089 Aug 11 j 13:40 20°**Ⅲ**38'30 6.31717 AU direct -8083 Oct 16 j 11:47 22°**х** 45'44 morning rise -8089 Aug 25 j 08:22 23°**Ⅱ**44'37 -8083 Dec 25 j 22:41 0°정 -8089 Sep 23 i 04:26 0°© -8082 Feb 20 j 02:39 11°る49'46 evening set -8089 Dec 26 j 09:09 11°9527'56 retrograde -8088 Feb 25 j 13:14 -8082 Mar 05 j 19:51 14° ප් 58'17 -1°30'35 6°935'43 2°18'20 conjunction opposition -8088 Feb 26 j 10:56 -8082 Mar 05 j 19:53 14°**ප**58'19 1°31'07 min. Earth dist. 6°928'51 4 28651 AU minimum elong -8088 Apr 27 j 12:55 -8082 Mar 07 j 01:00 15°る15'01 6.13167 AU direct 1°939'01 max. Earth dist. -8082 Mar 19 j 13:35 -8088 Aug 30 j 18:23 19°9649'21 18°る06'56 evening set morning rise -8088 Sep 11 j 04:37 -8082 May 15 j 09:33 max. Earth dist. 22°9526'07 6.24674 AU 0°≈ -8082 Jul 24 j 16:26 7°≈06'14 retrograde -8088 Sep 12 j 04:31 -8082 Sep 21 j 19:45 conjunction 22°539'48 1°27'37 2°≈03'47 -1°58'22 opposition 22°939'50 -8088 Sep 12 j 04:34 min. Earth dist. -8082 Sep 21 j 07:21 2°≈08'01 4.17332 AU minimum elong 1°28'07 -8088 Sep 24 j 14:55 25°930'30 -8082 Oct 07 j 10:48 morning rise 30°Rਠ -8088 Oct 14 j 17:11 -8082 Nov 20 j 05:45 27°**る**01'17 0 $^{\circ}\Omega$ direct 13°**Ω**55′29 -8087 Jan 28 j 14:17 -8081 Jan 03 j 08:32 retrograde 0°≈ 9°**Ω**00'43 1°49'19 opposition -8087 Mar 30 j 23:09 -8081 Mar 24 j 08:07 15°≈ min. Earth dist. -8087 Mar 31 j 10:06 8°**Ω**57'13 4.20474 AU evening set -8081 Mar 28 j 03:32 15°≈51'02 -8087 May 30 j 21:28 4°Ω06'33 direct -8087 Aug 29 j 01:44 15°€ conjunction -8081 Apr 10 j 20:34 18°≈56'00 -1°02'21 -8087 Oct 01 j 19:53 22°**Ω**29'21 minimum elong -8081 Apr 10 j 20:39 18°≈56'03 1°02'45 evening set -8081 Apr 11 j 07:01 19°≈01'53 6.21587 AU max. Earth dist. -8087 Oct 14 j 10:55 25°**Ω**25'28 0°54'13 -8081 Apr 24 j 12:02 22°≈00'03 conjunction morning rise -8087 Oct 14 j 11:00 25°**Ω**25'31 0°54'35 -8081 May 31 j 21:24 0°) minimum elong -8087 Oct 14 j 06:11 25°**Ω**22'43 6.16151 AU -8081 Aug 26 j 06:06 10°**)**€08'48 max. Earth dist. retrograde 28°**Ω**22'44 5°¥10'04 -0°59'26 morning rise -8087 Oct 27 i 03:45 opposition -8081 Oct 24 j 11:47 -8087 Nov 03 i 04:43 0° m min. Earth dist. -8081 Oct 24 i 11:25 5°**)** 10'12 4.25738 AU retrograde -8086 Mar 05 i 04:44 17° m 34'31 direct -8081 Dec 24 i 02:50 0°\06'02 opposition -8086 May 05 i 09:43 12° m 36'01 0°43'08 evening set -8080 Apr 30 j 16:49 18° ¥ 36'38 min. Earth dist. -8086 May 05 i 05:56 12° m 37'15 4.12169 AU -8086 Jul 04 j 01:07 7° m 43'10 -8080 May 14 i 04:45 21°\ 36'24 -0°14'43 direct conjunction -8086 Nov 04 j 08:19 26° M) 22'26 -8080 May 14 i 04:47 21°\ 36'25 0°14'52 evening set minimum elong -8080 May 14 j 01:50 21°**)** 34'47 behind sun begin conjunction -8086 Nov 17 j 07:33 29° m 25'23 0°01'51 behind sun end -8080 May 14 j 07:43 21°**)** 38'02 minimum elong -8086 Nov 17 j 07:33 29° m 25'23 0°01'55 max. Earth dist. -8080 May 13 j 17:41 21°**)** € 30′15 6.29424 AU behind sun begin -8086 Nov 16 j 23:24 29° m 20'37 morning rise -8080 May 27 j 13:44 24°**)** 34'34 $0^{\circ}\Upsilon$ -8086 Nov 17 j 15:41 29° m 30'10 -8080 Jun 21 j 17:58 behind sun end 11°**Y**17'16 -8086 Nov 17 j 22:24 29° Mp 34'07 6.08868 AU -8080 Sep 03 j 19:29 max. Earth dist. asc. node -8086 Nov 19 j 18:18 0∘**⊽** -8080 Sep 25 j 22:54 12°**Y**04'39 retrograde -8080 Nov 24 j 12:24 7°**Y**′09′38 0°15'47 morning rise -8086 Nov 30 j 10:09 2°**₽**30'10 opposition 7° Υ 05'17 desc. node -8086 Nov 30 j 03:00 2°**£**25'59 min. Earth dist. -8080 Nov 25 j 01:38 4.32339 AU retrograde -8085 Apr 10 j 14:44 22°**♀**19'35 direct -8079 Jan 25 j 07:28 2°**Y**05'49 20°Y20'07 opposition -8085 Jun 10 j 08:50 17°**2**17'11 -0°40'21 evening set -8079 Jun 02 j 17:44 min. Earth dist. -8085 Jun 09 j 15:13 17°**₽**23'02 4.06541 AU conjunction direct -8085 Aug 07 j 22:25 12°**£**23'37 -8079 Jun 15 j 20:50 23°**Y**14'14 0°36'24 -8085 Dec 03 j 22:04 -8079 Jun 15 j 20:47 23°**Y**14'12 0°M minimum elong 0°36'34 -8085 Dec 09 j 14:41 max. Earth dist. -8079 Jun 14 j 17:49 22°Υ59'16 6.34278 AU evening set 1°M19'45

•	ical year style is used: Th		-	` //		, .	.50 2)
morning rise	-8079 Jun 28 j 20:22	-		direct	-8073 Aug 12 j 20:41	17° ≏ 22'39	
	-8079 Jul 16 j 19:14	0°B			-8073 Nov 16 j 19:00	0° M	
retrograde	-8079 Oct 27 j 07:07	13° 8 19'40		evening set	-8073 Dec 14 j 14:57	6°M20'21	
opposition	-8079 Dec 26 j 11:03	8° 8 27'14	1°24'51				
min. Earth dist.	-8079 Dec 27 j 08:43	8° 8 20'15	4.35202 AU	conjunction	-8073 Dec 27 j 23:30	9°M28'50	-0°58'40
direct	-8078 Feb 26 j 21:21	3° 8 25'09		minimum elong	-8073 Dec 27 j 23:25	9° ™ 28'47	0°58'58
	-8078 Jun 04 j 01:49	15° 8		max. Earth dist.	-8073 Dec 29 j 08:34	9° ™ 48'18	6.05325 AU
evening set	-8078 Jul 04 j 14:46	21° 8 30'31		morning rise	-8072 Jan 10 j 11:35	12°M39'06	
max. Earth dist.	-8078 Jul 15 j 21:59	24° 8 01'09	6.34828 AU		-8072 Jan 20 j 14:40	15° ™	
					-8072 Apr 09 j 07:31	0° ∡	
conjunction	-8078 Jul 17 j 08:07			retrograde	-8072 May 21 j 01:18	2° ∡ ¹40'47	
minimum elong	-8078 Jul 17 j 08:03	24° 8 20'09	1°16'44	t materia	-8072 Jul 01 j 13:53	30°₹M	4.05001 177
morning rise	-8078 Jul 29 j 22:32	27° 8 08'29		min. Earth dist.	-8072 Jul 19 j 00:20		4.05901 AU
	-8078 Aug 11 j 23:32	0°П 149П20122		opposition	-8072 Jul 20 j 00:56	27°M35'49	-1°5/06
retrograde	-8078 Nov 28 j 04:25	14° Ⅱ 28'32 9° Ⅱ 37'04	2900127	direct	-8072 Sep 16 j 03:24	22°M39'14 0°⊀	
opposition min. Earth dist.	-8077 Jan 27 j 22:17 -8077 Jan 28 j 23:28	9° Ц 3704 9° Ц 29'03	2°09'26 4.33529 AU	evening set	-8072 Nov 25 j 09:47 -8071 Jan 19 j 08:15	0° x ′ 11° x ′46′18	
direct	-8077 Mar 31 j 10:17	9 II 2903 4° II 37'45	4.33329 AU	evening set	-80/1 Jan 19 J 08.13	11 × 40 10	
evening set	-8077 Aug 04 j 20:57	22° ∏ 42'14		conjunction	-8071 Feb 01 j 22:42	14° ∡ 56'09	-1°20'56
max. Earth dist.	-8077 Aug 15 j 23:01		6.30938 AU	minimum elong	-8071 Feb 01 j 22:39	14° ₹ 56'07	
max. Darm dist.	00// Mug 13 j 23.01	23 112 01	0.50750710	max. Earth dist.	-8071 Feb 03 j 11:54	15° ₹ 17'50	
conjunction	-8077 Aug 17 j 07:51	25° Ⅱ 30'33	1°34'20	morning rise	-8071 Feb 15 j 15:17	18° ∡ 17'90	0.07324710
minimum elong	-8077 Aug 17 j 07:50	25° II 30'33	1°34'52	morning rise	-8071 Apr 12 j 08:59	0°る	
morning rise	-8077 Aug 29 j 17:25	28° I I18'18	13.52	retrograde	-8071 Jun 25 j 10:45	7° る 46'00	
3	-8077 Sep 06 j 07:35	0ಂತಾ		opposition	-8071 Aug 23 j 19:58	2° る 41'20	-2°19'09
retrograde	-8077 Dec 31 j 02:53	16° © 06'27		min. Earth dist.	-8071 Aug 22 j 23:24		4.10489 AU
opposition	-8076 Mar 01 j 08:12	11° © 13'55	2°16'46		-8071 Sep 13 j 15:38	30°R. ✓	
min. Earth dist.	-8076 Mar 02 j 04:15	11° © 07'33	4.27736 AU	direct	-8071 Oct 21 j 09:13	27° ∡ ′41'19	
direct	-8076 May 02 j 04:47	6° © 17'35			-8071 Nov 28 j 08:17	ರ°0	
evening set	-8076 Sep 04 j 05:21	24°528'46		evening set	-8070 Feb 25 j 04:35	16° පි 44'36	
conjunction	-8076 Sep 16 j 15:56	27° © 19'46	1°24'28	conjunction	-8070 Mar 10 j 22:06	19° る 52'52	-1°28'20
minimum elong	-8076 Sep 16 j 15:59	27° © 19'48	1°24'57	minimum elong	-8070 Mar 10 j 22:09	19° る 52'54	1°28'51
max. Earth dist.	-8076 Sep 15 j 19:46	27° © 08'11	6.23704 AU	max. Earth dist.	-8070 Mar 12 j 01:15	20° පි 08'24	6.14042 AU
	-8076 Sep 28 j 07:17	$0^{\circ}\Omega$		morning rise	-8070 Mar 24 j 15:50	23° ප 01'06	
morning rise	-8076 Sep 29 j 02:43	0° Ω 11′05			-8070 Apr 25 j 11:03	0° ≈	
	-8076 Dec 14 j 01:23	15° Ω		retrograde	-8070 Jul 29 j 06:59	11° ≈ 54′07	
retrograde	-8075 Feb 02 j 12:20	18° Ω 41'40		opposition	-8070 Sep 26 j 10:36	6° ≈ 52'08	-1°51'58
	-8075 Mar 26 j 04:24	15° R Ω		min. Earth dist.	-8070 Sep 25 j 23:02	6° ≈ 56′04	4.18257 AU
opposition	-8075 Apr 04 j 21:07	13° Ω 46′28	1°41'56	direct	-8070 Nov 24 j 23:14	1° ≈ 49'17	
min. Earth dist.	-8075 Apr 05 j 06:23	13° Ω 43'30	4.19493 AU		-8069 Mar 07 j 07:01	15° ≈	
direct	-8075 Jun 04 j 15:36	8° £ 52'35		evening set	-8069 Apr 02 j 02:03	20° ≈ 37′26	
	-8075 Aug 08 j 17:35	15° Ω					
evening set	-8075 Oct 06 j 10:16	27° Ω 16'36		conjunction	-8069 Apr 15 j 18:37	23°≈41'53	
	-8075 Oct 18 j 02:57	0° m)		minimum elong	-8069 Apr 15 j 18:42	23°≈41'55	0°56'49
. ,.	0075 0 4 10 : 02 07	00 m. 1 212 1	00.47142	max. Earth dist.	-8069 Apr 16 j 01:04	23°≈45'30	6.22501 AU
conjunction	-8075 Oct 19 j 02:07	0° Mp 13'31	0°47'43	morning rise	-8069 Apr 29 j 09:34	26° ≈ 45'19	
minimum elong max. Earth dist.	-8075 Oct 19 j 02:11 -8075 Oct 18 j 22:46	0° Mp 13'33 0° Mp 11'34	0°48'01 6.15239 AU	retrograde	-8069 May 14 j 02:31 -8069 Aug 30 j 19:37	0° ₩ 14° ₩ 48'37	
morning rise	-8075 Oct 18 j 22:46	3°M)11'45	0.13239 AU	opposition	-8069 Oct 29 j 00:44	9° H 50'26	-0°49'17
retrograde	-8074 Mar 10 j 04:30	22° m/28'41		min. Earth dist.	-8069 Oct 29 j 03:08	9°) 49'38	4.26548 AU
opposition	-8074 May 10 j 09:26	17° m) 29'34	0°31'53	direct	-8069 Dec 28 j 20:54	4°) 46'17	4.20540710
min. Earth dist.	-8074 May 10 j 03:15	17° m ₂ 31'35	4.11382 AU	evening set	-8068 May 05 j 10:59	23°) 15′16	
direct	-8074 Jul 08 j 20:46	12° m/36'41		evening sec	0000 1114 00 1 10.05	25 /(10 10	
desc. node	-8074 Oct 09 j 21:20	24° Mp 26'44		conjunction	-8068 May 18 j 22:02	26°) 14′23	-0°07'21
	-8074 Nov 03 j 14:11	0∘ <u>⊽</u>		minimum elong	-8068 May 18 j 22:03	26°) 14′23	0°07'28
evening set	-8074 Nov 09 j 03:22	1° ≏ 17'39		behind sun begin	-8068 May 18 j 14:36	26° ∺ 10'16	
-	·			behind sun end	-8068 May 19 j 05:31	26° ¥ 18'31	
conjunction	-8074 Nov 22 j 03:58	4° ≙ 21'25	-0°06'08	max. Earth dist.	-8068 May 18 j 09:24	26°) €07'22	6.30084 AU
minimum elong	-8074 Nov 22 j 03:57	4° ≏ 21'24	0°06'07	morning rise	-8068 Jun 01 j 05:46	29° ∺ 11'48	
behind sun begin	-8074 Nov 21 j 20:12	4° ₽ 16'51			-8068 Jun 04 j 21:16	0° Y	
behind sun end	-8074 Nov 22 j 11:41	4° £ 25'56		asc. node	-8068 Jul 14 j 00:00	8° Y 06'52	
max. Earth dist.	-8074 Nov 22 j 22:41	4° ≏ 32'26	6.08286 AU	retrograde	-8068 Sep 30 j 08:49	16° Ƴ 38'45	
morning rise	-8074 Dec 05 j 07:42	7° ≙ 26'58		opposition	-8068 Nov 29 j 00:47	11° Υ 44'10	0°26'25
retrograde	-8073 Apr 15 j 17:34	27° Ω 19'18		min. Earth dist.	-8068 Nov 29 j 14:22	11° Υ 39'43	4.32830 AU
opposition	-8073 Jun 15 j 08:36	22° ₽ 16'29		direct	-8067 Jan 29 j 21:35	6°Υ40'33	
min. Earth dist.	-8073 Jun 14 j 14:37	22° 11 22'29	4.06227 AU	evening set	-8067 Jun 07 j 08:02	24° Y 53'37	

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 30 Attention, astronomical year style is used: The year -8067 in astronomical counting style is the year 8068 BCE in historical counting style.

Attention, astronomi				inting style is the year	8068 BCE in historical co	ounting style.	
max. Earth dist.	-8067 Jun 19 j 05:19	27° Ƴ 31'18	6.34575 AU	behind sun end	-8062 Nov 27 j 03:05	9° £ 15′07	
				max. Earth dist.	-8062 Nov 27 j 17:59	9° £ 23'54	6.07670 AU
conjunction	-8067 Jun 20 j 09:38	27° Y 47′00		morning rise	-8062 Dec 10 j 03:57	12° ≙ 19'01	
minimum elong	-8067 Jun 20 j 09:35	27° Y 46′58	0°43'14		-8061 Mar 13 j 08:48	0° M	
	-8067 Jun 30 j 09:44	0°8		retrograde	-8061 Apr 20 j 16:22	2°M14'25	
morning rise	-8067 Jul 03 j 07:51	0° 8 38'40			-8061 May 28 j 20:44	30°R ≏	
	-8067 Sep 18 j 10:35	15° 8		min. Earth dist.	-8061 Jun 19 j 10:18		4.05808 AU
retrograde	-8067 Oct 31 j 19:47	17° 8 51'19		opposition	-8061 Jun 20 j 05:59	27° £ 11'16	-1°02'16
	-8067 Dec 14 j 20:47	15°R 8	1022100	direct	-8061 Aug 17 j 14:55	22° £ 17'08	
opposition	-8067 Dec 31 j 00:53	12° 8 59'10			-8061 Oct 28 j 15:36	0°M	
min. Earth dist.	-8067 Dec 31 j 23:44		4.35308 AU	evening set	-8061 Dec 19 j 14:01	11°ML17'21	
direct	-8066 Mar 03 j 13:16	7° 8 57'27		. ,.	00(01 01:22.40	1.40 M 2.612.1	1004122
. ,	-8066 May 15 j 14:14 -8066 Jul 09 j 01:49	15° 8		conjunction	-8060 Jan 01 j 23:40	14°M26'21	
evening set	-8066 Jul 20 j 07:49	26° 8 01'47	6.34717 AU	minimum elong	-8060 Jan 01 j 23:35	14°M26'18	1°04'52 6.05134 AU
max. Earth dist.	-8000 Jul 20 J 07.49	28 03133	0.54/1/ AU	max. Earth dist.	-8060 Jan 03 j 10:02 -8060 Jan 04 j 08:49	14 1164633 15°M	0.03134 AU
conjunction	-8066 Jul 21 j 18:01	28° 8 50'59	1°20'24	morning rise	-8060 Jan 15 j 12:30	17°ML37'02	
minimum elong	-8066 Jul 21 j 17:56	28° 8 50'57		morning risc	-8060 Mar 13 j 07:15	0° ⊼	
minimum ciong	-8066 Jul 26 j 21:43	0° I	1 20 30	retrograde	-8060 May 26 j 01:04	7° ∡ 738'38	
morning rise	-8066 Aug 03 j 07:25	1° Ⅱ 38'52		opposition	-8060 Jul 24 j 21:10	2° × ⁷ 33'36	-2°03'01
retrograde	-8066 Dec 02 j 17:27	19° Ⅱ 00′54		min. Earth dist.	-8060 Jul 23 j 21:46		4.05969 AU
opposition	-8065 Feb 01 j 14:02	14° Ⅱ 09'21	2°12'50	mm. Earth tist.	-8060 Aug 13 j 17:13	30°RM	1.03707110
min. Earth dist.	-8065 Feb 02 j 13:55	14° Ⅱ 0721	4.33235 AU	direct	-8060 Sep 21 j 00:15	27°M36'37	
direct	-8065 Apr 05 j 00:17	9° I I10'27	1.33233 110	uncet	-8060 Oct 29 j 05:52	0° ⊼ ¹	
evening set	-8065 Aug 09 j 06:31	27° I I14'19		evening set	-8059 Jan 24 j 10:28	16° ∡ ¹45'17	
max. Earth dist.	-8065 Aug 20 j 10:38		6.30479 AU	evening see	000 y tuni 2. j 10.20	10 7. 10 17	
max. Darm dist.	0003 Hug 20 j 10.50	2) 11 13 20	0.50175110	conjunction	-8059 Feb 07 j 01:36	19° ∡ ¹55'17	-1°31'41
conjunction	-8065 Aug 21 j 16:57	0°502'36	1°34'38	minimum elong	-8059 Feb 07 j 01:34	19° ₹ 55'16	
minimum elong	-8065 Aug 21 j 16:57	0°902'35		max. Earth dist.	-8059 Feb 08 j 14:30		
	-8065 Aug 21 j 12:22	0ంత		morning rise	-8059 Feb 20 j 18:41	23° ₹ 06'11	
morning rise	-8065 Sep 03 j 02:06	2°950'22			-8059 Mar 23 j 15:24	0°ਰ	
retrograde	-8064 Jan 04 j 20:08	20°9542'16		retrograde	-8059 Jun 30 j 05:47	12° ප් 41'25	
opposition	-8064 Mar 06 j 02:21	15° © 49'29	2°14'18	opposition	-8059 Aug 28 j 13:42	7° る 37'04	-2°18'06
min. Earth dist.	-8064 Mar 06 j 21:47	15° © 43'20	4.27124 AU	min. Earth dist.	-8059 Aug 27 j 17:18	7° る 44'02	4.11051 AU
direct	-8064 May 06 j 20:55	10° © 53'33		direct	-8059 Oct 26 j 03:58	2° る 36'39	
evening set	-8064 Sep 08 j 15:18	29° 5 04'39		evening set	-8058 Mar 02 j 06:34	21° ප 39'51	
	-8064 Sep 12 j 16:03	$0^{\circ}\Omega$					
max. Earth dist.	-8064 Sep 20 j 06:39	1° Ω 44'54	6.22984 AU	conjunction	-8058 Mar 16 j 00:12	24° る 47'53	-1°25'25
				minimum elong	-8058 Mar 16 j 00:16	24° る 47'55	1°25'56
conjunction	-8064 Sep 21 j 02:07	1° Ω 56′06	1°20'47	max. Earth dist.	-8058 Mar 17 j 00:10	25° පි 01'35	6.14811 AU
minimum elong	-8064 Sep 21 j 02:11	1° Ω 56′08	1°21'17	morning rise	-8058 Mar 29 j 17:59	27° る 55'47	
morning rise	-8064 Oct 03 j 13:42	4° Ω 48′03			-8058 Apr 07 j 22:35	0° ≈	
	-8064 Nov 20 j 10:11	15° Ω			-8058 Jul 01 j 06:36	15° ≈	
retrograde	-8063 Feb 07 j 07:29	23° Ω 23'32		retrograde	-8058 Aug 02 j 23:21	16° ≈ 42'59	
opposition	-8063 Apr 09 j 17:25	18° Ω 27'47	1°33'56		-8058 Sep 04 j 09:16	15°R ≈	
min. Earth dist.	-8063 Apr 10 j 00:14	18° Ω 25'36	4.18695 AU	opposition	-8058 Oct 01 j 01:46	11° ≈ 41′28	
	-8063 May 09 j 20:11	15°R Ω		min. Earth dist.	-8058 Sep 30 j 16:28	11° ≈ 44'38	4.19143 AU
direct	-8063 Jun 09 j 07:30	13° Ω 34'07		direct	-8058 Nov 29 j 19:32	6° ≈ 38′20	
	-8063 Jul 09 j 13:31	15° Ω			-8057 Feb 16 j 02:10	15° ≈	
	-8063 Oct 02 j 08:14	0° m)		evening set	-8057 Apr 07 j 00:24	25° ≈ 24'47	
evening set	-8063 Oct 10 j 22:53	1° Mp 59'02					
				conjunction	-8057 Apr 20 j 16:43	28° ≈ 28'43	
conjunction	-8063 Oct 23 j 15:52	4° m 56'45	0°40'58	minimum elong	-8057 Apr 20 j 16:47	28° ≈ 28'45	
minimum elong	-8063 Oct 23 j 15:56	4° m 56'47	0°41'15	max. Earth dist.	-8057 Apr 20 j 22:16	28°≈31'50	6.23465 AU
max. Earth dist.	-8063 Oct 23 j 16:10	4° m 56'56	6.14449 AU		-8057 Apr 27 j 11:18	0° ∀	
morning rise	-8063 Nov 05 j 11:05	7° m 55'51		morning rise	-8057 May 04 j 06:49	1° ¥ 31′26	
retrograde	-8062 Mar 15 j 04:11	27° m 17'38	000015-	retrograde	-8057 Sep 04 j 07:14	19° ¥ 29′04	0020:
opposition	-8062 May 15 j 07:09	22° Mp 18'03	0°20'35	opposition	-8057 Nov 02 j 13:46	14°\(\frac{1}{3}\)31'23	
min. Earth dist.	-8062 May 15 j 00:22	22° Mp 20'16	4.10648 AU	min. Earth dist.	-8057 Nov 02 j 16:43	14°) ₹30′24	4.27495 AU
direct	-8062 Jul 13 j 15:54	17° Mp 25'10		direct	-8056 Jan 02 j 12:47	9° ¥ 27'14	
desc. node	-8062 Aug 20 j 20:01	19° m/45'13		evening set	-8056 May 10 j 04:26	27° ¥ 53'44	
	-8062 Oct 17 j 22:46	0∘ ʊ		1	-8056 May 19 j 16:36	0° Υ	
evening set	-8062 Nov 13 j 21:12	6° 亞 08'06		asc. node	-8056 May 22 j 18:20	0° Ƴ 40'58	
aanium - ti	9062 N 26 : 22 40	00 0 1012	0012150	aamiuw -+:	9056 M 22 14 12	000050100	000007
conjunction	-8062 Nov 26 j 22:48	9° £ 12'36		conjunction	-8056 May 23 j 14:12	0°Υ52'00	0°00'07
minimum elong	-8062 Nov 26 j 22:46	9° £ 12'35	0-13.21	minimum elong	-8056 May 23 j 14:12	0° Υ 52'00 0° Υ 47'48	0°00'04
behind sun begin	-8062 Nov 26 j 18:28	9° £ 10′03		behind sun begin	-8056 May 23 j 06:36	U 14/48	

Attention astronom	ical year style is used: Th	0 Woor 9056 i	n astronomical ac	unting style is the year	8057 BCE in historical c	ounting style	
behind sun end	-8056 May 23 j 21:47	0° ° 756′11	n astronomicai co	desc. node	-8050 Jun 30 j 17:34	22° m 53'54	
max. Earth dist.		0° Υ 43'13	6.30935 AU	direct	-8050 Jul 18 j 11:46	22° m) 22'30	
	-8056 May 22 j 22:22	3° Υ 48'35	0.30933 AU	direct	3	0° ⊽	
morning rise	-8056 Jun 05 j 20:50	3° γ 48'33 21° γ 11'56			-8050 Sep 28 j 11:49		
retrograde opposition	-8056 Oct 04 j 20:17	16° Y 17'42	002751	evening set	-8050 Nov 18 j 19:29	11° ≏ 08'49	
1 1	-8056 Dec 03 j 13:05				0050 D 01:22.25	140 0 14116	0021142
min. Earth dist.	-8056 Dec 04 j 04:49	16° Y 12'33	4.33501 AU	conjunction	-8050 Dec 01 j 22:25	14° £ 14'16	
direct	-8055 Feb 03 j 13:48	11° Y 14'11 29° Y 25'04		minimum elong max. Earth dist.	-8050 Dec 01 j 22:23	14° £ 14'14	
evening set	-8055 Jun 11 j 20:39				-8050 Dec 02 j 20:53	14° £ 27'31	6.06825 AU
	-8055 Jun 14 j 12:07	0°B		morning rise	-8050 Dec 15 j 04:45	17° £ 21'35	
	0055 1 24:20 50	20 17142	0040122	. 1	-8049 Feb 12 j 08:39	0°M	
conjunction	-8055 Jun 24 j 20:58	2° 8 17'42	0°49'22	retrograde	-8049 Apr 25 j 21:43	7°M20'40	4.05225 ATT
minimum elong	-8055 Jun 24 j 20:54	2° 8 17'39	0°49'35	min. Earth dist.	-8049 Jun 24 j 11:48		4.05335 AU
max. Earth dist.	-8055 Jun 23 j 16:23	2° 8 01'51 5° 8 08'34	6.34981 AU	opposition	-8049 Jun 25 j 07:58	2°M17'08 30°R ≏	-1-12/33
morning rise	-8055 Jul 07 j 17:40	15° 8		1:	-8049 Jul 13 j 02:29	•	
	-8055 Aug 24 j 19:11	_		direct	-8049 Aug 22 j 15:31	27° £ 22'44	
retrograde	-8055 Nov 05 j 05:11	22° 8 20'37	1940/22		-8049 Oct 01 j 17:07	0°M 150 m	
opposition	-8054 Jan 04 j 13:29	17° 8 28'35	1°40'32		-8049 Dec 18 j 15:32	15°M	
min. Earth dist.	-8054 Jan 05 j 12:01	17° 8 21'21	4.35424 AU	evening set	-8049 Dec 24 j 18:16	16°M25'28	
T' 4	-8054 Jan 24 j 18:28	15°R 8			0040 1 07:04.50	100 M 24152	1010112
direct	-8054 Mar 08 j 01:38	12° 8 27'11		conjunction	-8048 Jan 07 j 04:50	19°M34'53	
	-8054 Apr 19 j 08:23	15° 8		minimum elong	-8048 Jan 07 j 04:45	19°M34'50	1°10'33
	-8054 Jul 11 j 04:22	0°II		max. Earth dist.	-8048 Jan 08 j 17:07	19°M56'14	6.05084 AU
evening set	-8054 Jul 13 j 11:26	0°Ⅱ30′26	C 24504 ATT	morning rise	-8048 Jan 20 j 18:32	22°M45'55	
max. Earth dist.	-8054 Jul 24 j 15:48	2°Щ59′52	6.34504 AU	1	-8048 Feb 21 j 20:42	0° ₹ ¹	
	0054 1 1 26:02 22	20110111	1000157	retrograde	-8048 May 31 j 02:30	12° х 46'01	2000112
conjunction	-8054 Jul 26 j 02:23	3° Ⅱ 19'11	1°23'57	opposition	-8048 Jul 29 j 21:02	7° 🗷 40'59	
minimum elong	-8054 Jul 26 j 02:20	3° Ⅱ 19'09	1°24'25	min. Earth dist.	-8048 Jul 28 j 20:29	7° × 749'21	4.06418 AU
morning rise	-8054 Aug 07 j 14:53	6°Ⅱ06'45		direct	-8048 Sep 25 j 23:40	2° х 43'37	
retrograde	-8054 Dec 07 j 07:42	23° I [31'20	201 5120	evening set	-8047 Jan 29 j 16:49	21° ∡ ′52′15	
opposition	-8053 Feb 06 j 05:07	18° Ⅱ 39'43	2°15'30	. ,.	0047.F.1 12:00.20	250 702102	1022151
min. Earth dist.	-8053 Feb 07 j 05:47	18° Ⅱ 31'53	4.32692 AU	conjunction	-8047 Feb 12 j 08:20	25° ₹ 02'02 25° ₹ 02'01	
direct	-8053 Apr 09 j 15:02	13° ∏ 41'11 0° ©		minimum elong max. Earth dist.	-8047 Feb 12 j 08:19		6.08758 AU
	-8053 Aug 05 j 18:34	0 ৩ 1°©45'15			-8047 Feb 13 j 20:02		0.08/38 AU
evening set	-8053 Aug 13 j 15:03		(20(22 AII	morning rise	-8047 Feb 26 j 01:45	28°♂12'36 0°る	
max. Earth dist.	-8053 Aug 24 j 19:05	4°গু16'40	6.29633 AU	ratra ara da	-8047 Mar 05 j 21:28 -8047 Jul 05 j 02:16	0 る 17° る 41'12	
conjunction	-8053 Aug 26 j 01:11	4° © 33'43	1°34'25	retrograde opposition	-8047 Jul 03 j 02.16 -8047 Sep 02 j 09:19	17 341 12 12°る37'06	2016/02
3	-8053 Aug 26 j 01:11	4°933'43		min. Earth dist.	-8047 Sep 02 j 09:19 -8047 Sep 01 j 14:02		4.12350 AU
minimum elong morning rise	-8053 Aug 20 j 01:11 -8053 Sep 07 j 10:19	7°921'49	1 34 30	direct	-8047 Oct 31 j 04:04	7°る36'15	4.12330 AU
retrograde	-8052 Jan 09 j 12:47	7 5021 49 25°519'00		evening set	-8046 Mar 07 j 09:19	7 03013 26° る 36'15	
opposition	-8052 Mar 10 j 20:48	20°925'51	2°11'06	evening set	-8040 Wiai 07 J 09.19	20 03013	
min. Earth dist.	-8052 Mar 10 j 20:48	20° © 20'20	4.26027 AU	conjunction	-8046 Mar 21 j 03:06	29° る 43'38	1°21'56
direct	-8052 May 11 j 11:09	15°930'15	4.20027 AU	·	-8040 Mai 21 J 05.00	29 043 36	-1 21 30
direct	-8052 Aug 27 j 14:03			minimum elono	-8046 Mar 21 i 03:10	20° 天 /3'/1	
evening set				minimum elong	-8046 Mar 21 j 03:10	29°る43'41	1°22'25
C v Cilling SCt		0° Ω 3° Ω 42'58		max. Earth dist.	-8046 Mar 22 j 02:50	29° る 57'09	
	-8052 Sep 13 j 01:58	3° Ω 42′58		max. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50	29°る57'09 0°≈	1°22'25
conjunction	-8052 Sep 13 j 01:58	3° Ω 42'58	1°16'37	_	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23	29° ් 57'09 0° ක 2° ක 50'40	1°22'25
conjunction minimum elong	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24	3°Ω42'58 6°Ω35'10	1°16'37 1°17'05	max. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31	29°♂57'09 0°≈ 2°≈50'40 15°≈	1°22'25
minimum elong	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29	3°Ω42'58 6°Ω35'10 6°Ω35'12	1°17'05	max. Earth dist. morning rise retrograde	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50	1°22'25 6.16409 AU
minimum elong max. Earth dist.	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51	3°N42'58 6°N35'10 6°N35'12 6°N25'37		max. Earth dist. morning rise retrograde opposition	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50	1°22'25 6.16409 AU -1°36'57
minimum elong	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40	3° \(\Omega 42'58 \) 6° \(\Omega 35'10 \) 6° \(\Omega 35'12 \) 6° \(\Omega 25'37 \) 9° \(\Omega 27'58 \)	1°17'05	max. Earth dist. morning rise retrograde	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39	1°22'25 6.16409 AU
minimum elong max. Earth dist. morning rise	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19	3° N42'58 6° N35'10 6° N35'12 6° N25'37 9° N27'58 15° N	1°17'05	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°₹≈	1°22'25 6.16409 AU -1°36'57
minimum elong max. Earth dist. morning rise retrograde	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01	3° \Pi 42'58 6° \Pi 35'10 6° \Pi 35'12 6° \Pi 25'37 9° \Pi 27'58 15° \Pi 28° \Pi 10'16	1°17'05 6.21739 AU	max. Earth dist. morning rise retrograde opposition	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29	1°22'25 6.16409 AU -1°36'57
minimum elong max. Earth dist. morning rise retrograde opposition	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$	1°17'05 6.21739 AU 1°25'16	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Jan 22 j 18:29	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈30'39 15°₹≈ 11°≈24'29 15°≈	1°22'25 6.16409 AU -1°36'57
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$	1°17'05 6.21739 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Jan 22 j 18:29 -8045 Apr 11 j 20:31	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°¥06'04	1°22'25 6.16409 AU -1°36'57
minimum elong max. Earth dist. morning rise retrograde opposition	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$	1°17'05 6.21739 AU 1°25'16	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Jan 22 j 18:29	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈30'39 15°₹≈ 11°≈24'29 15°≈	1°22'25 6.16409 AU -1°36'57
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Sep 15 j 07:01	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$ 0° \$\Omega \$	1°17'05 6.21739 AU 1°25'16	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Jan 22 j 18:29 -8045 Apr 11 j 20:31	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°¥06'04	1°22'25 6.16409 AU -1°36'57 4.20876 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$	1°17'05 6.21739 AU 1°25'16	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Jan 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 11 j 09:35	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩	1°22'25 6.16409 AU -1°36'57 4.20876 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Sep 15 j 07:01 -8051 Oct 15 j 14:35	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$ 0° \$\Omega \$	1°17'05 6.21739 AU 1°25'16	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩	1°22'25 6.16409 AU -1°36'57 4.20876 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Sep 15 j 07:01 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 14'03\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$ 0° \$\Omega 6° \$\Omega 48'17\$	1°17'05 6.21739 AU 1°25'16 4.17368 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°₹≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'00 3°₩09'40	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 02:35 -8051 Sep 15 j 07:01 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41	3° \$\Omega 42'58\$ 6° \$\Omega 35'10 6° \$\Omega 35'12 6° \$\Omega 25'37 9° \$\Omega 27'58 15° \$\Omega 28° \$\Omega 10'16 23° \$\Omega 14'03 23° \$\Omega 12'07 18° \$\Omega 20'34 0° \$\Omega 6\$° \$\Omega 48'17 9° \$\Omega 47'03	1°17'05 6.21739 AU 1°25'16 4.17368 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12 -8045 May 09 j 01:15	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0° ¥06'04 0° ¥ 3° ¥08'57 3° ¥09'00 3° ¥09'40 6° ¥10'36	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 02:35 -8051 Sep 15 j 07:01 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23	3° \$\alpha 42'58\$ 6° \$\alpha 35'10 6° \$\alpha 35'12 6° \$\alpha 25'37 9° \$\alpha 27'58 15° \$\alpha 28° \$\alpha 10'16 23° \$\alpha 14'03 23° \$\alpha 12'07 18° \$\alpha 20'34 0° \$\mathrm{m}\$ 6° \$\mathrm{m} 48'17 9° \$\mathrm{m} 47'03 9° \$\mathrm{m} 47'05	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'00 3°₩09'40 6°₩10'36 24°₩00'26	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:29 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Sep 15 j 07:01 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23 -8051 Nov 10 j 05:21	3° \$\alpha 42'58\$ 6° \$\alpha 35'10 6° \$\alpha 35'12 6° \$\alpha 25'37 9° \$\alpha 27'58 15° \$\alpha 28° \$\alpha 10'16 23° \$\alpha 14'03 23° \$\alpha 12'07 18° \$\alpha 20'34 0° \$\mu 48'17 9° \$\mu 47'03 9° \$\mu 47'05 9° \$\mu 48'05	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12 -8045 May 09 j 01:15 -8045 Sep 08 j 15:47	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0° ¥06'04 0° ¥ 3° ¥08'57 3° ¥09'00 3° ¥09'40 6° ¥10'36	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:29 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23 -8051 Nov 10 j 05:21 -8050 Feb 09 j 11:45	3° \$\alpha 42'58\$ 6° \$\alpha 35'10 6° \$\alpha 35'12 6° \$\alpha 25'37 9° \$\alpha 27'58 15° \$\alpha 28' \$\alpha 10'16 23° \$\alpha 14'03 23° \$\alpha 12'07 18° \$\alpha 20'34 0° \$\mu 48'17 9° \$\mu 47'03 9° \$\mu 47'05 9° \$\mu 48'05 12° \$\mu 47'21	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12 -8045 Apr 25 j 13:12 -8045 Sep 08 j 15:47 -8045 Nov 06 j 23:48 -8045 Nov 07 j 05:17	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'00 3°₩09'40 6°₩10'36 24°₩00'26 19°₩03'15 19°₩01'26	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist.	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23 -8051 Nov 10 j 05:21 -8050 Feb 09 j 11:45 -8050 Mar 20 j 05:50	3° \$\Omega 42'58\$ 6° \$\Omega 35'12 6° \$\Omega 25'37 9° \$\Omega 27'58 15° \$\Omega 28° \$\Omega 10'16 23° \$\Omega 14'03 23° \$\Omega 12'07 18° \$\Omega 20'34 0° \$\Omega 47'03 9° \$\Omega 47'05 9° \$\Omega 48'05 12° \$\Omega 47'21 0° \$\Omega \lefter	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist.	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 13:12 -8045 May 09 j 01:15 -8045 Nov 06 j 23:48 -8045 Nov 07 j 05:17 -8044 Jan 07 j 04:02	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'40 6°₩10'36 24°₩00'26 19°₩03'15 19°₩01'26 13°₩59'02	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23 -8051 Nov 10 j 05:21 -8050 Feb 09 j 11:45 -8050 Mar 20 j 05:50 -8050 Apr 28 j 02:48	3° \$\Omega 42'58\$ 6° \$\Omega 35'12 6° \$\Omega 25'37 9° \$\Omega 27'58 15° \$\Omega 28° \$\Omega 10'16 23° \$\Omega 12'07 18° \$\Omega 20'34 0° \$\Omega 6° \$\Omega 48'17 9° \$\Omega 47'05 9° \$\Omega 48'05 12° \$\Omega 47'21 0° \$\Omega 2° \$\Omega 15'34\$	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:55 -8045 Apr 25 j 11:59 -8045 Apr 25 j 13:12 -8045 Apr 25 j 13:12 -8045 Sep 08 j 15:47 -8045 Nov 06 j 23:48 -8045 Nov 07 j 05:17	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'00 3°₩09'40 6°₩10'36 24°₩00'26 19°₩03'15 19°₩01'26	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU
minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde	-8052 Sep 13 j 01:58 -8052 Sep 25 j 13:24 -8052 Sep 25 j 13:29 -8052 Sep 24 j 20:51 -8052 Oct 08 j 01:40 -8052 Nov 01 j 20:19 -8051 Feb 12 j 07:01 -8051 Apr 14 j 15:43 -8051 Apr 14 j 21:45 -8051 Jun 14 j 02:35 -8051 Oct 15 j 14:35 -8051 Oct 28 j 08:38 -8051 Oct 28 j 08:41 -8051 Oct 28 j 10:23 -8051 Nov 10 j 05:21 -8050 Feb 09 j 11:45 -8050 Mar 20 j 05:50	3° \$\Omega 42'58\$ 6° \$\Omega 35'10\$ 6° \$\Omega 35'12\$ 6° \$\Omega 25'37\$ 9° \$\Omega 27'58\$ 15° \$\Omega 28° \$\Omega 10'16\$ 23° \$\Omega 12'07\$ 18° \$\Omega 20'34\$ 0° \$\Omega 6\$° \$\Omega 48'17\$ 9° \$\Omega 44'03\$ 9° \$\Omega 44'03\$ 9° \$\Omega 44'05\$ 12° \$\Omega 47'21\$ 0° \$\Omega 20' \$\Omega 15'34\$ 30° \$\Omega 15'34\$	1°17'05 6.21739 AU 1°25'16 4.17368 AU 0°33'49 0°34'03 6.13170 AU	max. Earth dist. morning rise retrograde opposition min. Earth dist. direct evening set conjunction minimum elong max. Earth dist. morning rise retrograde opposition min. Earth dist. direct	-8046 Mar 22 j 02:50 -8046 Mar 22 j 07:50 -8046 Apr 03 j 20:23 -8046 Jun 01 j 19:31 -8046 Aug 07 j 13:23 -8046 Oct 05 j 16:11 -8046 Oct 05 j 07:51 -8046 Oct 16 j 15:24 -8046 Dec 04 j 13:59 -8045 Apr 22 j 18:29 -8045 Apr 11 j 20:31 -8045 Apr 25 j 11:55 -8045 Apr 25 j 13:12 -8045 May 09 j 01:15 -8045 Nov 06 j 23:48 -8045 Nov 07 j 05:17 -8044 Jan 07 j 04:02 -8044 Apr 02 j 09:17	29°♂57'09 0°≈ 2°≈50'40 15°≈ 21°≈28'50 16°≈27'50 16°≈30'39 15°R≈ 11°≈24'29 15°≈ 0°₩06'04 0°₩ 3°₩08'57 3°₩09'00 3°₩09'40 6°₩10'36 24°₩00'26 19°₩03'15 19°₩01'26 13°₩59'02 23°₩32'14	1°22'25 6.16409 AU -1°36'57 4.20876 AU -0°43'43 0°44'01 6.25187 AU

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 32 Attention, astronomical year style is used: The year -8044 in astronomical counting style is the year 8045 BCE in historical counting style.

Attention, astronomi	cal year style is used: Th			inting style is the year	8045 BCE in historical co	ounting style.	_
max. Earth dist.	-8044 May 27 j 08:46	5° Y 08'52	6.32205 AU	retrograde	-8038 Mar 25 j 12:13	7° ≏ 19'13	
				desc. node	-8038 May 10 j 09:29	4° £ 14'06	
conjunction	-8044 May 28 j 02:01	5° Ƴ 18′26	0°07'17	opposition	-8038 May 25 j 10:58	2° ≏ 18'30	-0°03'13
minimum elong	-8044 May 28 j 02:00	5° Ƴ 18′25	0°07'16	min. Earth dist.	-8038 May 24 j 23:37	2° ≏ 22'14	4.08207 AU
behind sun begin	-8044 May 27 j 18:31	5° Ƴ 14'17			-8038 Jun 12 j 18:25	30°R, Mp	
behind sun end	-8044 May 28 j 09:28	5° Y 22'32		direct	-8038 Jul 23 j 11:15	27° m 25'28	
morning rise	-8044 Jun 10 j 07:06	8° Ƴ 13'54			-8038 Sep 01 j 11:01	0∘ ত	
retrograde	-8044 Oct 09 j 01:06	25° Ƴ 32'51		evening set	-8038 Nov 23 j 20:24	16° ≙ 15'51	
opposition	-8044 Dec 07 j 20:39	20° Ƴ 39'03	0°46'35				
min. Earth dist.	-8044 Dec 08 j 13:29	20° Ƴ 33'34	4.34397 AU	conjunction	-8038 Dec 07 j 00:37	19° ≏ 22'13	-0°29'33
direct	-8043 Feb 07 j 23:20	15° Ƴ 35'46		minimum elong	-8038 Dec 07 j 00:34	19° ≏ 22'12	0°29'40
	-8043 May 29 j 21:46	9° 8		max. Earth dist.	-8038 Dec 08 j 02:42	19° ≏ 37'37	6.05949 AU
evening set	-8043 Jun 16 j 04:17	3° 8 44'07		morning rise	-8038 Dec 20 j 08:19	22° ჲ 30'30	
max. Earth dist.	-8043 Jun 27 j 18:56	6° 8 18'08	6.35401 AU		-8037 Jan 22 j 12:26	0° M ₊	
				retrograde	-8037 May 01 j 03:02	12°M32'31	
conjunction	-8043 Jun 29 j 03:03	6° 8 35'57	0°55'08	opposition	-8037 Jun 30 j 11:16	7°M28'33	-1°23'08
minimum elong	-8043 Jun 29 j 02:59	6° 8 35'54	0°55'24	min. Earth dist.	-8037 Jun 29 j 12:52	7°M36'05	4.05022 AU
morning rise	-8043 Jul 11 j 22:37	9° 8 26'09		direct	-8037 Aug 27 j 15:43	2°M33'49	
	-8043 Aug 06 j 21:16	15° 8			-8037 Nov 30 j 18:31	15°ML	
retrograde	-8043 Nov 09 j 12:47	26° 8 38'10		evening set	-8037 Dec 30 j 00:37	21°MJ38'18	
opposition	-8042 Jan 08 j 21:53	21° 8 46'20	1°47'11				
min. Earth dist.	-8042 Jan 09 j 22:39	21° 8 38'24	4.35353 AU	conjunction	-8036 Jan 12 j 11:58	24°M47'56	-1°15'21
direct	-8042 Mar 12 j 11:25	16° 8 45'14		minimum elong	-8036 Jan 12 j 11:53	24°M47'53	1°15'45
	-8042 Jun 25 j 12:14	$\Pi^{\circ}0$		max. Earth dist.	-8036 Jan 14 j 00:55	25°M09'38	6.05305 AU
evening set	-8042 Jul 17 j 16:16	4° Ⅱ 48'22		morning rise	-8036 Jan 26 j 02:28	27°M59'06	
max. Earth dist.	-8042 Jul 28 j 19:30	7° Ⅱ 17'24	6.33920 AU	Č	-8036 Feb 03 j 19:24	0° ∡ ¹	
				retrograde	-8036 Jun 05 j 04:15	17° ∡ 756'06	
conjunction	-8042 Jul 30 j 06:26	7° Ⅱ 36'57	1°26'54	opposition	-8036 Aug 03 j 21:25	12° ∡ 750'54	-2°12'27
minimum elong	-8042 Jul 30 j 06:23	7° Ⅱ 36'56		min. Earth dist.	-8036 Aug 02 j 20:52		4.07127 AU
morning rise	-8042 Aug 11 j 18:04	10° Ⅱ 24'26		direct	-8036 Oct 01 j 02:12	7° ∡ 752'57	
retrograde	-8042 Dec 11 j 17:03	27° Ⅲ 53'14		evening set	-8035 Feb 03 j 23:16	27° ₹ 100'21	
opposition	-8041 Feb 10 j 16:36	23° I I01'32	2°17'21	evening see	-8035 Feb 16 j 22:24	0°ਰ	
min. Earth dist.	-8041 Feb 11 j 16:33		4.31653 AU			• •	
direct	-8041 Apr 13 j 23:16	18° Ⅱ 03'25	51005110	conjunction	-8035 Feb 17 j 15:25	0° ට 09'51	-1°33'20
ancer	-8041 Jul 20 j 15:05	0°ම		minimum elong	-8035 Feb 17 j 15:25	0° ろ 09'51	
evening set	-8041 Aug 17 j 21:01	6°909'46		max. Earth dist.	-8035 Feb 19 j 03:49	0° る 30'54	6.09856 AU
max. Earth dist.	-8041 Aug 29 j 01:23		6.28214 AU	morning rise	-8035 Mar 03 j 08:52	3° る 19'55	0.07020710
man. Bartin diot.	001111111111111111111111111111111111111	0 0	0.2021.110	retrograde	-8035 Jul 09 j 23:17	22° ප් 41'06	
conjunction	-8041 Aug 30 j 06:57	8°958'44	1°33'37	min. Earth dist.	-8035 Sep 06 j 10:42		4 13698 AU
minimum elong	-8041 Aug 30 j 06:57	8°958'44		opposition	-8035 Sep 07 j 04:47	17° る 37'19	
morning rise	-8041 Sep 11 j 16:14	11° 5 47'28	1 3 1 10	direct	-8035 Nov 05 j 02:52	12°る36'01	2 13 02
retrograde	-8040 Jan 14 j 06:44	29°952'11		ancer	-8034 Mar 05 j 14:45	0°≈	
opposition	-8040 Mar 15 j 13:41	24°958'45	2°07'10	evening set	-8034 Mar 12 j 12:03	1°≈32'47	
min. Earth dist.	-8040 Mar 16 j 07:04	24°953'13	4.24310 AU	evening set	0054 With 12 J 12.05	1 70/32 47	
direct	-8040 May 16 j 01:05	20°503'29	1.2 13 10 110	conjunction	-8034 Mar 26 j 05:36	4° ≈ 39'29	-1°17'53
ancer	-8040 Aug 10 j 07:01	0° U		minimum elong	-8034 Mar 26 j 05:41	4°≈39'32	1°18'20
evening set	-8040 Sep 17 j 12:02	8° Ω 20'15		max. Earth dist.	-8034 Mar 27 j 01:14	4°≈50'38	6.17875 AU
max. Earth dist.	-8040 Sep 29 j 09:26	11° Ω 04'59	6.19885 AU	morning rise	-8034 Apr 08 j 22:42	7°≈45'45	0.17075710
man. Bartir diot.	00.0 Sep 25 j 05.20	11 000.00	0.17000 110	morning 113¢	-8034 May 12 j 06:51	15° ≈	
conjunction	-8040 Sep 30 j 00:17	11° Ω 13'34	1°11'58	retrograde	-8034 Aug 12 j 02:52	26°≈15'42	
minimum elong	-8040 Sep 30 j 00:22	11° Ω 13'37	1°12'25	opposition	-8034 Oct 10 j 06:53	21°≈15'10	-1°28'31
morning rise	-8040 Oct 12 j 13:41	14° Ω 07'39	1 12 23	min. Earth dist.	-8034 Oct 10 j 00:32		4.22309 AU
morning rise	-8040 Oct 16 j 08:57	15° Ω		direct	-8034 Dec 09 j 09:22	16°≈11'32	1.22307 110
	-8039 Jan 03 j 06:15	0° m)		ancer	-8033 Mar 25 j 12:11	0° \	
retrograde	-8039 Feb 17 j 05:45	2° m/59'01		evening set	-8033 Apr 16 j 17:15	4°) 49'34	
retrograde	-8039 Apr 03 j 21:54	30°RΩ		evening set	0033 Apr 10 j 17.13	7 /(1/37	
opposition	-8039 Apr 19 j 14:19	28° Ω 02'17	1°15'59	conjunction	-8033 Apr 30 j 08:05	7° ∺ 51'38	-0°36'56
min. Earth dist.	-8039 Apr 19 j 17:14	28° Ω 01'21	4.15524 AU	minimum elong	-8033 Apr 30 j 08:08	7° ∺ 51'40	
direct	-8039 Jun 18 j 19:05	23° Ω 09'02	4.13324710	max. Earth dist.	-8033 Apr 30 j 07:16	7° ∺ 51'11	6.26503 AU
211001	-8039 Aug 26 j 11:33	0° m		morning rise	-8033 May 13 j 20:19	10° ¥ 52′20	5.20505 AU
evening set	-8039 Oct 20 j 07:38	11° m y41'31		retrograde	-8033 Sep 13 j 02:27	28°\(\frac{1}{3}220	
o ronning set	5057 OCC 20 J 07.50	וכודיעיייי		opposition	-8033 Nov 11 j 11:41	28 X 30 02 23° X 39'24	-0°17'44
conjunction	-8039 Nov 02 j 03:01	14° m) 41'35	0°26'21	min. Earth dist.	-8033 Nov 11 j 11:41		4.30136 AU
minimum elong	-8039 Nov 02 j 03:01	14 m/41 33 14° m/41'37	0°26'33	direct	-8032 Jan 11 j 19:23	18° H 35'15	1.50150 AU
max. Earth dist.	-8039 Nov 02 j 03:04	14° Mp 44'55	6.11514 AU	asc. node	-8032 Feb 10 j 22:51	19° X 56'55	
morning rise	-8039 Nov 15 j 01:09	17° m) 43'15	J.11217 AU	450. HOUC	-8032 Peb 10 j 22.31 -8032 Apr 16 j 17:09	19 γ (3033	
morning 1150	-8039 Nov 13 J 01:09	0° ⊽		evening set	-8032 Apr 10 j 17.09	6° Y 54'36	
	5050 Jan 11 J 17.25	· –		evening set	0032 way 17 J 00.31	0 1 24 20	

•			•	/ /	8033 BCE in historical co	, 1	.5 c 33
conjunction	-8032 Jun 01 j 15:48	9° Ƴ 51'01		evening set	-8027 Oct 25 j 02:32		
minimum elong	-8032 Jun 01 j 15:46	9° Y 51'00	0°14'32	C	,	•	
behind sun begin	-8032 Jun 01 j 12:19	9° Ƴ 49'05		conjunction	-8027 Nov 06 j 23:10	19° m 38'50	0°18'39
behind sun end	-8032 Jun 01 j 19:14	9° Ƴ 52'54		minimum elong	-8027 Nov 06 j 23:12	19° m)38'51	0°18'48
max. Earth dist.	-8032 May 31 j 18:31	9° Ƴ 39'14	6.32966 AU	max. Earth dist.	-8027 Nov 07 j 08:40	19° m) 44'24	6.10669 AU
morning rise	-8032 Jun 14 j 19:44	12° Y 45'40		morning rise	-8027 Nov 19 j 22:39	22° m/41'28	
	-8032 Oct 08 j 19:05	0°8		•	-8027 Dec 22 j 10:31	0∘ ⊽	
retrograde	-8032 Oct 13 j 11:04	0° 8 02'08		desc. node	-8026 Mar 20 j 08:04	12° ≏ 11'39	
_	-8032 Oct 18 j 02:45	30° ₹ Υ		retrograde	-8026 Mar 30 j 15:36	12° ≏ 21'41	
opposition	-8032 Dec 12 j 08:13	25° Y ′08'40	0°56'23	opposition	-8026 May 30 j 13:08	7° ≏ 20'27	-0°15'11
min. Earth dist.	-8032 Dec 13 j 03:01	25° Y ′02'33	4.34805 AU	min. Earth dist.	-8026 May 29 j 23:18	7° £ 25'01	4.07721 AU
direct	-8031 Feb 12 j 13:38	20° Y 05'34		direct	-8026 Jul 28 j 09:08	2° ≏ 27'22	
	-8031 May 12 j 08:07	0°8		evening set	-8026 Nov 28 j 20:32	21° ≏ 19'04	
evening set	-8031 Jun 20 j 15:28	8° 8 12'46			v		
max. Earth dist.	-8031 Jul 02 j 04:52	10° 8 46'10	6.35420 AU	conjunction	-8026 Dec 12 j 01:43	24° £ 25'56	-0°37'04
	J			minimum elong	-8026 Dec 12 j 01:39	24° £ 25'53	0°37'13
conjunction	-8031 Jul 03 j 13:03	11° 8 04'02	1°00'49	max. Earth dist.	-8026 Dec 13 j 05:22	24° ≏ 42'15	6.05835 AU
minimum elong	-8031 Jul 03 j 12:59	11° 8 04'00	1°01'07	morning rise	-8026 Dec 25 j 10:32	27° £ 34'42	
morning rise	-8031 Jul 16 j 07:10	13° 8 53'40			-8025 Jan 04 j 20:48	0° M	
	-8031 Jul 21 j 07:53	15° 8			-8025 Mar 25 j 19:57	15° M ₊	
	-8031 Oct 18 j 05:25	0°II		retrograde	-8025 May 06 j 04:21	17°ML36'51	
retrograde	-8031 Nov 13 j 23:16	1° Ⅱ 06'56		renograde	-8025 Jun 16 j 09:44	15°RM	
retrograde	-8031 Dec 10 j 20:03	30°R₩		opposition	-8025 Jul 05 j 11:29	12°M32'32	-1°32'26
opposition	-8030 Jan 13 j 11:08	26° 8 15'15	1°53'34	min. Earth dist.	-8025 Jul 04 j 12:13	12°M40'23	4.05298 AU
min. Earth dist.	-8030 Jan 14 j 11:51	26° 8 07'21	4.35008 AU	direct	-8025 Sep 01 j 15:46	7°M37'24	4.03270710
direct	-8030 Mar 16 j 23:58	21° 8 14'35	4.55000 AC	direct	-8025 Nov 10 j 21:20	15°M	
direct	-8030 Jun 07 j 10:32	0°II		evening set	-8024 Jan 04 j 03:34	26°M41'55	
evening set	-8030 Jul 22 j 02:02	9° Ⅱ 18'08		evening set	-8024 Jan 04 J 03.34	20 11641 33	
max. Earth dist.	-8030 Aug 02 j 03:10		6.33223 AU	conjunction	-8024 Jan 17 j 15:48	29°M51'35	1010147
max. Earth dist.	-8030 Aug 02 J 03.10	11 д4023	0.33223 AU	2	-		
	9020 4 02:15:00	120ποσι25	1920/20	minimum elong	-8024 Jan 17 j 15:44	29° I L51'32 0° ∡ 7	1-20-13
conjunction	-8030 Aug 03 j 15:09	12° Ⅱ 06'35	1°29'29	Fauth diet	-8024 Jan 18 j 06:10		C 05027 ATT
minimum elong	-8030 Aug 03 j 15:06	12° Ⅱ 06'33	1°29'58	max. Earth dist.	-8024 Jan 19 j 06:37	0° ★ 14'20	6.05927 AU
morning rise	-8030 Aug 16 j 02:16	14° ∏ 54'03		morning rise	-8024 Jan 31 j 06:42	3° ∡ 702'38	
. 1	-8030 Nov 05 j 21:33	0°©		retrograde	-8024 Jun 10 j 02:55	22° 🖈 55'15	201.512.1
retrograde	-8030 Dec 16 j 09:55	2° © 27'23		opposition	-8024 Aug 08 j 17:27	17° 🗷 50'10	
***	-8029 Jan 26 j 12:11	30°RⅡ 270Ⅲ25125	2010/20	min. Earth dist.	-8024 Aug 07 j 17:52	17° 🖈 58'13	4.08041 AU
opposition	-8029 Feb 15 j 09:47	27° II 35'35		direct	-8024 Oct 06 j 00:03	12° ∡ 751'46	
min. Earth dist.	-8029 Feb 16 j 09:57		4.30663 AU		-8023 Jan 31 j 11:23	0°る	
direct	-8029 Apr 18 j 15:15	22° I 37'53		evening set	-8023 Feb 09 j 01:52	1° る 57'43	
	-8029 Jul 01 j 13:01	0.20 0.20			0000 F. J. 00 : 10 10	50 -7 0 (151	1022106
evening set	-8029 Aug 22 j 07:22	10° © 45'52		conjunction	-8023 Feb 22 j 18:13	5°る06'51	
				minimum elong	-8023 Feb 22 j 18:14	5° る 06'52	
conjunction	-8029 Sep 03 j 17:25	13° © 35'18	1°32'15	max. Earth dist.	-8023 Feb 24 j 03:15	5° る 25'55	6.10952 AU
minimum elong	-8029 Sep 03 j 17:27	13°935'19	1°32'48	morning rise	-8023 Mar 08 j 11:57	8°る16'30	
max. Earth dist.	-8029 Sep 02 j 14:11	13° © 19'47	6.27026 AU	retrograde	-8023 Jul 14 j 14:19	27° ප 30'45	
morning rise	-8029 Sep 16 j 02:52	16°9524'38		opposition	-8023 Sep 11 j 20:02	22° පි 27'21	
	-8029 Nov 23 j 12:06	$0 {\circ} \Omega$		min. Earth dist.	-8023 Sep 11 j 03:14		4.14865 AU
retrograde	-8028 Jan 19 j 02:44	4° Ω 35'56		direct	-8023 Nov 09 j 21:14	17° る 25'37	
	-8028 Mar 18 j 03:11	30°Rூ		_	-8022 Feb 16 j 11:32	0° ≈	
opposition	-8028 Mar 20 j 11:18	29°5542'10	2°02'16	evening set	-8022 Mar 17 j 10:52	6° ≈ 20'14	
min. Earth dist.	-8028 Mar 21 j 02:02	29°537'29	4.23027 AU		0000		444
direct	-8028 May 20 j 17:50	24°9547'21		conjunction	-8022 Mar 31 j 04:26	9° ≈ 26′27	
	-8028 Jul 19 j 20:35	0 \circ Ω		minimum elong	-8022 Mar 31 j 04:31	9° ≈ 26'30	1°13'53
evening set	-8028 Sep 22 j 01:55	13° Ω 06′18		max. Earth dist.	-8022 Mar 31 j 21:23	9° ≈ 36′03	6.19037 AU
	-8028 Sep 30 j 06:37	15° Ω		morning rise	-8022 Apr 13 j 21:03	12° ≈ 32'03	
					-8022 Apr 24 j 22:43	15° ≈	
conjunction	-8028 Oct 04 j 14:50	16° Ω 00′29	1°06'44		-8022 Jul 23 j 20:11	0° ∀	
minimum elong	-8028 Oct 04 j 14:55	16° Ω 00'31	1°07'08	retrograde	-8022 Aug 16 j 15:39	0° ¥ 55'25	
max. Earth dist.	-8028 Oct 04 j 02:51	15° Ω 53'32	6.18645 AU		-8022 Sep 09 j 05:33	30° R ≈	
morning rise	-8028 Oct 17 j 05:15	18° Ω 55'33		opposition	-8022 Oct 14 j 18:58	25° ≈ 55'29	
	-8028 Dec 08 j 05:02	0° m/		min. Earth dist.	-8022 Oct 14 j 15:13	25° ≈ 56'45	4.23343 AU
retrograde	-8027 Feb 22 j 08:39	7° ™ 53'36		direct	-8022 Dec 14 j 01:26	20° ≈ 51'43	
opposition	-8027 Apr 24 j 15:32	2° Mp 56'21	1°05'57		-8021 Mar 07 j 04:08	0°) €	
min. Earth dist.	-8027 Apr 24 j 16:38	2° Mp 56'00	4.14419 AU	evening set	-8021 Apr 21 j 11:27	9°) 27'43	
	-8027 May 19 j 03:07	30° R Ω					
direct	-8027 Jun 23 j 16:54	28° Ω 03′15		conjunction	-8021 May 05 j 01:30	12° ¥ 29′11	-0°30'04
	-8027 Jul 28 j 18:32	0° m		minimum elong	-8021 May 05 j 01:33	12° ¥ 29′12	0°30'17

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34

Attention, astronomical year style is used: The year -8021 in astronomical counting style is the year 8022 BCE in historical counting style.

max. Earth dist. -8021 May 04 j 20:44 12° \(\frac{1}{2}\)62'31 6.27334 AU minimum elong -8016 Oct 09 j 05:33 20° \(\Omega 47'28\) 1°01'27

morning rise -8021 May 18 j 12:55 15° \(\frac{1}{2}\)29'11 max. Earth dist. -8016 Oct 08 j 21:16 20° \(\Omega 42'39\) 6.17676

Attention, astronom	nical year style is used: Th	ie year -8021 i	n astronomical co	unting style is the year	8022 BCE in historical c	ounting style.	<i>8</i>
max. Earth dist.	-8021 May 04 j 20:44	12° ¥ 26'31	6.27334 AU	minimum elong	-8016 Oct 09 j 05:33	20° Ω 47'28	1°01'27
morning rise	-8021 May 18 j 12:55	15° ¥ 29'11		max. Earth dist.	-8016 Oct 08 j 21:16	20° Ω 42'39	6.17676 AU
	-8021 Aug 03 j 07:17	0° Y		morning rise	-8016 Oct 21 j 20:53	23° Ω 43'23	
retrograde	-8021 Sep 17 j 11:24	3° Y 08'49			-8016 Nov 18 j 21:32	0° m	
	-8021 Nov 02 j 02:12	30° ₹		retrograde	-8015 Feb 27 j 09:17	12° Mp 46'50	
opposition	-8021 Nov 15 j 22:26	28° ∺ 12'41		opposition	-8015 Apr 29 j 15:43	7° m)49'01	
min. Earth dist.	-8021 Nov 16 j 07:22		4.30718 AU	min. Earth dist.	-8015 Apr 29 j 14:35	7° m 49'23	4.13561 AU
asc. node	-8021 Dec 22 j 13:38	24°) €05'42		direct	-8015 Jun 28 j 12:33	2° Mp 56'02	
direct	-8020 Jan 16 j 09:11	23°) €08'34 0° °		evening set	-8015 Oct 29 j 20:45	21° Mg 32'01	
evening set	-8020 Mar 27 j 23:20	11° Υ 26'58		agniumation	9015 Nov. 11 : 19:25	24° mp 33'47	0010152
max. Earth dist.	-8020 May 23 j 22:50 -8020 Jun 05 j 06:18		6.33271 AU	conjunction minimum elong	-8015 Nov 11 j 18:25 -8015 Nov 11 j 18:27	24 m/3347 24°m/33'48	0°10'59
max. Earth dist.	-8020 Juli 05 j 00.18	14 1015	0.332/1 AO	behind sun begin	-8015 Nov 11 j 12:18	24° My 30'12	0 1039
conjunction	-8020 Jun 06 j 04:55	14° Y ′22'45	0°21'35	behind sun end	-8015 Nov 12 j 00:35	24° Mp 37'24	
minimum elong	-8020 Jun 06 j 04:53	14° Y °22'44		max. Earth dist.	-8015 Nov 12 j 05:41	24° Mp 40'24	6.09990 AU
morning rise	-8020 Jun 19 j 07:28	17° Y 16'44		morning rise	-8015 Nov 24 j 19:19	27° m/37'19	
C	-8020 Aug 23 j 12:43	$0^{\circ}B$		Č	-8015 Dec 05 j 01:45	0∘ <u>⊽</u>	
retrograde	-8020 Oct 17 j 21:06	4° 8 32'18		desc. node	-8014 Jan 28 j 07:28	11° ≏ 07'53	
-	-8020 Dec 14 j 03:44	30° ŖƳ		retrograde	-8014 Apr 04 j 17:08	17° ≏ 21'15	
opposition	-8020 Dec 16 j 19:54	29° Y 39'13	1°05'49	opposition	-8014 Jun 04 j 13:42	12° ≙ 19'27	-0°26'56
min. Earth dist.	-8020 Dec 17 j 15:53	29° Y 32'45	4.34831 AU	min. Earth dist.	-8014 Jun 03 j 22:09	12° ≏ 24'36	4.07274 AU
direct	-8019 Feb 17 j 03:10	24° Y 36'28		direct	-8014 Aug 02 j 07:04	7° ≏ 26'08	
	-8019 Apr 21 j 04:39	0°B		evening set	-8014 Dec 03 j 19:46	26° ≙ 19'23	
evening set	-8019 Jun 25 j 03:07	12° 8 43'36					
	-8019 Jul 05 j 09:23	15° 8		conjunction	-8014 Dec 17 j 02:10	29° ≙ 26'47	
		1		minimum elong	-8014 Dec 17 j 02:06	29° Ω 26'44	
conjunction	-8019 Jul 07 j 23:18	15° 8 34'25		max. Earth dist.	-8014 Dec 18 j 09:00	29° £ 44'57	6.05667 AU
minimum elong	-8019 Jul 07 j 23:14	15° 8 34'22			-8014 Dec 19 j 10:30	0°M	
max. Earth dist.	-8019 Jul 06 j 13:09	15° 8 15'26	6.35147 AU	morning rise	-8014 Dec 30 j 11:53 -8013 Feb 26 j 07:20	2°M36'00	
morning rise	-8019 Jul 20 j 16:24 -8019 Sep 16 j 17:42	18° 8 23'41 0° Ⅱ		retrograde	-8013 Feb 26 J 07:20	15°M 22°M38'19	
retrograde	-8019 Sep 10 j 17:42 -8019 Nov 18 j 12:27	5° Ц 39'08		min. Earth dist.	-8013 Jul 09 j 11:10		4.05448 AU
opposition	-8018 Jan 18 j 01:48	0° Ц 47'31	1°59'17	opposition	-8013 Jul 10 j 10:16	17°ML33'47	
min. Earth dist.	-8018 Jan 19 j 02:47	0° П 39'32	4.34488 AU	оррозион	-8013 Jul 30 j 10:17	15°RM	1 1101
min. Bartii digt.	-8018 Jan 24 j 07:10	30°R 8		direct	-8013 Sep 06 j 14:06	12°MJ38'14	
direct	-8018 Mar 21 j 14:46	25° 8 47'13			-8013 Oct 14 j 13:09	15° M ₊	
	-8018 May 15 j 15:35	Π°			-8012 Jan 01 j 19:29	0° ∡ 7	
evening set	-8018 Jul 26 j 12:22	13° Ⅱ 51'23		evening set	-8012 Jan 09 j 06:24	1° х¹ 43'32	
max. Earth dist.	-8018 Aug 06 j 15:18	16° Ⅲ 20′55	6.32494 AU				
				conjunction	-8012 Jan 22 j 19:12	4° ∡ ¹53'17	-1°23'37
conjunction	-8018 Aug 08 j 00:50	16° Ⅱ 39'47	1°31'33	minimum elong	-8012 Jan 22 j 19:08	4° ₹ 753'14	1°24'03
minimum elong	-8018 Aug 08 j 00:48	16° Ⅱ 39'45	1°32'03	max. Earth dist.	-8012 Jan 24 j 08:31	5° ∡ 15'06	6.06352 AU
morning rise	-8018 Aug 20 j 11:11	19° Ⅱ 27'16		morning rise	-8012 Feb 05 j 10:51	8° ∡ ¹04'22	
	-8018 Oct 10 j 14:07	0.20 0.20		retrograde	-8012 Jun 14 j 23:12	27° х 53′15	2015120
retrograde	-8018 Dec 21 j 01:41	7°505'01	2010142	opposition	-8012 Aug 13 j 12:51	22° 🗷 48'14	
opposition	-8017 Feb 20 j 04:06	2°513'02	2°18'43	min. Earth dist.	-8012 Aug 12 j 13:22	22° х 56′16 17° х 49′18	4.08710 AU
min. Earth dist.	-8017 Feb 21 j 02:44 -8017 Mar 10 j 07:16	2° © 05'51 30°Ŗ ∏	4.29782 AU	direct	-8012 Oct 10 j 20:26 -8011 Jan 14 j 00:52	0°る	
direct	-8017 Mar 10 j 07.16 -8017 Apr 23 j 07:00	30 KII 27°II15'48		evening set	-8011 Jan 14 j 00.32 -8011 Feb 14 j 04:26	0 0 6° る 54'45	
311001	-8017 Jun 05 j 15:03	0°95		croming set	0011100 14J 04.20	0 05775	
evening set	-8017 Aug 26 j 18:37	15° 5 24'37		conjunction	-8011 Feb 27 j 21:18	10°る03'42	-1°32'13
max. Earth dist.	-8017 Sep 07 j 02:29	17° © 59'33	6.26056 AU	minimum elong	-8011 Feb 27 j 21:19	10°る03'43	
	1 3			max. Earth dist.	-8011 Mar 01 j 04:52	10° ට 21'54	6.11813 AU
conjunction	-8017 Sep 08 j 04:31	18° © 14'26	1°30'18	morning rise	-8011 Mar 13 j 15:01	13° る 12'58	
minimum elong	-8017 Sep 08 j 04:34	18° © 14'27	1°30'49		-8011 Jun 10 j 17:33	0° ≈	
morning rise	-8017 Sep 20 j 14:24	21° 5 04'18		retrograde	-8011 Jul 19 j 08:11	2° ≈ 21'10	
	-8017 Nov 01 j 04:15	$0^{\circ}\Omega$			-8011 Aug 26 j 14:34	30°Ŗる	
retrograde	-8016 Jan 24 j 00:31	9° Ω 21'12		opposition	-8011 Sep 16 j 12:06	27° ප 18'10	
opposition	-8016 Mar 25 j 09:06	4° Ω 26'56	1°56'30	min. Earth dist.	-8011 Sep 15 j 21:46	27° る 23'03	4.15807 AU
min. Earth dist.	-8016 Mar 25 j 22:17	4° Ω 22'44	4.22009 AU	direct	-8011 Nov 14 j 17:15	22°る16'04	
T	-8016 May 08 j 08:21	30°Rூ			-8010 Jan 27 j 22:56	0° ≈	
direct	-8016 May 25 j 12:37	29° © 32'21		evening set	-8010 Mar 22 j 10:31	11° ≈ 09'05	
	-8016 Jun 11 j 15:28 -8016 Sep 14 j 01:19	0° Ω 15° Ω		conjunction	-8010 Apr 05 j 03:57	14°≈14'53	1008127
	-0010 ACU 14 LUL 19	1006		COHIUHCHOH	-0010 ADI 03 [03.3/	1+ ~1433	-1 00 4 /
evening set				-		14°2211'56	1°08'52
evening set	-8016 Sep 26 j 15:35	17° Ω 52′27		minimum elong	-8010 Apr 05 j 04:02		1°08'52 6.19992 AU
conjunction			1°01'03	-		14°≈14'56 14°≈22'45 15°≈	1°08'52 6.19992 AU

•	nical year style is used: Th		-				ige 33
morning rise	-8010 Apr 18 j 20:12	17°≈19'55	n astronomicai co	min. Earth dist.	-8004 Mar 30 j 17:27	9° Ω 05'06	4.21235 AU
morning rise	-8010 Apr 18 j 20:12	0° ∺		direct		4° Ω 14'34	4.21233 AU
rotro aro do	-8010 Juli 20 j 11.32 -8010 Aug 21 j 03:32	5° 升 37'22		direct	-8004 May 30 j 05:45 -8004 Aug 27 j 21:10	4 δ C14 34 15° Ω	
retrograde		0° ∺ 37'57	1010126	evening set	-8004 Aug 27 j 21:10	22° Ω 35'09	
opposition	-8010 Oct 19 j 08:13		4.24221 AU	evening set	-8004 Oct 01 j 04.00	22 8 (33 09	
min. Earth dist.	-8010 Oct 19 j 05:35		4.24221 AU	:	0004 0-4 12:10-22	250 020147	0955102
T' 4	-8010 Oct 24 j 01:16	30°R≈		conjunction	-8004 Oct 13 j 18:33	25° Ω 30'47	
direct	-8010 Dec 18 j 17:48	25°≈34'02 0°) €		minimum elong	-8004 Oct 13 j 18:37	25° Ω 30′50	0°55'24
	-8009 Feb 12 j 07:13			max. Earth dist.	-8004 Oct 13 j 11:24	25° Ω 26'38	6.16888 AU
evening set	-8009 Apr 26 j 06:59	14°) €08'25		morning rise	-8004 Oct 26 j 11:09	28° Ω 27'36	
	000034 00:20 10	170 100115	002215.4	. 1	-8004 Nov 02 j 03:51	0° m)	
conjunction	-8009 May 09 j 20:10	17° ¥ 09'15		retrograde	-8003 Mar 04 j 07:24	17° Mp 36'04	0044147
minimum elong	-8009 May 09 j 20:13	17°) €09'16	0°23'05	opposition	-8003 May 04 j 13:51	12° Mp 37'40	0°44'47
max. Earth dist.	-8009 May 09 j 12:29	17°) €04'57	6.28092 AU	min. Earth dist.	-8003 May 04 j 10:37	12° m 38'43	4.12800 AU
morning rise	-8009 May 23 j 06:36	20°) €08'33		direct	-8003 Jul 03 j 06:40	7° m/44'43	
	-8009 Jul 09 j 22:06	0°Υ 5° 20 4 422		evening set	-8003 Nov 03 j 13:27	26° Mp 22'14	
retrograde	-8009 Sep 21 j 23:44	7° Υ 44'23			000000	2007 2440	0002110
asc. node	-8009 Nov 01 j 10:23	5°Υ12'45		conjunction	-8003 Nov 16 j 12:27	29° m 24'49	0°03'10
opposition	-8009 Nov 20 j 11:03	2° Υ 48'47	0°03'42	minimum elong	-8003 Nov 16 j 12:27	29° Tp 24'49	0°03'14
min. Earth dist.	-8009 Nov 20 j 22:11	2° Y 45'07	4.31295 AU	behind sun begin	-8003 Nov 16 j 04:22	29° m/20'05	
	-8009 Dec 13 j 03:13	30° ₹		behind sun end	-8003 Nov 16 j 20:32	29° m 29'33	
direct	-8008 Jan 21 j 01:47	27°) 44'51		max. Earth dist.	-8003 Nov 17 j 03:11	29° m 33'28	6.09339 AU
	-8008 Feb 29 j 08:18	0° Υ			-8003 Nov 19 j 00:14	0∘ ত	
evening set	-8008 May 28 j 14:08	16° Ƴ 01'59		morning rise	-8003 Nov 29 j 14:27	2° ≙ 29'10	
		••		desc. node	-8003 Dec 08 j 17:07	4° Ω 35'56	
conjunction	-8008 Jun 10 j 18:57	18° Ƴ 57'05	0°28'39	retrograde	-8002 Apr 09 j 18:18	22° ≏ 16'40	
minimum elong	-8008 Jun 10 j 18:54	18° Y ′57'04	0°28'46	opposition	-8002 Jun 09 j 12:05	17° ≏ 14'29	
max. Earth dist.	-8008 Jun 09 j 18:29	18° Ƴ 43'32	6.33625 AU	min. Earth dist.	-8002 Jun 08 j 20:13	17° ≏ 19'45	4.06800 AU
morning rise	-8008 Jun 23 j 20:12	21° Y ′50′24		direct	-8002 Aug 07 j 03:27	12° ≏ 20'58	
	-8008 Aug 01 j 19:03	0°8			-8002 Dec 03 j 07:10	0°M₊	
retrograde	-8008 Oct 22 j 08:05	9° 8 05'04		evening set	-8002 Dec 08 j 17:52	1°M16'19	
opposition	-8008 Dec 21 j 09:27	4° 8 12'17	1°15'00				
min. Earth dist.	-8008 Dec 22 j 05:37	4° 8 05'45	4.34979 AU	conjunction	-8002 Dec 22 j 01:08	4°M24'14	
	-8007 Jan 29 j 04:05	30° ŖƳ		minimum elong	-8002 Dec 22 j 01:03	4°M24'11	
direct	-8007 Feb 21 j 17:47	29° Y ′09′52		max. Earth dist.	-8002 Dec 23 j 07:40	4°M42'14	6.05388 AU
	-8007 Mar 17 j 12:05	0°8		morning rise	-8001 Jan 04 j 12:01	7° M 34'01	
	-8007 Jun 19 j 06:06	15° 8			-8001 Feb 06 j 10:45	15° M	
evening set	-8007 Jun 29 j 15:22	17° 8 16'16		retrograde	-8001 May 16 j 05:04	27°M37'01	
max. Earth dist.	-8007 Jul 11 j 01:07	19° 8 48'04	6.35086 AU	min. Earth dist.	-8001 Jul 14 j 07:17		4.05422 AU
				opposition	-8001 Jul 15 j 07:18	22°M32'17	-1°48'44
conjunction	-8007 Jul 12 j 10:15	20° 8 06'31	1°11'07	direct	-8001 Sep 11 j 09:48	17° M 36'17	
minimum elong	-8007 Jul 12 j 10:11	20° 8 06'29	1°11'29		-8001 Dec 15 j 13:20	0° ∡	
morning rise	-8007 Jul 25 j 02:02	22° 8 55'17		evening set	-8000 Jan 14 j 08:12	6° х 43′20	
	-8007 Aug 27 j 09:19	Π °0					
retrograde	-8007 Nov 23 j 01:49	10° Ⅱ 12'20		conjunction	-8000 Jan 27 j 21:52	9° ∡ ′53'18	
opposition	-8006 Jan 22 j 17:26	5° Ⅱ 20'50	2°04'20	minimum elong	-8000 Jan 27 j 21:48	9° х 53′16	1°27'14
min. Earth dist.	-8006 Jan 23 j 18:21	5° Ⅱ 12'54	4.34239 AU	max. Earth dist.	-8000 Jan 29 j 11:31	10° ∡ 15'18	6.06576 AU
direct	-8006 Mar 26 j 06:35	0° Ⅲ 21'01		morning rise	-8000 Feb 10 j 13:55	13° ∡ °04′26	
evening set	-8006 Jul 30 j 22:49	18° Ⅲ 24'40			-8000 May 08 j 01:48	0°ප	
max. Earth dist.	-8006 Aug 11 j 00:48	20° Ⅱ 53'57	6.32059 AU	retrograde	-8000 Jun 19 j 20:50	2°る50'27	
					-8000 Aug 01 j 08:02	30°₽ ✓	
conjunction	-8006 Aug 12 j 10:25	21° Ⅱ 12'52		min. Earth dist.	-8000 Aug 17 j 09:58	27° ∡ 53′00	4.09171 AU
minimum elong	-8006 Aug 12 j 10:24	21° Ⅱ 12'51	1°33'35	opposition	-8000 Aug 18 j 07:38	27° ∡ ¹45'35	-2°18'46
morning rise	-8006 Aug 24 j 20:23	24° ∏ 00′20		direct	-8000 Oct 15 j 17:36	22° ∡ ¹46'12	
	-8006 Sep 21 j 10:47	0 \circ			-8000 Dec 25 j 00:50	0°ප	
retrograde	-8006 Dec 25 j 18:16	11° © 41'40		evening set	-7999 Feb 19 j 06:58	11° る 51'56	
opposition	-8005 Feb 24 j 22:20	6° 9 549'26	2°18'04				
min. Earth dist.	-8005 Feb 25 j 19:36	6°9542'41	4.29190 AU	conjunction	-7999 Mar 05 j 00:13	15° る 00'47	
direct	-8005 Apr 27 j 22:52	1° © 52'35		minimum elong	-7999 Mar 05 j 00:15	15° る 00'48	
evening set	-8005 Aug 31 j 04:44	20° © 01'19		max. Earth dist.	-7999 Mar 06 j 06:13	15° පි 18'01	6.12478 AU
				morning rise	-7999 Mar 18 j 18:05	18° る 09'47	
conjunction	-8005 Sep 12 j 14:55	22° © 51'28	1°27'46		-7999 May 14 j 04:53	0° ≈	
minimum elong	-8005 Sep 12 j 14:58	22° © 51'30	1°28'17	retrograde	-7999 Jul 23 j 23:58	7° ≈ 12'24	
max. Earth dist.	-8005 Sep 11 j 16:18	22° © 38'31	6.25359 AU	opposition	-7999 Sep 21 j 03:54	2° ≈ 09'49	
morning rise	-8005 Sep 25 j 00:59	25° © 41'47		min. Earth dist.	-7999 Sep 20 j 14:03		4.16622 AU
	-8005 Oct 14 j 07:22	0 \circ Ω			-7999 Oct 07 j 14:34	30°Ŗる	
retrograde	-8004 Jan 28 j 20:41	14° Ω 03′27		direct	-7999 Nov 19 j 11:21	27° る 07'23	
opposition	-8004 Mar 30 j 05:50	9° Ω 08'49	1°49'59		-7998 Jan 01 j 18:43	0° ≈	

•	omena of Jupiter fro		_	` //		, .	ge 36
Attention, astronom	ical year style is used: Th -7998 Mar 23 j 00:27	ie year -/998 i 15°≈	n astronomical co	ounting style is the year	-7993 Dec 13 j 14:52	ounting style. $15^{\circ}\Omega$	
evening set	-7998 Mar 27 j 10:24	15 ≈ 15°≈59'10		retrograde	-7993 Dec 13 j 14.32 -7992 Feb 02 j 17:29	13 δι 18° Ω 47'21	
evening set	-/996 Wai 2/ J 10.24	15 🗢 59 10		renograde	-7992 Net 02 j 17.29 -7992 Mar 26 j 05:04	15°RΩ	
conjunction	-7998 Apr 10 j 03:32	19° ≈ 04'29	-1°02'57	opposition	-7992 Mar 20 j 03:04 -7992 Apr 04 j 03:08	13° Ω 52'12	1°42'47
minimum elong	-7998 Apr 10 j 03:37	19°≈04'32	1°03'21	min. Earth dist.	-7992 Apr 04 j 03:08	13° Ω 49'12	4.19955 AU
max. Earth dist.	-7998 Apr 10 j 14:09	19° ≈ 10'29	6.20914 AU	direct	-7992 Jun 03 j 22:16	8° Ω 58'11	4.17755710
morning rise	-7998 Apr 23 j 19:21	22°≈08'57	0.20711110	uncet	-7992 Aug 07 j 13:01	15° Ω	
morning not	-7998 May 30 j 09:36	0° ∀		evening set	-7992 Oct 05 j 18:06	27° Ω 21'15	
retrograde	-7998 Aug 25 j 17:57	10° ¥ 20'32			-7992 Oct 17 j 03:06	0° m)	
opposition	-7998 Oct 23 j 22:04	5°) €21'37	-1°00'35		, , , , , , , , , , , , , , , , , , ,		
min. Earth dist.	-7998 Oct 23 j 21:54		4.25149 AU	conjunction	-7992 Oct 18 j 09:51	0° m) 17'56	0°48'35
direct	-7998 Dec 23 j 13:00	0°) 17'33		minimum elong	-7992 Oct 18 j 09:55	0° m) 17'58	0°48'54
evening set	-7997 May 01 j 02:04	18°) 49'41		max. Earth dist.	-7992 Oct 18 j 06:30	0° m/ 15'58	6.15601 AU
_				morning rise	-7992 Oct 31 j 03:33	3° Mp 15'50	
conjunction	-7997 May 14 j 14:27	21°) (49'47	-0°15'35	retrograde	-7991 Mar 09 j 10:22	22° m 31'04	
minimum elong	-7997 May 14 j 14:28	21°) 49′48	0°15'43	opposition	-7991 May 09 j 14:35	17° m 32'11	0°33'32
behind sun begin	-7997 May 14 j 13:26	21° ¥ 49'14		min. Earth dist.	-7991 May 09 j 10:17	17° m 33'35	4.11594 AU
behind sun end	-7997 May 14 j 15:30	21° ¥ 50′22		direct	-7991 Jul 08 j 03:51	12° m 39'18	
max. Earth dist.	-7997 May 14 j 05:26	21°) (44'47	6.28963 AU	desc. node	-7991 Oct 17 j 17:00	26°M)21'27	
morning rise	-7997 May 27 j 23:40	24°) 48′15			-7991 Nov 02 j 16:35	0∘ 亚	
	-7997 Jun 21 j 01:12	0° Y		evening set	-7991 Nov 08 j 09:53	1° ≏ 20'03	
asc. node	-7997 Sep 10 j 23:10	11° Y ′56′27					
retrograde	-7997 Sep 26 j 09:26	12° Y 19'50		conjunction	-7991 Nov 21 j 10:01	4° ≏ 23'38	-0°04'56
opposition	-7997 Nov 24 j 23:30	7° Y ′24'37	0°14'29	minimum elong	-7991 Nov 21 j 10:00	4° ഫ 23'37	0°04'54
min. Earth dist.	-7997 Nov 25 j 11:02	7° Y 20'50	4.32040 AU	behind sun begin	-7991 Nov 21 j 02:03	4° ≙ 18'58	
direct	-7996 Jan 25 j 16:38	2° Y 20'45		behind sun end	-7991 Nov 21 j 17:56	4° ≙ 28′17	
evening set	-7996 Jun 02 j 04:40	20° Ƴ 35'42		max. Earth dist.	-7991 Nov 22 j 01:59	4° ჲ 33'02	6.08322 AU
max. Earth dist.	-7996 Jun 14 j 05:43	23° Y 15'24	6.34169 AU	morning rise	-7991 Dec 04 j 13:35	7° ≏ 29'04	
				retrograde	-7990 Apr 14 j 21:54	27° ≏ 21'23	
conjunction	-7996 Jun 15 j 07:58	23° Y ′29'57	0°35'32	opposition	-7990 Jun 14 j 14:09	22° ≏ 18'45	
minimum elong	-7996 Jun 15 j 07:55	23° Y ′29'55	0°35'41	min. Earth dist.	-7990 Jun 13 j 19:49	22° ≏ 24'52	4.06088 AU
morning rise	-7996 Jun 28 j 07:51	26° Y ′22'27		direct	-7990 Aug 12 j 01:41	17° ≏ 25'02	
	-7996 Jul 15 j 00:46	0°8			-7990 Nov 15 j 19:45	0°M,	
retrograde	-7996 Oct 26 j 19:28	13° 8 35'31	1000110	evening set	-7990 Dec 13 j 20:48	6°M23′29	
opposition	-7996 Dec 25 j 22:08	8° 8 43'00	1°23'40	. ,.	7000 D	007 22102	0057126
min. Earth dist.	-7996 Dec 26 j 20:02	8° 8 35'56	4.35270 AU	conjunction	-7990 Dec 27 j 05:16	9°M32'03	
direct	-7995 Feb 26 j 09:15	3° 8 40'49		minimum elong	-7990 Dec 27 j 05:11	9°M32'00	0°57'54
	-7995 Jun 02 j 06:15	15° 8		max. Earth dist.	-7990 Dec 28 j 14:33		6.05052 AU
evening set max. Earth dist.	-7995 Jul 04 j 02:02 -7995 Jul 15 j 09:39	21° 8 45'47	6.35053 AU	morning rise	-7989 Jan 09 j 17:00 -7989 Jan 19 j 14:17	12°M42'21 15°M	
max. Earm dist.	-/995 Jul 15 J 09.59	24 01032	0.55055 AU		-7989 Apr 08 j 22:42	13 IIL 0° √	
conjunction	-7995 Jul 16 j 19:42	24° 8 35'29	1°15'40	retrograde	-7989 Apr 08 j 22.42 -7989 May 21 j 09:49	2° ∡ ¹45'48	
minimum elong	-7995 Jul 16 j 19:37	24° 8 35'27	1°16'03	renograde	-7989 Jul 02 j 14:04	30°RM	
morning rise	-7995 Jul 29 j 10:23	27° 8 23'47	1 1003	min. Earth dist.	-7989 Jul 19 j 08:43		4.05532 AU
morning risc	-7995 Aug 10 j 07:17	0°Ⅱ		opposition	-7989 Jul 20 j 08:24	27°M40'57	
retrograde	-7995 Nov 27 j 13:41	14° ∏ 42'28		direct	-7989 Sep 16 j 11:10	22°M44'36	-1 33 33
opposition	-7994 Jan 27 j 07:55	9° П 50'54	2°08'37	direct	-7989 Nov 25 j 04:02	0° √	
min. Earth dist.	-7994 Jan 28 j 08:15	9° Ⅱ 43'09	4.33892 AU	evening set	-7988 Jan 19 j 14:48	11° × 752'49	
direct	-7994 Mar 30 j 19:36	4° ∏ 51'25					
evening set	-7994 Aug 04 j 07:47	22° I I54'55		conjunction	-7988 Feb 02 j 05:08	15° ∡ ¹02'50	-1°29'24
max. Earth dist.	-7994 Aug 15 j 10:52	25° Ⅱ 25'04	6.31407 AU	minimum elong	-7988 Feb 02 j 05:06	15° х 02'38	1°29'54
				max. Earth dist.	-7988 Feb 03 j 19:31	15° ₹ 25'13	6.07138 AU
conjunction	-7994 Aug 16 j 18:49	25° Ⅱ 43'06	1°34'01	morning rise	-7988 Feb 15 j 21:45	18° ∡ 13'54	
minimum elong	-7994 Aug 16 j 18:48	25° Ⅱ 43'05	1°34'33	2	-7988 Apr 10 j 22:52	0°ප	
morning rise	-7994 Aug 29 j 04:17	28° Ⅲ 30′38		retrograde	-7988 Jun 24 j 19:12	7° る 54'57	
5 -	-7994 Sep 04 j 20:30	0ಂ ತಾ		min. Earth dist.	-7988 Aug 22 j 06:58	2° る 57'57	4.10179 AU
				opposition	-7988 Aug 23 j 05:13	2°る50'20	
retrograde	-7994 Dec 30 j 11:15	16° © 16'27					
retrograde opposition	-7994 Dec 30 j 11:15 -7993 Mar 01 j 16:05	16°©16'27 11°©24'01	2°16'40	11	-7988 Sep 14 j 08:57	30°₽ ⋌	
•			2°16'40 4.28259 AU	direct		30°R √ 27° √ 50'34	
opposition	-7993 Mar 01 j 16:05	11° © 24'01			-7988 Sep 14 j 08:57		
opposition min. Earth dist.	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11	11°524'01 11°517'20			-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24	27° ∡ ¹50'34	
opposition min. Earth dist. direct	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27	11°\$24'01 11°\$17'20 6°\$27'33		direct	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39	27° メ 50'34 0° る	
opposition min. Earth dist. direct evening set	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27 -7993 Sep 04 j 14:55	11°524'01 11°517'20 6°527'33 24°537'25	4.28259 AU	direct	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39	27° メ 50'34 0° る	-1°28'26
opposition min. Earth dist. direct evening set	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27 -7993 Sep 04 j 14:55	11°524'01 11°517'20 6°527'33 24°537'25	4.28259 AU	direct evening set	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39 -7987 Feb 24 j 11:59	27° メ 50'34 0°る 16°る54'19	-1°28'26 1°28'57
opposition min. Earth dist. direct evening set max. Earth dist.	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27 -7993 Sep 04 j 14:55 -7993 Sep 16 j 02:54	11°\$24'01 11°\$17'20 6°\$27'33 24°\$37'25 27°\$15'19	4.28259 AU 6.24222 AU	direct evening set conjunction	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39 -7987 Feb 24 j 11:59 -7987 Mar 10 j 05:20	27° × 50'34 0°る 16°る54'19 20°る02'38	
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27 -7993 Sep 04 j 14:55 -7993 Sep 16 j 02:54 -7993 Sep 17 j 01:16	11°\$24'01 11°\$17'20 6°\$27'33 24°\$37'25 27°\$15'19 27°\$28'09	4.28259 AU 6.24222 AU 1°24'44	direct evening set conjunction minimum elong	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39 -7987 Feb 24 j 11:59 -7987 Mar 10 j 05:20 -7987 Mar 10 j 05:23	27° ₹50'34 0° ප 16° ප54'19 20° පි02'38 20° පි02'40	1°28'57
opposition min. Earth dist. direct evening set max. Earth dist. conjunction	-7993 Mar 01 j 16:05 -7993 Mar 02 j 13:11 -7993 May 02 j 14:27 -7993 Sep 04 j 14:55 -7993 Sep 16 j 02:54 -7993 Sep 17 j 01:16 -7993 Sep 17 j 01:19	11°\$24'01 11°\$17'20 6°\$27'33 24°\$37'25 27°\$15'19 27°\$28'09 27°\$28'11	4.28259 AU 6.24222 AU 1°24'44	direct evening set conjunction minimum elong max. Earth dist.	-7988 Sep 14 j 08:57 -7988 Oct 20 j 16:24 -7988 Nov 26 j 07:39 -7987 Feb 24 j 11:59 -7987 Mar 10 j 05:20 -7987 Mar 10 j 05:23 -7987 Mar 11 j 09:08	27° \$\times 50'34 0° \$\times 16° \$\times 54'19 20° \$\times 02'38 20° \$\times 02'40 20° \$\times 18'33	1°28'57

corceaged -7987 Jul 25 1735 25 1735 25 1735 25 1735 25 1735 274 1735	•	ical year style is used: Th		_	· //			.gc
opposition - 7987 Sep 25 2046 Position 41523 Au companies - 7988 Nat of 1619 2788			-		8-9			
min Earth dired -7987 Spc 25 (98.56) 7997 We 24 (1) (10) -7980 We 16 (1) (10) -7980 We 15 (10) -7980 We 10 (10) -7980	•		7° ≈ 03'04	-1°52'33		1 3		
cenengs et enginger (and profited	min. Earth dist.		7° ≈ 07'06	4.18237 AU	conjunction	-7981 Sep 21 j 09:55	2° Ω 01′06	1°21'13
conjunction -7986 Apr 15 [92.6] 19-2470 -9-2570 conjunction -7980 keep 15 [92.6] 29-2570 -9-5700 conjunction -9-800 keep 15 [92.6] 29-2570 corporation -9-800 keep 15 [92.6] 29-2570 corporation -9-800 keep 15 [92.6] 29-2570 corporation -9-800 keep 18 [92.6] 29-2570 -9-800 keep 18 [92.6] 29-2570 -9-800 keep 18 [92.6] 19-2570 -9-800 keep 18 [92.6] 19-2570 keep 1	direct	-7987 Nov 24 j 10:05	2° ≈ 00′20		minimum elong	-7981 Sep 21 j 09:58	2° Ω 01′08	1°21'43
1988 1988 1989		-7986 Mar 05 j 18:40	15° ≈		max. Earth dist.	-7981 Sep 20 j 14:02	1° Ω 49'39	6.22488 AU
conjunction -PNS Apr 15 jul 2012 279-882 US 0-75 West Page 15 jul 2012 279-282 US 0-75 West Page 15 jul 2012 12-982 US 12-98 US	evening set	-7986 Apr 01 j 09:28	20° ≈ 47'41		morning rise	-7981 Oct 03 j 21:22		
minimumolong 7986 Apr 1510 298-8210 0.759-80 apr 69,758 Apr 1511 239-8579 0.258-60 apr 1511 239-8579 0.258-60 apr 1511 239-8579 0.258-60 apr 1511 239-8579 0.258-60 apr 1511 239-858 1511-15 239-858 1511-15 239-858 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85 1511-15 239-85							15° Ω	
max End and morning rises 9798 Apr 15 13-92 23-98-57 b 62-269 AU mine Enth date -7998 Aury 10 502 512 13-92 4,134 13-92 4,134 13-92 13-92 13-92 13-92 13-92 13-92 13-92 13-92 13-92 13-92	conjunction				Č			
memming	•							
1.0 1.				6.22650 AU	min. Earth dist.			4.18088 AU
retrograde opposition or 9788 of all 91 94 94 94 94 94 94 94 94 94 94 94 94 94	morning rise					, ,		
opposition in Earth dist. -7986 Oct 28 jol-34 by -84 self-and offered (1986) 1982 (1982) 1982 (19					direct			
min. End dist. 7986 Not 28 1037 94°8597 426844 AU evening set 7988 Not 30 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 23°423°5 500 1803 18	•					·		
direct -7985 May 0 5 j 10-42 4 49'45'05' conjunction -7980 Oct 2 j 01-17 5" p00-24 0"41'40' evening set -7985 May 19 j 05-07 229'42'23' 0"825' max Earth dist. -7980 Oct 2 j 01-21 5" p00-26 0"42'05' minimum clong -7988 May 19 j 05-08 26'42'22' 0"082'15 max Earth dist. -7980 Mov 04 j 20-33 5" p05-26' 0"42'05' behind sun begin -7988 May 18 j 10-00 26'H 1827 retrograde -799 May 14 j 12-20 27'19'29' 1"2" p09-20' mxx Earth dist. -7988 May 18 j 16-00 26'H 1827 6-0'H 1827 retrograde -7999 May 14 j 16-18 22" p32.73 0-0985 AU asc node -7988 Jun 0 j 11-12 26'H 19-25 16'Y 45-19 retrograde -7999 May 14 j 16-18 2" p2-22-12 10" p2						•	-	
evening set -7985 May 0 j j 18.03 23°42275 conjunction -7980 Oct 2 j j 1215 \$100002 0°4109 or 2010 0°4109 or 20				4.26844 AU	evening set	-/980 Oct 10 j 08:2/	2°110/08'26	
conjunction 7988 May 19 j 0.50 2°84 2224 0°8275 max 2°788 0 cc 2 j 2 j 242 5°89 0 cc 9 j 0.50 6 l 378 AU minimum clong 7985 May 19 j 0.508 2°8 2224 0°803 max morning res -7980 Nov 0 j 20.33 8°80315 18 j 0.50 1.378 AU behind sun begin -7985 May 18 j 1.610 2°8 1.812 2°8 1.822 0°908 morning res -7979 Mar 14 j 1.20 2°18 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°17 2.00 0°18 3.00 0°17 2.00 0°18 3.00 0°17 2.00 0°18 3.00 0		•				7000 0-4 22 : 01.17	50 m 0 (12.4	0941140
conjunction -7985 May 19 j 0.507 26°H 2224 0°08254 max Earth dist. -7980 Nov 0 4 j 20.33 8° 190284 6 l 3778 AU morning rise behind sun end or 7985 May 19 j 12:16 26°H 2221 0°087 Nov 0 4 j 20.33 8° 190284 2798 May 14 j 12:20 2798 708 Nov 0 4 j 20.33 8° 190284 morning rise -7985 May 19 j 12:10 26°H 2221 0°08 May 14 j 10:10 22°B 3006 0°12159 asc. node -7985 May 10 j 13:12 29°H 1945 0°08 desc. node -7979 Not 1 j 08:14 0°09 4706 asc. node -7985 May 10 j 16:10 16°P 4351 0°04417 0°09 000 1 j 09:14 0°04 1 j 09:14 asc. node -7985 May 10 j 16:00 16°P 4351 0°2445 0°19 000 1 j 00:14 0°42 221 0°1275 0°1255	evening set	-1985 May 05 J 18:05	23°π23'23		v	•		
minimum leng -7988 May 19 jo 50-80 26°H2224 0°08/31 meming rise -7980 May 04 j 12.33 8°190/34 28°190/34 38°190/34 28°190/34 38°190/34 28°190/34 38°190/34	aaniumatian	7005 May 10 : 05:07	260¥22124	0000125	· ·	•		
Debind sun Regin	-					•		0.13//8 AU
behind sun end 798 May 19 12.16 26°H26°L2 36'N48 N M min. Farth dist. 7979 May 14 16.00 22°B300 7215 780 May 18 1600 26°H158 36'048 N M min. Farth dist. 7979 May 14 16.018 22°B327 40988 N M morning rise 7988 Jan 04 1420	Č			0 0031	-			
max. Earth dist.	=				•	·		0°21'59
moming rise				6 30480 ATT			-	
Ass. node				0.50 100 710				1.07702710
asc, node -7985 kg 1 22 j 16:27 9°Y4617 evening set -7979 No. 13 j 08:21 0°A retrograde -7985 Sep 30 j 17:15 16°Y45'31 0°2445 7979 No. 26 j 08:24 16°A min. Earth dist -7985 Nov 29 j 22:45 16°Y46'93 433258 AU conjunction 7979 Nov 26 j 08:54 9°A2725 0°12'55 direct -7984 Jun 06 j 14:01 24°Y5'823 -80 behind sun begin -7979 Nov 26 j 08:54 9°A2725 0°12'55 conjunction -7984 Jun 19 j 16:04 27°Y5'145 0°41'54 mac. Earth dist. -7978 Jun 18 j 12:23 27°Y5'145 0°41'54 mac. Earth dist. -7978 Jun 18 j 12:23 27°Y5'145 0°41'54 mac. Earth dist. -7984 Jun 19 j 16:04 27°Y5'145 0°41'54 morning rise -7978 Jun 10 j 10:00 0°RU 0°79'8 Nov 20 j 06:14 9°A32'07 0°79'8 Nov 20 j 06:14 9°A32'07 0°A93 Jun 10 j 10:00 0°A93 J	morning 115¢	•					-	
retrograde Post S S p 3 j 1 r 15 6 l P 4251 cenning sard 7,998 Nov 2 j 0.823 1 l P 76040 0°2455 v<	asc. node	-	9° Ƴ 46'17					
opposition -7985 Nov 29 j 08:23 11 °P\\$0403 43258 NU conjunction -7979 Nov 26 j 09:53 9°£2725 0°1255 direct -7984 Jun 0 6 j 14:01 24°P\\$823 behind sun begin -7979 Nov 26 j 09:53 9°£2724 0°1257 evening set -7984 Jun 19 j 16:04 24°P\\$823 behind sun begin -7979 Nov 26 j 04:51 9°£2724 0°1257 conjunction -7984 Jun 19 j 16:04 27°P\\$5143 0°4154 max. Earth dist. -7979 Nov 26 j 04:54 9°£3021 0°6079 NU minimum elong -7984 Jun 19 j 16:04 27°P\\$5143 0°4205 morning rise -7984 Jun 10 10:00 0°8 0°797 NOV 0°1003 0°8 -7984 Jun 10:00 0°8 0°7973/626 6.34970 NU 0°908 Minimum elong -7984 Jun 10:00 0°8 0°843/724					evening set			
min. Earth dist. -7985 Nov. 29 j 2.45 11 °P4603 3.3258 AU conjunction -7979 Nov. 26 j 09-53 9°22724 0°1275 cevening set evening set evening set evening set evening set or evening set or specified in the pair of the state of the st	•			0°24'45	8			
direct 7984 Jan 30 j 06:15 6°Y4059 cereing set evening set 7994 Jan 6'j 14:05 6'Y4059 cereing set evening set 1994 Jan 6'j 14:05 4'Y5822 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24272 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 14:3 9°24072 cereing set behind sum edging 7979 Nov 26 j 16:14 9°24072 cereing set behind sum edging 7979 Nov 26 j 16:14 9°24072 cereing set behind set			11° Y '46'03	4.33258 AU	conjunction	-7979 Nov 26 j 09:54	9° ≏ 27'25	-0°12'55
Conjunction	direct	-7984 Jan 30 j 06:15	6° Ƴ 46'59		minimum elong	-7979 Nov 26 j 09:53	9° ≙ 27'24	0°12'57
conjunction -7984 Jun 19 j 16:04 27°Y5143 0°4154 max. Earth dist. -7998 Nov 27 j 06:14 9°£3925 6.07079 AU minimum clong -7984 Jun 18 j 12:23 27°Y5143 0°4205 morning rise -7978 May 10 j 10:03 0°IL -2°B34 Jun 18 j 12:23 0°IL -2°84 Jun 18 j 12:23 0°IL -2°84 Jun 18 j 12:23 0°IL -2°84 Jun 18 j 12:24 0°E4320 -7988 May 10 j 10:50 2°IL3124 0°E4320 -7988 May 10 j 10:50 2°IL3124 0°E40320 0°P60320 -7988 May 10 j 17:48 2°IL3124 0°E40320 0°P60320 0°P60320 <td< td=""><td>evening set</td><td>-7984 Jun 06 j 14:01</td><td>24°Y′58′23</td><td></td><td>behind sun begin</td><td>-7979 Nov 26 j 04:51</td><td>9°≏24'27</td><td></td></td<>	evening set	-7984 Jun 06 j 14:01	24° Y ′58′23		behind sun begin	-7979 Nov 26 j 04:51	9° ≏ 24'27	
minimum elong					behind sun end	-7979 Nov 26 j 14:54	9° ≙ 30'21	
max. Earth dist. -7984 Jun 29 j 07-49 798 or 798 or 798 or 798 day 29 j 07-49 798 day 29 j 07-49 798 day 29 j 107-49 20 j 1	conjunction	-7984 Jun 19 j 16:04	27° Y ′51'45	0°41'54	max. Earth dist.	-7979 Nov 27 j 06:14	9° ჲ 39'25	6.07079 AU
Power common comming rise Power common	minimum elong	-7984 Jun 19 j 16:00	27° Y ′51'43	0°42'05	morning rise	-7979 Dec 09 j 14:45	12° ≏ 34'00	
moming rise .7984 Jul 0.2 j. 14:26 0°84320 <	max. Earth dist.	-7984 Jun 18 j 12:23		6.34970 AU		-7978 Mar 10 j 10:03	0° M	
retrograde		-			retrograde			
retrograde	morning rise	-						
opposition -7984 Dec 14 j 13:43 15°8 direct -7978 Aug 17 j 03:29 22°£34'13 opposition -7984 Dec 3 j 06:18 12°80'224 1°31'28 -7978 Oct 26 j 14:13 0°¶L min. Earth dist7984 Dec 3 j 06:41 12°85'11 4.35617 AU evening set -7978 Dec 19 j 02:03 11°¶L35'36 direct -7983 Mar 02 j 17:33 8°800'30 -7983 Mar 02 j 17:34 19 j 12:26 26°80'410 minimum elong -7977 Jan 01 j 11:22 14°¶L4'40 -1°03'51 evening set -7983 Jul 19 j 12:26 28°83'30 6.34895 AU max. Earth dist. -7977 Jan 02 j 13:33 15°¶L -7977 Jan 12 j 13:33 15°¶L -7983 Jul 19 j 12:26 28°85'324 1°19'34 morning rise -7977 Jan 15 j 00:17 17°¶L5'27 minimum elong -7983 Jul 25 j 23:31 0°¶L -7983 Jul 25 j 23:31 0°¶L -7983 Jul 25 j 23:31 0°¶L -7983 Jul 25 j 23:33 1°¶L0'3'4 opposition -7987 Jul 25 j 13:40 7°,875'75 opposition -7983 Dec 01 j 23:39 1°¶L0'23 40°¶L0'3'4 opposition -7977 Jul 25 j 10:20 2°,875'84 2°02'14 opposition -7982 Jan 31 j 18:19 14°¶L0'248 4.33240 AU direct -7977 Jul 25 j 10:22 2°,875'84 2°02'14 opposition -7982 Aug 05 j 12:53 27°¶∏16'34 433240 AU direct -7977 Jul 25 j 10:22 2°,875'84 2°02'14 opposition -7982 Aug 05 j 23:33 0°,8000 1°34'25 evening set -7976 Jan 24 j 22:22 17°,870'40'3 opposition -7982 Aug 05 j 14:42 0°,8000 1°34'56 opposition -7976 Feb 07 j 13:12 20°,871'35 1°31'21 opposition -7982 Aug 20 j 23:33 0°,8000 1°34'56 opposition -7976 Feb 07 j 13:12 20°,871'35 1°31'21 opposition -7982 Aug 20 j 23:33 0°,8000 1°34'56 opposition -7976 Feb 07 j 13:12 20°,871'35 1°31'21 opposition -7982 Aug 20 j 14:42 0°,8000 1°34'56 opposition -7976 Feb 07 j 13:12 20°,871'35 1°31'21 opposition -7982 Aug 20 j 18:45 2°,852'56 opposition -7976 Feb 07 j 13:12 20°,871'35 1°31'2						,		
opposition -7984 Dec 30 j 06:18 13° 802'24 1°31'28 -7978 Oct 26 j 14:13 0°M Imm. Earth dist. -7984 Dec 31 j 04:41 12° 855'11 4.35617 AU evening set -7978 Dec 19 j 02:03 11°M,35'36 Imm. Earth dist. -7983 Mar 02 j 17:33 8°800'30 Conjunction -7977 Jan 01 j 11:22 11°M,35'36 Imm. Earth dist. -7983 Jul 91 08 j 07:42 26°804'10 conjunction -7977 Jan 01 j 11:22 14°M,44'40 -1°03'51 Imm. Earth dist. -7977 Jan 01 j 11:27 14°M,44'40 -1°03'51 Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M Imm. Earth dist. -7977 Jan 02 j 13:33 15°M,074 6.04834 AU AU conjunction -7983 Jul 21 j 00:00 28° 853'22 1°2000 retrograde -7977 Jan 12 j 00:01 79° Imm. 5° 75'75'3 -7978 Jan 13° 12 j 00:02 2°275'25'8 -2°28'14'12 -7978 Jan 13° 12 j 00:02	retrograde							4.05339 AU
min. Earth dist. -7984 Dec 31 j 04:41 12° S55'11 4.35617 AU evening set -7978 Dec 19 j 02:03 11° Il.35'36 -1003'51 direct -7983 May 14 j 13:28 15° S conjunction -7977 Jan 01 j 11:32 14° Il.44'40 - 1°03'51 evening set -7983 May 14 j 13:28 15° S conjunction -7977 Jan 01 j 11:32 14° Il.44'40 - 1°03'51 evening set -7983 Jul 9 j 12:26 26° S04'10 minimum elong -7977 Jan 01 j 11:32 14° Il.44'40 - 1°03'51 max. Earth dist. -7983 Jul 21 j 00:00 28° S33'30 6.34895 AU -7977 Jan 02 j 13:33 15° Ill. 6.04834 AU conjunction -7983 Jul 21 j 00:00 28° S53'24 1°19'34 morning rise -7977 Jan 02 j 02:32 15° Il.05'47 6.04834 AU morning rise -7983 Jul 21 j 00:00 28° S53'24 1°19'34 morning rise -7977 Jan 15 j 00:17 1°11'Il.55'27 1°10'Il.55'27 1°10'Il.				1001100	direct			
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evening set	direct	3			agnismation	7077 Ion 01:11:22	1.40 m 4.440	1902151
max. Earth dist.	avaning sat				5			
conjunction	•			6 34805 ATT	minimum clong			1 04 10
Conjunction -7983 Jul 21 j 00:06 28°853'24 1°19'34 morning rise -7977 Jan 15 j 00:17 17° 11.55'27	max. Earth dist.	-7905 Jul 19 j 12.20	20 03330	0.54895 AU	may Farth dist			6.04834 AU
minimum elong	conjunction	-7983 Jul 21 i 00:06	28° \ 53'24	1°19'34		-		0.0 1057 AU
-7983 Jul 25 j 23:31 0° retrograde -7977 May 26 j 13:04 7° \$75753 morning rise -7983 Aug 02 j 13:49 1° 14121 min. Earth dist. -7977 Jul 24 j 09:11 3° \$701'22 4.05883 AU opposition -7982 Jan 31 j 18:19 14° 11'03 2° 12'01 -7977 Aug 17 j 02:50 30° 10 min. Earth dist. -7982 Feb 01 j 20:16 14° 102'48 4.33240 AU direct -7977 Sep 21 j 12:19 27° 10.55'58 direct -7982 Aug 20 j 23:33 0° 905'00 1° 34'25 evening set -7982 Aug 20 j 23:33 0° 905'00 1° 34'56 minimum elong -7982 Aug 20 j 14:42 0° 9	•	-						
morning rise					retrograde	,		
retrograde	morning rise	-			•			4.05883 AU
opposition	-							
min. Earth dist.	-	-		2°12'01	••			
direct	• •		14° Ⅲ 02'48	4.33240 AU	direct	• •		
conjunction	direct	-7982 Apr 04 j 05:46	9° Ⅱ 11'55			-7977 Oct 26 j 23:50	0° ∡	
minimum elong	evening set	-7982 Aug 08 j 12:53	27° Ⅱ 16′34		evening set	-7976 Jan 24 j 22:22	17° х 04′03	
minimum elong	conjunction	-7982 Aug 20 i 23:33	0°©05'00	1°34'25	conjunction	-7976 Feb 07 i 13:12	20° ҂ 13'53	-1°31'21
max. Earth dist7982 Aug 19 j 14:48 29°耳46'29 6.30295 AU max. Earth dist7976 Feb 09 j 02:38 20°柔35'40 6.07962 AU norning rise -7982 Aug 20 j 14:42 0°⑤ morning rise -7976 Feb 21 j 06:11 23°柔24'40 で					-			
Feb 1 1 1 1 1 1 1 1 1	max. Earth dist.		29° Ⅱ 46′29	6.30295 AU	max. Earth dist.		20° ∡ ³35'40	6.07962 AU
morning rise -7982 Sep 02 j 08:55 2°©52'56 -7976 Mar 21 j 16:35 0°중 retrograde -7981 Jan 04 j 00:56 20°©45'05 retrograde -7976 Jun 29 j 17:46 12°で59'26 opposition -7981 Mar 06 j 06:48 15°©52'21 2°14'31 min. Earth dist7976 Aug 27 j 05:52 8°ろ02'05 4.11349 AU min. Earth dist7981 Mar 07 j 02:25 15°©46'07 4.26770 AU opposition -7976 Aug 28 j 02:46 7°で554'56 -2°17'57 direct -7981 May 07 j 00:32 10°©56'13 direct -7976 Oct 25 j 18:12 2°づ554'36					morning rise		23° х 24′40	
opposition -7981 Mar 06 j 06:48 15°©52'21 2°14'31 min. Earth dist7976 Aug 27 j 05:52 8°302'05 4.11349 AU min. Earth dist7981 Mar 07 j 02:25 15°©46'07 4.26770 AU opposition -7976 Aug 28 j 02:46 7°354'56 -2°17'57 direct -7981 May 07 j 00:32 10°©56'13 direct -7976 Oct 25 j 18:12 2°354'36	morning rise		2° © 52'56				ರ∘ರ	
min. Earth dist7981 Mar 07 j 02:25 15°546'07 4.26770 AU opposition -7976 Aug 28 j 02:46 7°554'56 -2°17'57 direct -7981 May 07 j 00:32 10°556'13 direct -7976 Oct 25 j 18:12 2°554'36	retrograde	-7981 Jan 04 j 00:56	20° © 45'05		retrograde	-7976 Jun 29 j 17:46	12° る 59'26	
direct -7981 May 07 j 00:32 10°№56'13 direct -7976 Oct 25 j 18:12 2°♂554'36	opposition	-7981 Mar 06 j 06:48	15° © 52'21	2°14'31		-7976 Aug 27 j 05:52		
·	min. Earth dist.	-7981 Mar 07 j 02:25	15° © 46'07	4.26770 AU	opposition	-7976 Aug 28 j 02:46		-2°17'57
evening set -7981 Sep 08 j 22:57 29°509'26 evening set -7975 Mar 01 j 16:47 21°55'41		, ,						
	evening set	-7981 Sep 08 j 22:57	29° © 09'26		evening set	-7975 Mar 01 j 16:47	21° る 55'41	

Attention, astronomical year style is used: The year -7975 in astronomical counting style is the year 7976 BCE in historical counting style.							
conjunction	-7975 Mar 15 j 10:24	25° පි 03'28		minimum elong	-7970 Aug 25 j 09:25	4°939'55	1°34'48
minimum elong	-7975 Mar 15 j 10:28	25° පි 03'30		morning rise	-7970 Sep 06 j 18:43	7°928'15	
max. Earth dist.	-7975 Mar 16 j 13:28		6.15266 AU	retrograde	-7969 Jan 08 j 21:58	25°\$26'39	
morning rise	-7975 Mar 29 j 03:55	28° ට 10'93	0.13200710	opposition	-7969 Mar 11 j 03:28	20°533'41	2°11'24
morning rise	-7975 Apr 06 j 05:27	0°≈		min. Earth dist.	-7969 Mar 11 j 22:41	20°927'35	4.25498 AU
	-7975 Jun 28 j 10:39	0 ~ 15° ≈		direct	-7969 May 11 j 18:48	15°938'01	4.23470 AO
retrograde	-7975 Aug 02 j 09:53	15 ≈ 16° ≈ 56'52		direct	-7969 Aug 27 j 05:25	0°Ω	
renograde				avanina aat		3° Ω 53'30	
	-7975 Sep 06 j 01:48	15°R≈	1945124	evening set	-7969 Sep 13 j 11:54	3 8633 30	
opposition	-7975 Sep 30 j 13:13	11°≈55'14			70(0 G 25 : 22 26	60 0 45150	1017102
min. Earth dist.	-7975 Sep 30 j 02:41		4.19711 AU	conjunction	-7969 Sep 25 j 23:26	6° Ω 45'59	1°17'03
direct	-7975 Nov 29 j 06:18	6°≈52'12		minimum elong	-7969 Sep 25 j 23:30	6° Ω 46'01	1°17'31
	-7974 Feb 14 j 08:21	15° ≈		max. Earth dist.	-7969 Sep 25 j 05:45	6° Ω 35'46	6.21165 AU
evening set	-7974 Apr 06 j 08:48	25° ≈ 35'54		morning rise	-7969 Oct 08 j 11:47	9° Ω 39'03	
					-7969 Nov 01 j 09:05	15° Ω	
conjunction	-7974 Apr 20 j 00:54	28° ≈ 39'31		retrograde	-7968 Feb 12 j 15:31	28° Ω 22'57	
minimum elong	-7974 Apr 20 j 00:59	28° ≈ 39'33	0°51'14	opposition	-7968 Apr 14 j 00:22	23° Ω 26′54	1°26'16
max. Earth dist.	-7974 Apr 20 j 05:44	28° ≈ 42'13	6.24073 AU	min. Earth dist.	-7968 Apr 14 j 05:36	23° Ω 25′14	4.16834 AU
	-7974 Apr 26 j 00:30	0° ℋ		direct	-7968 Jun 13 j 10:11	18° £ 33′28	
morning rise	-7974 May 03 j 15:14	1°) 42′02			-7968 Sep 13 j 14:48	0° m y	
retrograde	-7974 Sep 03 j 15:59	19°) 38′03		evening set	-7968 Oct 15 j 02:16	7° ™ 03'35	
opposition	-7974 Nov 01 j 22:59	14°) 40′13	-0°40'10				
min. Earth dist.	-7974 Nov 02 j 02:22	14°) 39′05	4.28088 AU	conjunction	-7968 Oct 27 j 20:16	10° Mp 02'32	0°34'36
direct	-7973 Jan 01 j 22:47	9° ₩ 36'01		minimum elong	-7968 Oct 27 j 20:19	10° Mp 02'34	0°34'50
evening set	-7973 May 10 j 11:10	28° ₩ 00'15		max. Earth dist.	-7968 Oct 27 j 22:45	10° m 03'59	6.12733 AU
C	-7973 May 19 j 11:59	$0^{\circ}\Upsilon$		morning rise	-7968 Nov 09 j 16:46	13° m 02'55	
	, ,			Ü	-7967 Feb 06 j 13:18	0∘ <u>⊽</u>	
conjunction	-7973 May 23 j 21:14	0° Υ 58'22	-0°01'02	retrograde	-7967 Mar 19 j 18:14	2° ₽ 32'14	
minimum elong	-7973 May 23 j 21:16	0° Υ '58'23	0°01'05	retrograde	-7967 Apr 30 j 01:44	30°R.M)	
behind sun begin	-7973 May 23 j 13:04	0°Υ'53'52	0 01 05	opposition	-7967 May 19 j 18:55	27° m/32'12	0°10'07
behind sun end	-7973 May 24 j 05:28	1° Υ '02'55		min. Earth dist.	-7967 May 19 j 09:39	27° m ₂ 32°12	4.09236 AU
max. Earth dist.	-7973 May 24 j 05:28 -7973 May 23 j 06:42	0° Υ 50'19	6.31462 AU	desc. node	-7967 Jul 06 j 07:43	22° m 52'54	4.09230 AO
		2° Υ 41'29	0.51402 AU		-7967 Jul 00 j 07:43		
asc. node	-7973 May 31 j 15:11	2 1 41 29 3° Υ 54'48		direct	-	22° m/39'18	
morning rise	-7973 Jun 06 j 03:55			. ,	-7967 Sep 26 j 10:52	0∘ ⊽	
retrograde	-7973 Oct 05 j 02:29	21°Υ16'49	000 5100	evening set	-7967 Nov 18 j 07:32	11° ≏ 26'31	
opposition	-7973 Dec 03 j 20:00	16° Y 22'32			#06# D 01:10.15	1.40.001155	0000140
min. Earth dist.	-7973 Dec 04 j 11:19	16° ℃ 17'31	4.33919 AU	conjunction	-7967 Dec 01 j 10:15	14° 2 31'55	
direct	-7972 Feb 03 j 19:41	11° Y 18'59		minimum elong	-7967 Dec 01 j 10:13	14° ≏ 31'54	
evening set	-7972 Jun 11 j 02:50	29° Y 28'43		max. Earth dist.	-7967 Dec 02 j 09:39		6.06695 AU
	-7972 Jun 13 j 11:43	0° 8		morning rise	-7967 Dec 14 j 16:24	17° ≏ 39'12	
max. Earth dist.	-7972 Jun 22 j 20:22	2° 8 04'13	6.35246 AU		-7966 Feb 10 j 05:06	0° M	
				retrograde	-7966 Apr 25 j 08:17	7°M38'08	
conjunction	-7972 Jun 24 j 03:18	2° 8 21'20	0°48'15	opposition	-7966 Jun 24 j 19:36	2°M34'36	-1°11'39
minimum elong	-7972 Jun 24 j 03:14	2° 8 21'18	0°48'28	min. Earth dist.	-7966 Jun 23 j 22:09	2°M41'46	4.05386 AU
morning rise	-7972 Jul 07 j 00:28	5° 8 12'17			-7966 Jul 15 j 02:46	30° ₹ Ω	
	-7972 Aug 23 j 18:34	15° 8		direct	-7966 Aug 22 j 02:12	27° ≏ 40'18	
retrograde	-7972 Nov 04 j 12:37	22° 8 23'41			-7966 Sep 28 j 19:41	0° M .	
opposition	-7971 Jan 03 j 19:06	17° 8 31'40	1°39'06		-7966 Dec 16 j 21:45	15° M ₊	
min. Earth dist.	-7971 Jan 04 j 19:26	17° 8 23'50	4.35513 AU	evening set	-7966 Dec 24 j 05:19	16°M42'07	
	-7971 Jan 24 j 10:47	15° ₹ 8		-	-		
direct	-7971 Mar 07 j 08:01	12° 8 30'05		conjunction	-7965 Jan 06 j 15:32	19° M 51'18	-1°09'28
	-7971 Apr 18 j 03:27	15° 8		minimum elong	-7965 Jan 06 j 15:27	19°M51'15	1°09'49
	-7971 Jul 10 j 04:46	0°II		max. Earth dist.	-7965 Jan 08 j 03:36	20°M12'31	6.05267 AU
evening set	-7971 Jul 12 j 17:53	0° Ⅱ 33'47		morning rise	-7965 Jan 20 j 05:02	23°ML02'07	0.00207110
max. Earth dist.	-7971 Jul 23 j 21:54	3° П 02'57	6.34403 AU	morning rise	-7965 Feb 20 j 01:23	0° ∡ 7	
max. Lattii dist.	-///1 Jul 25 j 21.54	3 110237	0.54405 AC	retrograde	-7965 May 31 j 12:20	13° × ⁷ 01'20	
conjunction	-7971 Jul 25 j 09:21	3° Ⅱ 22'45	1°23'13	min. Earth dist.	-7965 Jul 29 j 07:35	8°×01'20	4.06659 AU
·					•		
minimum elong	-7971 Jul 25 j 09:17	3° Ⅱ 22'43	1°23'40	opposition	-7965 Jul 30 j 08:20	7°×756'09	-2 0/23
morning rise	-7971 Aug 06 j 22:03	6° Ⅱ 10'30		direct	-7965 Sep 26 j 12:15	2° x 58'47	
retrograde	-7971 Dec 06 j 13:09	23° II 35'20	201.4152	evening set	-7964 Jan 30 j 01:56	22° 尽 05'42	
opposition	-7970 Feb 05 j 10:18	18° Ⅱ 43'48	2°14'52		5 0.64 5 • • • • • • • • • • • • • • • • • • •	0.50 = 1 =::	1024:5
min. Earth dist.	-7970 Feb 06 j 11:05	18° Ⅱ 35'55	4.32421 AU	conjunction	-7964 Feb 12 j 17:25	25° ⋌ 15'18	
direct	-7970 Apr 08 j 18:46	13° Ⅱ 45′09		minimum elong	-7964 Feb 12 j 17:24	25° ∡ 15'17	1°33'05
	-7970 Aug 04 j 16:02	0ಂತಾ		max. Earth dist.	-7964 Feb 14 j 06:59	25° ∡ ³37′05	6.09003 AU
evening set	-7970 Aug 12 j 23:09	1° 9 51'12		morning rise	-7964 Feb 26 j 10:30	28° ∡ "25′39	
max. Earth dist.	-7970 Aug 24 j 01:52	4° छ 22'01	6.29214 AU		-7964 Mar 04 j 07:24	0°ರ	
				retrograde	-7964 Jul 04 j 12:49	17° る 53'41	
conjunction	-7970 Aug 25 j 09:25	4° © 39'55	1°34'17	opposition	-7964 Sep 01 j 19:55	12° る 49'31	-2°16'03

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7964 in astronomical counting style is the year 7965 BCE in historical counting style. -7964 Sep 01 j 00:24 12°る56'11 4.12545 AU conjunction -7958 Aug 29 j 20:29 9°9517'42 1°33'32 min. Earth dist. -7964 Oct 30 j 14:13 7°₹48'45 -7958 Aug 29 j 20:30 9°917'42 1°34'04 direct minimum elong -7963 Mar 06 j 17:18 26°る47'26 -7958 Aug 28 j 15:34 9°901'15 6.28233 AU max. Earth dist. evening set -7958 Sep 11 j 05:44 12°9506'26 morning rise 29°る54'42 -1°22'15 -7963 Mar 20 j 10:50 -7957 Jan 03 j 04:19 conjunction $0^{\circ}\Omega$ -7957 Jan 13 j 17:04 0°Ω10'21 minimum elong -7963 Mar 20 j 10:55 29°る54'45 1°22'44 retrograde -7963 Mar 20 j 20:08 0°≈ -7957 Jan 24 j 06:55 30°Rூ 2°07'22 max. Earth dist. -7963 Mar 21 j 09:21 0°≈07'31 6.16502 AU opposition -7957 Mar 16 j 00:52 25°9516'59 3°≈01'43 morning rise -7963 Apr 03 j 04:20 min. Earth dist. -7957 Mar 16 j 17:25 25°9511'44 4.24459 AU -7963 May 31 j 02:22 15°≈ direct -7957 May 16 j 11:58 20°521'42 retrograde -7963 Aug 06 j 22:31 21°≈40'22 -7957 Aug 09 j 07:30 $0^{\circ}\Omega$ -7963 Oct 05 j 02:22 opposition 16°≈39'11 -1°37'49 evening set -7957 Sep 18 j 01:14 8°**Ω**38'18 min. Earth dist. -7963 Oct 04 j 18:00 16°≈42'02 4.20863 AU -7963 Oct 17 j 12:52 15°R≈ conjunction -7957 Sep 30 j 13:17 11°**Ω**31'27 1°12'21 direct -7963 Dec 03 j 23:39 11°≈35'50 minimum elong -7957 Sep 30 j 13:22 11°**Ω**31'29 1°12'47 -7962 Jan 20 j 17:35 15°≈ max. Earth dist. -7957 Sep 29 j 22:18 11°**Ω**22'46 6.20150 AU -7962 Apr 09 j 21:33 0°**)**€ morning rise -7957 Oct 13 j 02:31 14° **Ω**25'20 evening set -7962 Apr 11 j 04:33 0°**)** 17′12 -7957 Oct 15 j 14:58 15°Ω -7956 Jan 01 j 14:28 0° m conjunction -7962 Apr 24 j 20:16 3°**)** €20'13 -0°44'32 retrograde -7956 Feb 17 j 17:07 3° m 15'04 minimum elong -7962 Apr 24 j 20:20 3°**¥**20'15 0°44'49 -7956 Apr 05 j 14:15 30°R€ max. Earth dist. -7962 Apr 24 j 22:47 3°**¥**21'37 6.25078 AU opposition -7956 Apr 19 i 00:54 28°Ω18'26 1°16'54 morning rise -7962 May 08 j 09:39 6°\ 21'59 min. Earth dist. -7956 Apr 19 i 04:37 28°**Ω**17'14 4.15880 AU retrograde -7962 Sep 08 i 02:26 24°**)** 12'49 direct -7956 Jun 18 i 07:43 23°**Ω**25'06 -7962 Nov 06 j 10:00 19°**)** 15'33 -0°29'47 -7956 Aug 24 j 12:20 0° m opposition -7962 Nov 06 j 15:17 19°**¥**13'48 4.28859 AU -7956 Oct 19 j 19:28 11° m 56'34 min. Earth dist. evening set -7961 Jan 06 j 12:50 14°**)** 11′22 direct -7961 Apr 10 j 07:33 25°¥13'01 -7956 Nov 01 j 14:37 14° m 56'21 0°27'10 asc. node conjunction -7961 May 03 j 07:49 $0^{\circ}\Upsilon$ -7956 Nov 01 j 14:40 14° m 56'22 0°27'22 minimum elong 2° Y 34'08 -7961 May 15 j 02:46 -7956 Nov 01 j 20:25 14° Mp 59'45 6.11933 AU max. Earth dist. evening set -7956 Nov 14 j 12:25 17° m 57'41 morning rise 5°**Υ**31'37 0°06'18 -7961 May 28 j 11:38 -7955 Jan 09 j 22:22 conjunction 0∘ಹ -7961 May 28 j 11:37 0°06'17 5°**Y**31'36 retrograde -7955 Mar 24 j 20:27 7°**£**31'23 minimum elong -7961 May 28 j 03:54 5°**Y**27′21 -7955 May 16 j 13:46 behind sun begin desc. node 3°**£**35′29 2°**2**30'49 -0°01'46 -7961 May 28 j 19:20 5°Y35'51 -7955 May 24 j 20:17 behind sun end opposition -7961 May 27 j 16:56 5°**Y**21'15 6.31941 AU -7955 May 24 j 08:44 max. Earth dist. min. Earth dist. 2°**£**34'37 4.08667 AU morning rise -7961 Jun 10 j 17:13 8°**Y**27′22 -7955 Jun 13 j 23:29 30°R, Mp retrograde -7961 Oct 09 j 12:52 25°**Y**47′29 direct -7955 Jul 22 j 20:47 27° m 37'52 -7961 Dec 08 j 07:27 20°**Υ**53'34 0°45'12 -7955 Aug 30 j 05:24 0∘**⊽** opposition min. Earth dist. -7961 Dec 09 j 00:41 20°Υ47'56 4.34100 AU evening set -7955 Nov 23 j 06:01 16°**2**26'34 direct -7960 Feb 08 j 09:46 15°Y50'11 -7960 May 28 j 03:31 0°8 -7955 Dec 06 j 09:44 19°**♀**32'33 -0°28'31 conjunction -7960 Jun 15 j 15:09 3°**8**59'39 -7955 Dec 06 j 09:41 19°**♀**32'31 0°28'38 evening set minimum elong -7960 Jun 27 j 07:43 6°834'44 6.35116 AU -7955 Dec 07 j 10:37 19°**2**47'14 6.06391 AU max. Earth dist. max. Earth dist. -7955 Dec 19 j 17:04 22°**-**40′27 morning rise 6°**8**51'47 0°54'16 conjunction -7960 Jun 28 j 14:27 -7954 Jan 21 i 03:16 0°M 6°**8**51'45 0°54'32 minimum elong -7960 Jun 28 j 14:23 retrograde -7954 Apr 30 i 09:44 12°M40'43 9°842'13 morning rise -7960 Jul 11 j 10:12 opposition -7954 Jun 29 i 19:37 7°ML36'47 -1°21'39 -7960 Aug 05 i 01:28 15°8 min. Earth dist. -7954 Jun 28 i 21:28 7°ML44'14 4.05388 AU -7960 Nov 08 i 23:52 26°**8**55'02 direct -7954 Aug 27 j 01:32 2°M42'06 retrograde -7959 Jan 08 j 09:00 22°**8**03'10 1°46'10 -7954 Nov 29 j 12:57 15°M opposition min. Earth dist. -7959 Jan 09 j 09:02 21°855'28 4.35111 AU -7954 Dec 29 j 07:38 21°M44'56 evening set direct -7959 Mar 11 j 21:19 17°**8**02'01 -7959 Jun 23 j 14:46 $\mathbb{I}^{\circ 0}$ conjunction -7953 Jan 11 j 18:51 24°M54'22 -1°14'32 evening set -7959 Jul 17 j 04:51 5°**Ⅱ**06'14 minimum elong -7953 Jan 11 j 18:46 24°M 54'19 1°14'56 max. Earth dist. -7959 Jul 28 j 07:03 7°**I**34'47 6.33746 AU max. Earth dist. -7953 Jan 13 j 08:54 25°M16'42 6.05569 AU -7953 Jan 25 j 08:56 28°ML05'17 morning rise -7959 Jul 29 j 19:09 7°II55'00 1°26'22 -7953 Feb 02 j 15:14 0°**∡**7 conjunction -7959 Jul 29 j 19:05 7°**II**54'58 1°26'50 -7953 Jun 05 j 12:21 18°**₹**01'45 minimum elong retrograde -7959 Aug 11 j 07:11 10°**Ⅱ**42'40 -7953 Aug 03 j 05:20 morning rise min. Earth dist. 13°**✗**04'49 4.07252 AU -7959 Dec 11 j 06:14 28°**Ⅱ**11'33 retrograde opposition -7953 Aug 04 j 05:23 12°**∡** 56'37 -2°11'38 -7958 Feb 10 j 04:02 23°**Ⅲ**19'53 2°16'53 -7953 Oct 01 j 10:12 7°**х** 58'48 opposition direct min. Earth dist. -7958 Feb 11 j 04:48 23°**Ⅲ**12′01 4.31566 AU evening set -7952 Feb 04 j 05:14 27°**х** 05′24 direct -7958 Apr 13 j 11:53 18°**Ⅲ**21'39 -7952 Feb 16 j 19:26 0°ಕ -7958 Jul 18 j 15:49 0ಂತಾ -7958 Aug 17 j 10:18 6°528'40 -7952 Feb 17 j 21:01 0°る14'48 -1°33'06 evening set conjunction

-7952 Feb 17 j 21:01

minimum elong

0°る14'48 1°33'38

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7952 in astronomical counting style is the year 7953 BCE in historical counting style. -7952 Feb 19 i 07:40 0°る34'51 6.09807 AU retrograde -7947 Dec 15 i 21:05 2°9548'26 max. Earth dist. -7952 Mar 02 j 14:33 3°₹24'54 -7946 Jan 29 j 03:43 30°RⅡ morning rise -7952 Jul 09 j 06:13 22°る47'14 -7946 Feb 14 j 21:52 27°II56'39 2°18'02 retrograde opposition -7946 Feb 15 j 21:14 27°**I**49'15 4.31008 AU 17°る43'22 -2°13'15 -7952 Sep 06 j 13:02 min. Earth dist. opposition -7952 Sep 05 j 18:33 -7946 Apr 18 j 03:47 22°II58'55 min. Earth dist. 17°る49'41 4.13482 AU direct -7946 Jun 29 j 03:52 -7952 Nov 04 j 10:04 direct 12°る42'09 0ಂತಾ -7946 Aug 21 j 20:53 11°905'48 -7951 Mar 04 j 09:04 0°≈ evening set evening set -7951 Mar 11 j 18:10 1°≈39'27 max. Earth dist. -7946 Sep 02 j 02:45 13°939'03 6.27554 AU conjunction -7951 Mar 25 j 11:52 4°≈46'21 -1°18'20 conjunction -7946 Sep 03 j 06:45 13°954'59 1°32'12 minimum elong -7951 Mar 25 j 11:57 4°≈46'24 1°18'47 minimum elong -7946 Sep 03 j 06:46 13°955'00 1°32'44 -7951 Mar 26 j 08:16 -7946 Sep 15 j 16:15 max. Earth dist. 4°≈57'57 6.17515 AU morning rise 16°9544'05 -7951 Apr 08 j 04:57 -7946 Nov 21 j 01:46 morning rise 7°≈52'48 0° Ω -7951 May 10 j 22:41 15°**≈** retrograde -7945 Jan 18 j 13:15 4°Ω52'41 retrograde -7951 Aug 11 j 13:29 26°≈25'05 opposition -7945 Mar 20 j 21:37 29°958'55 2°02'31 opposition -7951 Oct 09 j 16:21 21°≈24'30 -1°29'33 -7945 Mar 20 j 18:12 30°Rூ min. Earth dist. -7951 Oct 09 j 10:20 21°**≈**26′31 4.21833 AU min. Earth dist. -7945 Mar 21 j 12:51 29°954'04 4.23677 AU direct -7951 Dec 08 j 17:29 16°≈20'58 direct -7945 May 21 j 06:13 25°903'55 -7950 Mar 24 j 00:02 0°**)**€ -7945 Jul 18 j 15:58 $0^{\circ}\Omega$ evening set -7950 Apr 16 j 01:19 5°**₩**00'32 evening set -7945 Sep 22 j 13:18 13°**Ω**20′50 -7945 Sep 29 j 17:13 15°€ conjunction -7950 Apr 29 i 16:22 8°\cdot\02'58 -0°37'47 minimum elong -7950 Apr 29 j 16:26 8°\circ\tag{03'00} 0°38'03 conjunction -7945 Oct 05 i 02:10 16°**Ω**14'39 1°07'14 max. Earth dist. -7950 Apr 29 i 15:06 8°¥02'16 6.25935 AU minimum elong -7945 Oct 05 i 02:14 16°**Ω**14'41 1°07'38 morning rise -7950 May 13 j 05:03 11°**)** 04'05 max. Earth dist. -7945 Oct 04 j 14:33 16°**Ω**07'55 6.19350 AU -7950 Sep 12 j 13:21 28°\ 50'23 -7945 Oct 17 j 16:12 19°**Ω**09'17 retrograde morning rise opposition -7950 Nov 10 j 22:33 23°\ 53'38 -0°19'05 -7945 Dec 07 j 12:54 0° m -7950 Nov 11 j 05:19 23°**)** 51′23 4.29540 AU -7944 Feb 22 j 15:39 8° m 03'57 min. Earth dist. retrograde -7949 Jan 11 j 04:32 -7944 Apr 23 j 23:23 3° Mp 06'48 $1^{\circ}07'05$ direct 18°**)** 49′29 opposition -7949 Feb 17 j 10:11 20°¥52'18 min. Earth dist. -7944 Apr 24 j 01:00 3° Mp 06'17 4.15108 AU asc. node -7949 Apr 15 j 20:02 $0^{\circ}\Upsilon$ -7944 May 20 j 04:55 30°R€ 7°**Y**10′57 -7944 Jun 23 j 01:47 -7949 May 19 j 19:11 direct 28°**Ω**13'39 evening set max. Earth dist. -7949 Jun 01 j 07:00 0° m 9°**Υ**56'44 6.32413 AU -7944 Jul 26 j 13:27 -7944 Oct 24 j 11:28 16° Mp 46'08 evening set 10°Υ07'45 0°13'36 -7949 Jun 02 j 02:53 conjunction 19° m 46'41 0°19'40 -7949 Jun 02 j 02:52 10°**Y**07'44 0°13'37 -7944 Nov 06 j 07:37 minimum elong conjunction 10°**Y**05'20 -7949 Jun 01 j 22:29 -7944 Nov 06 j 07:39 19° m 46'42 0°19'49 behind sun begin minimum elong behind sun end -7949 Jun 02 j 07:14 10°**Y**10′09 max. Earth dist. -7944 Nov 06 j 14:52 19° **m** 50'55 6.11254 AU -7949 Jun 15 j 07:06 13°**Y**02'47 morning rise -7944 Nov 19 j 06:46 22° m/48'53 morning rise -7949 Sep 29 j 04:38 0°8 -7944 Dec 21 j 05:40 0∘**⊽** retrograde -7949 Oct 14 j 00:11 0°821'13 desc. node -7943 Mar 27 j 13:36 12°**2**26′06 -7949 Oct 28 j 19:02 30°**₹**Υ -7943 Mar 29 j 20:32 12°**£**26'36 retrograde -7949 Dec 12 j 20:31 25°Υ27'45 0°55'10 -7943 May 29 j 19:21 7°**º**25′28 -0°13′26 opposition opposition 25°**Y**21'48 min. Earth dist. -7949 Dec 13 j 14:49 min. Earth dist. -7943 May 29 j 06:19 7°**2**29'46 4.08125 AU 4.34348 AU direct -7948 Feb 13 j 00:58 20°Y24'44 -7943 Jul 27 j 16:54 2°**2**32'20 direct 0°8 -7948 May 10 j 02:28 evening set -7943 Nov 28 i 02:50 21°**≏**22'44 evening set -7948 Jun 20 j 04:24 8°833'28 -7948 Jul 01 j 17:36 max. Earth dist. 11°**8**06'54 6.35115 AU conjunction -7943 Dec 11 i 07:50 24°**£**29'23 -0°35'53 minimum elong -7943 Dec 11 i 07:46 24°**£**29'21 0°36'03 -7948 Jul 03 j 02:13 11°**8**25'00 1°00'04 max. Earth dist. -7943 Dec 12 i 11:37 24°**£**45'47 6.06041 AU conjunction -7948 Jul 03 j 02:09 11°**8**24'58 1°00'22 -7943 Dec 24 j 16:09 27°**♀**37'52 minimum elong morning rise -7948 Jul 15 j 20:49 14°**8**14'56 -7942 Jan 03 j 20:59 0°M morning rise 15°M -7948 Jul 19 j 06:40 15°8 -7942 Mar 24 j 16:04 -7948 Oct 13 j 15:04 $0^{\circ}II$ retrograde -7942 May 05 j 11:13 17°M39'31 retrograde -7948 Nov 13 j 13:06 1°**Ⅱ**28'51 -7942 Jun 16 j 01:08 15°RM -7948 Dec 14 j 15:33 30°R₩ opposition -7942 Jul 04 j 17:44 12°M35'20 -1°30'53 opposition -7947 Jan 13 j 00:02 26°837'07 1°52'39 min. Earth dist. -7942 Jul 03 j 19:39 12°M42'46 4.05284 AU -7947 Jan 14 j 00:22 26°**8**29'20 4.34900 AU direct -7942 Aug 31 j 22:30 7°M40'18 min. Earth dist. -7947 Mar 16 j 13:05 21°**8**36'23 -7942 Nov 09 j 21:27 15°M direct $0^{\circ}\Pi$ -7941 Jan 03 j 09:02 26° M44'45 -7947 Jun 05 j 00:25 evening set 9°**Ⅱ**40'19 evening set -7947 Jul 21 j 15:56 max. Earth dist. -7947 Aug 01 j 19:39 12°**Ⅱ**09'54 6.33345 AU conjunction -7941 Jan 16 j 20:53 29°M54'24 -1°18'58 minimum elong -7941 Jan 16 j 20:48 29°M54'22 1°19'24 conjunction -7947 Aug 03 j 05:25 12°**Ⅲ**28'51 1°29'02 -7941 Jan 17 j 06:25 0°**∡**7 minimum elong -7947 Aug 03 j 05:22 12°**Ⅲ**28'49 1°29'30 max. Earth dist. -7941 Jan 18 j 09:31 0°**х** 15'53 6.05694 AU -7947 Aug 15 j 16:31 15°**Ⅱ**16'19 -7941 Jan 30 j 11:50 3°**х**¹05'33 morning rise morning rise

-7941 Jun 10 j 09:10

retrograde

22°**х** 59'51

-7947 Nov 02 j 11:29

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Attention, astronomical year style is used: The year -7941 in astronomical counting style is the year 7942 BCE in historical counting style.							
min. Earth dist.	-7941 Aug 08 j 00:49	•	4.07618 AU	,	-7935 Jan 26 j 11:29	30°R 8	
opposition	-7941 Aug 09 j 00:54	17° ∡ ′54'44	-2°14'51	direct	-7935 Mar 21 j 03:59	26° 8 07'09	
direct	-7941 Oct 06 j 06:15	12° ∡ 56′25			-7935 May 12 j 19:59	$\Pi^{\circ}0$	
	-7940 Jan 31 j 07:22	8°0		evening set	-7935 Jul 26 j 01:32	14° Ⅱ 10′32	
evening set	-7940 Feb 09 j 08:02	2° る 03'40		max. Earth dist.	-7935 Aug 06 j 03:17	16° Ⅱ 39'18	6.32870 AU
conjunction	-7940 Feb 23 j 00:29	5° る 13'04		conjunction	-7935 Aug 07 j 14:03	16° Ⅱ 58'49	1°31'09
minimum elong	-7940 Feb 23 j 00:30	5° る 13'04		minimum elong	-7935 Aug 07 j 14:00	16° Ⅱ 58'48	1°31'39
max. Earth dist.	-7940 Feb 24 j 10:18		6.10399 AU	morning rise	-7935 Aug 20 j 00:39	19° Ⅱ 46'14	
morning rise	-7940 Mar 07 j 18:07	8°る22'57			-7935 Oct 08 j 10:42	0°©	
retrograde	-7940 Jul 14 j 01:17	27° る 40'12	2000121	retrograde	-7935 Dec 20 j 12:35	7°522'08	2010124
opposition min. Earth dist.	-7940 Sep 11 j 05:52	22° る 36'42	4.14233 AU	opposition min. Earth dist.	-7934 Feb 19 j 14:51	2° © 30'09 2° © 22'57	4.30236 AU
direct	-7940 Sep 10 j 13:32 -7940 Nov 09 j 06:21	22 3 4217 17° る 35'06	4.14233 AU	min. Earth dist.	-7934 Feb 20 j 13:33 -7934 Mar 12 j 07:49	2 €022 37 30°R∏	4.30230 AU
direct	-7939 Feb 14 j 23:21	0°≈		direct	-7934 Mar 12 j 07.49 -7934 Apr 22 j 18:34	27° Ⅱ 32'45	
evening set	-7939 Mar 16 j 19:02	0 ∞ 6° ≈ 31'29		direct	-7934 Apr 22 j 18.34 -7934 Jun 02 j 17:34	0°9	
evening set	7757 Will 10 j 17.02	0 70 31 27		evening set	-7934 Aug 26 j 06:39	15°9540'28	
conjunction	-7939 Mar 30 j 12:45	9° ≈ 38'03	-1°13'50	evening sec	7,50.11 4.8 20 J 00.5	10 - 10 20	
minimum elong	-7939 Mar 30 j 12:50	9° ≈ 38'06	1°14'17	conjunction	-7934 Sep 07 j 16:41	18°930'05	1°30'21
max. Earth dist.	-7939 Mar 31 j 06:33	9° ≈ 48'09	6.18379 AU	minimum elong	-7934 Sep 07 j 16:44	18° © 30'06	1°30'52
morning rise	-7939 Apr 13 j 05:39	12° ≈ 44′03		max. Earth dist.	-7934 Sep 06 j 15:24	18° © 15'39	6.26547 AU
	-7939 Apr 23 j 09:10	15° ≈		morning rise	-7934 Sep 20 j 02:17	21°519'42	
	-7939 Jul 20 j 06:18	0° ∀			-7934 Oct 30 j 10:05	$0^{\circ}\Omega$	
retrograde	-7939 Aug 16 j 02:37	1° ¥ 10′22		retrograde	-7933 Jan 23 j 09:28	9° Ω 34'15	
	-7939 Sep 11 j 19:19	30° R ≈		opposition	-7933 Mar 25 j 18:08	4° Ω 40'09	1°56'57
opposition	-7939 Oct 14 j 06:40	26° ≈ 10′15	-1°20'39	min. Earth dist.	-7933 Mar 26 j 08:08	4° Ω 35'41	4.22492 AU
min. Earth dist.	-7939 Oct 14 j 01:27	26° ≈ 12′00	4.22733 AU		-7933 May 13 j 12:12	30° ₹ 5	
direct	-7939 Dec 13 j 10:53	21° ≈ 06'31		direct	-7933 May 25 j 22:46	29° © 45'30	
	-7938 Mar 05 j 05:17	0° ∀			-7933 Jun 07 j 08:39	0 \circ Ω	
evening set	-7938 Apr 20 j 22:09	9°) 44'13			-7933 Sep 13 j 14:10	15° Ω	
	T000 N	1201/ 16100	0020146	evening set	-7933 Sep 27 j 02:14	18° Ω 04'28	
conjunction	-7938 May 04 j 12:26	12°) (46′00		. ,.	7022 0 + 00 : 15 47	200 0 50100	1001120
minimum elong	-7938 May 04 j 12:29	12°) (46′01	0°30'58	conjunction	-7933 Oct 09 j 15:47	20° Ω 59'09	1°01'39
max. Earth dist.	-7938 May 04 j 08:40 -7938 May 18 j 00:10	12°) 43'53 15°) 46'21	6.26828 AU	minimum elong max. Earth dist.	-7933 Oct 09 j 15:51 -7933 Oct 09 j 05:05	20° Ω 59'12 20° Ω 52'57	1°02'03 6.18086 AU
morning rise	-7938 May 18 J 00:10	13 χ 4621 0° Υ		morning rise	-7933 Oct 09 j 03:03 -7933 Oct 22 j 07:04	20 δ <i>t</i> 32 37 23° Ω 54'51	0.18080 AU
retrograde	-7938 Sep 17 j 01:49	3° Υ 27'52		morning risc	-7933 Oct 22 j 07:04 -7933 Nov 18 j 10:51	0° m	
retrograde	-7938 Nov 04 j 04:07	30°R ₩		retrograde	-7932 Feb 27 j 16:21	12° m) 56'28	
opposition	-7938 Nov 15 j 11:29	28°) 31'37	-0°08'13	opposition	-7932 Apr 28 j 23:26	7° m 58'45	0°56'45
min. Earth dist.	-7938 Nov 15 j 20:22	28°) 28'40	4.30340 AU	min. Earth dist.	-7932 Apr 28 j 22:53	7° Mp 58'56	4.13845 AU
asc. node	-7938 Dec 27 j 18:26	24°) €01'40		direct	-7932 Jun 27 j 21:06	3° m/05'41	
direct	-7937 Jan 15 j 22:03	23°) €27'31		evening set	-7932 Oct 29 j 05:50	21° m)41'15	
	-7937 Mar 26 j 13:47	0° Y		•	v	•	
evening set	-7937 May 24 j 11:19	11° Y 46'50		conjunction	-7932 Nov 11 j 03:24	24° Mp 42'53	0°11'53
				minimum elong	-7932 Nov 11 j 03:25	24° Mp 42° 53	0°11'59
conjunction	-7937 Jun 06 j 17:45	14° Y 42'50	0°20'50	behind sun begin	-7932 Nov 10 j 21:48	24° Mp 39'36	
minimum elong	-7937 Jun 06 j 17:43	14° Y '42'49	0°20'53	behind sun end	-7932 Nov 11 j 09:02	24° Mp 46'10	
max. Earth dist.	-7937 Jun 05 j 19:53	14° Ƴ 30'44	6.33042 AU	max. Earth dist.	-7932 Nov 11 j 14:38	24° m 49'28	6.10123 AU
morning rise	-7937 Jun 19 j 20:38	17° Ƴ 37'03		morning rise	-7932 Nov 24 j 03:48	27° m/46'11	
	-7937 Aug 21 j 20:17	0°8			-7932 Dec 03 j 18:52	0∘ ⊽	
retrograde	-7937 Oct 18 j 10:05	4° 8 53'11	1004145	desc. node	-7931 Feb 04 j 02:02	12° 2 29'21	
opposition	-7937 Dec 17 j 09:12	29° Υ 59'58	1°04'45	retrograde	-7931 Apr 04 j 01:32	17° £ 29'34	0025120
i. Dardh diad	-7937 Dec 17 j 09:05	30°R℃	4.247/0 ATT	opposition	-7931 Jun 03 j 21:29	12° £ 28'00	
min. Earth dist.	-7937 Dec 18 j 04:02	29° Y 53'51 24° Y 57'08	4.34768 AU	min. Earth dist. direct	-7931 Jun 03 j 07:27	12° ♀ 32'37 7° ♀ 34'46	4.07237 AU
direct	-7936 Feb 17 j 15:28 -7936 Apr 18 j 11:40	0° 8		evening set	-7931 Aug 01 j 16:01 -7931 Dec 03 j 04:12	26° £ 28'27	
evening set	-7936 Apr 18 j 11:40 -7936 Jun 24 j 16:22	13° 8 04'19		evening set	7731 Dec 03 J 04.12	20 == 20 2/	
evening set	-7936 Jul 03 j 09:31	15°8		conjunction	-7931 Dec 16 j 10:11	29° ₽ 35'49	-0°43'13
max. Earth dist.	-7936 Jul 06 j 04:26	15° 8 37'10	6.35263 AU	minimum elong	-7931 Dec 16 j 10:11		0°43'25
Law dist.	.,22341 00 j 01.20	05/10		max. Earth dist.	-7931 Dec 17 j 14:41	29° ₽ 52'38	6.05459 AU
conjunction	-7936 Jul 07 j 12:51	15° 8 55'11	1°05'28		-7931 Dec 18 j 03:10	0°M	
minimum elong	-7936 Jul 07 j 12:47	15° 8 55'09	1°05'49	morning rise	-7931 Dec 29 j 19:50	2°M45'05	
morning rise	-7936 Jul 20 j 06:06	18° 8 44'29		-	-7930 Feb 24 j 18:15	15° M ₊	
-	-7936 Sep 14 j 06:07	$\Pi^{\circ}0$		retrograde	-7930 May 10 j 14:36	22°M48'40	
retrograde	-7936 Nov 18 j 01:03	5° ∏ 59′08		opposition	-7930 Jul 09 j 19:22	17° M 44'15	-1°39'46
opposition	-7935 Jan 17 j 14:15	1° Ⅱ 07'31	1°58'27	min. Earth dist.	-7930 Jul 08 j 19:38		4.05105 AU
min. Earth dist.	-7935 Jan 18 j 15:11	0°∏59'34	4.34753 AU		-7930 Jul 31 j 08:55	15°RM	

•	nical year style is used: Th		_	\ //		, .	150 12
direct	-7930 Sep 05 j 22:22	12°M48'51			-7924 Mar 14 j 11:18	0° 8	
	-7930 Oct 12 j 08:59	15°M			-7924 Jun 17 j 23:17	15° 8	
	-7930 Dec 31 j 07:49	0° ⊼		evening set	-7924 Jun 28 j 23:16	17° 8 24'04	
evening set	-7929 Jan 08 j 15:05	1° ∡ 755'24		max. Earth dist.	-7924 Jul 10 j 07:58	19° 8 55'06	6.35499 AU
Č	,				,		
conjunction	-7929 Jan 22 j 03:55	5° ∡ 05'19	-1°22'59	conjunction	-7924 Jul 11 j 18:29	20° 8 14'17	1°10'15
minimum elong	-7929 Jan 22 j 03:51	5° ∡ ¹05'17	1°23'26	minimum elong	-7924 Jul 11 j 18:25	20° 8 14'14	1°10'37
max. Earth dist.	-7929 Jan 23 j 18:23	5° ∡ 27'51	6.05945 AU	morning rise	-7924 Jul 24 j 10:32	23° 8 02'59	
morning rise	-7929 Feb 04 j 19:21	8° ≯ 16'34			-7924 Aug 26 j 03:19	Π $^{\circ}0$	
retrograde	-7929 Jun 15 j 11:26	28° ∡ °07'46		retrograde	-7924 Nov 22 j 07:59	10° Ⅱ 18'27	
min. Earth dist.	-7929 Aug 13 j 01:08	23° ∡ 10'40	4.08307 AU	opposition	-7923 Jan 21 j 23:42	5° Ⅱ 26'52	2°03'19
opposition	-7929 Aug 14 j 00:11	23° х 02'47	-2°17'10	min. Earth dist.	-7923 Jan 23 j 00:56	5° Ⅱ 18'49	4.34505 AU
direct	-7929 Oct 11 j 07:40	18° ∡ °04′04		direct	-7923 Mar 25 j 12:27	0° Ⅱ 26'47	
	-7928 Jan 13 j 05:49	ರ°0		evening set	-7923 Jul 30 j 06:33	18° Ⅱ 30′13	
evening set	-7928 Feb 14 j 14:23	7° る 10'31		max. Earth dist.	-7923 Aug 10 j 08:04	20° Ⅱ 59'08	6.32145 AU
8	,				<i>C</i> 3		
conjunction	-7928 Feb 28 j 07:11	10° る 19'37	-1°32'08	conjunction	-7923 Aug 11 j 18:26	21° Ⅱ 18′29	1°32'40
minimum elong	-7928 Feb 28 j 07:13	10° る 19'38	1°32'40	minimum elong	-7923 Aug 11 j 18:24	21° Ⅱ 18′28	1°33'11
max. Earth dist.	-7928 Feb 29 j 16:28	10°る38'47	6.11490 AU	morning rise	-7923 Aug 24 j 04:26	24° Ⅱ 05'57	
morning rise	-7928 Mar 13 j 01:00	13° る 29'04		C	-7923 Sep 20 j 08:11	0 \circ \odot	
C	-7928 Jun 07 j 18:10	0° ≈		retrograde	-7923 Dec 25 j 01:17	11° © 46'39	
retrograde	-7928 Jul 18 j 19:23	2°≈38'51		opposition	-7922 Feb 24 j 03:56	6° © 54'32	2°17'58
	-7928 Aug 28 j 15:31	30°Ŗる		min. Earth dist.	-7922 Feb 25 j 03:11	6°5947'10	4.29069 AU
min. Earth dist.	-7928 Sep 15 j 08:17	27°る41'20	4.15645 AU	direct	-7922 Apr 27 j 05:27	1°957'30	2,00,110
opposition	-7928 Sep 16 j 00:38	27° る 35'45		evening set	-7922 Aug 30 j 13:12	20°9507'33	
direct	-7928 Nov 14 j 03:53	22° る 33'49			,,==::::::		
uncet	-7927 Jan 25 j 18:55	0°≈		conjunction	-7922 Sep 11 j 23:21	22° © 57'52	1°28'00
evening set	-7927 Mar 21 j 21:05	11° ≈ 26'37		minimum elong	-7922 Sep 11 j 23:23	22°957'53	1°28'30
evening set	7727 Will 21 j 21.03	11 70/2037		max. Earth dist.	-7922 Sep 10 j 21:29	22°543'03	6.25029 AU
conjunction	-7927 Apr 04 j 14:27	14° ≈ 32'23	-1°08'51	morning rise	-7922 Sep 24 j 09:37	25°5048'20	0.2302) 110
minimum elong	-7927 Apr 04 j 14:27	14°≈32'26		morning risc	-7922 Scp 24 j 09:37 -7922 Oct 13 j 03:32	0°Ω	
max. Earth dist.	-7927 Apr 04 j 14:32	14°≈40'51	6.20024 AU	retrograde	-7921 Jan 28 j 03:58	14° Ω 10'52	
max. Earm dist.	-7927 Apr 05 j 05:20	14 ∞4031 15°≈	0.20024 AU	opposition	-7921 Mar 30 j 12:28	9° Ω 16'17	1°50'47
morning rise	-7927 Apr 00 j 15:19 -7927 Apr 18 j 06:50	17°≈37'27		min. Earth dist.	-7921 Mar 30 j 12:28	9° Ω 12'26	4.20720 AU
morning rise	-7927 Apr 18 j 06:30	1/ ≈3/2/ 0°) {			•	4°Ω21'53	4.20720 AU
		5° ¥ 55'00		direct	-7921 May 30 j 11:55	4 δ (21 33	
retrograde	-7927 Aug 20 j 16:28		1911!10	avanina aat	-7921 Aug 27 j 13:06		
opposition	-7927 Oct 18 j 20:41	0°) 55′24	4.24438 AU	evening set	-7921 Oct 01 j 13:56	22° Ω 45′08	
min. Earth dist.	-7927 Oct 18 j 17:59		4.24438 AU		7001 0 + 14:04 40	250 0 41104	0055145
4:4	-7927 Oct 25 j 18:07	30°R≈		conjunction	-7921 Oct 14 j 04:40	25° Ω 41'04	0°55'45
direct	-7927 Dec 18 j 07:19	25°≈51'30		minimum elong	-7921 Oct 14 j 04:44	25° Ω 41'07	0°56'06
	-7926 Feb 09 j 18:55	0°) {		max. Earth dist.	-7921 Oct 13 j 21:36	25° Ω 36'58	6.16241 AU
evening set	-7926 Apr 25 j 17:01	14°) €24'20		morning rise	-7921 Oct 26 j 21:02	28° Ω 38′05	
	700636 00:06 0 0	150\(0.510.2	0000110		-7921 Nov 01 j 19:13	0° my	
conjunction	-7926 May 09 j 06:28	17° ¥ 25′03		retrograde	-7920 Mar 03 j 18:36	17° Mp 48'37	0046102
minimum elong	-7926 May 09 j 06:30	17°) €25'04	0°23'53	opposition	-7920 May 03 j 23:08	12° m 50'25	0°46'03
max. Earth dist.	-7926 May 09 j 00:51	17° ∺ 21'56	6.28468 AU	min. Earth dist.	-7920 May 03 j 21:15	12° mp 51'01	4.12071 AU
morning rise	-7926 May 22 j 16:57	20°) €24'14		direct	-7920 Jul 02 j 16:27	7° m 57'28	
	-7926 Jul 08 j 00:02	0° Υ		evening set	-7920 Nov 03 j 01:33	26° m 38'03	
retrograde	-7926 Sep 21 j 08:47	7° Y 58'46					
asc. node	-7926 Nov 07 j 20:22	4° Y 36'47		conjunction	-7920 Nov 16 j 00:19	29° Mp 40'55	0°04'02
opposition	-7926 Nov 19 j 21:40	3° Y 02'59	0°02'20	minimum elong	-7920 Nov 16 j 00:19	29° m/40'55	0°04'05
min. Earth dist.	-7926 Nov 20 j 07:26	2° Y 59'45	4.31783 AU	behind sun begin	-7920 Nov 15 j 16:18	29° m 36'13	
	-7926 Dec 14 j 19:04	30° ₹		behind sun end	-7920 Nov 16 j 08:20	29° m 45'37	
direct	-7925 Jan 20 j 11:35	27° ¥ 58'56		max. Earth dist.	-7920 Nov 16 j 13:21	29° Mp 48'35	6.08588 AU
	-7925 Feb 26 j 14:26	0° Υ			-7920 Nov 17 j 08:41	0∘ ⊽	
evening set	-7925 May 28 j 23:14	16° Ƴ 13'59		morning rise	-7920 Nov 29 j 02:24	2° ≏ 45'35	
max. Earth dist.	-7925 Jun 10 j 03:28	18° Ƴ 55'16	6.34168 AU	desc. node	-7920 Dec 14 j 07:22	6° ≏ 16'23	
				retrograde	-7919 Apr 09 j 06:11	22° ≏ 35'42	
conjunction	-7925 Jun 11 j 04:08	19° Y 08'54	0°27'39	min. Earth dist.	-7919 Jun 08 j 07:18	17° ≏ 39'16	4.06104 AU
minimum elong	-7925 Jun 11 j 04:05	19° Ƴ 08'53	0°27'46	opposition	-7919 Jun 09 j 00:26	17° ≏ 33'35	-0°37'08
morning rise	-7925 Jun 24 j 05:38	22° Y 02'05		direct	-7919 Aug 06 j 14:33	12° ≏ 40'09	
	-7925 Aug 01 j 05:50	0° 8			-7919 Dec 01 j 07:55	0° M	
retrograde	-7925 Oct 22 j 17:14	9° 8 14'50		evening set	-7919 Dec 08 j 07:31	1°M37'53	
opposition	-7925 Dec 21 j 17:53	4° 8 21'57	1°13'32				
min. Earth dist.	-7925 Dec 22 j 15:11	4° 8 15'04	4.35494 AU	conjunction	-7919 Dec 21 j 14:49	4°M46'04	-0°50'17
	-7924 Jan 31 j 21:47	30° ₹ Υ		minimum elong	-7919 Dec 21 j 14:44	4°M46'01	0°50'33
direct	-7924 Feb 22 j 03:41	29° Y 19'20		max. Earth dist.	-7919 Dec 22 j 23:14	5°M05'12	6.04823 AU

Planetary Phenomena of Jupiter from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23, Attention, astronomical year style is used: The year -7918 in astronomical counting style is the year 7919 BCE in historical counting style. -7918 Jan 04 i 01:26 7°M56'02 direct -7912 Feb 26 i 16:08 3°850'02 morning rise -7918 Feb 04 j 06:02 15°M₀ -7912 May 31 j 20:52 15°8 -7918 May 15 j 21:12 28°M01'06 -7912 Jul 03 j 10:18 21°**8**54'17 retrograde evening set -7918 Jul 14 j 22:25 -7912 Jul 14 j 16:27 24°**8**24'09 22°M56'21 -1°47'56 max. Earth dist. 6.35254 AU opposition 4.05035 AU -7918 Jul 13 j 22:25 min. Earth dist. 23°ML04'29 -7912 Jul 16 j 04:09 24°844'01 direct -7918 Sep 11 j 01:21 18°ML00'30 conjunction 1°14'51 -7912 Jul 16 j 04:05 24°**8**43'59 -7918 Dec 13 j 06:03 0°**∡** minimum elong 1°15'15 -7912 Jul 28 j 19:09 27°832'22 evening set -7917 Jan 13 j 22:46 7°**х** 08′16 morning rise -7912 Aug 09 j 00:23 0°II 14°**I**I50′27 conjunction -7917 Jan 27 j 12:17 10°**∡**18'16 -1°26'22 retrograde -7912 Nov 26 j 22:46 minimum elong -7917 Jan 27 j 12:13 10°**х** 18′14 1°26′50 opposition -7911 Jan 26 j 14:57 9°**Ⅱ**58'59 2°07'45 -7917 Jan 29 j 03:47 -7911 Jan 27 j 17:22 max. Earth dist. 10°**∡**′41′22 6.06401 AU min. Earth dist. 9°**Ⅲ**50'34 4.33892 AU morning rise -7917 Feb 10 j 04:19 13°**∡**°29′28 direct -7911 Mar 30 j 03:36 4°**Ⅱ**59'20 -7917 May 05 j 09:43 0°궁 evening set -7911 Aug 03 j 16:38 23°**Ⅲ**03'44 retrograde -7917 Jun 20 j 11:12 3°**る**15'56 max. Earth dist. -7911 Aug 14 j 17:38 25°**Ⅲ**32'45 6.31199 AU -7917 Aug 05 j 09:23 30°₽**х**7 opposition -7917 Aug 18 j 23:25 28° ₹11'00 -2°18'25 conjunction -7911 Aug 16 j 03:57 25°**Ⅲ**52'07 1°33'43 28°**₹**19'06 min. Earth dist. -7917 Aug 17 j 23:44 4.09232 AU minimum elong -7911 Aug 16 j 03:56 $25^{\circ} \Pi 52'07$ 1°34'15 direct -7917 Oct 16 j 08:04 23°**҂**11'46 morning rise -7911 Aug 28 j 13:39 28°**Ⅲ**39'50 -7917 Dec 23 j 07:36 0°る -7911 Sep 03 j 13:10 evening set -7916 Feb 19 j 21:01 12°る16'24 retrograde -7911 Dec 29 j 19:07 16°9526'11 opposition -7910 Feb 28 i 23:17 11°533'50 2°16'41 conjunction -7916 Mar 04 j 14:01 15°る25'02 -1°30'38 min. Earth dist. -7910 Mar 01 i 20:33 11°9527'05 4.27878 AU minimum elong -7916 Mar 04 j 14:03 15°る25'03 1°31'09 direct -7910 May 01 j 20:26 6°937'16 max. Earth dist. -7916 Mar 05 j 20:48 15°る42'43 6.12757 AU evening set -7910 Sep 04 j 01:19 24°9549'28 -7916 Mar 18 j 07:51 18°る33'53 morning rise -7916 May 11 j 14:43 -7910 Sep 16 j 11:50 27°9540'28 1°25'00 0°≈≈ conjunction -7916 Jul 23 j 14:33 -7910 Sep 16 j 11:53 27°5940'29 retrograde 7°≈35'35 minimum elong 1°25'30 -7916 Sep 20 j 19:00 max. Earth dist. -7910 Sep 15 j 13:13 27°**5**27'28 2°≈32'52 -1°59'13 6.23712 AU opposition -7916 Sep 20 j 05:02 -7910 Sep 26 j 15:00 min. Earth dist. 2°≈37'38 4.17077 AU 0 $^{\circ}\Omega$ -7916 Oct 10 j 10:56 -7910 Sep 28 j 22:32 30°Ŗる 0°**£**31'43 morning rise -7910 Dec 11 j 10:31 -7916 Nov 19 j 03:52 direct 27°る30'32 15°Ω -7909 Feb 02 j 04:47 -7916 Dec 29 j 05:39 19°**Ω**01'24 0°≈ retrograde -7915 Mar 20 j 23:15 -7909 Mar 28 j 11:48 15°≈ 15°Ŗ**Ω** 14°**Ω**06'26 1°43'34 -7915 Mar 26 j 22:27 -7909 Apr 04 j 12:25 evening set 16°≈19'49 opposition -7909 Apr 04 j 23:19 14°**Ω**02'57 4.19376 AU min. Earth dist. -7915 Apr 09 j 15:40 -7909 Jun 04 j 08:22 9°**Ω**12'25 conjunction 19°≈24'53 -1°03'24 direct minimum elong -7915 Apr 09 j 15:45 19°≈24'56 1°03'47 -7909 Aug 06 j 12:15 15°€ max. Earth dist. -7915 Apr 10 j 04:57 19°≈32'22 6.21503 AU -7909 Oct 06 j 06:24 27°**Ω**38'11 evening set -7915 Apr 23 j 07:20 22°≈29'03 -7909 Oct 16 j 09:58 0° m morning rise -7915 May 28 j 06:59 0°**)**€ -7915 Aug 25 j 05:14 10°**)** 38′51 -7909 Oct 18 j 22:02 0° mp 35'05 0°49'15 retrograde conjunction -7915 Oct 23 j 10:51 5°**¥**39'51 -1°01'31 -7909 Oct 18 j 22:06 0° **m** 35'07 0° 49'33 opposition minimum elong 6.15017 AU min. Earth dist. -7915 Oct 23 j 09:19 5°**)** 40′22 4.25819 AU -7909 Oct 18 j 17:14 0°m/32'17 max. Earth dist. -7915 Dec 23 j 01:00 0°**)** 35′51 -7909 Oct 31 j 15:50 3°m/33'14 direct morning rise evening set -7914 Apr 30 j 12:24 19°\ 05'16 retrograde -7908 Mar 08 j 21:17 22° m 50'09 opposition -7908 May 09 i 02:06 17° m 51'21 0°34'41 conjunction -7914 May 14 j 00:40 22°\cdot\05'04 -0°16'26 min. Earth dist. -7908 May 08 j 20:37 17° m 53'08 4.11090 AU minimum elong -7914 May 14 j 00:42 22°\cdot\05'05 0°16'34 direct -7908 Jul 07 i 14:27 12° m 58'30 max. Earth dist. -7914 May 13 i 14:39 21°¥59'30 6.29644 AU desc. node -7908 Oct 22 j 21:31 27° m 58'06 -7914 May 27 j 10:09 25°\ 03'20 -7908 Oct 31 j 17:56 0∘**⊽** morning rise -7914 Jun 19 j 07:46 $0^{\circ}\Upsilon$ -7908 Nov 07 j 23:28 1°**£**41'09 evening set asc. node -7914 Sep 17 j 12:58 12°Y26'13 retrograde -7914 Sep 25 j 20:24 12°Y33'01 conjunction -7908 Nov 20 j 23:32 4°**£**44'50 -0°04'08 opposition -7914 Nov 24 j 09:50 7°**Υ**'37'45 0°13'03 minimum elong -7908 Nov 20 j 23:32 4°**£**44'50 0°04'07 min. Earth dist. -7914 Nov 24 j 22:30 7°**Ƴ**33'35 4.32668 AU behind sun begin -7908 Nov 20 j 15:30 4°**£**40'07 2° Y 33'48 -7913 Jan 25 j 04:22 behind sun end -7908 Nov 21 j 07:34 4°**₽**49'33 direct -7913 Jun 02 j 13:23 20°\bar{Y}46'42 -7908 Nov 21 j 17:04 4°**£**55'11 evening set max. Earth dist. 6.07949 AU -7908 Dec 04 j 02:47 morning rise 7°**♀**50'20 -7913 Jun 15 j 17:03 23°**Y**'40'52 0°34'31 -7907 Apr 14 j 12:11 conjunction retrograde 27°**£**43'33 -7907 Jun 13 j 09:33 4.05877 AU minimum elong -7913 Jun 15 j 17:00 23°**Y**′40′51 0°34'40 min. Earth dist. 22°**≏**46'55 max. Earth dist. -7913 Jun 14 j 15:05 23°**Y**26'30 6.34687 AU opposition -7907 Jun 14 j 03:37 22°**₽**40'55 -0°48'38 morning rise -7913 Jun 28 j 17:02 26°**Y**33'14 direct -7907 Aug 11 j 16:21 17°**£**47'13 -7913 Jul 14 j 14:18 0°8 -7907 Nov 13 j 16:30 0°M retrograde -7913 Oct 27 j 02:50 13°**8**44'53 evening set -7907 Dec 13 j 10:22 6°M45'49 -7913 Dec 26 j 06:12 8°**8**52'19 1°22'14 opposition

min. Earth dist.

-7913 Dec 27 j 03:48

8°845'21 4.35645 AU

conjunction

-7907 Dec 26 j 18:33

9°M54'17 -0°56'54

Planetary Phenomena of Juniter	from -8400 through -7898 (UT), Astrodienst AG 18-Feb-2025 14:23,	nage 44
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minimum elong	-7907 Dec 26 j 18:28	9°M.54'14		morning rise	r 7908 BCE in historical c -7901 Jul 03 j 03:35	1° 8 02'59	
max. Earth dist.	-7907 Dec 28 j 04:50	10°M14'29		morning risc	-7901 Sep 15 j 04:11	15° 8	
morning rise	-7906 Jan 09 j 06:09	13°M04'31	0.03000 AC	retrograde	-7901 Sep 13 j 04:11 -7901 Oct 31 j 15:29	18° 8 15'12	
morning risc	-7906 Jan 17 j 12:51	15°M		retrograde	-7901 Dec 17 j 23:27	15°R8	
	-7906 Apr 05 j 14:10	0° ∡ ⊓		opposition	-7901 Dec 30 j 19:22	13° 8 22'53	1°30'26
retrograde	-7906 May 20 j 21:54	3° ∡ 107'36		min. Earth dist.	-7901 Dec 30 j 19:22	13° 8 15'23	4.35375 AU
retrograde	-7906 Jul 05 j 02:56	30°RM		direct	-7901 Dec 31 j 18:40	8° 8 20'55	4.33373 AU
opposition	-7906 Jul 19 j 22:15	28°M02'39	-1°55'02	uncet	-7900 May 12 j 01:33	15° 8	
min. Earth dist.	-7906 Jul 18 j 21:05	28°M11'11	4.05639 AU	evening set	-7900 May 12 j 01:33	26° 8 25'40	
direct	-7906 Sep 16 j 00:14	23°M06'21	4.03037 110	max. Earth dist.	-7900 Jul 19 j 03:19	28° 8 55'37	6.34685 AU
direct	-7906 Nov 22 j 18:53	0° √		max. Lartii dist.	-7500 Jul 15 J 05.15	20 03337	0.54005 AC
evening set	-7905 Jan 19 j 03:09	12° × 13'15		conjunction	-7900 Jul 20 j 14:21	29° 8 15'09	1°19'00
evening set	-7705 Jan 17 J 05.07	12 × 13 13		minimum elong	-7900 Jul 20 j 14:21	29° 8 15'07	
conjunction	-7905 Feb 01 j 17:12	15° ∡ "23′02	-1°28'50	minimum ciong	-7900 Jul 23 j 22:44	0° Ⅱ	1 1) 23
minimum elong	-7905 Feb 01 j 17:12	15° × 23'01		morning rise	-7900 Jul 23 j 22:44 -7900 Aug 02 j 04:13	2° I I03'17	
max. Earth dist.	-7905 Feb 03 j 07:20	15° x 25'01	6.07333 AU	retrograde	-7900 Aug 02 j 04:13	19° Ⅱ 24'54	
morning rise	-7905 Feb 15 j 09:39	18° × 33'56	0.07333 AO	opposition	-7899 Jan 31 j 07:26	14° II 33'24	2°11'26
morning rise	·	0°る		min. Earth dist.	-7899 Feb 01 j 08:23	14 ∏ 35 24 14° ∏ 25'28	4.33095 AU
	-7905 Apr 09 j 16:45				,		4.33093 AU
retrograde	-7905 Jun 25 j 07:35	8°る14'19	2010125	direct	-7899 Apr 03 j 17:23	9° Ⅱ 34'14	
opposition	-7905 Aug 23 j 18:34	3°る09'31		evening set	-7899 Aug 08 j 03:55	27° Ⅱ 39'49	
min. Earth dist.	-7905 Aug 22 j 20:34		4.10384 AU		-7899 Aug 18 j 12:34	0°50	(20225 : **
T	-7905 Sep 17 j 21:31	30°₹ ⋌ ¹		max. Earth dist.	-7899 Aug 19 j 05:51	0° © 09'47	6.30237 AU
direct	-7905 Oct 21 j 07:04	28° ₹ 09'44					
	-7905 Nov 23 j 22:36	0°₹		conjunction	-7899 Aug 20 j 14:39		1°34'11
evening set	-7904 Feb 24 j 22:49	17° る 11'57		minimum elong	-7899 Aug 20 j 14:39	0°\$28'20	1°34'42
		_		morning rise	-7899 Sep 02 j 00:08	3°516'20	
conjunction	-7904 Mar 09 j 16:12	20° る 20'09		retrograde	-7898 Jan 03 j 15:59	21°508'11	
minimum elong	-7904 Mar 09 j 16:15	20° පි 20'11					
max. Earth dist.	-7904 Mar 10 j 21:50		6.14033 AU				
morning rise	-7904 Mar 23 j 09:49	23° る 28'22					
	-7904 Apr 22 j 01:04	0° ≈					
retrograde	-7904 Jul 28 j 05:33	12° ≈ 22'28					
opposition	-7904 Sep 25 j 09:27	7° ≈ 20'14	-1°53'02				
min. Earth dist.	-7904 Sep 24 j 20:57	7° ≈ 24'29	4.18343 AU				
direct	-7904 Nov 23 j 21:38	2° ≈ 17'34					
	-7903 Mar 03 j 21:41	15° ≈					
evening set	-7903 Mar 31 j 19:56	21° ≈ 04'06					
conjunction	-7903 Apr 14 j 12:38	24°≈08'30	-0°57'42				
minimum elong	-7903 Apr 14 j 12:43	24°≈08'33	0°58'03				
max. Earth dist.	-7903 Apr 14 j 20:50	24°≈13'07	6.22661 AU				
morning rise	-7903 Apr 28 j 03:52	27°≈11'59	0.22001 AU				
morning rise	-7903 Apr 28 j 03.32 -7903 May 10 j 20:03	0° \					
ratra ara da		0 X 15° ¥ 15'40					
retrograde	-7903 Aug 29 j 16:29		0051120				
opposition	-7903 Oct 27 j 22:23	10° ¥ 17'10					
min. Earth dist.	-7903 Oct 27 j 23:41	10°) 16'44 5°) 13'01	4.26764 AU				
direct evening set	-7903 Dec 27 j 17:12	5° 八 13'01 23° 八 40'32					
evening set	-7902 May 05 j 05:02	23°π40'32					
conjunction	-7902 May 18 j 16:32	26°) 39'42	-0°09'14				
minimum elong	-7902 May 18 j 16:33	26° ∺ 39'43	0°09'20				
behind sun begin	-7902 May 18 j 09:42	26° ¥ 35'56					
behind sun end	-7902 May 18 j 23:24	26°) 43′30					
max. Earth dist.	-7902 May 18 j 04:51	26°) €33'13	6.30325 AU				
morning rise	-7902 Jun 01 j 00:44	29° \ 37'13					
· · · · · · · · · · · · · · · · · · ·	-7902 Jun 02 j 18:06	0° Υ					
asc. node	-7902 Jul 28 j 15:56	11° Y 11'04					
retrograde	-7902 Sep 30 j 05:37	17° Υ 03'53					
opposition	-7902 Sep 30 j 03.57 -7902 Nov 28 j 20:52	17 γ 03 33 12° γ ′09'05	0°23'30				
min. Earth dist.	-7902 Nov 28 j 20:32 -7902 Nov 29 j 10:28	12° Υ 09'03 12° Υ 04'37	4.33048 AU				
		7° Υ 05'20	7.55040 AU				
direct	-7901 Jan 29 j 16:53						
evening set	-7901 Jun 07 j 02:32	25° Y 17'34	6 24720 ATT				
max. Earth dist.	-7901 Jun 18 j 23:36	27° Y 55'00	6.34730 AU				
conjunction	-7901 Jun 20 j 04:43	28° Ƴ 11'08	0°41'05				
minimum elong	-7901 Jun 20 j 04:40	28° Y 11′06	0°41'16				
2	-7901 Jun 28 i 00:24	0∘∺					

-7901 Jun 28 j 09:24 0°**8**