

Planetary Phenomena of Jupiter from -400 through 100 (UT), AstroDienst AG 14-Nov-2015 16:12, page 1

Attention, astronomical year style is used: The year -400 in astronomical counting style is the year 401 BCE in historical counting style.

retrograde	-400 Apr 09 j 14:54	17°♌24'24		asc. node	-394 Mar 02 j 15:46	5°♈16'09	
opposition	-400 Jun 09 j 12:40	12°♌30'08	0°07'01	evening set	-394 Jun 09 j 22:34	22°♈27'58	
min. Earth dist.	-400 Jun 10 j 09:50	12°♌23'19	4.14950 AU				
desc. node	-400 Jul 23 j 20:12	8°♌00'27		conjunction	-394 Jun 23 j 14:40	25°♈29'48	0°11'36
direct	-400 Aug 09 j 05:27	7°♌34'45		minimum elong	-394 Jun 23 j 14:39	25°♈29'48	0°11'36
evening set	-400 Dec 12 j 05:14	26°♌23'27		behind sun begin	-394 Jun 23 j 08:51	25°♈26'35	
				behind sun end	-394 Jun 23 j 20:27	25°♈33'00	
conjunction	-400 Dec 24 j 23:45	29°♌24'20	0°-16'-29	max. Earth dist.	-394 Jun 24 j 13:19	25°♈42'23	6.28483 AU
minimum elong	-400 Dec 24 j 23:43	29°♌24'20	0°16'30	morning rise	-394 Jul 07 j 05:09	28°♈30'39	
max. Earth dist.	-400 Dec 24 j 06:00	29°♌13'51	6.08870 AU				
	-400 Dec 27 j 11:58	0°♈		retrograde	-394 Nov 07 j 07:51	16°♈13'27	
morning rise	-399 Jan 06 j 19:40	2°♈26'14		opposition	-393 Jan 06 j 02:17	11°♈14'32	0°44'38
retrograde	-399 May 16 j 10:18	22°♈05'21		min. Earth dist.	-393 Jan 05 j 20:15	11°♈16'33	4.33970 AU
opposition	-399 Jul 15 j 23:48	17°♈07'39	0°-55'-21	direct	-393 Mar 08 j 02:57	6°♈11'31	
min. Earth dist.	-399 Jul 16 j 02:34	17°♈06'45	4.03615 AU	evening set	-393 Jul 13 j 08:56	24°♈09'04	
direct	-399 Sep 13 j 07:39	12°♈14'07					
	-398 Jan 09 j 15:40	0°♈		conjunction	-393 Jul 26 j 17:50	27°♈03'49	0°47'24
evening set	-398 Jan 16 j 02:27	1°♈32'02		minimum elong	-393 Jul 26 j 17:48	27°♈03'47	0°47'25
				max. Earth dist.	-393 Jul 26 j 12:25	27°♈00'51	6.38391 AU
conjunction	-398 Jan 29 j 02:43	4°♈39'23	0°-53'-50	morning rise	-393 Aug 09 j 00:07	29°♈57'08	
minimum elong	-398 Jan 29 j 02:40	4°♈39'21	0°53'51		-393 Aug 09 j 05:24	0°♈	
max. Earth dist.	-398 Jan 29 j 14:14	4°♈46'18	5.99837 AU		-393 Nov 01 j 16:21	15°♈	
morning rise	-398 Feb 11 j 05:48	7°♈48'20		retrograde	-393 Dec 07 j 21:33	17°♈01'05	
	-398 Mar 14 j 09:43	15°♈			-392 Jan 13 j 03:15	15°♈	
retrograde	-398 Jun 23 j 05:21	28°♈12'28		opposition	-392 Feb 06 j 00:10	12°♈05'49	1°27'22
opposition	-398 Aug 22 j 08:59	23°♈10'49	-1°-39'-19	min. Earth dist.	-392 Feb 06 j 11:34	12°♈02'05	4.41409 AU
min. Earth dist.	-398 Aug 21 j 14:30	23°♈17'00	3.97956 AU	direct	-392 Apr 08 j 02:35	7°♈02'34	
direct	-398 Oct 19 j 14:11	18°♈17'13			-392 Jun 25 j 17:11	15°♈	
	-397 Jan 18 j 16:37	0°♈		evening set	-392 Aug 13 j 06:24	24°♈45'13	
evening set	-397 Feb 21 j 16:54	7°♈49'25		max. Earth dist.	-392 Aug 25 j 03:22	27°♈19'43	6.42733 AU
conjunction	-397 Mar 07 j 00:41	11°♈00'57	-1°-11'-29	conjunction	-392 Aug 26 j 07:09	27°♈34'50	1°08'57
minimum elong	-397 Mar 07 j 00:40	11°♈00'57	1°11'29	minimum elong	-392 Aug 26 j 07:08	27°♈34'49	1°08'57
max. Earth dist.	-397 Mar 08 j 15:08	11°♈24'01	5.97973 AU		-392 Sep 06 j 10:17	0°♈	
morning rise	-397 Mar 20 j 11:47	14°♈14'10		morning rise	-392 Sep 08 j 04:40	0°♈22'55	
	-397 Jun 04 j 15:14	0°♈		retrograde	-391 Jan 06 j 08:16	17°♈14'22	
retrograde	-397 Jul 30 j 14:00	4°♈41'32		opposition	-391 Mar 07 j 20:20	12°♈21'41	1°45'31
	-397 Sep 25 j 12:28	30°♈		min. Earth dist.	-391 Mar 08 j 21:52	12°♈13'29	4.42524 AU
min. Earth dist.	-397 Sep 27 j 01:26	29°♈47'27	4.00225 AU	direct	-391 May 09 j 12:08	7°♈19'28	
opposition	-397 Sep 28 j 08:27	29°♈36'54	-1°-44'-41	evening set	-391 Sep 13 j 06:10	25°♈01'22	
direct	-397 Nov 25 j 07:01	24°♈41'07		max. Earth dist.	-391 Sep 24 j 04:00	27°♈24'50	6.40428 AU
	-396 Jan 22 j 17:50	0°♈					
evening set	-396 Mar 30 j 00:10	14°♈04'49		conjunction	-391 Sep 26 j 00:12	27°♈49'09	1°11'25
				minimum elong	-391 Sep 26 j 00:13	27°♈49'09	1°11'25
conjunction	-396 Apr 12 j 15:22	17°♈16'53	-1°-1'-31		-391 Oct 05 j 22:22	0°♈	
minimum elong	-396 Apr 12 j 15:25	17°♈16'55	1°01'31	morning rise	-391 Oct 08 j 15:51	0°♈35'50	
max. Earth dist.	-396 Apr 14 j 19:59	17°♈47'49	6.04086 AU	retrograde	-390 Feb 06 j 16:22	17°♈41'54	
morning rise	-396 Apr 26 j 08:46	20°♈29'56		opposition	-390 Apr 08 j 11:10	12°♈50'12	1°35'02
	-396 Jun 08 j 09:48	0°♈		min. Earth dist.	-390 Apr 09 j 21:24	12°♈39'18	4.36987 AU
retrograde	-396 Sep 03 j 05:55	10°♈15'55		direct	-390 Jun 10 j 01:36	7°♈49'54	
min. Earth dist.	-396 Oct 31 j 11:16	5°♈21'46	4.09490 AU	evening set	-390 Oct 14 j 02:57	25°♈45'10	
opposition	-396 Nov 01 j 19:00	5°♈10'57	-1°-10'-18	max. Earth dist.	-390 Oct 24 j 19:04	28°♈08'36	6.32051 AU
direct	-396 Dec 30 j 07:12	0°♈12'08					
	-395 Apr 17 j 04:20	15°♈		conjunction	-390 Oct 26 j 18:01	28°♈34'59	0°53'54
evening set	-395 May 05 j 17:21	19°♈08'52		minimum elong	-390 Oct 26 j 18:03	28°♈35'01	0°53'53
					-390 Nov 02 j 01:12	0°♈	
conjunction	-395 May 19 j 11:50	22°♈17'15	0°-29'-17	morning rise	-390 Nov 08 j 07:33	1°♈24'17	
minimum elong	-395 May 19 j 11:52	22°♈17'16	0°29'17		-389 Jan 17 j 00:38	15°♈	
max. Earth dist.	-395 May 21 j 07:58	22°♈42'26	6.15688 AU	retrograde	-389 Mar 11 j 13:49	19°♈10'11	
morning rise	-395 Jun 02 j 06:59	25°♈25'39			-389 May 06 j 00:24	15°♈	
	-395 Jun 22 j 21:19	0°♈		opposition	-389 May 11 j 13:21	14°♈17'47	0°56'41
retrograde	-395 Oct 06 j 16:03	14°♈07'54		min. Earth dist.	-389 May 12 j 20:49	14°♈07'45	4.26228 AU
min. Earth dist.	-395 Dec 04 j 08:03	9°♈12'45	4.22165 AU	direct	-389 Jul 12 j 08:06	9°♈20'06	
opposition	-395 Dec 05 j 06:22	9°♈05'12	0°-13'-20		-389 Sep 13 j 18:12	15°♈	
direct	-394 Feb 02 j 22:54	4°♈03'39		evening set	-389 Nov 14 j 18:11	27°♈40'47	

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Attention, astronomical year style is used: The year -389 in astronomical counting style is the year 390 BCE in historical counting style.

	-389 Nov 24 j 19:51	0°♁		minimum elong	-383 May 24 j 14:19	27°♁13'41	0°23'39
max. Earth dist.	-389 Nov 25 j 20:37	0°♁14'19	6.19817 AU	max. Earth dist.	-383 May 26 j 09:01	27°♁37'58	6.17376 AU
					-383 Jun 05 j 19:29	0°♁	
conjunction	-389 Nov 27 j 09:42	0°♁35'46	0°19'43	morning rise	-383 Jun 07 j 09:02	0°♁21'10	
minimum elong	-389 Nov 27 j 09:43	0°♁35'47	0°19'42	retrograde	-383 Oct 11 j 07:39	18°♁54'41	
morning rise	-389 Dec 10 j 01:19	3°♁31'05		opposition	-383 Dec 09 j 21:07	13°♁52'29	0°-4'-42
retrograde	-388 Apr 14 j 16:13	22°♁15'39		min. Earth dist.	-383 Dec 09 j 00:55	13°♁59'18	4.23939 AU
desc. node	-388 Jun 02 j 19:06	18°♁50'00		asc. node	-382 Jan 09 j 19:39	10°♁11'06	
opposition	-388 Jun 14 j 12:24	17°♁20'57	0°-1'-51	direct	-382 Feb 07 j 18:33	8°♁50'43	
min. Earth dist.	-388 Jun 15 j 08:24	17°♁14'30	4.13282 AU	evening set	-382 Jun 14 j 19:13	27°♁10'38	
direct	-388 Aug 14 j 01:35	12°♁25'51			-382 Jun 27 j 13:53	0°♁	
	-388 Dec 11 j 08:44	0°♁					
evening set	-388 Dec 16 j 22:50	1°♁18'40		conjunction	-382 Jun 28 j 10:28	0°♁11'23	0°17'14
				minimum elong	-382 Jun 28 j 10:26	0°♁11'22	0°17'14
conjunction	-388 Dec 29 j 18:00	4°♁20'29	0°-22'-19	max. Earth dist.	-382 Jun 29 j 05:58	0°♁22'10	6.30231 AU
minimum elong	-388 Dec 29 j 17:59	4°♁20'28	0°22'20	morning rise	-382 Jul 12 j 00:01	3°♁11'05	
max. Earth dist.	-388 Dec 29 j 03:13	4°♁11'43	6.07342 AU	retrograde	-382 Nov 11 j 16:03	20°♁46'22	
morning rise	-387 Jan 11 j 14:51	7°♁23'25		opposition	-381 Jan 10 j 12:27	15°♁47'56	0°51'50
retrograde	-387 May 21 j 14:31	27°♁10'18		min. Earth dist.	-381 Jan 10 j 07:58	15°♁49'25	4.35593 AU
opposition	-387 Jul 21 j 03:46	22°♁12'04	-1°-3'-9	direct	-381 Mar 12 j 16:46	10°♁44'48	
min. Earth dist.	-387 Jul 21 j 03:03	22°♁12'18	4.02393 AU	evening set	-381 Jul 17 j 22:55	28°♁38'18	
direct	-387 Sep 18 j 06:33	17°♁18'37			-381 Jul 24 j 05:40	0°♁	
	-387 Dec 23 j 09:25	0°♁					
evening set	-386 Jan 21 j 02:44	6°♁39'52		conjunction	-381 Jul 31 j 06:39	1°♁32'00	0°51'25
				minimum elong	-381 Jul 31 j 06:36	1°♁31'58	0°51'25
conjunction	-386 Feb 03 j 03:54	9°♁47'59	0°-57'-46	max. Earth dist.	-381 Jul 30 j 23:15	1°♁27'58	6.39781 AU
minimum elong	-386 Feb 03 j 03:51	9°♁47'58	0°57'47	morning rise	-381 Aug 13 j 11:27	4°♁24'11	
max. Earth dist.	-386 Feb 03 j 18:48	9°♁56'57	5.99016 AU		-381 Oct 05 j 19:08	15°♁	
morning rise	-386 Feb 16 j 08:04	12°♁57'46		retrograde	-381 Dec 12 j 03:26	21°♁23'13	
	-386 Feb 24 j 22:02	15°♁		opposition	-380 Feb 10 j 07:38	16°♁28'24	1°31'24
	-386 May 12 j 00:11	0°♁		min. Earth dist.	-380 Feb 10 j 20:58	16°♁24'04	4.42482 AU
retrograde	-386 Jun 28 j 11:55	3°♁25'40			-380 Feb 21 j 19:29	15°♁	
	-386 Aug 15 j 08:42	30°♁		direct	-380 Apr 12 j 13:31	11°♁25'16	
opposition	-386 Aug 27 j 13:58	28°♁23'26	-1°-42'-38		-380 Jun 02 j 06:36	15°♁	
min. Earth dist.	-386 Aug 26 j 17:36	28°♁30'16	3.97632 AU	evening set	-380 Aug 17 j 14:56	29°♁05'02	
direct	-386 Oct 24 j 17:33	23°♁29'33			-380 Aug 21 j 20:39	0°♁	
	-386 Dec 28 j 18:50	0°♁		max. Earth dist.	-380 Aug 29 j 06:46	1°♁36'42	6.43386 AU
evening set	-385 Feb 26 j 21:36	13°♁02'39					
				conjunction	-380 Aug 30 j 14:23	1°♁53'53	1°10'26
conjunction	-385 Mar 12 j 06:41	16°♁14'38	-1°-11'-44	minimum elong	-380 Aug 30 j 14:21	1°♁53'52	1°10'26
minimum elong	-385 Mar 12 j 06:41	16°♁14'38	1°11'46	morning rise	-380 Sep 12 j 10:55	4°♁41'19	
max. Earth dist.	-385 Mar 14 j 01:15	16°♁40'08	5.98173 AU	retrograde	-379 Jan 10 j 14:12	21°♁31'15	
morning rise	-385 Mar 25 j 18:47	19°♁28'12		opposition	-379 Mar 12 j 03:23	16°♁38'46	1°45'40
	-385 May 11 j 22:33	0°♁		min. Earth dist.	-379 Mar 13 j 07:01	16°♁29'54	4.42722 AU
retrograde	-385 Aug 04 j 18:03	9°♁53'02		direct	-379 May 13 j 20:54	11°♁36'41	
min. Earth dist.	-385 Oct 02 j 03:01	4°♁58'54	4.00935 AU	evening set	-379 Sep 17 j 11:11	29°♁17'43	
opposition	-385 Oct 03 j 10:32	4°♁48'11	-1°-41'-59		-379 Sep 20 j 16:34	0°♁	
	-385 Nov 21 j 15:21	30°♁		max. Earth dist.	-379 Sep 28 j 08:01	1°♁40'45	6.40145 AU
direct	-385 Nov 30 j 09:27	29°♁52'02					
	-385 Dec 09 j 04:17	0°♁		conjunction	-379 Sep 30 j 04:40	2°♁05'20	1°10'06
evening set	-384 Apr 04 j 05:40	19°♁13'41		minimum elong	-379 Sep 30 j 04:41	2°♁05'21	1°10'06
				morning rise	-379 Oct 12 j 19:33	4°♁51'53	
conjunction	-384 Apr 17 j 21:32	22°♁25'34	0°-58'-2	retrograde	-378 Feb 10 j 23:23	22°♁00'16	
minimum elong	-384 Apr 17 j 21:35	22°♁25'35	0°58'03	opposition	-378 Apr 12 j 20:21	17°♁08'35	1°31'15
max. Earth dist.	-384 Apr 20 j 01:17	22°♁55'53	6.05226 AU	min. Earth dist.	-378 Apr 14 j 06:41	16°♁57'40	4.36221 AU
morning rise	-384 May 01 j 15:44	25°♁38'23		direct	-378 Jun 14 j 08:40	12°♁08'37	
	-384 May 20 j 18:07	0°♁			-378 Oct 17 j 22:14	0°♁	
	-384 Aug 25 j 23:58	15°♁		evening set	-378 Oct 18 j 07:54	0°♁05'23	
retrograde	-384 Sep 08 j 01:53	15°♁17'04		max. Earth dist.	-378 Oct 28 j 22:45	2°♁28'35	6.30850 AU
	-384 Sep 21 j 03:03	15°♁					
min. Earth dist.	-384 Nov 05 j 07:45	10°♁23'02	4.10943 AU	conjunction	-378 Oct 30 j 22:37	2°♁55'35	0°50'04
opposition	-384 Nov 06 j 15:25	10°♁12'15	-1°-3'-5	minimum elong	-378 Oct 30 j 22:40	2°♁55'36	0°50'04
direct	-383 Jan 04 j 06:32	5°♁13'01		morning rise	-378 Nov 12 j 12:16	5°♁45'24	
	-383 Mar 29 j 12:50	15°♁			-378 Dec 26 j 07:00	15°♁	
evening set	-383 May 10 j 19:41	24°♁05'59		retrograde	-377 Mar 16 j 05:02	23°♁37'37	
				opposition	-377 May 16 j 03:26	18°♁45'00	0°49'39
conjunction	-383 May 24 j 14:18	27°♁13'40	0°-23'-39	min. Earth dist.	-377 May 17 j 11:26	18°♁34'47	4.24626 AU

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Attention, astronomical year style is used: The year -366 in astronomical counting style is the year 367 BCE in historical counting style.

	-366 Dec 08 j 00:03	15°♍		min. Earth dist.	-360 Nov 15 j 00:56	20°♄22'57	4.14648 AU
retrograde	-365 Mar 21 j 01:03	28°♍21'19		opposition	-360 Nov 16 j 07:00	20°♄12'43	0°-47'-22
opposition	-365 May 21 j 00:07	23°♍28'28	0°41'54	direct	-359 Jan 14 j 05:28	15°♄12'39	
min. Earth dist.	-365 May 22 j 06:36	23°♍18'44	4.22641 AU		-359 May 03 j 04:26	0°♄	
direct	-365 Jul 21 j 11:38	18°♍31'29		evening set	-359 May 20 j 22:15	3°♄55'10	
	-365 Oct 23 j 04:16	0°♄					
evening set	-365 Nov 23 j 18:04	7°♄01'24		conjunction	-359 Jun 03 j 16:19	7°♄00'54	0°-12'-2
max. Earth dist.	-365 Dec 05 j 00:19	9°♄38'31	6.15920 AU	minimum elong	-359 Jun 03 j 16:20	7°♄00'54	0°12'03
				behind sun begin	-359 Jun 03 j 10:47	6°♄57'47	
conjunction	-365 Dec 06 j 10:18	9°♄58'20	0°08'21	behind sun end	-359 Jun 03 j 21:53	7°♄04'01	
minimum elong	-365 Dec 06 j 10:18	9°♄58'21	0°08'21	max. Earth dist.	-359 Jun 05 j 05:18	7°♄21'44	6.21375 AU
behind sun begin	-365 Dec 06 j 03:14	9°♄54'14		morning rise	-359 Jun 17 j 10:09	10°♄06'12	
behind sun end	-365 Dec 06 j 17:22	10°♄02'27		asc. node	-359 Sep 27 j 23:04	27°♄32'15	
morning rise	-365 Dec 19 j 03:13	12°♄55'51		retrograde	-359 Oct 20 j 07:49	28°♄20'36	
desc. node	-364 Feb 22 j 15:35	26°♄27'38		opposition	-359 Dec 18 j 23:24	23°♄19'19	0°12'20
	-364 Mar 19 j 13:41	0°♄		min. Earth dist.	-359 Dec 18 j 07:29	23°♄24'40	4.27819 AU
retrograde	-364 Apr 24 j 17:57	1°♄59'38		direct	-358 Feb 17 j 06:10	18°♄16'58	
	-364 May 31 j 03:55	30°♄			-358 May 24 j 19:44	0°♄	
opposition	-364 Jun 24 j 12:26	27°♄04'07	0°-19'-33	evening set	-358 Jun 24 j 08:03	6°♄27'15	
min. Earth dist.	-364 Jun 25 j 03:40	26°♄59'10	4.09376 AU				
direct	-364 Aug 23 j 15:28	22°♄09'35		conjunction	-358 Jul 07 j 21:29	9°♄25'48	0°28'02
	-364 Nov 05 j 08:11	0°♄		minimum elong	-358 Jul 07 j 21:27	9°♄25'47	0°28'03
evening set	-364 Dec 26 j 12:55	11°♄13'33		max. Earth dist.	-358 Jul 08 j 09:46	9°♄32'32	6.33661 AU
				morning rise	-358 Jul 21 j 08:39	12°♄23'05	
conjunction	-363 Jan 08 j 09:44	14°♄17'37	0°-33'-30	retrograde	-358 Nov 20 j 06:54	29°♄44'48	
minimum elong	-363 Jan 08 j 09:42	14°♄17'36	0°33'32	opposition	-357 Jan 19 j 06:01	24°♄47'26	1°05'11
max. Earth dist.	-363 Jan 08 j 02:54	14°♄13'33	6.03805 AU	min. Earth dist.	-357 Jan 19 j 06:37	24°♄47'14	4.38315 AU
morning rise	-363 Jan 21 j 08:28	17°♄22'58		direct	-357 Mar 21 j 18:26	19°♄44'11	
	-363 Mar 20 j 11:55	0°♄			-357 Jun 20 j 11:28	0°♄	
retrograde	-363 Jun 01 j 06:17	7°♄27'26		evening set	-357 Jul 26 j 23:50	7°♄31'50	
opposition	-363 Jul 31 j 14:28	2°♄28'10	-1°-17'-24				
min. Earth dist.	-363 Jul 31 j 08:29	2°♄30'09	3.99619 AU	conjunction	-357 Aug 09 j 05:06	10°♄23'49	0°58'33
	-363 Aug 20 j 05:21	30°♄		minimum elong	-357 Aug 09 j 05:03	10°♄23'48	0°58'33
direct	-363 Sep 28 j 08:42	27°♄34'53		max. Earth dist.	-357 Aug 08 j 13:18	10°♄15'14	6.41550 AU
	-363 Nov 05 j 20:59	0°♄		morning rise	-357 Aug 22 j 07:29	13°♄14'18	
evening set	-362 Jan 22 j 14:54	15°♄			-357 Aug 30 j 12:33	15°♄	
	-362 Jan 31 j 07:56	17°♄04'31			-357 Dec 11 j 13:19	0°♄	
				retrograde	-357 Dec 20 j 16:28	0°♄07'58	
conjunction	-362 Feb 13 j 11:16	20°♄14'24	-1°-4'-17		-357 Dec 29 j 18:33	30°♄	
minimum elong	-362 Feb 13 j 11:14	20°♄14'23	1°04'18	opposition	-356 Feb 18 j 23:00	25°♄13'56	1°38'10
max. Earth dist.	-362 Feb 14 j 10:32	20°♄28'26	5.97269 AU	min. Earth dist.	-356 Feb 19 j 17:34	25°♄07'56	4.43227 AU
morning rise	-362 Feb 26 j 17:55	23°♄26'03		direct	-356 Apr 21 j 09:52	20°♄11'00	
	-362 Mar 26 j 23:27	0°♄			-356 Jul 19 j 06:15	0°♄	
retrograde	-362 Jul 09 j 03:37	14°♄00'45		evening set	-356 Aug 26 j 08:30	7°♄49'52	
min. Earth dist.	-362 Sep 06 j 01:00	9°♄06'17	3.97180 AU	max. Earth dist.	-356 Sep 06 j 17:07	10°♄17'56	6.43019 AU
opposition	-362 Sep 07 j 02:44	8°♄57'36	-1°-46'-45				
direct	-362 Nov 04 j 01:14	4°♄03'19		conjunction	-356 Sep 08 j 06:04	10°♄38'04	1°12'21
evening set	-361 Mar 09 j 11:51	23°♄37'33		minimum elong	-356 Sep 08 j 06:03	10°♄38'04	1°12'20
				morning rise	-356 Sep 21 j 00:41	13°♄24'55	
conjunction	-361 Mar 22 j 23:09	26°♄50'10	-1°-10'-28		-355 Jan 05 j 12:33	0°♄	
minimum elong	-361 Mar 22 j 23:10	26°♄50'11	1°10'29	retrograde	-355 Jan 19 j 07:37	0°♄17'59	
max. Earth dist.	-361 Mar 24 j 23:07	27°♄18'47	5.99033 AU		-355 Feb 02 j 02:35	30°♄	
morning rise	-361 Apr 05 j 13:23	0°♄04'14		opposition	-355 Mar 20 j 23:02	25°♄25'53	1°44'29
	-361 Apr 05 j 06:13	0°♄		min. Earth dist.	-355 Mar 22 j 05:24	25°♄16'10	4.41296 AU
retrograde	-361 Aug 15 j 01:04	20°♄20'54		direct	-355 May 22 j 16:09	20°♄24'19	
min. Earth dist.	-361 Oct 12 j 06:30	15°♄27'00	4.03000 AU		-355 Aug 17 j 22:48	0°♄	
opposition	-361 Oct 13 j 15:36	15°♄15'42	-1°-34'-3	evening set	-355 Sep 26 j 03:36	8°♄09'22	
direct	-361 Dec 10 j 17:53	10°♄18'41		max. Earth dist.	-355 Oct 06 j 21:02	10°♄31'27	6.37757 AU
evening set	-360 Apr 14 j 18:20	29°♄33'46					
	-360 Apr 16 j 15:40	0°♄		conjunction	-355 Oct 08 j 20:01	10°♄57'29	1°06'18
				minimum elong	-355 Oct 08 j 20:03	10°♄57'30	1°06'18
conjunction	-360 Apr 28 j 11:37	2°♄44'53	0°-49'-42	morning rise	-355 Oct 21 j 10:11	13°♄44'42	
minimum elong	-360 Apr 28 j 11:40	2°♄44'54	0°49'42		-354 Jan 24 j 19:35	0°♄	
max. Earth dist.	-360 Apr 30 j 16:46	3°♄15'46	6.08304 AU	retrograde	-354 Feb 20 j 05:06	1°♄04'11	
morning rise	-360 May 12 j 06:32	5°♄56'35			-354 Mar 18 j 16:26	30°♄	
	-360 Jun 22 j 16:02	15°♄		opposition	-354 Apr 22 j 02:19	26°♄12'27	1°21'57
retrograde	-360 Sep 17 j 17:42	25°♄17'07		min. Earth dist.	-354 Apr 23 j 13:34	26°♄01'14	4.33008 AU

Planetary Phenomena of Jupiter from -400 through 100 (UT), AstroDienst AG 14-Nov-2015 16:12, page 5

Attention, astronomical year style is used: The year -354 in astronomical counting style is the year 355 BCE in historical counting style.

direct	-354 Jun 23 j 10:34	21°♄13'11		evening set	-348 Apr 19 j 22:01	4°♃36'20	
	-354 Sep 13 j 04:22	0°♆					
evening set	-354 Oct 27 j 05:29	9°♆18'05		conjunction	-348 May 03 j 15:38	7°♃46'46	0°-45'-5
max. Earth dist.	-354 Nov 06 j 22:02	11°♆43'31	6.27087 AU	minimum elong	-348 May 03 j 15:41	7°♃46'48	0°45'05
				max. Earth dist.	-348 May 05 j 18:02	8°♃15'56	6.10169 AU
conjunction	-354 Nov 08 j 20:16	12°♆09'49	0°41'09	morning rise	-348 May 17 j 10:47	10°♃57'41	
minimum elong	-354 Nov 08 j 20:18	12°♆09'50	0°41'08		-348 Jun 04 j 08:15	15°♃	
morning rise	-354 Nov 21 j 10:23	15°♆01'24			-348 Sep 13 j 05:06	0°♂	
	-354 Nov 21 j 07:55	15°♆		retrograde	-348 Sep 22 j 09:45	0°♂08'28	
	-353 Feb 07 j 16:23	0°♃			-348 Oct 01 j 13:34	30°♃	
retrograde	-353 Mar 26 j 00:38	3°♃10'53		opposition	-348 Nov 20 j 23:17	25°♃04'22	0°-39'-15
	-353 May 12 j 08:06	30°♃		min. Earth dist.	-348 Nov 19 j 19:34	25°♃13'48	4.16591 AU
opposition	-353 May 25 j 23:15	28°♆17'44	0°33'45	direct	-347 Jan 19 j 02:46	20°♃03'52	
min. Earth dist.	-353 May 27 j 03:39	28°♆08'38	4.20558 AU		-347 Apr 14 j 23:50	0°♂	
direct	-353 Jul 26 j 06:41	23°♆21'09		evening set	-347 May 25 j 20:01	8°♂41'19	
	-353 Oct 02 j 19:52	0°♃					
evening set	-353 Nov 28 j 11:20	11°♃56'21		conjunction	-347 Jun 08 j 13:54	11°♂46'06	0°-6'-16
max. Earth dist.	-353 Dec 09 j 23:07	14°♃37'19	6.13968 AU	minimum elong	-347 Jun 08 j 13:55	11°♂46'07	0°06'16
				behind sun begin	-347 Jun 08 j 06:03	11°♂41'43	
conjunction	-353 Dec 11 j 04:14	14°♃54'22	0°02'18	behind sun end	-347 Jun 08 j 21:47	11°♂50'30	
minimum elong	-353 Dec 11 j 04:13	14°♃54'22	0°02'18	max. Earth dist.	-347 Jun 10 j 00:47	12°♂05'41	6.23259 AU
behind sun begin	-353 Dec 10 j 20:13	14°♃49'42		morning rise	-347 Jun 22 j 06:58	14°♂50'17	
behind sun end	-353 Dec 11 j 12:14	14°♃59'02		asc. node	-347 Aug 07 j 20:52	24°♂33'37	
morning rise	-353 Dec 23 j 21:41	17°♃52'59			-347 Sep 10 j 23:08	0°♄	
desc. node	-352 Jan 01 j 05:47	19°♃48'43		retrograde	-347 Oct 24 j 16:49	2°♄56'11	
	-352 Feb 18 j 20:30	0°♄			-347 Dec 07 j 10:25	30°♃	
retrograde	-352 Apr 30 j 01:19	7°♄06'08		opposition	-347 Dec 23 j 09:53	27°♂55'27	0°20'31
opposition	-352 Jun 29 j 18:03	2°♄10'10	0°-28'-40	min. Earth dist.	-347 Dec 22 j 19:37	28°♂00'13	4.29490 AU
min. Earth dist.	-352 Jun 30 j 06:27	2°♄06'09	4.07730 AU	direct	-346 Feb 21 j 20:27	22°♂52'54	
	-352 Jul 17 j 01:37	30°♃			-346 May 05 j 07:21	0°♄	
direct	-352 Aug 28 j 16:13	27°♃15'58		evening set	-346 Jun 28 j 23:59	10°♄59'29	
	-352 Oct 09 j 08:59	0°♄					
evening set	-352 Dec 31 j 13:13	16°♄23'59		conjunction	-346 Jul 12 j 12:15	13°♄57'01	0°33'06
				minimum elong	-346 Jul 12 j 12:13	13°♄57'00	0°33'06
conjunction	-351 Jan 13 j 10:39	19°♄28'54	0°-38'-58	max. Earth dist.	-346 Jul 12 j 18:53	14°♄00'40	6.34987 AU
minimum elong	-351 Jan 13 j 10:37	19°♄28'53	0°38'59	morning rise	-346 Jul 25 j 22:24	16°♄53'18	
max. Earth dist.	-351 Jan 13 j 07:19	19°♄26'54	6.02603 AU		-346 Oct 02 j 12:18	0°♃	
morning rise	-351 Jan 26 j 10:32	22°♄35'14		retrograde	-346 Nov 24 j 14:26	4°♃09'57	
	-351 Feb 27 j 17:20	0°♄			-345 Jan 17 j 14:30	30°♃	
retrograde	-351 Jun 06 j 14:43	12°♄45'35		opposition	-345 Jan 23 j 13:43	29°♄13'06	1°11'13
opposition	-351 Aug 05 j 22:55	7°♄45'40	-1°-23'-50	min. Earth dist.	-345 Jan 23 j 17:53	29°♄11'44	4.39227 AU
min. Earth dist.	-351 Aug 05 j 12:48	7°♄49'01	3.98998 AU	direct	-345 Mar 26 j 06:50	24°♄09'45	
direct	-351 Oct 03 j 12:52	2°♄52'21			-345 May 31 j 02:17	0°♃	
	-350 Jan 04 j 15:54	15°♄		evening set	-345 Jul 31 j 11:02	11°♃55'54	
evening set	-350 Feb 05 j 13:10	22°♄23'02					
				conjunction	-345 Aug 13 j 15:20	14°♃47'16	1°01'36
conjunction	-350 Feb 18 j 17:40	25°♄33'24	-1°-6'-51	minimum elong	-345 Aug 13 j 15:17	14°♃47'15	1°01'36
minimum elong	-350 Feb 18 j 17:38	25°♄33'23	1°06'53	max. Earth dist.	-345 Aug 12 j 20:45	14°♃37'11	6.41968 AU
max. Earth dist.	-350 Feb 19 j 22:23	25°♄50'43	5.97266 AU		-345 Aug 14 j 14:45	15°♃	
morning rise	-350 Mar 04 j 01:13	28°♄45'28		morning rise	-345 Aug 26 j 16:26	17°♃37'06	
	-350 Mar 09 j 06:24	0°♃			-345 Oct 30 j 09:02	0°♃	
retrograde	-350 Jul 14 j 11:54	19°♃19'27		retrograde	-345 Dec 24 j 22:16	4°♃29'40	
min. Earth dist.	-350 Sep 11 j 06:18	14°♃24'52	3.97799 AU		-344 Feb 20 j 04:30	30°♃	
opposition	-350 Sep 12 j 09:00	14°♃15'50	-1°-47'-30	opposition	-344 Feb 23 j 06:51	29°♃35'59	1°40'46
direct	-350 Nov 09 j 08:02	9°♃21'14		min. Earth dist.	-344 Feb 24 j 02:38	29°♃29'35	4.43162 AU
evening set	-349 Mar 14 j 18:28	28°♃52'54		direct	-344 Apr 25 j 18:25	24°♃33'10	
	-349 Mar 19 j 11:42	0°♃			-344 Jun 28 j 13:06	0°♃	
				evening set	-344 Aug 30 j 17:25	12°♃12'47	
conjunction	-349 Mar 28 j 06:42	2°♃05'25	-1°-9'-2	max. Earth dist.	-344 Sep 10 j 23:05	14°♃39'34	6.42468 AU
minimum elong	-349 Mar 28 j 06:44	2°♃05'26	1°09'02				
max. Earth dist.	-349 Mar 30 j 08:37	2°♃35'05	6.00192 AU	conjunction	-344 Sep 12 j 14:02	15°♃00'50	1°12'42
morning rise	-349 Apr 10 j 21:51	5°♃19'18		minimum elong	-344 Sep 12 j 14:02	15°♃00'50	1°12'41
retrograde	-349 Aug 20 j 00:31	25°♃28'47		morning rise	-344 Sep 25 j 07:53	17°♃47'35	
min. Earth dist.	-349 Oct 17 j 05:14	20°♃35'07	4.04584 AU		-344 Nov 27 j 11:51	0°♄	
opposition	-349 Oct 18 j 15:12	20°♃23'32	-1°-29'-5	retrograde	-343 Jan 23 j 18:49	4°♄43'28	
direct	-349 Dec 15 j 18:30	15°♃26'05			-343 Mar 24 j 08:07	30°♃	
	-348 Mar 30 j 13:46	0°♃		opposition	-343 Mar 25 j 10:30	29°♃51'35	1°43'01

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Attention, astronomical year style is used: The year -343 in astronomical counting style is the year 344 BCE in historical counting style.

min. Earth dist.	-343 Mar 26 j 18:43	29°♄41'17	4.40305 AU	opposition	-338 Sep 17 j 10:50	19°♃24'25	-1°-47'-21
direct	-343 May 27 j 04:06	24°♄50'20		direct	-338 Nov 14 j 08:39	14°♃29'30	
	-343 Jul 27 j 18:39	0°♄			-337 Mar 02 j 19:23	0°♃	
evening set	-343 Sep 30 j 12:45	12°♄37'57		evening set	-337 Mar 19 j 21:38	3°♃58'39	
max. Earth dist.	-343 Oct 11 j 04:37	14°♄59'42	6.36405 AU				
				conjunction	-337 Apr 02 j 10:44	7°♃11'02	-1°-7'-6
conjunction	-343 Oct 13 j 04:44	15°♄26'27	1°03'48	minimum elong	-337 Apr 02 j 10:46	7°♃11'03	1°07'08
minimum elong	-343 Oct 13 j 04:46	15°♄26'28	1°03'48	max. Earth dist.	-337 Apr 04 j 12:17	7°♃40'24	6.01368 AU
morning rise	-343 Oct 25 j 18:45	18°♄14'09		morning rise	-337 Apr 16 j 02:42	10°♃24'43	
	-343 Dec 23 j 15:54	0°♄			-337 Aug 08 j 05:33	0°♃	
retrograde	-342 Feb 24 j 21:03	5°♄39'45		retrograde	-337 Aug 24 j 20:26	0°♃27'23	
opposition	-342 Apr 26 j 19:16	0°♄47'54	1°16'29		-337 Sep 10 j 09:06	30°♃	
min. Earth dist.	-342 Apr 28 j 05:16	0°♄37'04	4.31401 AU	min. Earth dist.	-337 Oct 22 j 02:09	25°♃33'24	4.06034 AU
	-342 May 03 j 02:18	30°♄		opposition	-337 Oct 23 j 11:04	25°♃22'09	-1°-23'-39
direct	-342 Jun 28 j 00:16	25°♄49'02		direct	-337 Dec 20 j 17:20	20°♃24'16	
	-342 Aug 21 j 07:24	0°♄			-336 Mar 12 j 05:30	0°♃	
evening set	-342 Oct 31 j 17:39	13°♄57'46		evening set	-336 Apr 24 j 22:10	9°♃30'34	
	-342 Nov 05 j 07:21	15°♄					
max. Earth dist.	-342 Nov 11 j 13:48	16°♄25'47	6.25383 AU	conjunction	-336 May 08 j 16:20	12°♃40'30	0°-40'-18
				minimum elong	-336 May 08 j 16:23	12°♃40'31	0°40'19
conjunction	-342 Nov 13 j 08:37	16°♄50'14	0°36'15	max. Earth dist.	-336 May 10 j 18:15	13°♃09'15	6.11791 AU
minimum elong	-342 Nov 13 j 08:39	16°♄50'15	0°36'14		-336 May 18 j 18:51	15°♃	
morning rise	-342 Nov 25 j 22:51	19°♄42'38		morning rise	-336 May 22 j 11:28	15°♃50'43	
	-341 Jan 13 j 14:20	0°♄			-336 Jul 31 j 17:10	0°♃	
retrograde	-341 Mar 31 j 00:30	8°♄00'06		retrograde	-336 Sep 26 j 23:38	4°♃53'02	
opposition	-341 May 30 j 22:30	3°♄06'42	0°25'21	min. Earth dist.	-336 Nov 24 j 10:38	29°♃58'18	4.18221 AU
min. Earth dist.	-341 Jun 01 j 01:23	2°♄58'05	4.18881 AU		-336 Nov 24 j 05:38	30°♃	
	-341 Jun 26 j 06:09	30°♄		opposition	-336 Nov 25 j 12:53	29°♃49'24	0°-31'-9
direct	-341 Jul 31 j 02:18	28°♄10'33		direct	-335 Jan 23 j 19:42	24°♃48'38	
	-341 Sep 03 j 12:46	0°♄			-335 Mar 24 j 09:27	0°♃	
desc. node	-341 Nov 10 j 17:41	11°♄43'06		evening set	-335 May 30 j 15:45	13°♃22'23	
evening set	-341 Dec 03 j 04:24	16°♄49'35					
				conjunction	-335 Jun 13 j 09:04	16°♃26'20	0°00'-34
conjunction	-341 Dec 15 j 21:35	19°♄48'24	0°-3'-48	minimum elong	-335 Jun 13 j 09:03	16°♃26'20	0°00'34
minimum elong	-341 Dec 15 j 21:36	19°♄48'24	0°03'49	behind sun begin	-335 Jun 13 j 00:44	16°♃21'42	
behind sun begin	-341 Dec 15 j 13:39	19°♄43'46		behind sun end	-335 Jun 13 j 17:23	16°♃30'58	
behind sun end	-341 Dec 16 j 05:32	19°♄53'03		max. Earth dist.	-335 Jun 14 j 14:52	16°♃43'00	6.24774 AU
max. Earth dist.	-341 Dec 14 j 18:50	19°♄32'41	6.12463 AU	asc. node	-335 Jun 18 j 18:07	17°♃38'30	
morning rise	-341 Dec 28 j 15:56	22°♄48'01		morning rise	-335 Jun 27 j 01:38	19°♃29'37	
	-340 Jan 29 j 14:39	0°♄			-335 Aug 17 j 02:16	0°♃	
retrograde	-340 May 05 j 05:12	12°♄08'52		retrograde	-335 Oct 29 j 01:45	7°♃28'38	
opposition	-340 Jul 04 j 22:10	7°♄12'21	0°-37'-24	opposition	-335 Dec 27 j 19:02	2°♃28'27	0°28'23
min. Earth dist.	-340 Jul 05 j 06:35	7°♄09'36	4.06537 AU	min. Earth dist.	-335 Dec 27 j 07:39	2°♃32'15	4.30784 AU
direct	-340 Sep 02 j 15:10	2°♄18'23			-334 Jan 16 j 04:41	30°♃	
evening set	-339 Jan 05 j 11:35	21°♄29'00		direct	-334 Feb 26 j 10:19	27°♃25'42	
					-334 Apr 09 j 02:25	0°♃	
conjunction	-339 Jan 18 j 09:53	24°♄34'36	0°-44'00	evening set	-334 Jul 03 j 14:39	15°♃29'55	
minimum elong	-339 Jan 18 j 09:51	24°♄34'35	0°44'01				
max. Earth dist.	-339 Jan 18 j 12:20	24°♄36'04	6.01827 AU	conjunction	-334 Jul 17 j 02:09	18°♃26'41	0°37'52
morning rise	-339 Jan 31 j 10:31	27°♄41'39		minimum elong	-334 Jul 17 j 02:06	18°♃26'40	0°37'51
	-339 Feb 10 j 04:43	0°♄		max. Earth dist.	-334 Jul 17 j 06:28	18°♃29'04	6.35984 AU
	-339 Apr 28 j 23:51	15°♄		morning rise	-334 Jul 30 j 11:00	21°♃22'04	
retrograde	-339 Jun 11 j 21:57	17°♄56'12			-334 Sep 10 j 10:41	0°♃	
	-339 Jul 26 j 01:52	15°♄		retrograde	-334 Nov 28 j 20:26	8°♃34'48	
opposition	-339 Aug 11 j 04:20	12°♄55'44	-1°-29'-22	opposition	-333 Jan 27 j 21:06	3°♃38'29	1°16'45
min. Earth dist.	-339 Aug 10 j 16:28	12°♄59'40	3.98734 AU	min. Earth dist.	-333 Jan 28 j 02:47	3°♃36'37	4.39883 AU
direct	-339 Oct 08 j 16:35	8°♄02'23			-333 Feb 28 j 01:46	30°♃	
	-339 Dec 15 j 08:39	15°♄		direct	-333 Mar 30 j 16:34	28°♃35'12	
evening set	-338 Feb 10 j 15:41	27°♄33'09			-333 Apr 30 j 16:31	0°♃	
	-338 Feb 20 j 20:15	0°♄			-333 Jul 29 j 15:55	15°♃	
				evening set	-333 Aug 04 j 21:50	16°♃20'24	
conjunction	-338 Feb 23 j 21:06	0°♄43'50	-1°-8'-49	max. Earth dist.	-333 Aug 17 j 02:10	18°♃58'52	6.42229 AU
minimum elong	-338 Feb 23 j 21:05	0°♄43'49	1°08'50				
max. Earth dist.	-338 Feb 25 j 04:54	1°♄02'58	5.97512 AU	conjunction	-333 Aug 18 j 00:51	19°♃11'12	1°04'15
morning rise	-338 Mar 09 j 05:47	3°♄56'14		minimum elong	-333 Aug 18 j 00:49	19°♃11'11	1°04'15
retrograde	-338 Jul 19 j 14:25	24°♄28'19		morning rise	-333 Aug 31 j 01:00	22°♃00'30	
min. Earth dist.	-338 Sep 16 j 06:06	19°♄34'09	3.98556 AU		-333 Oct 08 j 23:07	0°♄	

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Attention, astronomical year style is used: The year -333 in astronomical counting style is the year 334 BCE in historical counting style.

retrograde	-333 Dec 29 j 06:34	8°♃52'28			-327 Sep 10 j 17:53	15°♁	
opposition	-332 Feb 27 j 15:17	3°♃59'07	1°42'45	direct	-327 Oct 13 j 17:43	13°♁12'59	
min. Earth dist.	-332 Feb 28 j 13:41	3°♃51'54	4.43033 AU		-327 Nov 15 j 12:05	15°♁	
	-332 Apr 03 j 11:48	30°♁			-326 Feb 04 j 04:29	0°♃	
direct	-332 Apr 30 j 05:29	28°♁56'26		evening set	-326 Feb 15 j 19:29	2°♃45'22	
	-332 May 27 j 02:56	0°♃					
evening set	-332 Sep 04 j 01:53	16°♃36'33		conjunction	-326 Mar 01 j 01:59	5°♃56'34	-1°-10'-16
max. Earth dist.	-332 Sep 15 j 05:53	19°♃02'39	6.41946 AU	minimum elong	-326 Mar 01 j 01:58	5°♃56'34	1°10'16
				max. Earth dist.	-326 Mar 02 j 12:25	6°♃17'17	5.97422 AU
conjunction	-332 Sep 16 j 21:48	19°♃24'29	1°12'37	morning rise	-326 Mar 14 j 11:47	9°♃09'30	
minimum elong	-332 Sep 16 j 21:48	19°♃24'29	1°12'36	retrograde	-326 Jul 24 j 18:55	29°♃40'57	
morning rise	-332 Sep 29 j 14:48	22°♃11'07		min. Earth dist.	-326 Sep 21 j 08:34	24°♃46'41	3.98979 AU
	-332 Nov 06 j 07:36	0°♁		opposition	-326 Sep 22 j 14:09	24°♃36'39	-1°-46'-25
retrograde	-331 Jan 28 j 03:43	9°♁09'31		direct	-326 Nov 19 j 12:13	19°♃41'20	
opposition	-331 Mar 29 j 21:44	4°♁17'40	1°40'55		-325 Feb 12 j 08:10	0°♃	
min. Earth dist.	-331 Mar 31 j 05:38	4°♁07'29	4.39426 AU	evening set	-325 Mar 25 j 03:12	9°♃09'12	
	-331 May 09 j 14:09	30°♁					
direct	-331 May 31 j 13:44	29°♃16'40		conjunction	-325 Apr 07 j 17:25	12°♃21'39	-1°-4'-38
	-331 Jun 22 j 16:27	0°♁		minimum elong	-325 Apr 07 j 17:27	12°♃21'41	1°04'38
evening set	-331 Oct 04 j 21:19	17°♁06'12		max. Earth dist.	-325 Apr 09 j 21:27	12°♃52'24	6.02271 AU
max. Earth dist.	-331 Oct 15 j 13:23	19°♁28'29	6.35223 AU	morning rise	-325 Apr 21 j 10:04	15°♃35'14	
					-325 Jun 29 j 16:40	0°♃	
conjunction	-331 Oct 17 j 12:52	19°♁54'59	1°00'56	retrograde	-325 Aug 29 j 19:59	5°♃31'39	
minimum elong	-331 Oct 17 j 12:54	19°♁55'00	1°00'55	min. Earth dist.	-325 Oct 27 j 00:35	0°♃37'40	4.07313 AU
morning rise	-331 Oct 30 j 02:38	22°♁43'03		opposition	-325 Oct 28 j 09:13	0°♃26'32	-1°-17'-29
	-331 Dec 03 j 07:31	0°♁			-325 Oct 31 j 15:07	30°♁	
retrograde	-330 Mar 01 j 13:31	10°♁14'06		direct	-325 Dec 25 j 17:26	25°♃28'16	
opposition	-330 May 01 j 11:35	5°♁22'07	1°10'32		-324 Feb 17 j 23:31	0°♃	
min. Earth dist.	-330 May 02 j 21:59	5°♁11'10	4.29947 AU	evening set	-324 Apr 30 j 01:48	14°♃31'14	
direct	-330 Jul 02 j 15:04	0°♁23'34			-324 May 02 j 04:10	15°♃	
	-330 Oct 20 j 03:21	15°♁					
evening set	-330 Nov 05 j 04:33	18°♁35'24		conjunction	-324 May 13 j 20:07	17°♃40'35	0°-35'-6
max. Earth dist.	-330 Nov 16 j 01:13	21°♁04'17	6.23763 AU	minimum elong	-324 May 13 j 20:10	17°♃40'37	0°35'07
				max. Earth dist.	-324 May 15 j 19:13	18°♃07'37	6.13340 AU
conjunction	-330 Nov 17 j 19:36	21°♁28'35	0°31'09	morning rise	-324 May 27 j 15:28	20°♃50'09	
minimum elong	-330 Nov 17 j 19:38	21°♁28'36	0°31'09		-324 Jul 09 j 03:52	0°♁	
morning rise	-330 Nov 30 j 10:17	24°♁21'48		retrograde	-324 Oct 01 j 15:12	9°♁43'59	
	-330 Dec 25 j 19:13	0°♁		min. Earth dist.	-324 Nov 29 j 04:05	4°♁49'14	4.19901 AU
retrograde	-329 Apr 04 j 21:59	12°♁47'07		opposition	-324 Nov 30 j 05:06	4°♁40'45	0°-22'-37
opposition	-329 Jun 04 j 20:32	7°♁53'17	0°16'49		-323 Jan 14 j 08:54	30°♁	
min. Earth dist.	-329 Jun 05 j 20:36	7°♁45'33	4.17187 AU	direct	-323 Jan 28 j 16:09	29°♃39'40	
direct	-329 Aug 04 j 19:05	2°♁57'25			-323 Feb 12 j 02:16	0°♁	
desc. node	-329 Sep 20 j 13:49	6°♁15'13		asc. node	-323 Apr 27 j 19:58	10°♁08'19	
evening set	-329 Dec 07 j 20:25	21°♁40'32		evening set	-323 Jun 04 j 14:11	18°♁09'24	
conjunction	-329 Dec 20 j 14:13	24°♁40'15	0°-9'-44	conjunction	-323 Jun 18 j 07:06	21°♁12'25	0°05'21
minimum elong	-329 Dec 20 j 14:13	24°♁40'15	0°09'46	minimum elong	-323 Jun 18 j 07:05	21°♁12'25	0°05'21
behind sun begin	-329 Dec 20 j 07:36	24°♁36'22		behind sun begin	-323 Jun 17 j 23:03	21°♁07'58	
behind sun end	-329 Dec 20 j 20:50	24°♁44'08		behind sun end	-323 Jun 18 j 15:06	21°♁16'52	
max. Earth dist.	-329 Dec 19 j 15:38	24°♁26'57	6.10847 AU	max. Earth dist.	-323 Jun 19 j 11:04	21°♁28'01	6.26502 AU
morning rise	-328 Jan 02 j 09:09	27°♁40'51		morning rise	-323 Jul 01 j 22:40	24°♁14'35	
	-328 Jan 12 j 08:35	0°♁			-323 Jul 28 j 17:07	0°♁	
retrograde	-328 May 10 j 10:33	17°♁09'55		retrograde	-323 Nov 02 j 12:59	12°♁05'49	
opposition	-328 Jul 10 j 01:20	12°♁12'52	0°-45'-53	opposition	-322 Jan 01 j 06:36	7°♁06'14	0°36'16
min. Earth dist.	-328 Jul 10 j 08:08	12°♁10'39	4.05132 AU	min. Earth dist.	-323 Dec 31 j 21:00	7°♁09'26	4.32441 AU
direct	-328 Sep 07 j 14:47	7°♁19'04		direct	-322 Mar 03 j 02:17	2°♁03'27	
evening set	-327 Jan 10 j 10:07	26°♁33'21		evening set	-322 Jul 08 j 07:01	20°♁03'42	
conjunction	-327 Jan 23 j 09:15	29°♁39'48	0°-48'-43	conjunction	-322 Jul 21 j 17:12	22°♁59'22	0°42'29
minimum elong	-327 Jan 23 j 09:12	29°♁39'47	0°48'44	minimum elong	-322 Jul 21 j 17:10	22°♁59'21	0°42'30
max. Earth dist.	-327 Jan 23 j 14:48	29°♁43'09	6.00755 AU	max. Earth dist.	-322 Jul 21 j 17:19	22°♁59'26	6.37455 AU
	-327 Jan 24 j 18:53	0°♁		morning rise	-322 Aug 04 j 00:55	25°♁53'39	
morning rise	-327 Feb 05 j 11:02	2°♁47'47			-322 Aug 23 j 07:17	0°♁	
	-327 Apr 02 j 00:33	15°♁		retrograde	-322 Dec 03 j 03:39	13°♁00'53	
retrograde	-327 Jun 17 j 04:11	23°♁07'27		opposition	-321 Feb 01 j 05:36	8°♁05'02	1°21'52
opposition	-327 Aug 16 j 09:31	18°♁06'27	-1°-34'-18	min. Earth dist.	-321 Feb 01 j 13:38	8°♁02'25	4.41103 AU
min. Earth dist.	-327 Aug 15 j 18:23	18°♁11'30	3.98138 AU	direct	-321 Apr 04 j 05:01	3°♁01'46	

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Attention, astronomical year style is used: The year -309 in astronomical counting style is the year 310 BCE in historical counting style.

min. Earth dist.	-309 Feb 06 j 00:53	12°♃28'35	4.42037 AU	max. Earth dist.	-303 Feb 03 j 02:16	10°♁06'28	5.98342 AU
direct	-309 Apr 08 j 17:16	7°♃28'46		morning rise	-303 Feb 15 j 15:30	13°♁07'39	
	-309 Jun 23 j 21:30	15°♃			-303 Feb 23 j 12:22	15°♁	
evening set	-309 Aug 13 j 18:56	25°♃08'47		retrograde	-303 May 09 j 20:51	0°♁	
					-303 Jun 27 j 21:54	3°♁38'25	
conjunction	-309 Aug 26 j 19:38	27°♃58'05	1°08'31		-303 Aug 16 j 09:22	30°♁	
minimum elong	-309 Aug 26 j 19:36	27°♃58'04	1°08'31	opposition	-303 Aug 26 j 22:14	28°♁36'25	-1°-41'-55
max. Earth dist.	-309 Aug 25 j 15:25	27°♃42'46	6.43526 AU	min. Earth dist.	-303 Aug 26 j 02:22	28°♁43'04	3.96870 AU
	-309 Sep 05 j 04:23	0°♃		direct	-303 Oct 24 j 00:40	23°♁42'42	
morning rise	-309 Sep 08 j 17:23	0°♃45'56			-303 Dec 26 j 20:10	0°♁	
retrograde	-308 Jan 06 j 19:39	17°♃34'41		evening set	-302 Feb 26 j 07:20	13°♁18'52	
opposition	-308 Mar 07 j 07:50	12°♃41'52	1°44'59				
min. Earth dist.	-308 Mar 08 j 09:30	12°♃33'37	4.43415 AU	conjunction	-302 Mar 11 j 16:09	16°♁31'10	-1°-11'-26
direct	-308 May 09 j 00:44	7°♃39'31		minimum elong	-302 Mar 11 j 16:09	16°♁31'10	1°11'27
evening set	-308 Sep 12 j 16:25	25°♃18'25		max. Earth dist.	-302 Mar 13 j 09:38	16°♁56'04	5.97407 AU
max. Earth dist.	-308 Sep 23 j 15:26	27°♃42'09	6.41357 AU	morning rise	-302 Mar 25 j 04:21	19°♁45'06	
					-302 May 09 j 20:11	0°♃	
conjunction	-308 Sep 25 j 10:42	28°♃05'54	1°11'16	retrograde	-302 Aug 04 j 04:45	10°♃13'09	
minimum elong	-308 Sep 25 j 10:43	28°♃05'54	1°11'16	opposition	-302 Oct 02 j 22:05	5°♃08'17	-1°-41'-54
	-308 Oct 04 j 02:42	0°♃		min. Earth dist.	-302 Oct 01 j 13:10	5°♃19'29	4.00254 AU
morning rise	-308 Oct 08 j 02:14	0°♃52'13		direct	-302 Nov 29 j 19:50	0°♃12'15	
retrograde	-307 Feb 05 j 22:52	17°♃55'03		evening set	-301 Apr 04 j 17:10	19°♃35'56	
opposition	-307 Apr 07 j 19:05	13°♃03'21	1°35'05				
min. Earth dist.	-307 Apr 09 j 05:07	12°♃52'31	4.37879 AU	conjunction	-301 Apr 18 j 09:04	22°♃48'03	0°-58'-7
direct	-307 Jun 09 j 09:38	8°♃02'56		minimum elong	-301 Apr 18 j 09:07	22°♃48'05	0°58'07
evening set	-307 Oct 13 j 11:17	25°♃55'43		max. Earth dist.	-301 Apr 20 j 14:44	23°♃19'32	6.04699 AU
max. Earth dist.	-307 Oct 24 j 01:16	28°♃17'44	6.32824 AU	morning rise	-301 May 02 j 03:05	26°♃01'04	
					-301 May 19 j 12:25	0°♃	
conjunction	-307 Oct 26 j 02:14	28°♃45'13	0°54'13		-301 Aug 19 j 00:41	15°♃	
minimum elong	-307 Oct 26 j 02:16	28°♃45'14	0°54'13	retrograde	-301 Sep 08 j 16:50	15°♃41'48	
	-307 Oct 31 j 15:28	0°♃			-301 Sep 29 j 02:31	15°♃	
morning rise	-307 Nov 07 j 15:50	1°♃34'12		min. Earth dist.	-301 Nov 05 j 21:25	10°♃47'40	4.10582 AU
	-306 Jan 15 j 09:55	15°♃		opposition	-301 Nov 07 j 05:07	10°♃36'51	-1°-3'-27
retrograde	-306 Mar 10 j 20:19	19°♃17'18		direct	-300 Jan 04 j 20:35	5°♃37'41	
	-306 May 06 j 04:23	15°♃			-300 Mar 26 j 22:45	15°♃	
opposition	-306 May 10 j 18:36	14°♃24'58	0°57'30	evening set	-300 May 10 j 07:58	24°♃31'03	
min. Earth dist.	-306 May 12 j 04:13	14°♃14'15	4.26802 AU				
direct	-306 Jul 11 j 15:33	9°♃27'05		conjunction	-300 May 24 j 02:31	27°♃38'48	0°-24'-1
	-306 Sep 12 j 08:40	15°♃		minimum elong	-300 May 24 j 02:32	27°♃38'49	0°24'01
evening set	-306 Nov 14 j 00:49	27°♃46'40		max. Earth dist.	-300 May 25 j 23:05	28°♃04'09	6.17168 AU
	-306 Nov 23 j 16:31	0°♃			-300 Jun 03 j 11:12	0°♃	
max. Earth dist.	-306 Nov 25 j 01:14	0°♃18'54	6.20147 AU	morning rise	-300 Jun 06 j 21:18	0°♃46'23	
				retrograde	-300 Oct 10 j 20:05	19°♃20'39	
conjunction	-306 Nov 26 j 16:24	0°♃41'32	0°20'29	opposition	-300 Dec 09 j 11:11	14°♃18'14	0°-5'-22
minimum elong	-306 Nov 26 j 16:26	0°♃41'33	0°20'29	min. Earth dist.	-300 Dec 08 j 13:21	14°♃25'36	4.23865 AU
morning rise	-306 Dec 09 j 07:55	3°♃36'40		asc. node	-299 Jan 13 j 21:58	10°♃14'12	
retrograde	-305 Apr 14 j 19:36	22°♃19'52		direct	-299 Feb 07 j 06:59	9°♃16'28	
desc. node	-305 Jun 11 j 12:32	17°♃49'43		evening set	-299 Jun 14 j 07:22	27°♃35'52	
opposition	-305 Jun 14 j 16:17	17°♃25'21	0°00'-29		-299 Jun 25 j 04:31	0°♃	
min. Earth dist.	-305 Jun 15 j 13:10	17°♃18'37	4.13340 AU				
direct	-305 Aug 14 j 05:04	12°♃30'10		conjunction	-299 Jun 27 j 22:38	0°♃36'36	0°16'43
	-305 Dec 11 j 06:17	0°♃		minimum elong	-299 Jun 27 j 22:36	0°♃36'36	0°16'43
evening set	-305 Dec 17 j 05:20	1°♃23'53		max. Earth dist.	-299 Jun 28 j 18:40	0°♃47'42	6.30252 AU
max. Earth dist.	-305 Dec 29 j 07:07	4°♃15'32	6.07123 AU	morning rise	-299 Jul 11 j 12:18	3°♃36'20	
				retrograde	-299 Nov 11 j 06:38	21°♃11'46	
conjunction	-305 Dec 30 j 00:23	4°♃25'47	0°-21'-23	opposition	-298 Jan 10 j 02:16	16°♃13'11	0°51'03
minimum elong	-305 Dec 30 j 00:21	4°♃25'46	0°21'23	min. Earth dist.	-298 Jan 09 j 22:07	16°♃14'34	4.35659 AU
morning rise	-304 Jan 11 j 21:08	7°♃28'47		direct	-298 Mar 12 j 07:00	11°♃10'03	
retrograde	-304 May 20 j 20:49	27°♃16'38		evening set	-298 Jul 17 j 11:03	29°♃02'55	
opposition	-304 Jul 20 j 08:48	22°♃18'37	-1°-1'-52		-298 Jul 21 j 20:28	0°♃	
min. Earth dist.	-304 Jul 20 j 09:40	22°♃18'20	4.01903 AU				
direct	-304 Sep 17 j 12:33	17°♃25'08		conjunction	-298 Jul 30 j 18:59	1°♃56'39	0°50'54
	-304 Dec 22 j 01:31	0°♃		minimum elong	-298 Jul 30 j 18:56	1°♃56'38	0°50'54
evening set	-303 Jan 20 j 10:16	6°♃49'07		max. Earth dist.	-298 Jul 30 j 11:45	1°♃52'43	6.39855 AU
				morning rise	-298 Aug 13 j 00:03	4°♃48'54	
conjunction	-303 Feb 02 j 11:31	9°♃57'35	0°-57'-3		-298 Oct 02 j 22:36	15°♃	
minimum elong	-303 Feb 02 j 11:28	9°♃57'33	0°57'04	retrograde	-298 Dec 11 j 15:57	21°♃47'55	

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Attention, astronomical year style is used: The year -297 in astronomical counting style is the year 298 BCE in historical counting style.

opposition	-297 Feb 09 j 20:43	16°♌52'56	1°30'45	direct	-292 Sep 22 j 16:27	22°♁40'32	
min. Earth dist.	-297 Feb 10 j 09:28	16°♌48'47	4.42553 AU		-292 Dec 01 j 14:50	0°♁	
	-297 Feb 24 j 16:45	15°♌		evening set	-291 Jan 25 j 14:41	12°♁06'44	
direct	-297 Apr 13 j 01:32	11°♌49'44			-291 Feb 06 j 14:36	15°♁	
	-297 May 30 j 15:07	15°♌					
evening set	-297 Aug 18 j 03:19	29°♌29'14		conjunction	-291 Feb 07 j 16:44	15°♁15'46	-1°00'-41
	-297 Aug 20 j 12:22	0°♍		minimum elong	-291 Feb 07 j 16:41	15°♁15'44	1°00'42
max. Earth dist.	-297 Aug 29 j 20:28	2°♍01'31	6.43458 AU	max. Earth dist.	-291 Feb 08 j 10:56	15°♁26'44	5.97917 AU
				morning rise	-291 Feb 20 j 21:58	18°♁26'30	
conjunction	-297 Aug 31 j 03:03	2°♍18'09	1°10'05		-291 Apr 13 j 20:32	0°♎	
minimum elong	-297 Aug 31 j 03:01	2°♍18'08	1°10'05	retrograde	-291 Jul 03 j 05:01	8°♎58'47	
morning rise	-297 Sep 12 j 23:41	5°♍05'37		min. Earth dist.	-291 Aug 31 j 06:47	4°♎03'58	3.97103 AU
retrograde	-296 Jan 11 j 02:59	21°♍55'24		opposition	-291 Sep 01 j 05:56	3°♎56'11	-1°-44'-32
opposition	-296 Mar 11 j 15:57	17°♍02'54	1°45'20		-291 Oct 05 j 11:28	30°♌	
min. Earth dist.	-296 Mar 12 j 19:36	16°♍54'01	4.42786 AU	direct	-291 Oct 29 j 06:29	29°♁02'12	
direct	-296 May 13 j 09:11	12°♍00'48			-291 Nov 22 j 02:08	0°♎	
evening set	-296 Sep 17 j 00:01	29°♍41'47		evening set	-290 Mar 03 j 14:25	18°♎36'55	
	-296 Sep 18 j 09:24	0°♏					
max. Earth dist.	-296 Sep 27 j 19:14	2°♏03'56	6.40195 AU	conjunction	-290 Mar 17 j 00:24	21°♎49'18	-1°-11'-12
				minimum elong	-290 Mar 17 j 00:25	21°♎49'19	1°11'12
conjunction	-296 Sep 29 j 17:35	2°♏29'27	1°10'02	max. Earth dist.	-290 Mar 18 j 21:36	22°♎16'21	5.98260 AU
minimum elong	-296 Sep 29 j 17:36	2°♏29'28	1°10'01	morning rise	-290 Mar 30 j 13:24	25°♎03'13	
morning rise	-296 Oct 12 j 08:50	5°♏16'05			-290 Apr 20 j 19:38	0°♏	
retrograde	-295 Feb 10 j 13:00	22°♏24'12		retrograde	-290 Aug 09 j 08:42	15°♏25'41	
opposition	-295 Apr 12 j 08:28	17°♏32'29	1°31'21	min. Earth dist.	-290 Oct 06 j 15:48	10°♏31'43	4.01621 AU
min. Earth dist.	-295 Apr 13 j 19:24	17°♏21'21	4.36263 AU	opposition	-290 Oct 08 j 00:21	10°♏20'38	-1°-38'-27
direct	-295 Jun 13 j 21:19	12°♏32'22		direct	-290 Dec 05 j 00:48	5°♏24'09	
	-295 Oct 15 j 16:21	0°♐		evening set	-289 Apr 09 j 22:27	24°♏43'22	
evening set	-295 Oct 17 j 21:07	0°♐29'26					
max. Earth dist.	-295 Oct 28 j 12:55	2°♐53'03	6.30895 AU	conjunction	-289 Apr 23 j 15:00	27°♏54'59	0°-54'-16
				minimum elong	-289 Apr 23 j 15:03	27°♏55'00	0°54'17
conjunction	-295 Oct 30 j 12:10	3°♐19'41	0°50'17	max. Earth dist.	-289 Apr 25 j 20:37	28°♏26'17	6.06450 AU
minimum elong	-295 Oct 30 j 12:12	3°♐19'43	0°50'17		-289 May 02 j 13:24	0°♑	
morning rise	-295 Nov 12 j 01:45	6°♐09'30		morning rise	-289 May 07 j 09:30	1°♑07'22	
	-295 Dec 23 j 18:27	15°♐			-289 Jul 13 j 13:24	15°♑	
retrograde	-294 Mar 15 j 16:08	24°♐01'08		retrograde	-289 Sep 13 j 10:26	20°♑38'27	
opposition	-294 May 15 j 15:04	19°♐08'35	0°50'11	opposition	-289 Nov 11 j 23:46	15°♑33'45	0°-55'-56
min. Earth dist.	-294 May 16 j 22:58	18°♐58'25	4.24694 AU	min. Earth dist.	-289 Nov 10 j 16:19	15°♑44'28	4.12534 AU
	-294 Jun 23 j 05:58	15°♑			-289 Nov 16 j 03:04	15°♑	
direct	-294 Jul 16 j 07:08	14°♑11'10		direct	-288 Jan 09 j 17:47	10°♑34'10	
	-294 Aug 08 j 08:11	15°♑			-288 Mar 03 j 20:28	15°♑	
	-294 Nov 07 j 06:02	0°♒		evening set	-288 May 15 j 07:55	29°♑22'11	
evening set	-294 Nov 18 j 16:16	2°♒36'11			-288 May 18 j 03:01	0°♒	
max. Earth dist.	-294 Nov 29 j 19:11	5°♒10'37	6.18047 AU				
				conjunction	-288 May 29 j 02:16	2°♒28'59	0°-18'-22
conjunction	-294 Dec 01 j 08:05	5°♒32'03	0°14'43	minimum elong	-288 May 29 j 02:17	2°♒28'59	0°18'22
minimum elong	-294 Dec 01 j 08:05	5°♒32'03	0°14'42	max. Earth dist.	-288 May 30 j 18:47	2°♒51'56	6.19170 AU
behind sun begin	-294 Dec 01 j 04:32	5°♒30'00		morning rise	-288 Jun 11 j 20:42	5°♒35'31	
behind sun end	-294 Dec 01 j 11:38	5°♒34'06		retrograde	-288 Oct 15 j 08:31	24°♒00'29	
morning rise	-294 Dec 14 j 00:17	8°♒28'21		asc. node	-288 Nov 23 j 18:34	21°♒33'46	
retrograde	-293 Apr 20 j 00:43	27°♒21'23		opposition	-288 Dec 13 j 23:27	18°♒58'34	0°03'03
desc. node	-293 Apr 20 j 03:00	27°♒21'23		min. Earth dist.	-288 Dec 13 j 04:52	19°♒04'50	4.25727 AU
opposition	-293 Jun 19 j 20:07	22°♒26'23	0°-9'-37	direct	-287 Feb 12 j 00:43	13°♒56'31	
min. Earth dist.	-293 Jun 20 j 14:21	22°♒20'30	4.11413 AU		-287 Jun 08 j 23:11	0°♓	
direct	-293 Aug 19 j 04:57	17°♒31'30		evening set	-287 Jun 19 j 01:00	2°♓11'33	
	-293 Nov 23 j 18:07	0°♓					
evening set	-293 Dec 22 j 03:31	6°♓30'08		conjunction	-287 Jul 02 j 15:33	5°♓11'18	0°22'08
				minimum elong	-287 Jul 02 j 15:31	5°♓11'18	0°22'09
conjunction	-292 Jan 03 j 23:26	9°♓33'03	0°-27'-15	max. Earth dist.	-287 Jul 03 j 08:30	5°♓20'39	6.31841 AU
minimum elong	-292 Jan 03 j 23:24	9°♓33'02	0°27'16	morning rise	-287 Jul 16 j 04:04	8°♓09'55	
max. Earth dist.	-292 Jan 03 j 11:51	9°♓26'09	6.05559 AU	retrograde	-287 Nov 15 j 12:27	25°♓38'58	
morning rise	-292 Jan 16 j 21:02	12°♓37'07		opposition	-286 Jan 14 j 10:16	20°♓40'57	0°57'52
	-292 Apr 15 j 10:44	0°♔		min. Earth dist.	-286 Jan 14 j 07:51	20°♓41'45	4.36881 AU
retrograde	-292 May 26 j 07:06	2°♔32'31		direct	-286 Mar 16 j 17:55	15°♔37'45	
	-292 Jul 06 j 08:16	30°♌			-286 Jul 05 j 15:48	0°♌	
opposition	-292 Jul 25 j 17:15	27°♌33'54	-1°-9'-29	evening set	-286 Jul 21 j 23:31	3°♌28'21	
min. Earth dist.	-292 Jul 25 j 14:47	27°♌34'43	4.00880 AU				

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Attention, astronomical year style is used: The year -286 in astronomical counting style is the year 287 BCE in historical counting style.

conjunction	-286 Aug 04 j 06:13	6°♃21'18	0°54'38	retrograde	-280 May 31 j 12:56	7°♁43'16	
minimum elong	-286 Aug 04 j 06:10	6°♃21'17	0°54'37	opposition	-280 Jul 30 j 23:04	2°♁44'03	-1°-16'-21
max. Earth dist.	-286 Aug 03 j 18:33	6°♃14'57	6.40619 AU	min. Earth dist.	-280 Jul 30 j 16:45	2°♁46'08	4.00269 AU
morning rise	-286 Aug 17 j 10:07	9°♃12'46			-280 Aug 21 j 23:49	30°♁	
	-286 Sep 14 j 00:23	15°♃		direct	-280 Sep 27 j 18:02	27°♁50'43	
retrograde	-286 Dec 15 j 23:15	26°♃09'22			-280 Nov 03 j 01:53	0°♁	
opposition	-285 Feb 14 j 04:10	21°♃14'52	1°34'26		-279 Jan 21 j 00:40	15°♁	
min. Earth dist.	-285 Feb 14 j 20:07	21°♃09'42	4.42829 AU	evening set	-279 Jan 30 j 16:42	17°♁17'58	
direct	-285 Apr 17 j 12:10	16°♃11'48					
	-285 Aug 04 j 08:05	0°♁		conjunction	-279 Feb 12 j 19:49	20°♁27'28	-1°-3'-43
evening set	-285 Aug 22 j 12:19	3°♁51'15		minimum elong	-279 Feb 12 j 19:47	20°♁27'27	1°03'44
max. Earth dist.	-285 Sep 03 j 01:10	6°♁21'26	6.43204 AU	max. Earth dist.	-279 Feb 13 j 19:23	20°♁41'40	5.97839 AU
				morning rise	-279 Feb 26 j 01:53	23°♁38'38	
conjunction	-285 Sep 04 j 11:07	6°♁39'54	1°11'16		-279 Mar 25 j 09:40	0°♁	
minimum elong	-285 Sep 04 j 11:06	6°♁39'53	1°11'16	retrograde	-279 Jul 08 j 11:00	14°♁10'58	
morning rise	-285 Sep 17 j 06:53	9°♁27'07		min. Earth dist.	-279 Sep 05 j 09:49	9°♁16'03	3.97581 AU
retrograde	-284 Jan 15 j 11:46	26°♁18'37		opposition	-279 Sep 06 j 09:53	9°♁07'56	-1°-46'-11
opposition	-284 Mar 16 j 01:48	21°♁26'19	1°45'05	direct	-279 Nov 03 j 10:26	4°♁13'42	
min. Earth dist.	-284 Mar 17 j 06:27	21°♁17'08	4.42047 AU	evening set	-278 Mar 08 j 18:07	23°♁46'24	
direct	-284 May 17 j 18:31	16°♁24'30					
	-284 Sep 02 j 02:55	0°♁		conjunction	-278 Mar 22 j 05:02	26°♁58'46	-1°-10'-23
evening set	-284 Sep 21 j 08:34	4°♁07'41		minimum elong	-278 Mar 22 j 05:03	26°♁58'47	1°10'23
max. Earth dist.	-284 Oct 02 j 03:45	6°♁30'14	6.39036 AU	max. Earth dist.	-278 Mar 24 j 03:54	27°♁26'43	5.99218 AU
					-278 Apr 03 j 21:41	0°♁	
conjunction	-284 Oct 04 j 01:40	6°♁55'36	1°08'22	morning rise	-278 Apr 04 j 19:03	0°♁12'38	
minimum elong	-284 Oct 04 j 01:41	6°♁55'37	1°08'21	retrograde	-278 Aug 14 j 07:01	20°♁29'12	
morning rise	-284 Oct 16 j 16:21	9°♁42'31		opposition	-278 Oct 12 j 22:29	15°♁24'04	-1°-34'-21
retrograde	-283 Feb 15 j 03:03	26°♁55'56		min. Earth dist.	-278 Oct 11 j 12:58	15°♁35'29	4.02967 AU
opposition	-283 Apr 16 j 23:18	22°♁04'17	1°27'02	direct	-278 Dec 09 j 23:24	10°♁27'10	
min. Earth dist.	-283 Apr 18 j 10:23	21°♁53'08	4.34763 AU	evening set	-277 Apr 15 j 00:05	29°♁42'23	
direct	-283 Jun 18 j 10:08	17°♁04'39			-277 Apr 16 j 06:32	0°♁	
	-283 Sep 29 j 01:20	0°♁		conjunction	-277 Apr 28 j 17:06	2°♁53'30	0°-50'-8
evening set	-283 Oct 22 j 08:08	5°♁05'27		minimum elong	-277 Apr 28 j 17:09	2°♁53'32	0°50'09
max. Earth dist.	-283 Nov 01 j 23:40	7°♁29'35	6.29191 AU	max. Earth dist.	-277 Apr 30 j 20:19	3°♁23'18	6.08054 AU
				morning rise	-277 May 12 j 11:58	6°♁05'18	
conjunction	-283 Nov 03 j 22:57	7°♁56'21	0°46'01		-277 Jun 22 j 03:18	15°♁	
minimum elong	-283 Nov 03 j 23:00	7°♁56'22	0°46'01	retrograde	-277 Sep 18 j 01:57	25°♁27'47	
morning rise	-283 Nov 16 j 12:51	10°♁46'59		min. Earth dist.	-277 Nov 15 j 10:01	20°♁33'17	4.14218 AU
	-283 Dec 05 j 14:11	15°♁		opposition	-277 Nov 16 j 15:12	20°♁23'20	0°-48'-18
retrograde	-282 Mar 20 j 13:42	28°♁46'30		direct	-276 Jan 14 j 13:40	15°♁23'21	
opposition	-282 May 20 j 12:28	23°♁53'43	0°42'29	evening set	-276 May 01 j 13:34	0°♁	
min. Earth dist.	-282 May 21 j 18:31	23°♁44'07	4.22902 AU		-276 May 20 j 04:59	4°♁07'12	
direct	-282 Jul 21 j 00:56	18°♁56'43		conjunction	-276 Jun 02 j 23:18	7°♁13'14	0°-12'-46
	-282 Oct 20 j 17:59	0°♁		minimum elong	-276 Jun 02 j 23:19	7°♁13'15	0°12'47
evening set	-282 Nov 23 j 07:37	7°♁25'59		behind sun begin	-276 Jun 02 j 18:16	7°♁10'25	
				behind sun end	-276 Jun 03 j 04:21	7°♁16'05	
conjunction	-282 Dec 05 j 23:57	10°♁22'45	0°08'52	max. Earth dist.	-276 Jun 04 j 13:55	7°♁35'01	6.20821 AU
minimum elong	-282 Dec 05 j 23:58	10°♁22'46	0°08'52	morning rise	-276 Jun 16 j 17:08	10°♁18'49	
behind sun begin	-282 Dec 05 j 17:04	10°♁18'46		asc. node	-276 Oct 04 j 16:08	28°♁13'41	
behind sun end	-282 Dec 06 j 06:52	10°♁26'46		retrograde	-276 Oct 19 j 17:27	28°♁35'55	
max. Earth dist.	-282 Dec 04 j 15:37	10°♁03'55	6.16349 AU	opposition	-276 Dec 18 j 09:25	23°♁34'33	0°11'14
morning rise	-282 Dec 18 j 16:36	13°♁20'01		min. Earth dist.	-276 Dec 17 j 16:21	23°♁40'17	4.27213 AU
desc. node	-281 Feb 27 j 12:28	27°♁41'17		direct	-275 Feb 16 j 14:07	18°♁32'18	
	-281 Mar 16 j 16:45	0°♁		evening set	-275 May 22 j 19:49	0°♁	
retrograde	-281 Apr 25 j 04:59	2°♁21'27			-275 Jun 23 j 17:05	6°♁44'19	
	-281 Jun 04 j 01:13	30°♁		conjunction	-275 Jul 07 j 06:36	9°♁43'11	0°27'18
opposition	-281 Jun 24 j 23:25	27°♁26'03	0°-18'-36	minimum elong	-275 Jul 07 j 06:34	9°♁43'10	0°27'19
min. Earth dist.	-281 Jun 25 j 14:57	27°♁21'02	4.09955 AU	max. Earth dist.	-275 Jul 07 j 18:11	9°♁49'33	6.33055 AU
direct	-281 Aug 24 j 03:43	22°♁31'33		morning rise	-275 Jul 20 j 18:14	12°♁40'52	
	-281 Nov 03 j 23:35	0°♁			-275 Nov 12 j 17:05	0°♁	
evening set	-281 Dec 27 j 00:48	11°♁33'29		retrograde	-275 Nov 19 j 20:06	0°♁04'59	
					-275 Nov 26 j 22:45	30°♁	
conjunction	-280 Jan 08 j 21:12	14°♁37'08	0°-32'-49	opposition	-274 Jan 18 j 17:52	25°♁07'29	1°04'14
minimum elong	-280 Jan 08 j 21:10	14°♁37'06	0°32'51	min. Earth dist.	-274 Jan 18 j 18:47	25°♁07'11	4.37762 AU
max. Earth dist.	-280 Jan 08 j 12:45	14°♁32'05	6.04461 AU				
morning rise	-280 Jan 21 j 19:49	17°♁42'05					
	-280 Mar 18 j 08:33	0°♁					

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Attention, astronomical year style is used: The year -274 in astronomical counting style is the year 275 BCE in historical counting style.

direct	-274 Mar 21 j 06:12	20°♄04'11		opposition	-269 Jun 30 j 01:07	2°♃22'10	0°-27'-26
	-274 Jun 18 j 02:43	0°♄		min. Earth dist.	-269 Jun 30 j 13:25	2°♃18'10	4.08411 AU
evening set	-274 Jul 26 j 11:01	7°♄53'21		direct	-269 Jul 19 j 03:07	30°♃♂	
				direct	-269 Aug 29 j 00:16	27°♂27'50	
conjunction	-274 Aug 08 j 16:45	10°♄45'40	0°57'59		-269 Oct 08 j 03:54	0°♃	
minimum elong	-274 Aug 08 j 16:43	10°♄45'39	0°57'59	evening set	-269 Dec 31 j 21:17	16°♃33'48	
max. Earth dist.	-274 Aug 08 j 02:48	10°♄38'05	6.41100 AU				
morning rise	-274 Aug 21 j 19:21	13°♄36'27		conjunction	-268 Jan 13 j 18:36	19°♃38'22	0°-38'-8
	-274 Aug 28 j 06:48	15°♄		minimum elong	-268 Jan 13 j 18:34	19°♃38'21	0°38'09
	-274 Dec 02 j 00:23	0°♄		max. Earth dist.	-268 Jan 13 j 15:18	19°♃36'23	6.03188 AU
retrograde	-274 Dec 20 j 04:33	0°♄31'28		morning rise	-268 Jan 26 j 18:00	22°♃44'16	
	-273 Jan 07 j 09:11	30°♃♄			-268 Feb 27 j 09:12	0°♃	
opposition	-273 Feb 18 j 11:42	25°♄37'19	1°37'32	retrograde	-268 Jun 05 j 20:31	12°♃51'58	
min. Earth dist.	-273 Feb 19 j 04:37	25°♄31'50	4.42921 AU	opposition	-268 Aug 05 j 04:13	7°♃52'12	-1°-22'-40
direct	-273 Apr 21 j 20:48	20°♄34'22		min. Earth dist.	-268 Aug 04 j 20:15	7°♃54'51	3.99402 AU
	-273 Jul 17 j 16:09	0°♄		direct	-268 Oct 02 j 20:29	2°♃58'52	
evening set	-273 Aug 26 j 21:24	8°♄14'00			-267 Jan 03 j 11:40	15°♃	
max. Earth dist.	-273 Sep 07 j 07:15	10°♄42'47	6.42895 AU	evening set	-267 Feb 04 j 19:01	22°♃28'25	
conjunction	-273 Sep 08 j 19:08	11°♄02'21	1°12'01	conjunction	-267 Feb 17 j 23:07	25°♃38'34	-1°-6'-18
minimum elong	-273 Sep 08 j 19:07	11°♄02'20	1°12'01	minimum elong	-267 Feb 17 j 23:05	25°♃38'33	1°06'19
morning rise	-273 Sep 21 j 14:01	13°♄49'19		max. Earth dist.	-267 Feb 19 j 01:44	25°♃54'35	5.97439 AU
	-273 Dec 29 j 13:10	0°♄		morning rise	-267 Mar 03 j 06:27	28°♃50'25	
retrograde	-272 Jan 19 j 21:22	0°♄42'27			-267 Mar 08 j 03:14	0°♃	
	-272 Feb 10 j 04:22	30°♃♄		retrograde	-267 Jul 13 j 16:13	19°♃23'56	
opposition	-272 Mar 20 j 11:57	25°♄50'20	1°44'13	min. Earth dist.	-267 Sep 10 j 11:25	14°♃29'30	3.97721 AU
min. Earth dist.	-272 Mar 21 j 18:31	25°♄40'34	4.41359 AU	opposition	-267 Sep 11 j 14:03	14°♃20'31	-1°-47'-4
direct	-272 May 22 j 06:02	20°♄48'43		direct	-267 Nov 08 j 12:21	9°♃26'00	
	-272 Aug 15 j 08:37	0°♄		evening set	-266 Mar 13 j 23:32	28°♃58'16	
evening set	-272 Sep 25 j 16:53	8°♄33'27			-266 Mar 18 j 07:40	0°♃	
max. Earth dist.	-272 Oct 06 j 10:11	10°♄55'24	6.38001 AU				
				conjunction	-266 Mar 27 j 11:29	2°♃10'49	-1°-9'-2
conjunction	-272 Oct 08 j 09:26	11°♄21'34	1°06'17	minimum elong	-266 Mar 27 j 11:31	2°♃10'50	1°09'02
minimum elong	-272 Oct 08 j 09:28	11°♄21'35	1°06'18	max. Earth dist.	-266 Mar 29 j 11:14	2°♃39'14	5.99865 AU
morning rise	-272 Oct 20 j 23:50	14°♄08'45		morning rise	-266 Apr 10 j 02:28	5°♃24'48	
	-271 Jan 19 j 21:07	0°♄		retrograde	-266 Aug 19 j 07:20	25°♃36'34	
retrograde	-271 Feb 19 j 16:15	1°♄26'53		opposition	-266 Oct 17 j 22:10	20°♃31'22	-1°-29'-31
	-271 Mar 22 j 16:13	30°♃♄		min. Earth dist.	-266 Oct 16 j 13:07	20°♃42'39	4.04030 AU
opposition	-271 Apr 21 j 13:59	26°♄35'05	1°22'10	direct	-266 Dec 15 j 01:26	15°♃34'02	
min. Earth dist.	-271 Apr 23 j 00:18	26°♄24'09	4.33428 AU		-265 Mar 30 j 02:48	0°♃	
direct	-271 Jun 22 j 22:20	21°♄35'42		evening set	-265 Apr 20 j 04:20	4°♃46'25	
	-271 Sep 10 j 18:13	0°♄					
evening set	-271 Oct 26 j 18:06	9°♄39'22		conjunction	-265 May 03 j 22:06	7°♃57'13	0°-45'-33
max. Earth dist.	-271 Nov 06 j 12:18	12°♄05'30	6.27654 AU	minimum elong	-265 May 03 j 22:09	7°♃57'15	0°45'33
				max. Earth dist.	-265 May 06 j 01:54	8°♃27'14	6.09462 AU
conjunction	-271 Nov 08 j 09:00	12°♄30'53	0°41'29	morning rise	-265 May 17 j 17:09	11°♃08'29	
minimum elong	-271 Nov 08 j 09:02	12°♄30'55	0°41'29		-265 Jun 03 j 18:28	15°♃	
	-271 Nov 19 j 07:38	15°♄			-265 Sep 07 j 15:21	0°♄	
morning rise	-271 Nov 20 j 22:53	15°♄22'11		retrograde	-265 Sep 22 j 20:17	0°♄22'49	
	-270 Feb 04 j 18:43	0°♄			-265 Oct 07 j 22:22	30°♃♄	
retrograde	-270 Mar 25 j 10:17	3°♄28'57		min. Earth dist.	-265 Nov 20 j 04:39	25°♃28'26	4.15819 AU
	-270 May 14 j 05:38	30°♃♄		opposition	-265 Nov 21 j 09:05	25°♃18'47	0°-40'-9
opposition	-270 May 25 j 08:53	28°♄35'54	0°34'31	direct	-264 Jan 19 j 10:24	20°♃18'32	
min. Earth dist.	-270 May 26 j 14:07	28°♄26'34	4.21232 AU		-264 Apr 12 j 23:46	0°♄	
direct	-270 Jul 25 j 18:13	23°♄39'15		evening set	-264 May 25 j 05:03	8°♄58'30	
	-270 Sep 30 j 15:08	0°♄					
evening set	-270 Nov 27 j 22:07	12°♄12'23		conjunction	-264 Jun 07 j 22:53	12°♄03'40	0°-6'-56
max. Earth dist.	-270 Dec 09 j 07:37	14°♄51'50	6.14677 AU	minimum elong	-264 Jun 07 j 22:54	12°♄03'40	0°06'56
				behind sun begin	-264 Jun 07 j 15:11	11°♄59'21	
conjunction	-270 Dec 10 j 14:41	15°♄10'00	0°03'00	behind sun end	-264 Jun 08 j 06:37	12°♄07'59	
minimum elong	-270 Dec 10 j 14:42	15°♄10'00	0°03'01	max. Earth dist.	-264 Jun 09 j 09:26	12°♄23'05	6.22504 AU
behind sun begin	-270 Dec 10 j 06:43	15°♄05'22		morning rise	-264 Jun 21 j 16:20	15°♄08'19	
behind sun end	-270 Dec 10 j 22:40	15°♄14'38		asc. node	-264 Aug 13 j 18:24	26°♄04'11	
morning rise	-270 Dec 23 j 08:07	18°♄08'16			-264 Sep 07 j 19:01	0°♄	
desc. node	-269 Jan 07 j 07:59	21°♄34'51		retrograde	-264 Oct 24 j 05:46	3°♄17'29	
	-269 Feb 16 j 23:56	0°♄			-264 Dec 09 j 19:31	30°♃♄	
retrograde	-269 Apr 30 j 06:51	7°♄18'05		opposition	-264 Dec 22 j 22:18	28°♄16'40	0°19'33

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Attention, astronomical year style is used: The year -264 in astronomical counting style is the year 265 BCE in historical counting style.

min. Earth dist.	-264 Dec 22 j 07:29	28° Π 21'38	4.28857 AU			-258 Jun 25 j 19:16	30° $R\mathbb{M}$	
direct	-263 Feb 21 j 08:03	23° Π 14'15		direct		-258 Jul 30 j 05:41	28° \mathbb{M} 12'50	
	-263 May 02 j 14:55	0° \mathfrak{E}				-258 Sep 02 j 08:54	0° \mathfrak{A}	
evening set	-263 Jun 28 j 11:15	11° \mathfrak{E} 22'30		desc. node		-258 Nov 19 j 07:10	13° \mathfrak{A} 49'46	
				evening set		-258 Dec 02 j 08:36	16° \mathfrak{A} 50'02	
conjunction	-263 Jul 11 j 23:57	14° \mathfrak{E} 20'22	0°32'27	max. Earth dist.		-258 Dec 13 j 21:41	19° \mathfrak{A} 32'07	6.12944 AU
minimum elong	-263 Jul 11 j 23:55	14° \mathfrak{E} 20'21	0°32'26					
max. Earth dist.	-263 Jul 12 j 09:57	14° \mathfrak{E} 25'51	6.34579 AU	conjunction		-258 Dec 15 j 01:47	19° \mathfrak{A} 48'36	0°-2'-47
morning rise	-263 Jul 25 j 10:12	17° \mathfrak{E} 16'54		minimum elong		-258 Dec 15 j 01:45	19° \mathfrak{A} 48'35	0°02'48
	-263 Sep 29 j 06:34	0° \mathcal{O}		behind sun begin		-258 Dec 14 j 17:45	19° \mathfrak{A} 43'55	
retrograde	-263 Nov 24 j 03:26	4° \mathcal{O} 34'57		behind sun end		-258 Dec 15 j 09:45	19° \mathfrak{A} 53'15	
	-262 Jan 20 j 08:18	30° $R\mathfrak{E}$		morning rise		-258 Dec 27 j 19:44	22° \mathfrak{A} 47'52	
opposition	-262 Jan 23 j 03:09	29° \mathfrak{E} 38'02	1°10'20			-257 Jan 28 j 19:33	0° \mathfrak{E}	
min. Earth dist.	-262 Jan 23 j 05:14	29° \mathfrak{E} 37'21	4.39089 AU	retrograde		-257 May 05 j 07:35	12° \mathfrak{E} 06'42	
direct	-262 Mar 25 j 18:46	24° \mathfrak{E} 34'50		opposition		-257 Jul 04 j 23:21	7° \mathfrak{E} 10'21	0°-35'-47
	-262 May 27 j 23:04	0° \mathcal{O}		min. Earth dist.		-257 Jul 05 j 10:44	7° \mathfrak{E} 06'39	4.06669 AU
evening set	-262 Jul 30 j 23:34	12° \mathcal{O} 20'51		direct		-257 Sep 02 j 18:24	2° \mathfrak{E} 16'12	
max. Earth dist.	-262 Aug 12 j 09:56	15° \mathcal{O} 02'28	6.42137 AU	evening set		-256 Jan 05 j 14:53	21° \mathfrak{E} 27'17	
	-262 Aug 12 j 05:24	15° \mathcal{O}						
				conjunction		-256 Jan 18 j 13:00	24° \mathfrak{E} 32'55	0°-43'-1
conjunction	-262 Aug 13 j 03:53	15° \mathcal{O} 12'13	1°01'03	minimum elong		-256 Jan 18 j 12:58	24° \mathfrak{E} 32'53	0°43'01
minimum elong	-262 Aug 13 j 03:51	15° \mathcal{O} 12'12	1°01'04	max. Earth dist.		-256 Jan 18 j 11:52	24° \mathfrak{E} 32'13	6.01594 AU
morning rise	-262 Aug 26 j 05:22	18° \mathcal{O} 02'06		morning rise		-256 Jan 31 j 13:36	27° \mathfrak{E} 40'00	
	-262 Oct 27 j 05:20	0° \mathfrak{M}				-256 Feb 10 j 10:19	0° \approx	
retrograde	-262 Dec 24 j 11:40	4° \mathfrak{M} 53'50				-256 Apr 28 j 05:11	15° \approx	
opposition	-261 Feb 22 j 19:42	0° \mathfrak{M} 00'04	1°40'04	retrograde		-256 Jun 11 j 00:09	17° \approx 55'32	
	-261 Feb 22 j 19:55	30° $R\mathcal{O}$				-256 Jul 25 j 02:49	15° $R\approx$	
min. Earth dist.	-261 Feb 23 j 15:16	29° \mathcal{O} 53'45	4.43619 AU	opposition		-256 Aug 10 j 06:34	12° \approx 55'17	-1°-28'-13
direct	-261 Apr 26 j 08:34	24° \mathcal{O} 57'14		min. Earth dist.		-256 Aug 09 j 19:23	12° \approx 58'59	3.98151 AU
	-261 Jun 26 j 11:59	0° \mathfrak{M}		direct		-256 Oct 07 j 17:53	8° \approx 01'53	
evening set	-261 Aug 31 j 04:58	12° \mathfrak{M} 34'52				-256 Dec 14 j 11:12	15° \approx	
max. Earth dist.	-261 Sep 11 j 12:45	15° \mathfrak{M} 02'29	6.43189 AU	evening set		-255 Feb 09 j 20:11	27° \approx 35'37	
						-255 Feb 19 j 20:08	0° \mathfrak{K}	
				conjunction		-255 Feb 23 j 01:28	0° \mathfrak{K} 46'39	-1°-8'-16
conjunction	-261 Sep 13 j 01:51	15° \mathfrak{M} 22'43	1°12'23	minimum elong		-255 Feb 23 j 01:27	0° \mathfrak{K} 46'38	1°08'18
minimum elong	-261 Sep 13 j 01:51	15° \mathfrak{M} 22'42	1°12'22	max. Earth dist.		-255 Feb 24 j 07:16	1° \mathfrak{K} 04'37	5.96643 AU
morning rise	-261 Sep 25 j 19:43	18° \mathfrak{M} 09'12		morning rise		-255 Mar 08 j 10:00	3° \mathfrak{K} 59'25	
	-261 Nov 25 j 19:19	0° \mathfrak{A}		retrograde		-255 Jul 18 j 21:37	24° \mathfrak{K} 35'38	
retrograde	-260 Jan 24 j 02:51	5° \mathfrak{A} 02'19		opposition		-255 Sep 16 j 17:12	19° \mathfrak{K} 31'46	-1°-47'-4
opposition	-260 Mar 24 j 20:32	0° \mathfrak{A} 10'19	1°42'45	min. Earth dist.		-255 Sep 15 j 13:22	19° \mathfrak{K} 41'12	3.97475 AU
min. Earth dist.	-260 Mar 26 j 03:13	0° \mathfrak{A} 00'31	4.41231 AU	direct		-255 Nov 13 j 14:47	14° \mathfrak{K} 36'53	
	-260 Mar 26 j 04:50	30° $R\mathfrak{M}$		evening set		-254 Mar 01 j 07:51	0° \mathfrak{Y}	
direct	-260 May 26 j 14:06	25° \mathfrak{M} 08'58				-254 Mar 19 j 05:01	4° \mathfrak{Y} 10'11	
	-260 Jul 25 j 06:08	0° \mathfrak{A}		conjunction		-254 Apr 01 j 18:16	7° \mathfrak{Y} 23'09	-1°-7'-5
evening set	-260 Sep 29 j 22:18	12° \mathfrak{A} 53'26		minimum elong		-254 Apr 01 j 18:18	7° \mathfrak{Y} 23'10	1°07'07
max. Earth dist.	-260 Oct 10 j 14:39	15° \mathfrak{A} 15'06	6.37453 AU	max. Earth dist.		-254 Apr 03 j 21:37	7° \mathfrak{Y} 53'40	6.00206 AU
				morning rise		-254 Apr 15 j 10:10	10° \mathfrak{Y} 37'23	
						-254 Aug 02 j 22:10	0° \mathfrak{B}	
conjunction	-260 Oct 12 j 14:15	15° \mathfrak{A} 41'30	1°03'54	retrograde		-254 Aug 24 j 09:00	0° \mathfrak{B} 45'03	
minimum elong	-260 Oct 12 j 14:17	15° \mathfrak{A} 41'31	1°03'54			-254 Sep 14 j 14:21	30° $R\mathfrak{Y}$	
morning rise	-260 Oct 25 j 04:13	18° \mathfrak{A} 28'46		opposition		-254 Oct 22 j 22:09	25° \mathfrak{Y} 39'48	-1°-23'-58
	-260 Dec 21 j 18:27	0° \mathbb{M}		min. Earth dist.		-254 Oct 21 j 12:33	25° \mathfrak{Y} 51'16	4.04914 AU
retrograde	-259 Feb 24 j 03:22	5° \mathbb{M} 50'21		direct		-254 Dec 20 j 02:28	20° \mathfrak{Y} 42'03	
opposition	-259 Apr 26 j 01:32	0° \mathbb{M} 58'31	1°16'56			-253 Mar 11 j 00:32	0° \mathfrak{B}	
min. Earth dist.	-259 Apr 27 j 13:02	0° \mathbb{M} 47'13	4.32459 AU	evening set		-253 Apr 25 j 09:27	9° \mathfrak{B} 51'57	
	-259 May 03 j 18:29	30° $R\mathfrak{A}$						
direct	-259 Jun 27 j 09:21	25° \mathfrak{A} 59'26		conjunction		-253 May 09 j 03:31	13° \mathfrak{B} 02'19	0°-40'-35
	-259 Aug 19 j 11:44	0° \mathbb{M}		minimum elong		-253 May 09 j 03:34	13° \mathfrak{B} 02'21	0°40'36
evening set	-259 Oct 31 j 00:22	14° \mathbb{M} 04'59		max. Earth dist.		-253 May 11 j 05:42	13° \mathfrak{B} 31'18	6.10798 AU
	-259 Nov 04 j 01:32	15° \mathbb{M}				-253 May 17 j 15:36	15° \mathfrak{B}	
max. Earth dist.	-259 Nov 10 j 17:40	16° \mathbb{M} 31'05	6.26336 AU	morning rise		-253 May 22 j 22:57	16° \mathfrak{B} 13'05	
						-253 Jul 29 j 15:04	0° \mathbb{I}	
conjunction	-259 Nov 12 j 15:13	16° \mathbb{M} 57'01	0°36'52	retrograde		-253 Sep 27 j 13:46	5° \mathbb{I} 19'08	
minimum elong	-259 Nov 12 j 15:15	16° \mathbb{M} 57'02	0°36'51			-253 Nov 24 j 23:40	0° \mathbb{I} 24'43	4.17445 AU
morning rise	-259 Nov 25 j 05:25	19° \mathbb{M} 48'58		opposition		-253 Nov 26 j 03:21	0° \mathbb{I} 15'18	0°-31'-41
	-258 Jan 12 j 10:18	0° \mathfrak{A}						
retrograde	-258 Mar 30 j 02:01	8° \mathfrak{A} 02'37						
opposition	-258 May 30 j 01:10	3° \mathfrak{A} 09'14	0°26'37					
min. Earth dist.	-258 May 31 j 04:34	3° \mathfrak{A} 00'27	4.19635 AU					

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Attention, astronomical year style is used: The year -253 in astronomical counting style is the year 254 BCE in historical counting style.

	-253 Nov 28 j 00:25	30°R♄		opposition	-247 Apr 30 j 17:36	5°♄31'55	1°11'06
direct	-252 Jan 24 j 09:04	25°♄14'35		min. Earth dist.	-247 May 02 j 04:00	5°♄20'59	4.30795 AU
	-252 Mar 21 j 02:42	0°♄		direct	-247 Jul 01 j 21:08	0°♄33'14	
evening set	-252 May 30 j 05:20	13°♄50'09			-247 Oct 18 j 19:57	15°♄	
				evening set	-247 Nov 04 j 11:41	18°♄43'00	
conjunction	-252 Jun 12 j 22:51	16°♄54'22	0°00'-58	max. Earth dist.	-247 Nov 15 j 06:58	21°♄10'52	6.24423 AU
minimum elong	-252 Jun 12 j 22:52	16°♄54'22	0°00'59				
behind sun begin	-252 Jun 12 j 14:32	16°♄49'43		conjunction	-247 Nov 17 j 02:39	21°♄35'52	0°31'48
behind sun end	-252 Jun 13 j 07:13	16°♄59'01		minimum elong	-247 Nov 17 j 02:40	21°♄35'53	0°31'48
max. Earth dist.	-252 Jun 14 j 07:58	17°♄12'55	6.24287 AU	morning rise	-247 Nov 29 j 17:10	24°♄28'46	
asc. node	-252 Jun 22 j 05:45	18°♄59'04			-247 Dec 24 j 13:55	0°♄	
morning rise	-252 Jun 26 j 15:25	19°♄57'52		retrograde	-246 Apr 04 j 03:15	12°♄51'37	
	-252 Aug 14 j 00:45	0°♄		opposition	-246 Jun 04 j 00:21	7°♄57'56	0°18'05
retrograde	-252 Oct 28 j 18:07	7°♄58'25		min. Earth dist.	-246 Jun 05 j 03:04	7°♄49'22	4.17586 AU
opposition	-252 Dec 27 j 11:01	2°♄58'04	0°27'45	direct	-246 Aug 04 j 01:02	3°♄01'56	
min. Earth dist.	-252 Dec 26 j 22:07	3°♄02'22	4.30600 AU	desc. node	-246 Sep 28 j 09:44	7°♄33'42	
	-251 Jan 20 j 06:52	30°R♄		evening set	-246 Dec 07 j 02:09	21°♄44'41	
direct	-251 Feb 26 j 01:31	27°♄55'25					
	-251 Apr 04 j 07:02	0°♄		conjunction	-246 Dec 19 j 19:52	24°♄44'20	0°-8'-48
evening set	-251 Jul 03 j 05:04	15°♄59'17		minimum elong	-246 Dec 19 j 19:52	24°♄44'20	0°08'49
				behind sun begin	-246 Dec 19 j 12:54	24°♄40'15	
conjunction	-251 Jul 16 j 16:31	18°♄56'02	0°37'24	behind sun end	-246 Dec 20 j 02:49	24°♄48'24	
minimum elong	-251 Jul 16 j 16:29	18°♄56'00	0°37'24	max. Earth dist.	-246 Dec 18 j 18:15	24°♄29'15	6.10952 AU
max. Earth dist.	-251 Jul 16 j 21:47	18°♄58'54	6.36101 AU	morning rise	-245 Jan 01 j 14:45	27°♄44'51	
morning rise	-251 Jul 30 j 01:41	21°♄51'27			-245 Jan 11 j 07:10	0°♄	
	-251 Sep 07 j 11:35	0°♄		retrograde	-245 May 10 j 13:22	17°♄13'30	
retrograde	-251 Nov 28 j 11:28	9°♄03'34		opposition	-245 Jul 10 j 04:46	12°♄16'41	0°-44'-28
opposition	-250 Jan 27 j 12:25	4°♄07'04	1°16'03	min. Earth dist.	-245 Jul 10 j 12:16	12°♄14'15	4.04937 AU
min. Earth dist.	-250 Jan 27 j 17:18	4°♄05'28	4.40276 AU	direct	-245 Sep 07 j 17:37	7°♄22'51	
	-250 Mar 05 j 12:36	30°R♄		evening set	-244 Jan 10 j 16:08	26°♄38'57	
direct	-250 Mar 30 j 08:05	29°♄03'45					
	-250 Apr 24 j 10:14	0°♄		conjunction	-244 Jan 23 j 15:10	29°♄45'35	0°-47'-53
	-250 Jul 27 j 03:10	15°♄		minimum elong	-244 Jan 23 j 15:08	29°♄45'34	0°47'54
evening set	-250 Aug 04 j 11:20	16°♄47'01		max. Earth dist.	-244 Jan 23 j 18:47	29°♄47'46	6.00292 AU
					-244 Jan 24 j 15:08	0°♄	
conjunction	-250 Aug 17 j 14:37	19°♄37'38	1°03'48	morning rise	-244 Feb 05 j 16:49	2°♄53'45	
minimum elong	-250 Aug 17 j 14:35	19°♄37'37	1°03'48		-244 Mar 31 j 15:29	15°♄	
max. Earth dist.	-250 Aug 16 j 18:48	19°♄26'53	6.42872 AU	retrograde	-244 Jun 16 j 11:14	23°♄15'36	
morning rise	-250 Aug 30 j 14:41	22°♄26'41		opposition	-244 Aug 15 j 15:22	18°♄14'48	-1°-33'-23
	-250 Oct 06 j 07:25	0°♄		min. Earth dist.	-244 Aug 15 j 01:31	18°♄19'25	3.97450 AU
retrograde	-250 Dec 28 j 17:49	9°♄16'23			-244 Sep 11 j 09:12	15°R♄	
opposition	-249 Feb 27 j 04:10	4°♄22'58	1°42'09	direct	-244 Oct 13 j 00:22	13°♄21'23	
min. Earth dist.	-249 Feb 28 j 01:10	4°♄16'12	4.43862 AU		-244 Nov 13 j 08:49	15°♄	
	-249 Apr 09 j 17:45	30°R♄			-243 Feb 02 j 17:11	0°♄	
direct	-249 Apr 30 j 18:14	29°♄20'18		evening set	-243 Feb 15 j 03:09	2°♄56'54	
	-249 May 21 j 22:58	0°♄					
evening set	-249 Sep 04 j 13:36	16°♄57'29		conjunction	-243 Feb 28 j 09:42	6°♄08'30	-1°-9'-51
max. Earth dist.	-249 Sep 15 j 16:56	19°♄22'57	6.42899 AU	minimum elong	-243 Feb 28 j 09:41	6°♄08'29	1°09'51
				max. Earth dist.	-243 Mar 01 j 20:59	6°♄29'45	5.96625 AU
conjunction	-249 Sep 17 j 09:25	19°♄45'03	1°12'22	morning rise	-243 Mar 13 j 19:20	9°♄21'46	
minimum elong	-249 Sep 17 j 09:25	19°♄45'02	1°12'22	retrograde	-243 Jul 24 j 05:36	29°♄56'41	
morning rise	-249 Sep 30 j 02:36	22°♄31'22		opposition	-243 Sep 21 j 23:44	24°♄52'30	-1°-46'-12
	-249 Nov 05 j 03:25	0°♄		min. Earth dist.	-243 Sep 20 j 18:00	25°♄02'35	3.98183 AU
retrograde	-248 Jan 28 j 13:58	9°♄26'33		direct	-243 Nov 18 j 20:27	19°♄57'21	
opposition	-248 Mar 29 j 07:30	4°♄34'41	1°40'46		-242 Feb 10 j 07:57	0°♄	
min. Earth dist.	-248 Mar 30 j 16:28	4°♄24'10	4.40421 AU	evening set	-242 Mar 24 j 13:18	9°♄27'57	
	-248 May 13 j 21:32	30°R♄					
direct	-248 May 31 j 01:43	29°♄33'34		conjunction	-242 Apr 07 j 03:16	12°♄40'40	-1°-4'-39
	-248 Jun 17 j 05:45	0°♄		minimum elong	-242 Apr 07 j 03:19	12°♄40'42	1°04'39
evening set	-248 Oct 04 j 06:28	17°♄20'05		max. Earth dist.	-242 Apr 09 j 07:03	13°♄11'19	6.01548 AU
max. Earth dist.	-248 Oct 14 j 21:51	19°♄41'38	6.36179 AU	morning rise	-242 Apr 20 j 20:06	15°♄54'38	
					-242 Jun 27 j 00:15	0°♄	
conjunction	-248 Oct 16 j 22:11	20°♄08'32	1°01'06	retrograde	-242 Aug 29 j 07:30	5°♄53'56	
minimum elong	-248 Oct 16 j 22:13	20°♄08'33	1°01'05	min. Earth dist.	-242 Oct 26 j 11:36	1°♄00'18	4.06731 AU
morning rise	-248 Oct 29 j 11:54	22°♄56'14		opposition	-242 Oct 27 j 21:37	0°♄48'41	-1°-17'-47
	-248 Dec 01 j 16:15	0°♄			-242 Nov 02 j 20:57	30°R♄	
retrograde	-247 Feb 28 j 18:13	10°♄23'53		direct	-242 Dec 25 j 05:04	25°♄50'27	

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Attention, astronomical year style is used: The year -241 in astronomical counting style is the year 242 BCE in historical counting style.

	-241 Feb 14 j 23:32	0°♄				-236 Nov 14 j 11:58	0°♄		
evening set	-241 Apr 30 j 13:23	14°♄54'43				-235 Mar 01 j 23:04	15°♄		
	-241 Apr 30 j 22:37	15°♄		retrograde		-235 Mar 05 j 13:39	15°♄01'13		
						-235 Mar 09 j 03:55	15°♄		
conjunction	-241 May 14 j 07:48	18°♄04'16	0°-35'-25	opposition		-235 May 05 j 11:26	10°♄09'07	1°04'47	
minimum elong	-241 May 14 j 07:51	18°♄04'17	0°35'26	min. Earth dist.		-235 May 06 j 22:01	9°♄58'06	4.28728 AU	
max. Earth dist.	-241 May 16 j 09:10	18°♄32'38	6.12942 AU	direct		-235 Jul 06 j 12:18	5°♄10'46		
morning rise	-241 May 28 j 03:01	21°♄13'57				-235 Sep 30 j 23:50	15°♄		
	-241 Jul 07 j 14:42	0°♄		evening set		-235 Nov 09 j 00:45	23°♄25'55		
retrograde	-241 Oct 02 j 06:07	10°♄09'13		max. Earth dist.		-235 Nov 19 j 22:31	25°♄55'56	6.22236 AU	
opposition	-241 Nov 30 j 19:01	5°♄05'48	0°-23'-14						
min. Earth dist.	-241 Nov 29 j 17:39	5°♄14'24	4.19669 AU	conjunction		-235 Nov 21 j 16:05	26°♄19'49	0°26'28	
direct	-240 Jan 29 j 06:02	0°♄04'43		minimum elong		-235 Nov 21 j 16:06	26°♄19'50	0°26'28	
asc. node	-240 May 02 j 00:37	11°♄29'35		morning rise		-235 Dec 04 j 07:03	29°♄13'50		
evening set	-240 Jun 04 j 02:11	18°♄34'15				-235 Dec 07 j 15:56	0°♄		
				retrograde		-234 Apr 09 j 04:25	17°♄46'36		
conjunction	-240 Jun 17 j 19:02	21°♄37'17	0°04'51	opposition		-234 Jun 09 j 01:46	12°♄52'32	0°09'15	
minimum elong	-240 Jun 17 j 19:03	21°♄37'17	0°04'51	min. Earth dist.		-234 Jun 10 j 01:10	12°♄45'01	4.15458 AU	
behind sun begin	-240 Jun 17 j 10:56	21°♄32'47		desc. node		-234 Aug 07 j 02:42	7°♄57'14		
behind sun end	-240 Jun 18 j 03:09	21°♄41'47		direct		-234 Aug 08 j 20:07	7°♄56'57		
max. Earth dist.	-240 Jun 19 j 00:04	21°♄53'28	6.26401 AU	evening set		-234 Dec 11 j 22:08	26°♄45'16		
morning rise	-240 Jul 01 j 10:50	24°♄39'32							
	-240 Jul 26 j 05:11	0°♄		conjunction		-234 Dec 24 j 16:25	29°♄45'59	0°-14'-51	
retrograde	-240 Nov 02 j 01:34	12°♄31'09		minimum elong		-234 Dec 24 j 16:25	29°♄45'58	0°14'52	
opposition	-240 Dec 31 j 20:22	7°♄31'17	0°35'29	behind sun begin		-234 Dec 24 j 13:02	29°♄43'59		
min. Earth dist.	-240 Dec 31 j 09:45	7°♄34'50	4.32438 AU	behind sun end		-234 Dec 24 j 19:47	29°♄47'58		
direct	-239 Mar 02 j 14:51	2°♄28'25		max. Earth dist.		-234 Dec 23 j 19:03	29°♄33'20	6.09076 AU	
evening set	-239 Jul 07 j 18:57	20°♄28'01				-234 Dec 25 j 16:07	0°♄		
				morning rise		-233 Jan 06 j 12:10	2°♄47'41		
conjunction	-239 Jul 21 j 05:22	23°♄23'43	0°41'58	retrograde		-233 May 15 j 22:49	22°♄25'27		
minimum elong	-239 Jul 21 j 05:19	23°♄23'42	0°41'58	opposition		-233 Jul 15 j 12:28	17°♄28'03	0°-52'-55	
max. Earth dist.	-239 Jul 21 j 06:55	23°♄24'34	6.37524 AU	min. Earth dist.		-233 Jul 15 j 16:52	17°♄26'36	4.03490 AU	
morning rise	-239 Aug 03 j 13:10	26°♄18'01		direct		-233 Sep 12 j 21:41	12°♄34'21		
	-239 Aug 20 j 21:01	0°♄				-232 Jan 07 j 19:13	0°♄		
retrograde	-239 Dec 02 j 17:09	13°♄25'07		evening set		-232 Jan 15 j 18:57	1°♄54'00		
opposition	-238 Jan 31 j 18:43	8°♄29'09	1°21'09						
min. Earth dist.	-238 Feb 01 j 02:33	8°♄26'35	4.41199 AU	conjunction		-232 Jan 28 j 19:01	5°♄01'27	0°-52'-25	
direct	-238 Apr 03 j 17:54	3°♄25'51		minimum elong		-232 Jan 28 j 18:58	5°♄01'25	0°52'27	
	-238 Jul 10 j 10:46	15°♄		max. Earth dist.		-232 Jan 29 j 04:32	5°♄07'11	5.99405 AU	
evening set	-238 Aug 08 j 20:26	21°♄07'26		morning rise		-232 Feb 10 j 21:39	8°♄10'27		
						-232 Mar 11 j 08:21	15°♄		
conjunction	-238 Aug 21 j 22:30	23°♄57'26	1°06'08	retrograde		-232 Jun 21 j 21:56	28°♄36'13		
minimum elong	-238 Aug 21 j 22:28	23°♄57'25	1°06'08	min. Earth dist.		-232 Aug 20 j 07:25	23°♄40'29	3.97251 AU	
max. Earth dist.	-238 Aug 20 j 21:34	23°♄43'54	6.43201 AU	opposition		-232 Aug 21 j 00:17	23°♄34'51	-1°-37'-46	
morning rise	-238 Sep 03 j 21:37	26°♄45'57		direct		-232 Oct 18 j 05:58	18°♄41'19		
	-238 Sep 19 j 02:12	0°♄				-231 Jan 15 j 09:53	0°♄		
retrograde	-237 Jan 02 j 00:34	13°♄35'10		evening set		-231 Feb 20 j 10:25	8°♄16'40		
opposition	-237 Mar 03 j 11:08	8°♄42'01	1°43'39						
min. Earth dist.	-237 Mar 04 j 10:48	8°♄34'23	4.43608 AU	conjunction		-231 Mar 05 j 17:49	11°♄28'28	-1°-10'-49	
direct	-237 May 05 j 02:30	3°♄39'26		minimum elong		-231 Mar 05 j 17:49	11°♄28'28	1°10'50	
evening set	-237 Sep 08 j 20:31	21°♄17'47		max. Earth dist.		-231 Mar 07 j 07:21	11°♄51'02	5.97080 AU	
max. Earth dist.	-237 Sep 19 j 22:15	23°♄42'40	6.42070 AU	morning rise		-231 Mar 19 j 04:39	14°♄41'59		
						-231 May 31 j 03:27	0°♄		
conjunction	-237 Sep 21 j 15:47	24°♄05'23	1°11'58	retrograde		-231 Jul 29 j 09:35	5°♄13'23		
minimum elong	-237 Sep 21 j 15:47	24°♄05'24	1°11'59	min. Earth dist.		-231 Sep 25 j 20:40	0°♄19'35	3.99247 AU	
morning rise	-237 Oct 04 j 08:10	26°♄51'45		opposition		-231 Sep 27 j 04:17	0°♄08'51	-1°-44'-28	
	-237 Oct 18 j 22:31	0°♄				-231 Sep 28 j 06:19	30°♄		
retrograde	-236 Feb 01 j 23:37	13°♄50'52		direct		-231 Nov 24 j 01:26	25°♄13'17		
opposition	-236 Apr 02 j 18:28	8°♄59'06	1°38'15			-230 Jan 18 j 04:08	0°♄		
min. Earth dist.	-236 Apr 04 j 03:46	8°♄48'29	4.39079 AU	evening set		-230 Mar 29 j 19:49	14°♄40'10		
direct	-236 Jun 04 j 10:13	3°♄58'18							
evening set	-236 Oct 08 j 15:00	21°♄48'26		conjunction		-230 Apr 12 j 10:46	17°♄52'35	-1°-1'-43	
max. Earth dist.	-236 Oct 19 j 05:01	24°♄09'53	6.34424 AU	minimum elong		-230 Apr 12 j 10:48	17°♄52'36	1°01'44	
				max. Earth dist.		-230 Apr 14 j 16:03	18°♄23'59	6.03116 AU	
conjunction	-236 Oct 21 j 06:18	24°♄37'26	0°57'57	morning rise		-230 Apr 26 j 04:02	21°♄06'02		
minimum elong	-236 Oct 21 j 06:20	24°♄37'28	0°57'55			-230 Jun 05 j 03:43	0°♄		
morning rise	-236 Nov 02 j 20:05	27°♄25'50		retrograde		-230 Sep 03 j 06:24	10°♄56'27		

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Attention, astronomical year style is used: The year -230 in astronomical counting style is the year 231 BCE in historical counting style.

min. Earth dist.	-230 Oct 31 j 10:33	6°♄02'26	4.08613 AU	conjunction	-224 Oct 25 j 15:57	29°♃10'17	0°54'24
opposition	-230 Nov 01 j 19:04	5°♄51'21	-1°-11'-9	minimum elong	-224 Oct 25 j 15:59	29°♃10'18	0°54'24
direct	-230 Dec 30 j 06:42	0°♄52'42			-224 Oct 29 j 08:31	0°♄	
	-229 Apr 13 j 21:12	15°♄		morning rise	-224 Nov 07 j 05:33	1°♄59'20	
evening set	-229 May 05 j 15:18	19°♄51'28			-223 Jan 12 j 04:47	15°♄	
				retrograde	-223 Mar 10 j 07:49	19°♄42'02	
conjunction	-229 May 19 j 09:46	23°♄00'09	0°-30'-5		-223 May 08 j 22:32	15°♄	
minimum elong	-229 May 19 j 09:48	23°♄00'11	0°30'05	opposition	-223 May 10 j 06:32	14°♄49'49	0°57'59
max. Earth dist.	-229 May 21 j 09:03	23°♄27'11	6.14976 AU	min. Earth dist.	-223 May 11 j 15:31	14°♄39'18	4.26922 AU
morning rise	-229 Jun 02 j 04:52	26°♄08'52		direct	-223 Jul 11 j 02:58	9°♄51'58	
	-229 Jun 19 j 11:03	0°♄			-223 Sep 09 j 07:31	15°♄	
retrograde	-229 Oct 06 j 18:20	14°♄54'13		evening set	-223 Nov 13 j 14:36	28°♄11'30	
min. Earth dist.	-229 Dec 04 j 08:45	9°♄59'27	4.21672 AU		-223 Nov 21 j 11:20	0°♄	
opposition	-229 Dec 05 j 08:56	9°♄51'16	0°-14'-46	max. Earth dist.	-223 Nov 24 j 14:34	0°♄43'26	6.20420 AU
direct	-228 Feb 02 j 23:26	4°♄49'53					
asc. node	-228 Mar 11 j 20:25	7°♄02'15		conjunction	-223 Nov 26 j 06:01	1°♄06'14	0°20'57
evening set	-228 Jun 08 j 21:51	23°♄14'32		minimum elong	-223 Nov 26 j 06:02	1°♄06'15	0°20'56
				morning rise	-223 Dec 08 j 21:34	4°♄01'15	
conjunction	-228 Jun 22 j 13:59	26°♄16'30	0°10'30	retrograde	-222 Apr 14 j 07:02	22°♄42'45	
minimum elong	-228 Jun 22 j 13:59	26°♄16'30	0°10'29	opposition	-222 Jun 14 j 03:30	17°♄48'17	0°00'22
behind sun begin	-228 Jun 22 j 07:35	26°♄12'58		min. Earth dist.	-222 Jun 15 j 00:33	17°♄41'30	4.13762 AU
behind sun end	-228 Jun 22 j 20:22	26°♄20'02		desc. node	-222 Jun 16 j 10:51	17°♄30'28	
max. Earth dist.	-228 Jun 23 j 14:35	26°♄30'10	6.28230 AU	direct	-222 Aug 13 j 18:25	12°♄53'02	
morning rise	-228 Jul 06 j 04:49	29°♄17'35			-222 Dec 09 j 05:39	0°♄	
	-228 Jul 09 j 10:00	0°♄		evening set	-222 Dec 16 j 17:40	1°♄45'20	
retrograde	-228 Nov 06 j 10:51	17°♄01'37					
opposition	-227 Jan 05 j 05:18	12°♄02'24	0°42'58	conjunction	-222 Dec 29 j 12:41	4°♄46'57	0°-20'-43
min. Earth dist.	-227 Jan 04 j 22:10	12°♄04'47	4.33955 AU	minimum elong	-222 Dec 29 j 12:39	4°♄46'56	0°20'44
direct	-227 Mar 07 j 04:51	6°♄59'25		max. Earth dist.	-222 Dec 28 j 20:28	4°♄37'20	6.07674 AU
evening set	-227 Jul 12 j 08:35	24°♄55'55		morning rise	-221 Jan 11 j 09:07	7°♄49'35	
				retrograde	-221 May 21 j 05:52	27°♄34'22	
conjunction	-227 Jul 25 j 17:55	27°♄50'45	0°46'17	opposition	-221 Jul 20 j 18:09	22°♄36'27	-1°00'-48
minimum elong	-227 Jul 25 j 17:52	27°♄50'43	0°46'17	min. Earth dist.	-221 Jul 20 j 19:21	22°♄36'04	4.02537 AU
max. Earth dist.	-227 Jul 25 j 15:15	27°♄49'18	6.38606 AU	direct	-221 Sep 17 j 22:58	17°♄42'56	
	-227 Aug 04 j 15:12	0°♄			-221 Dec 21 j 06:23	0°♄	
morning rise	-227 Aug 08 j 00:31	0°♄44'07		evening set	-220 Jan 20 j 20:09	7°♄04'33	
	-227 Oct 24 j 23:46	15°♄					
retrograde	-227 Dec 06 j 22:33	17°♄47'32		conjunction	-220 Feb 02 j 20:55	10°♄12'31	0°-56'-25
	-226 Jan 19 j 03:42	15°♄		minimum elong	-220 Feb 02 j 20:52	10°♄12'30	0°56'26
opposition	-226 Feb 05 j 01:45	12°♄52'02	1°25'52	max. Earth dist.	-220 Feb 03 j 09:37	10°♄20'10	5.98962 AU
min. Earth dist.	-226 Feb 05 j 11:41	12°♄48'47	4.41811 AU	morning rise	-220 Feb 16 j 00:42	13°♄22'10	
direct	-226 Apr 08 j 02:58	7°♄48'46			-220 Feb 22 j 21:12	15°♄	
	-226 Jun 21 j 09:03	15°♄			-220 May 07 j 17:43	0°♄	
evening set	-226 Aug 13 j 05:56	25°♄29'38		retrograde	-220 Jun 27 j 02:39	3°♄49'57	
max. Earth dist.	-226 Aug 25 j 03:45	28°♄04'22	6.43293 AU		-220 Aug 17 j 04:33	30°♄	
				min. Earth dist.	-220 Aug 25 j 09:32	28°♄54'42	3.97384 AU
conjunction	-226 Aug 26 j 06:58	28°♄19'09	1°08'07	opposition	-220 Aug 26 j 05:31	28°♄48'00	-1°-41'-10
minimum elong	-226 Aug 26 j 06:56	28°♄19'09	1°08'07	direct	-220 Oct 23 j 09:00	23°♄54'15	
	-226 Sep 03 j 00:40	0°♄			-220 Dec 25 j 03:37	0°♄	
morning rise	-226 Sep 08 j 04:55	1°♄07'12		evening set	-219 Feb 25 j 14:10	13°♄28'26	
retrograde	-225 Jan 06 j 08:10	17°♄56'49					
opposition	-225 Mar 07 j 19:35	13°♄04'02	1°44'37	conjunction	-219 Mar 10 j 22:46	16°♄40'24	-1°-11'-11
min. Earth dist.	-225 Mar 08 j 21:13	12°♄55'48	4.43191 AU	minimum elong	-219 Mar 10 j 22:46	16°♄40'24	1°11'12
direct	-225 May 09 j 11:41	8°♄01'44		max. Earth dist.	-219 Mar 12 j 16:13	17°♄05'17	5.97765 AU
evening set	-225 Sep 13 j 04:48	25°♄41'36		morning rise	-219 Mar 24 j 10:24	19°♄53'58	
max. Earth dist.	-225 Sep 24 j 02:37	28°♄04'47	6.41161 AU		-219 May 08 j 09:42	0°♄	
				retrograde	-219 Aug 03 j 11:57	10°♄20'59	
conjunction	-225 Sep 25 j 23:13	28°♄29'16	1°11'10	min. Earth dist.	-219 Sep 30 j 21:27	5°♄26'53	4.00401 AU
minimum elong	-225 Sep 25 j 23:14	28°♄29'16	1°11'09	opposition	-219 Oct 02 j 04:50	5°♄16'12	-1°-41'-56
	-225 Oct 02 j 20:37	0°♄		direct	-219 Nov 29 j 04:01	0°♄20'14	
morning rise	-225 Oct 08 j 15:10	1°♄15'48		evening set	-218 Apr 03 j 22:38	19°♄43'17	
retrograde	-224 Feb 06 j 12:53	18°♄19'11					
opposition	-224 Apr 07 j 07:14	13°♄27'30	1°35'08	conjunction	-218 Apr 17 j 14:16	22°♄55'19	0°-58'-25
min. Earth dist.	-224 Apr 08 j 17:29	13°♄16'35	4.37748 AU	minimum elong	-218 Apr 17 j 14:19	22°♄55'20	0°58'26
direct	-224 Jun 08 j 21:45	8°♄27'02		max. Earth dist.	-218 Apr 19 j 19:21	23°♄26'27	6.04619 AU
evening set	-224 Oct 13 j 00:40	26°♄20'40		morning rise	-218 May 01 j 08:11	26°♄08'18	
max. Earth dist.	-224 Oct 23 j 16:20	28°♄43'34	6.32797 AU		-218 May 18 j 04:27	0°♄	

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Attention, astronomical year style is used: The year -218 in astronomical counting style is the year 219 BCE in historical counting style.

	-218 Aug 16 j 07:23	15°♄		evening set	-212 Oct 17 j 09:49	0°♌51'17	
retrograde	-218 Sep 07 j 22:59	15°♄50'11		max. Earth dist.	-212 Oct 28 j 00:35	3°♌14'14	6.31364 AU
	-218 Sep 30 j 09:51	15°♄					
min. Earth dist.	-218 Nov 05 j 04:03	10°♄56'17	4.10310 AU	conjunction	-212 Oct 30 j 00:46	3°♌41'22	0°50'32
opposition	-218 Nov 06 j 12:25	10°♄45'15	-1°-4'-15	minimum elong	-212 Oct 30 j 00:48	3°♌41'23	0°50'32
direct	-217 Jan 04 j 02:06	5°♄46'11		morning rise	-212 Nov 11 j 14:32	6°♌31'03	
	-217 Mar 26 j 10:48	15°♄			-212 Dec 21 j 11:57	15°♌	
evening set	-217 May 10 j 14:02	24°♄40'27		retrograde	-211 Mar 15 j 02:14	24°♌20'29	
				opposition	-211 May 15 j 01:10	19°♌27'58	0°50'48
conjunction	-217 May 24 j 08:30	27°♄48'21	0°-24'-42	min. Earth dist.	-211 May 16 j 08:58	19°♌17'49	4.25296 AU
minimum elong	-217 May 24 j 08:31	27°♄48'22	0°24'42		-211 Jun 27 j 21:52	15°♌	
max. Earth dist.	-217 May 26 j 03:57	28°♄13'06	6.16735 AU	direct	-211 Jul 15 j 18:37	14°♌30'27	
	-217 Jun 03 j 00:02	0°♄			-211 Aug 02 j 15:15	15°♌	
morning rise	-217 Jun 07 j 03:24	0°♄56'11			-211 Nov 05 j 09:31	0°♄	
retrograde	-217 Oct 11 j 06:19	19°♄32'56		evening set	-211 Nov 18 j 03:19	2°♄53'43	
opposition	-217 Dec 09 j 20:24	14°♄30'26	0°-6'-29	max. Earth dist.	-211 Nov 29 j 07:15	5°♄28'27	6.18737 AU
min. Earth dist.	-217 Dec 08 j 23:21	14°♄37'33	4.23321 AU				
asc. node	-216 Jan 21 j 17:55	9°♄56'44		conjunction	-211 Nov 30 j 19:11	5°♄49'17	0°15'19
direct	-216 Feb 07 j 15:58	9°♄28'45		minimum elong	-211 Nov 30 j 19:12	5°♄49'18	0°15'19
evening set	-216 Jun 13 j 15:04	27°♄49'42		behind sun begin	-211 Nov 30 j 16:23	5°♄47'40	
	-216 Jun 23 j 10:56	0°♄		behind sun end	-211 Nov 30 j 22:01	5°♄50'55	
				morning rise	-211 Dec 13 j 11:04	8°♄45'12	
conjunction	-216 Jun 27 j 06:40	0°♄50'49	0°15'56	retrograde	-210 Apr 19 j 07:58	27°♄35'01	
minimum elong	-216 Jun 27 j 06:38	0°♄50'49	0°15'57	desc. node	-210 Apr 26 j 06:07	27°♄30'31	
max. Earth dist.	-216 Jun 28 j 04:24	1°♄02'52	6.29657 AU	opposition	-210 Jun 19 j 03:50	22°♄40'10	0°-8'-29
morning rise	-216 Jul 10 j 20:31	3°♄50'54		min. Earth dist.	-210 Jun 19 j 22:50	22°♄34'03	4.12141 AU
retrograde	-216 Nov 10 j 16:42	21°♄28'53		direct	-210 Aug 18 j 14:11	17°♄45'15	
opposition	-215 Jan 09 j 13:05	16°♄30'11	0°50'02		-210 Nov 22 j 04:35	0°♄	
min. Earth dist.	-215 Jan 09 j 07:27	16°♄32'03	4.35079 AU	evening set	-210 Dec 21 j 12:12	6°♄41'37	
direct	-215 Mar 11 j 15:24	11°♄27'07					
evening set	-215 Jul 16 j 21:12	29°♄21'37		conjunction	-209 Jan 03 j 07:42	9°♄44'06	0°-26'-25
	-215 Jul 19 j 20:05	0°♄		minimum elong	-209 Jan 03 j 07:40	9°♄44'05	0°26'27
				max. Earth dist.	-209 Jan 02 j 17:47	9°♄35'50	6.06239 AU
conjunction	-215 Jul 30 j 05:21	2°♄15'41	0°50'16	morning rise	-209 Jan 16 j 05:10	12°♄47'47	
minimum elong	-215 Jul 30 j 05:19	2°♄15'39	0°50'16		-209 Apr 14 j 13:54	0°♄	
max. Earth dist.	-215 Jul 29 j 22:29	2°♄11'56	6.39351 AU	retrograde	-209 May 26 j 11:00	2°♄40'06	
morning rise	-215 Aug 12 j 10:49	5°♄08'17			-209 Jul 07 j 16:01	30°♄	
	-215 Sep 30 j 11:33	15°♄		opposition	-209 Jul 25 j 22:37	27°♄41'36	-1°-8'-14
retrograde	-215 Dec 11 j 05:32	22°♄09'03		min. Earth dist.	-209 Jul 25 j 20:26	27°♄42'19	4.01431 AU
opposition	-214 Feb 09 j 08:53	17°♄14'01	1°30'01	direct	-209 Sep 22 j 22:42	22°♄48'09	
min. Earth dist.	-214 Feb 09 j 21:45	17°♄09'49	4.42157 AU		-209 Dec 01 j 06:32	0°♄	
	-214 Feb 27 j 03:39	15°♄		evening set	-208 Jan 25 j 20:38	12°♄12'42	
direct	-214 Apr 12 j 13:35	12°♄10'50			-208 Feb 06 j 10:57	15°♄	
	-214 May 27 j 04:35	15°♄					
evening set	-214 Aug 17 j 15:16	29°♄51'25		conjunction	-208 Feb 07 j 22:32	15°♄21'27	-1°00'00
	-214 Aug 18 j 07:12	0°♄		minimum elong	-208 Feb 07 j 22:29	15°♄21'25	1°00'01
max. Earth dist.	-214 Aug 29 j 09:09	2°♄24'10	6.43204 AU	max. Earth dist.	-208 Feb 08 j 16:36	15°♄32'20	5.98287 AU
				morning rise	-208 Feb 21 j 03:13	18°♄31'49	
conjunction	-214 Aug 30 j 15:20	2°♄40'35	1°09'41		-208 Apr 12 j 15:48	0°♄	
minimum elong	-214 Aug 30 j 15:19	2°♄40'34	1°09'41	retrograde	-208 Jul 02 j 10:12	9°♄02'44	
morning rise	-214 Sep 12 j 12:19	5°♄28'16		opposition	-208 Aug 31 j 10:29	4°♄00'19	-1°-43'-50
retrograde	-213 Jan 10 j 15:44	22°♄18'42		min. Earth dist.	-208 Aug 30 j 13:20	4°♄07'25	3.97228 AU
opposition	-213 Mar 12 j 04:33	17°♄26'06	1°44'57		-208 Oct 05 j 13:46	30°♄	
min. Earth dist.	-213 Mar 13 j 07:00	17°♄17'37	4.42704 AU	direct	-208 Oct 28 j 12:39	29°♄06'23	
direct	-213 May 13 j 20:41	12°♄23'59			-208 Nov 20 j 09:57	0°♄	
evening set	-213 Sep 17 j 12:49	0°♄05'10		evening set	-207 Mar 02 j 18:52	18°♄40'53	
	-213 Sep 17 j 03:20	0°♄					
max. Earth dist.	-213 Sep 28 j 10:30	2°♄28'36	6.40310 AU	conjunction	-207 Mar 16 j 04:29	21°♄53'11	-1°-11'-1
				minimum elong	-207 Mar 16 j 04:29	21°♄53'12	1°11'02
conjunction	-213 Sep 30 j 06:40	2°♄52'54	1°09'55	max. Earth dist.	-207 Mar 18 j 00:01	22°♄19'15	5.98118 AU
minimum elong	-213 Sep 30 j 06:41	2°♄52'55	1°09'54	morning rise	-207 Mar 29 j 17:20	25°♄07'05	
morning rise	-213 Oct 12 j 21:58	5°♄39'33			-207 Apr 19 j 16:24	0°♄	
retrograde	-212 Feb 11 j 00:49	22°♄46'54		retrograde	-207 Aug 08 j 13:48	15°♄30'50	
opposition	-212 Apr 11 j 20:23	17°♄55'13	1°31'25	min. Earth dist.	-207 Oct 05 j 20:58	10°♄37'07	4.01237 AU
min. Earth dist.	-212 Apr 13 j 06:57	17°♄44'12	4.36569 AU	opposition	-207 Oct 07 j 05:54	10°♄25'55	-1°-38'-39
direct	-212 Jun 13 j 09:41	12°♄55'07		direct	-207 Dec 04 j 04:44	5°♄29'33	
	-212 Oct 13 j 13:38	0°♄		evening set	-206 Apr 09 j 03:24	24°♄50'18	

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Attention, astronomical year style is used: The year -206 in astronomical counting style is the year 207 BCE in historical counting style.

conjunction	-206 Apr 22 j 19:46	28°♃02'08	0°-54'-38	min. Earth dist.	-200 Apr 17 j 17:28	22°♁06'36	4.35875 AU
minimum elong	-206 Apr 22 j 19:49	28°♃02'10	0°54'40	direct	-200 Jun 17 j 18:56	17°♁17'43	
max. Earth dist.	-206 Apr 24 j 23:44	28°♃32'32	6.05854 AU		-200 Sep 27 j 13:21	0°♃	
	-206 May 01 j 05:32	0°♃		evening set	-200 Oct 21 j 15:47	5°♃14'56	
morning rise	-206 May 06 j 14:15	1°♃14'48		max. Earth dist.	-200 Nov 01 j 07:57	7°♃39'00	6.30325 AU
	-206 Jul 11 j 20:38	15°♃					
retrograde	-206 Sep 12 j 19:04	20°♃49'16		conjunction	-200 Nov 03 j 06:39	8°♃05'22	0°46'29
min. Earth dist.	-206 Nov 10 j 01:14	15°♃55'00	4.11788 AU	minimum elong	-200 Nov 03 j 06:42	8°♃05'23	0°46'29
opposition	-206 Nov 11 j 07:58	15°♃44'31	0°-56'-47	morning rise	-200 Nov 15 j 20:17	10°♃55'27	
	-206 Nov 16 j 19:03	15°♃			-200 Dec 04 j 07:13	15°♃	
direct	-205 Jan 09 j 01:29	10°♃45'04		retrograde	-199 Mar 19 j 16:45	28°♃50'25	
	-205 Mar 02 j 20:37	15°♃		opposition	-199 May 19 j 16:02	23°♃57'42	0°43'32
evening set	-205 May 15 j 15:06	29°♃35'36		min. Earth dist.	-199 May 20 j 23:51	23°♃47'33	4.23945 AU
	-205 May 17 j 10:19	0°♂		direct	-199 Jul 20 j 07:07	19°♃00'29	
					-199 Oct 19 j 19:19	0°♂	
conjunction	-205 May 29 j 09:41	2°♂42'50	0°-19'-1	evening set	-199 Nov 22 j 12:17	7°♂26'45	
minimum elong	-205 May 29 j 09:42	2°♂42'51	0°19'02	max. Earth dist.	-199 Dec 03 j 16:22	10°♂02'10	6.17183 AU
max. Earth dist.	-205 May 31 j 04:17	3°♂07'01	6.18360 AU				
morning rise	-205 Jun 12 j 04:09	5°♂49'48		conjunction	-199 Dec 05 j 04:19	10°♂23'04	0°09'49
retrograde	-205 Oct 15 j 19:14	24°♂18'21		minimum elong	-199 Dec 05 j 04:19	10°♂23'04	0°09'49
asc. node	-205 Nov 30 j 21:36	21°♂03'27		behind sun begin	-199 Dec 04 j 21:45	10°♂19'16	
opposition	-205 Dec 14 j 10:21	19°♂16'24	0°02'03	behind sun end	-199 Dec 05 j 10:54	10°♂26'52	
min. Earth dist.	-205 Dec 13 j 14:11	19°♂23'12	4.24958 AU	morning rise	-199 Dec 17 j 20:54	13°♂19'53	
direct	-204 Feb 12 j 09:12	14°♂14'34		desc. node	-198 Mar 08 j 05:53	29°♂01'09	
	-204 Jun 06 j 19:56	0°♂			-198 Mar 16 j 05:24	0°♂	
evening set	-204 Jun 18 j 11:06	2°♂31'48		retrograde	-198 Apr 24 j 04:25	2°♂17'51	
					-198 Jun 02 j 12:24	30°♂	
conjunction	-204 Jul 02 j 01:41	5°♂31'54	0°21'27	opposition	-198 Jun 23 j 23:56	27°♂22'32	0°-16'-59
minimum elong	-204 Jul 02 j 01:40	5°♂31'54	0°21'28	min. Earth dist.	-198 Jun 24 j 16:38	27°♂17'08	4.10487 AU
max. Earth dist.	-204 Jul 02 j 18:54	5°♂41'25	6.31206 AU	direct	-198 Aug 23 j 05:25	22°♂27'47	
morning rise	-204 Jul 15 j 14:39	8°♂30'56			-198 Nov 03 j 11:02	0°♂	
retrograde	-204 Nov 15 j 02:30	26°♂02'23		evening set	-198 Dec 26 j 03:08	11°♂28'45	
opposition	-203 Jan 13 j 23:16	21°♂04'15	0°56'58				
min. Earth dist.	-203 Jan 13 j 20:29	21°♂05'11	4.36461 AU	conjunction	-197 Jan 07 j 23:32	14°♂32'15	0°-31'-44
direct	-203 Mar 16 j 06:53	16°♂01'08		minimum elong	-197 Jan 07 j 23:30	14°♂32'14	0°31'46
	-203 Jul 03 j 05:26	0°♂		max. Earth dist.	-197 Jan 07 j 13:42	14°♂26'23	6.04647 AU
evening set	-203 Jul 21 j 11:19	3°♂52'30		morning rise	-197 Jan 20 j 21:44	17°♂36'59	
					-197 Mar 18 j 21:41	0°♂	
conjunction	-203 Aug 03 j 18:26	6°♂45'38	0°54'03	retrograde	-197 May 31 j 14:42	7°♂37'29	
minimum elong	-203 Aug 03 j 18:23	6°♂45'36	0°54'03	opposition	-197 Jul 30 j 23:21	2°♂38'29	-1°-14'-56
max. Earth dist.	-203 Aug 03 j 09:50	6°♂40'57	6.40485 AU	min. Earth dist.	-197 Jul 30 j 19:58	2°♂39'36	4.00060 AU
morning rise	-203 Aug 16 j 22:29	9°♂37'14			-197 Aug 21 j 03:44	30°♂	
	-203 Sep 11 j 12:10	15°♂		direct	-197 Sep 27 j 19:57	27°♂45'04	
retrograde	-203 Dec 15 j 10:52	26°♂34'02			-197 Nov 03 j 22:35	0°♂	
opposition	-202 Feb 13 j 17:08	21°♂39'24	1°33'42		-196 Jan 21 j 10:00	15°♂	
min. Earth dist.	-202 Feb 14 j 06:48	21°♂34'58	4.43005 AU	evening set	-196 Jan 30 j 19:02	17°♂14'01	
direct	-202 Apr 16 j 23:57	16°♂36'22					
	-202 Aug 01 j 22:22	0°♂		conjunction	-196 Feb 12 j 21:55	20°♂23'42	-1°-3'-1
evening set	-202 Aug 22 j 00:31	4°♂14'40		minimum elong	-196 Feb 12 j 21:53	20°♂23'41	1°03'01
				max. Earth dist.	-196 Feb 13 j 18:21	20°♂36'02	5.97258 AU
conjunction	-202 Sep 03 j 23:21	7°♂03'09	1°10'53	morning rise	-196 Feb 26 j 03:58	23°♂35'07	
minimum elong	-202 Sep 03 j 23:20	7°♂03'08	1°10'53		-196 Mar 24 j 16:52	0°♂	
max. Earth dist.	-202 Sep 02 j 15:04	6°♂45'36	6.43703 AU	retrograde	-196 Jul 07 j 14:10	14°♂10'16	
morning rise	-202 Sep 16 j 19:18	9°♂50'14		opposition	-196 Sep 05 j 12:52	9°♂07'26	-1°-45'-39
retrograde	-201 Jan 14 j 22:57	26°♂39'39		min. Earth dist.	-196 Sep 04 j 12:53	9°♂15'30	3.96689 AU
opposition	-201 Mar 16 j 13:08	21°♂47'16	1°44'41	direct	-196 Nov 02 j 11:40	4°♂13'16	
min. Earth dist.	-201 Mar 17 j 17:42	21°♂38'07	4.42819 AU	evening set	-195 Mar 07 j 22:39	23°♂49'51	
direct	-201 May 18 j 07:52	16°♂45'23					
	-201 Sep 01 j 01:38	0°♂		conjunction	-195 Mar 21 j 09:29	27°♂02'42	-1°-10'-16
evening set	-201 Sep 21 j 19:02	4°♂25'39		minimum elong	-195 Mar 21 j 09:30	27°♂02'43	1°10'16
max. Earth dist.	-201 Oct 02 j 14:07	6°♂47'50	6.40019 AU	max. Earth dist.	-195 Mar 23 j 06:58	27°♂29'55	5.98117 AU
					-195 Apr 02 j 18:38	0°♂	
conjunction	-201 Oct 04 j 12:11	7°♂13'12	1°08'19	morning rise	-195 Apr 03 j 23:27	0°♂17'05	
minimum elong	-201 Oct 04 j 12:12	7°♂13'13	1°08'19	retrograde	-195 Aug 13 j 15:40	20°♂38'52	
morning rise	-201 Oct 17 j 02:58	9°♂59'45		min. Earth dist.	-195 Oct 10 j 21:15	15°♂45'01	4.01760 AU
retrograde	-200 Feb 15 j 09:14	27°♂09'21		opposition	-195 Oct 12 j 06:19	15°♂33'44	-1°-34'-37
opposition	-200 Apr 16 j 06:59	22°♂17'35	1°27'15	direct	-195 Dec 09 j 06:34	10°♂36'56	

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Attention, astronomical year style is used: The year -194 in astronomical counting style is the year 195 BCE in historical counting style.

evening set	-194 Apr 14 j 08:19	29°Υ56'27		evening set	-189 Sep 26 j 02:47	8°♁50'03	
	-194 Apr 14 j 14:25	0°♁		max. Earth dist.	-189 Oct 06 j 20:20	11°♁11'47	6.39061 AU
conjunction	-194 Apr 28 j 01:35	3°♁08'12	0°-50'-26	conjunction	-189 Oct 08 j 19:20	11°♁37'45	1°06'20
minimum elong	-194 Apr 28 j 01:38	3°♁08'14	0°50'26	minimum elong	-189 Oct 08 j 19:21	11°♁37'46	1°06'20
max. Earth dist.	-194 Apr 30 j 07:18	3°♁39'32	6.06876 AU	morning rise	-189 Oct 21 j 09:43	14°♁24'32	
morning rise	-194 May 11 j 20:28	6°♁20'35			-188 Jan 17 j 23:58	0°♁	
	-194 Jun 20 j 02:53	15°♁		retrograde	-188 Feb 19 j 23:24	1°♁38'56	
retrograde	-194 Sep 17 j 15:03	25°♁47'53			-188 Mar 24 j 03:38	30°♁	
min. Earth dist.	-194 Nov 14 j 20:42	20°♁53'48	4.13181 AU	opposition	-188 Apr 20 j 21:02	26°♁47'11	1°22'31
opposition	-194 Nov 16 j 03:20	20°♁43'22	0°-48'-54	min. Earth dist.	-188 Apr 22 j 08:50	26°♁35'49	4.34467 AU
direct	-193 Jan 13 j 23:18	15°♁43'32		direct	-188 Jun 22 j 08:03	21°♁47'40	
	-193 Apr 30 j 07:22	0°♁			-188 Sep 09 j 03:05	0°♁	
evening set	-193 May 20 j 16:53	4°♁30'26		evening set	-188 Oct 26 j 01:23	9°♁48'23	
				max. Earth dist.	-188 Nov 05 j 16:51	12°♁12'40	6.28576 AU
conjunction	-193 Jun 03 j 11:09	7°♁36'52	0°-13'-12	conjunction	-188 Nov 07 j 16:13	12°♁39'31	0°42'02
minimum elong	-193 Jun 03 j 11:10	7°♁36'53	0°13'13	minimum elong	-188 Nov 07 j 16:15	12°♁39'32	0°42'01
behind sun begin	-193 Jun 03 j 06:29	7°♁34'14			-188 Nov 18 j 00:14	15°♁	
behind sun end	-193 Jun 03 j 15:52	7°♁39'31		morning rise	-188 Nov 20 j 06:08	15°♁30'25	
max. Earth dist.	-193 Jun 05 j 02:21	7°♁59'01	6.19998 AU		-187 Feb 03 j 07:44	0°♁	
morning rise	-193 Jun 17 j 05:22	10°♁42'56		retrograde	-187 Mar 24 j 12:50	3°♁33'42	
asc. node	-193 Oct 09 j 15:03	28°♁51'31			-187 May 14 j 00:56	30°♁	
retrograde	-193 Oct 20 j 08:28	29°♁02'57		opposition	-187 May 24 j 12:22	28°♁40'42	0°35'39
min. Earth dist.	-193 Dec 18 j 06:11	24°♁07'28	4.26664 AU	min. Earth dist.	-187 May 25 j 18:05	28°♁31'12	4.21965 AU
opposition	-193 Dec 19 j 00:17	24°♁01'23	0°10'34	direct	-187 Jul 24 j 22:15	23°♁43'50	
direct	-192 Feb 17 j 04:28	18°♁59'11			-187 Sep 29 j 10:57	0°♁	
	-192 May 20 j 02:02	0°♁		evening set	-187 Nov 27 j 03:14	12°♁15'23	
evening set	-192 Jun 23 j 06:33	7°♁12'10		max. Earth dist.	-187 Dec 08 j 11:36	14°♁53'57	6.15156 AU
conjunction	-192 Jul 06 j 20:25	10°♁11'14	0°26'50	conjunction	-187 Dec 09 j 19:47	15°♁12'45	0°03'56
minimum elong	-192 Jul 06 j 20:23	10°♁11'13	0°26'50	minimum elong	-187 Dec 09 j 19:48	15°♁12'46	0°03'57
max. Earth dist.	-192 Jul 07 j 11:48	10°♁19'42	6.32829 AU	behind sun begin	-187 Dec 09 j 11:54	15°♁08'10	
morning rise	-192 Jul 20 j 08:04	13°♁09'04		behind sun end	-187 Dec 10 j 03:42	15°♁17'22	
	-192 Oct 31 j 17:21	0°♁		morning rise	-187 Dec 22 j 12:55	18°♁10'43	
retrograde	-192 Nov 19 j 10:28	0°♁33'44		desc. node	-186 Jan 15 j 13:15	23°♁37'35	
	-192 Dec 08 j 02:02	30°♁			-186 Feb 16 j 00:44	0°♁	
opposition	-191 Jan 18 j 09:05	25°♁36'06	1°03'33	retrograde	-186 Apr 29 j 10:21	7°♁18'38	
min. Earth dist.	-191 Jan 18 j 07:51	25°♁36'30	4.37851 AU	opposition	-186 Jun 29 j 03:14	2°♁22'55	0°-25'-55
direct	-191 Mar 20 j 20:16	20°♁32'55		min. Earth dist.	-186 Jun 29 j 18:19	2°♁18'02	4.08577 AU
	-191 Jun 15 j 05:01	0°♁			-186 Jul 18 j 07:49	30°♁	
evening set	-191 Jul 26 j 00:47	8°♁21'02		direct	-186 Aug 28 j 04:04	27°♁28'29	
conjunction	-191 Aug 08 j 06:30	11°♁13'13	0°57'32		-186 Oct 07 j 05:24	0°♁	
minimum elong	-191 Aug 08 j 06:27	11°♁13'12	0°57'32	evening set	-186 Dec 31 j 01:30	16°♁34'52	
max. Earth dist.	-191 Aug 07 j 17:01	11°♁05'54	6.41492 AU	conjunction	-185 Jan 12 j 22:38	19°♁39'26	0°-37'-11
morning rise	-191 Aug 21 j 09:26	14°♁03'56		minimum elong	-185 Jan 12 j 22:36	19°♁39'25	0°37'12
	-191 Aug 25 j 17:40	15°♁		max. Earth dist.	-185 Jan 12 j 15:53	19°♁35'24	6.03031 AU
retrograde	-191 Nov 25 j 00:36	0°♁		morning rise	-185 Jan 25 j 22:02	22°♁45'23	
	-191 Dec 19 j 18:35	0°♁57'28			-185 Feb 26 j 10:36	0°♁	
opposition	-190 Jan 13 j 10:37	30°♁		retrograde	-185 Jun 05 j 23:06	12°♁53'48	
min. Earth dist.	-190 Feb 18 j 01:25	26°♁03'13	1°36'54	opposition	-185 Aug 05 j 07:13	7°♁54'17	-1°-21'-29
direct	-190 Feb 18 j 18:19	25°♁57'45	4.43564 AU	min. Earth dist.	-185 Aug 04 j 23:39	7°♁56'47	3.98950 AU
	-190 Apr 21 j 12:04	21°♁00'14		direct	-185 Oct 02 j 22:38	3°♁00'58	
	-190 Jul 15 j 00:06	0°♁			-184 Jan 03 j 09:50	15°♁	
evening set	-190 Aug 26 j 09:36	8°♁37'24		evening set	-184 Feb 05 j 00:15	22°♁33'03	
max. Earth dist.	-190 Sep 06 j 21:20	11°♁06'52	6.43743 AU	conjunction	-184 Feb 18 j 04:15	25°♁43'28	-1°-5'-43
conjunction	-190 Sep 08 j 07:35	11°♁25'29	1°11'43	minimum elong	-184 Feb 18 j 04:13	25°♁43'26	1°05'45
minimum elong	-190 Sep 08 j 07:34	11°♁25'29	1°11'43	max. Earth dist.	-184 Feb 19 j 05:27	25°♁58'41	5.96765 AU
morning rise	-190 Sep 21 j 02:27	14°♁12'10		morning rise	-184 Mar 02 j 11:24	28°♁55'35	
	-190 Dec 24 j 08:23	0°♁			-184 Mar 06 j 23:20	0°♁	
retrograde	-189 Jan 19 j 06:00	1°♁02'22		retrograde	-184 Jul 12 j 23:37	19°♁32'17	
	-189 Feb 14 j 06:13	30°♁		opposition	-184 Sep 10 j 20:28	14°♁28'57	-1°-46'-41
opposition	-189 Mar 20 j 22:38	26°♁10'10	1°43'55	min. Earth dist.	-184 Sep 09 j 18:40	14°♁37'40	3.96904 AU
min. Earth dist.	-189 Mar 22 j 03:51	26°♁00'49	4.42350 AU	direct	-184 Nov 07 j 19:03	9°♁34'31	
direct	-189 May 22 j 16:38	21°♁08'31		evening set	-183 Mar 13 j 06:53	29°♁09'54	
	-189 Aug 14 j 04:12	0°♁					

Planetary Phenomena of Jupiter from -400 through 100 (UT), AstroDienst AG 14-Nov-2015 16:12, page 21

Attention, astronomical year style is used: The year -173 in astronomical counting style is the year 174 BCE in historical counting style.

direct	-173 Oct 08 j 05:33	8°♊19'44			-167 Mar 09 j 03:54	30°♊☉		
	-173 Dec 13 j 07:16	15°♊		direct	-167 Mar 29 j 17:44	29°♊21'06		
evening set	-172 Feb 10 j 06:41	27°♊53'10			-167 Apr 19 j 12:18	0°♊		
	-172 Feb 19 j 01:34	0°♋			-167 Jul 25 j 03:15	15°♊		
conjunction	-172 Feb 23 j 11:50	1°♋04'04	-1°-7'-54	evening set	-167 Aug 03 j 20:54	17°♊04'48		
minimum elong	-172 Feb 23 j 11:48	1°♋04'03	1°07'55	max. Earth dist.	-167 Aug 16 j 03:23	19°♊44'12	6.42672 AU	
max. Earth dist.	-172 Feb 24 j 18:24	1°♋22'30	5.96758 AU	conjunction	-167 Aug 17 j 00:22	19°♊55'35	1°03'19	
morning rise	-172 Mar 07 j 20:02	4°♋16'40		minimum elong	-167 Aug 17 j 00:20	19°♊55'34	1°03'19	
retrograde	-172 Jul 18 j 07:35	24°♋52'16		morning rise	-167 Aug 30 j 00:55	22°♊44'53		
min. Earth dist.	-172 Sep 14 j 23:17	19°♋57'58	3.97593 AU		-167 Oct 04 j 03:22	0°♋		
opposition	-172 Sep 16 j 03:09	19°♋48'32	-1°-46'-47	retrograde	-167 Dec 28 j 05:44	9°♋35'23		
direct	-172 Nov 13 j 00:25	14°♋53'50		opposition	-166 Feb 26 j 14:46	4°♋41'52	1°41'39	
	-171 Feb 27 j 12:40	0°♌		min. Earth dist.	-166 Feb 27 j 12:04	4°♋35'00	4.43647 AU	
evening set	-171 Mar 18 j 14:24	4°♌26'28			-166 Apr 14 j 23:45	30°♋♊		
conjunction	-171 Apr 01 j 03:10	7°♌39'13	-1°-7'-7	direct	-166 Apr 30 j 04:13	29°♋39'06		
minimum elong	-171 Apr 01 j 03:12	7°♌39'15	1°07'08		-166 May 15 j 11:03	0°♋		
max. Earth dist.	-171 Apr 03 j 05:13	8°♌08'57	6.00301 AU	evening set	-166 Sep 04 j 00:22	17°♋17'09		
morning rise	-171 Apr 14 j 18:58	10°♌53'20		max. Earth dist.	-166 Sep 15 j 05:24	19°♋43'31	6.42696 AU	
retrograde	-171 Aug 23 j 17:17	1°♌00'59		conjunction	-166 Sep 16 j 20:38	20°♋04'56	1°12'11	
	-171 Sep 17 j 13:09	30°♋♌		minimum elong	-166 Sep 16 j 20:38	20°♋04'56	1°12'11	
min. Earth dist.	-171 Oct 20 j 21:55	26°♌07'24	4.04981 AU	morning rise	-166 Sep 29 j 13:55	22°♋51'24		
opposition	-171 Oct 22 j 08:09	25°♌55'43	-1°-24'-20		-166 Nov 02 j 21:07	0°♌		
direct	-171 Dec 19 j 12:27	20°♌58'04		retrograde	-165 Jan 28 j 00:46	9°♌47'09		
	-170 Mar 09 j 01:42	0°♌		opposition	-165 Mar 29 j 18:20	4°♌55'17	1°40'44	
evening set	-170 Apr 24 j 17:48	10°♌07'20		min. Earth dist.	-165 Mar 31 j 02:28	4°♌45'02	4.40260 AU	
conjunction	-170 May 08 j 11:51	13°♌17'39	0°-41'-2		-165 May 23 j 10:15	30°♋♌		
minimum elong	-170 May 08 j 11:53	13°♌17'41	0°41'03	direct	-165 May 31 j 10:54	29°♋54'10		
max. Earth dist.	-170 May 10 j 15:11	13°♌47'18	6.10840 AU		-165 Jun 08 j 12:43	0°♌		
	-170 May 15 j 21:12	15°♌		evening set	-165 Oct 04 j 18:31	17°♌41'30		
morning rise	-170 May 22 j 07:00	16°♌28'18		max. Earth dist.	-165 Oct 15 j 09:19	20°♌02'48	6.36084 AU	
retrograde	-170 Jul 27 j 09:41	0°♍		conjunction	-165 Oct 17 j 10:17	20°♌30'04	1°01'14	
min. Earth dist.	-170 Sep 27 j 00:56	5°♍34'50		minimum elong	-165 Oct 17 j 10:19	20°♌30'05	1°01'13	
opposition	-170 Nov 24 j 10:15	0°♍40'15	4.17445 AU	morning rise	-165 Oct 30 j 00:18	23°♌17'53		
	-170 Nov 25 j 13:32	0°♍30'59	0°-32'-33		-165 Nov 30 j 09:29	0°♍		
direct	-170 Nov 29 j 08:57	30°♋♌		retrograde	-164 Feb 29 j 07:24	10°♍45'32		
	-169 Jan 23 j 19:26	25°♌30'23		opposition	-164 Apr 30 j 04:42	5°♍53'38	1°11'32	
evening set	-169 Mar 19 j 18:17	0°♍		min. Earth dist.	-164 May 01 j 15:47	5°♍42'27	4.30794 AU	
conjunction	-169 Jun 13 j 07:00	17°♍09'47	0°-1'-41	direct	-164 Jul 01 j 09:11	0°♍54'52		
minimum elong	-169 Jun 13 j 06:59	17°♍09'46	0°01'41		-164 Oct 16 j 16:04	15°♍		
behind sun begin	-169 Jun 12 j 22:38	17°♍05'07		evening set	-164 Nov 04 j 00:17	19°♍05'01		
behind sun end	-169 Jun 13 j 15:20	17°♍14'26		max. Earth dist.	-164 Nov 14 j 20:01	21°♍33'04	6.24544 AU	
max. Earth dist.	-169 Jun 14 j 16:06	17°♍28'19	6.24229 AU	conjunction	-164 Nov 16 j 15:26	21°♍57'54	0°32'14	
morning rise	-169 Jun 26 j 23:43	20°♍13'22		minimum elong	-164 Nov 16 j 15:28	21°♍57'55	0°32'14	
asc. node	-169 Jun 29 j 08:36	20°♍44'55		morning rise	-164 Nov 29 j 05:56	24°♍50'45		
retrograde	-169 Aug 12 j 23:25	0°♎			-164 Dec 22 j 09:59	0°♎		
opposition	-169 Oct 29 j 03:27	8°♎14'43		retrograde	-163 Apr 03 j 12:35	13°♎12'25		
min. Earth dist.	-169 Dec 27 j 21:15	3°♎14'13	0°26'43	opposition	-163 Jun 03 j 10:46	8°♎18'49	0°18'55	
	-169 Dec 27 j 07:44	3°♎18'45	4.30499 AU	min. Earth dist.	-163 Jun 04 j 12:26	8°♎10'35	4.17869 AU	
direct	-168 Jan 23 j 07:17	30°♋♌		direct	-163 Aug 03 j 10:56	3°♎22'49		
	-168 Feb 26 j 10:19	28°♌11'36		desc. node	-163 Oct 03 j 18:36	8°♎50'21		
evening set	-168 Apr 01 j 01:12	0°♎		evening set	-163 Dec 06 j 14:17	22°♎04'46		
conjunction	-168 Jul 02 j 13:29	16°♎15'30		max. Earth dist.	-163 Dec 18 j 06:30	24°♎49'16	6.11381 AU	
minimum elong	-168 Jul 16 j 01:13	19°♎12'23	0°36'42	conjunction	-163 Dec 19 j 07:49	25°♎04'11	0°-8'-9	
max. Earth dist.	-168 Jul 16 j 01:10	19°♎12'22	0°36'42	minimum elong	-163 Dec 19 j 07:48	25°♎04'10	0°08'10	
morning rise	-168 Jul 16 j 07:29	19°♎15'50	6.35969 AU	behind sun begin	-163 Dec 19 j 00:39	24°♎59'59		
	-168 Jul 29 j 10:31	22°♎07'56		behind sun end	-163 Dec 19 j 14:57	25°♎08'22		
retrograde	-168 Sep 05 j 09:44	0°♏		morning rise	-162 Jan 01 j 02:30	28°♎04'25		
opposition	-168 Nov 27 j 22:46	9°♏20'57			-162 Jan 09 j 09:16	0°♏		
min. Earth dist.	-167 Jan 26 j 22:49	4°♏24'23	1°15'10	retrograde	-162 May 09 j 22:41	17°♏30'37		
	-167 Jan 27 j 03:40	4°♏22'48	4.40110 AU	opposition	-162 Jul 09 j 14:07	12°♏33'51	0°-43'-23	
				min. Earth dist.	-162 Jul 09 j 22:08	12°♏31'14	4.05476 AU	
				direct	-162 Sep 07 j 05:25	7°♏39'55		

Planetary Phenomena of Jupiter from -400 through 100 (UT), AstroDienst AG 14-Nov-2015 16:12, page 22

Attention, astronomical year style is used: The year -161 in astronomical counting style is the year 162 BCE in historical counting style.

evening set	-161 Jan 10 j 02:00	26°♃53'57		evening set	-156 Jul 07 j 03:03	20°♄42'35	
conjunction	-161 Jan 23 j 00:52	0°♃00'12	0°-47'-12	conjunction	-156 Jul 20 j 13:48	23°♄38'40	0°41'14
minimum elong	-161 Jan 23 j 00:50	0°♃00'11	0°47'13	minimum elong	-156 Jul 20 j 13:45	23°♄38'38	0°41'14
max. Earth dist.	-161 Jan 23 j 04:54	0°♃02'37	6.00890 AU	max. Earth dist.	-156 Jul 20 j 16:11	23°♄39'58	6.36961 AU
	-161 Jan 23 j 00:32	0°♃		morning rise	-156 Aug 02 j 21:59	26°♄33'21	
morning rise	-161 Feb 05 j 02:09	3°♃07'56			-156 Aug 19 j 00:10	0°♄	
	-161 Mar 30 j 21:25	15°♃		retrograde	-156 Dec 02 j 03:49	13°♄42'41	
retrograde	-161 Jun 16 j 17:56	23°♃26'39		opposition	-155 Jan 31 j 05:24	8°♄46'35	1°20'17
opposition	-161 Aug 15 j 22:41	18°♃25'57	-1°-32'-27	min. Earth dist.	-155 Jan 31 j 12:05	8°♄44'24	4.40711 AU
min. Earth dist.	-161 Aug 15 j 09:13	18°♃30'25	3.98037 AU	direct	-155 Apr 03 j 02:27	3°♄43'19	
	-161 Sep 13 j 15:25	15°♃			-155 Jul 08 j 07:19	15°♄	
direct	-161 Oct 13 j 08:20	13°♃32'31		evening set	-155 Aug 08 j 06:43	21°♄26'22	
	-161 Nov 11 j 21:06	15°♃		max. Earth dist.	-155 Aug 20 j 10:03	24°♄04'06	6.42846 AU
	-160 Feb 02 j 08:52	0°♃					
evening set	-160 Feb 15 j 10:17	3°♃05'43		conjunction	-155 Aug 21 j 09:10	24°♄16'39	1°05'39
				minimum elong	-155 Aug 21 j 09:08	24°♄16'38	1°05'38
conjunction	-160 Feb 28 j 16:15	6°♃16'51	-1°-9'-27	morning rise	-155 Sep 03 j 08:31	27°♄05'26	
minimum elong	-160 Feb 28 j 16:14	6°♃16'51	1°09'27		-155 Sep 16 j 23:49	0°♄	
max. Earth dist.	-160 Mar 01 j 01:04	6°♃36'37	5.97103 AU	retrograde	-154 Jan 01 j 12:44	13°♄55'47	
morning rise	-160 Mar 13 j 01:38	9°♃29'44		opposition	-154 Mar 02 j 22:36	9°♄02'38	1°43'10
	-160 Jul 18 j 02:02	0°♃		min. Earth dist.	-154 Mar 03 j 21:39	8°♄55'13	4.43404 AU
retrograde	-160 Jul 23 j 09:23	0°♃02'49		direct	-154 May 04 j 13:08	4°♄00'07	
	-160 Jul 28 j 16:57	30°♃		evening set	-154 Sep 08 j 08:15	21°♄39'05	
min. Earth dist.	-160 Sep 19 j 23:58	25°♃08'44	3.98483 AU	max. Earth dist.	-154 Sep 19 j 09:34	24°♄03'46	6.42041 AU
opposition	-160 Sep 21 j 05:41	24°♃58'40	-1°-46'00				
direct	-160 Nov 18 j 03:04	20°♃03'34		conjunction	-154 Sep 21 j 03:37	24°♄26'48	1°11'47
	-159 Feb 09 j 02:55	0°♃		minimum elong	-154 Sep 21 j 03:38	24°♄26'48	1°11'47
evening set	-159 Mar 23 j 18:02	9°♃32'57		morning rise	-154 Oct 16 j 18:02	27°♄13'18	
					-154 Oct 16 j 18:02	0°♄	
conjunction	-159 Apr 06 j 07:51	12°♃45'30	-1°-4'-48	retrograde	-153 Feb 01 j 12:17	14°♄12'15	
minimum elong	-159 Apr 06 j 07:53	12°♃45'31	1°04'49	opposition	-153 Apr 03 j 05:49	9°♄20'27	1°38'13
max. Earth dist.	-159 Apr 08 j 11:46	13°♃16'14	6.01649 AU	min. Earth dist.	-153 Apr 04 j 14:51	9°♄09'55	4.39235 AU
morning rise	-159 Apr 20 j 00:11	15°♃59'15		direct	-153 Jun 04 j 21:44	4°♄19'37	
	-159 Jun 25 j 17:25	0°♃		evening set	-153 Oct 09 j 02:49	22°♄09'20	
retrograde	-159 Aug 28 j 14:41	5°♃59'04		max. Earth dist.	-153 Oct 19 j 18:57	24°♄31'48	6.34770 AU
min. Earth dist.	-159 Oct 25 j 19:08	1°♃05'04	4.06623 AU				
opposition	-159 Oct 27 j 03:56	0°♃53'52	-1°-18'-27	conjunction	-153 Oct 21 j 18:26	24°♄58'19	0°58'06
	-159 Nov 02 j 18:40	30°♃		minimum elong	-153 Oct 21 j 18:28	24°♄58'20	0°58'05
direct	-159 Dec 24 j 11:56	25°♃55'47		morning rise	-153 Nov 03 j 08:08	27°♄46'36	
	-158 Feb 13 j 14:26	0°♃			-153 Nov 13 j 10:16	0°♄	
evening set	-158 Apr 29 j 17:57	15°♃00'18			-152 Feb 19 j 05:08	15°♄	
	-158 Apr 29 j 17:26	15°♃		retrograde	-152 Mar 04 j 22:33	15°♄20'15	
					-152 Mar 19 j 16:32	15°♄	
conjunction	-158 May 13 j 12:13	18°♃09'56	0°-36'-4	opposition	-152 May 04 j 21:12	10°♄28'13	1°05'17
minimum elong	-158 May 13 j 12:15	18°♃09'57	0°36'05	min. Earth dist.	-152 May 06 j 07:05	10°♄17'25	4.29253 AU
max. Earth dist.	-158 May 15 j 13:24	18°♃38'12	6.12630 AU	direct	-152 Jul 05 j 21:58	5°♄29'52	
morning rise	-158 May 27 j 07:30	21°♃19'48			-152 Sep 28 j 21:25	15°♄	
	-158 Jul 06 j 06:30	0°♄		evening set	-152 Nov 08 j 11:44	23°♄43'32	
retrograde	-158 Oct 01 j 12:32	10°♄17'13		max. Earth dist.	-152 Nov 19 j 08:42	26°♄12'54	6.22889 AU
min. Earth dist.	-158 Nov 29 j 00:17	5°♄22'39	4.19215 AU				
opposition	-158 Nov 30 j 02:29	5°♄13'46	0°-24'-23	conjunction	-152 Nov 21 j 02:52	26°♄37'08	0°27'00
direct	-157 Jan 28 j 11:26	0°♄12'49		minimum elong	-152 Nov 21 j 02:53	26°♄37'09	0°27'00
asc. node	-157 May 10 j 07:27	13°♄18'08		morning rise	-152 Dec 03 j 17:51	29°♄30'51	
evening set	-157 Jun 04 j 08:12	18°♄43'46			-152 Dec 05 j 20:58	0°♄	
				retrograde	-151 Apr 08 j 12:09	18°♄00'37	
conjunction	-157 Jun 18 j 01:12	21°♄47'07	0°04'02	opposition	-151 Jun 08 j 09:22	13°♄06'38	0°10'19
minimum elong	-157 Jun 18 j 01:10	21°♄47'06	0°04'02	min. Earth dist.	-151 Jun 09 j 09:29	12°♄58'53	4.16180 AU
behind sun begin	-157 Jun 17 j 16:58	21°♄42'32		direct	-151 Aug 08 j 06:17	8°♄10'56	
behind sun end	-157 Jun 18 j 09:23	21°♄51'40		desc. node	-151 Aug 13 j 14:13	8°♄13'40	
max. Earth dist.	-157 Jun 19 j 06:11	22°♄03'18	6.25857 AU	evening set	-151 Dec 11 j 06:39	26°♄57'00	
morning rise	-157 Jul 01 j 17:09	24°♄49'41		max. Earth dist.	-151 Dec 23 j 03:36	29°♄44'48	6.09812 AU
	-157 Jul 25 j 15:15	0°♄					
retrograde	-157 Nov 02 j 12:35	12°♄43'58		conjunction	-151 Dec 24 j 00:52	29°♄57'21	0°-14'-1
opposition	-156 Jan 01 j 05:46	7°♄44'04	0°34'20	minimum elong	-151 Dec 24 j 00:51	29°♄57'21	0°14'02
min. Earth dist.	-157 Dec 31 j 19:32	7°♄47'29	4.31859 AU	behind sun begin	-151 Dec 23 j 20:39	29°♄54'52	
direct	-156 Mar 01 j 23:34	2°♄41'19		behind sun end	-151 Dec 24 j 05:04	29°♄59'49	

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Attention, astronomical year style is used: The year -151 in astronomical counting style is the year 152 BCE in historical counting style.

	-151 Dec 24 j 05:21	0°♁		min. Earth dist.	-144 Jan 05 j 07:15	12°♁23'40	4.33297 AU
morning rise	-150 Jan 05 j 20:15	2°♁58'36		direct	-144 Mar 06 j 13:25	7°♁17'46	
retrograde	-150 May 15 j 03:24	22°♁32'51		evening set	-144 Jul 11 j 18:55	25°♁15'55	
opposition	-150 Jul 14 j 17:33	17°♁35'37	0°-51'-35				
min. Earth dist.	-150 Jul 14 j 22:44	17°♁33'55	4.04175 AU	conjunction	-144 Jul 25 j 04:27	28°♁11'01	0°45'38
direct	-150 Sep 12 j 03:58	12°♁41'54		minimum elong	-144 Jul 25 j 04:24	28°♁11'00	0°45'39
	-149 Jan 06 j 15:45	0°♁		max. Earth dist.	-144 Jul 25 j 03:10	28°♁10'19	6.38185 AU
evening set	-149 Jan 15 j 00:51	1°♁59'20			-144 Aug 02 j 12:16	0°♁	
				morning rise	-144 Aug 07 j 11:26	1°♁04'43	
conjunction	-149 Jan 28 j 00:26	5°♁06'21	0°-51'-37		-144 Oct 21 j 15:00	15°♁	
minimum elong	-149 Jan 28 j 00:23	5°♁06'20	0°51'39	retrograde	-144 Dec 06 j 11:53	18°♁09'26	
max. Earth dist.	-149 Jan 28 j 07:15	5°♁10'27	5.99954 AU		-143 Jan 21 j 17:07	15°♁♁	
morning rise	-149 Feb 10 j 02:51	8°♁14'58		opposition	-143 Feb 04 j 14:08	13°♁13'49	1°25'04
	-149 Mar 11 j 06:11	15°♁		min. Earth dist.	-143 Feb 04 j 23:27	13°♁10'47	4.41674 AU
retrograde	-149 Jun 21 j 23:20	28°♁38'20		direct	-143 Apr 07 j 15:34	8°♁10'37	
min. Earth dist.	-149 Aug 20 j 11:10	23°♁42'33	3.97581 AU		-143 Jun 18 j 17:02	15°♁	
opposition	-149 Aug 21 j 03:35	23°♁37'04	-1°-36'-48	evening set	-143 Aug 12 j 17:24	25°♁51'18	
direct	-149 Oct 18 j 10:07	18°♁43'30					
	-148 Jan 15 j 11:00	0°♁		conjunction	-143 Aug 25 j 18:43	28°♁40'52	1°07'40
evening set	-148 Feb 20 j 13:54	8°♁17'53		minimum elong	-143 Aug 25 j 18:41	28°♁40'51	1°07'40
				max. Earth dist.	-143 Aug 24 j 17:04	28°♁26'57	6.43477 AU
conjunction	-148 Mar 04 j 21:09	11°♁29'32	-1°-10'-28		-143 Aug 31 j 20:32	0°♁	
minimum elong	-148 Mar 04 j 21:08	11°♁29'32	1°10'29	morning rise	-143 Sep 07 j 16:56	1°♁28'57	
max. Earth dist.	-148 Mar 06 j 10:21	11°♁51'54	5.97170 AU	retrograde	-142 Jan 05 j 18:48	18°♁17'33	
morning rise	-148 Mar 18 j 07:27	14°♁42'49		opposition	-142 Mar 07 j 07:00	13°♁24'36	1°44'07
	-148 May 30 j 04:04	0°♁		min. Earth dist.	-142 Mar 08 j 06:53	13°♁16'55	4.43696 AU
retrograde	-148 Jul 28 j 14:18	5°♁14'24		direct	-142 May 08 j 22:48	8°♁22'15	
min. Earth dist.	-148 Sep 25 j 02:08	0°♁20'09	3.99064 AU	evening set	-142 Sep 12 j 15:33	26°♁00'04	
opposition	-148 Sep 26 j 08:05	0°♁09'59	-1°-44'-26	max. Earth dist.	-142 Sep 23 j 16:07	28°♁24'26	6.41971 AU
	-148 Sep 27 j 13:29	30°♁♁					
direct	-148 Nov 23 j 06:12	25°♁14'30		conjunction	-142 Sep 25 j 10:08	28°♁47'27	1°11'01
	-147 Jan 17 j 04:23	0°♁		minimum elong	-142 Sep 25 j 10:09	28°♁47'28	1°11'01
evening set	-147 Mar 28 j 22:55	14°♁42'07			-142 Sep 30 j 22:33	0°♁	
				morning rise	-142 Oct 08 j 02:02	1°♁33'40	
conjunction	-147 Apr 11 j 13:34	17°♁54'37	-1°-2'00	retrograde	-141 Feb 05 j 20:25	18°♁33'50	
minimum elong	-147 Apr 11 j 13:37	17°♁54'38	1°02'00	opposition	-141 Apr 07 j 15:51	13°♁42'05	1°35'11
max. Earth dist.	-147 Apr 13 j 17:52	18°♁25'27	6.02672 AU	min. Earth dist.	-141 Apr 09 j 01:43	13°♁31'18	4.38794 AU
morning rise	-147 Apr 25 j 06:49	21°♁08'14		direct	-141 Jun 09 j 07:55	8°♁41'33	
	-147 Jun 04 j 00:45	0°♁		evening set	-141 Oct 13 j 08:57	26°♁31'37	
retrograde	-147 Sep 02 j 11:24	11°♁01'20		max. Earth dist.	-141 Oct 23 j 23:08	28°♁53'21	6.33977 AU
min. Earth dist.	-147 Oct 30 j 15:31	6°♁07'34	4.07972 AU				
opposition	-147 Nov 01 j 00:47	5°♁56'13	-1°-11'-57	conjunction	-141 Oct 26 j 00:04	29°♁20'44	0°54'44
direct	-147 Dec 29 j 10:09	0°♁57'42		minimum elong	-141 Oct 26 j 00:06	29°♁20'45	0°54'44
	-146 Apr 12 j 13:55	15°♁			-141 Oct 28 j 22:14	0°♁	
evening set	-146 May 04 j 20:12	19°♁58'41		morning rise	-141 Nov 07 j 13:46	2°♁09'18	
					-140 Jan 11 j 17:09	15°♁	
conjunction	-146 May 18 j 14:40	23°♁07'43	0°-30'-46	retrograde	-140 Mar 09 j 11:33	19°♁47'25	
minimum elong	-146 May 18 j 14:42	23°♁07'45	0°30'46		-140 May 08 j 19:39	15°♁♁	
max. Earth dist.	-146 May 20 j 13:10	23°♁34'22	6.14197 AU	opposition	-140 May 09 j 10:55	14°♁55'08	0°58'49
morning rise	-146 Jun 01 j 09:54	26°♁16'51		min. Earth dist.	-140 May 10 j 20:30	14°♁44'26	4.28128 AU
	-146 Jun 18 j 00:42	0°♁		direct	-140 Jul 10 j 09:40	9°♁57'02	
retrograde	-146 Oct 06 j 04:19	15°♁05'56			-140 Sep 08 j 02:59	15°♁	
opposition	-146 Dec 04 j 17:38	10°♁02'53	0°-15'-53	evening set	-140 Nov 12 j 19:26	28°♁12'55	
min. Earth dist.	-146 Dec 03 j 18:00	10°♁10'54	4.20836 AU		-140 Nov 20 j 14:15	0°♁	
direct	-145 Feb 02 j 07:27	5°♁01'37		max. Earth dist.	-140 Nov 23 j 19:01	0°♁44'11	6.21534 AU
asc. node	-145 Mar 19 j 14:33	8°♁07'59					
evening set	-145 Jun 09 j 05:33	23°♁28'49		conjunction	-140 Nov 25 j 10:52	1°♁07'09	0°21'48
				minimum elong	-140 Nov 25 j 10:54	1°♁07'10	0°21'48
conjunction	-145 Jun 22 j 22:01	26°♁31'16	0°09'44	morning rise	-140 Dec 08 j 02:02	4°♁01'34	
minimum elong	-145 Jun 22 j 22:01	26°♁31'16	0°09'44	retrograde	-139 Apr 13 j 06:28	22°♁38'28	
behind sun begin	-145 Jun 22 j 15:16	26°♁27'31		opposition	-139 Jun 13 j 03:46	17°♁44'10	0°01'57
behind sun end	-145 Jun 23 j 04:46	26°♁35'00		min. Earth dist.	-139 Jun 14 j 02:39	17°♁36'49	4.14678 AU
max. Earth dist.	-145 Jun 24 j 00:56	26°♁46'14	6.27430 AU	desc. node	-139 Jun 25 j 14:06	16°♁09'51	
morning rise	-145 Jul 06 j 13:05	29°♁32'48		direct	-139 Aug 12 j 20:37	12°♁48'45	
	-145 Jul 08 j 14:26	0°♁			-139 Dec 08 j 18:37	0°♁	
retrograde	-145 Nov 06 j 21:13	17°♁19'58		evening set	-139 Dec 15 j 19:29	1°♁38'40	
opposition	-144 Jan 05 j 16:27	12°♁20'37	0°41'57				

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Attention, astronomical year style is used: The year -139 in astronomical counting style is the year 140 BCE in historical counting style.

conjunction	-139 Dec 28 j 14:05	4°♁39'52	0°-19'-35	max. Earth dist.	-133 Jun 28 j 16:51	1°♁26'56	6.29061 AU
minimum elong	-139 Dec 28 j 14:04	4°♁39'52	0°19'35	morning rise	-133 Jul 11 j 08:26	4°♁14'49	
max. Earth dist.	-139 Dec 27 j 17:55	4°♁27'56	6.08285 AU	retrograde	-133 Nov 11 j 07:22	21°♁54'43	
morning rise	-138 Jan 10 j 10:24	7°♁42'09		opposition	-132 Jan 10 j 03:09	16°♁55'50	0°49'16
retrograde	-138 May 20 j 03:24	27°♁24'31		min. Earth dist.	-132 Jan 09 j 20:51	16°♁57'56	4.34792 AU
opposition	-138 Jul 19 j 16:27	22°♁26'46	0°-59'-8	direct	-132 Mar 11 j 05:39	11°♁52'49	
min. Earth dist.	-138 Jul 19 j 19:09	22°♁25'52	4.02759 AU	evening set	-132 Jul 16 j 09:41	29°♁47'23	
direct	-138 Sep 16 j 22:19	17°♁33'06			-132 Jul 17 j 09:01	0°♁	
	-138 Dec 21 j 00:12	0°♁					
evening set	-137 Jan 19 j 20:13	6°♁54'55		conjunction	-132 Jul 29 j 18:12	2°♁41'32	0°49'46
				minimum elong	-132 Jul 29 j 18:09	2°♁41'30	0°49'45
conjunction	-137 Feb 01 j 20:57	10°♁02'55	0°-55'-31	max. Earth dist.	-132 Jul 29 j 14:37	2°♁39'35	6.39396 AU
minimum elong	-137 Feb 01 j 20:54	10°♁02'54	0°55'32	morning rise	-132 Aug 11 j 23:45	5°♁34'10	
max. Earth dist.	-137 Feb 02 j 08:23	10°♁09'49	5.98793 AU		-132 Sep 27 j 15:00	15°♁	
morning rise	-137 Feb 15 j 00:19	13°♁12'31		retrograde	-132 Dec 10 j 17:11	22°♁34'30	
	-137 Feb 22 j 13:03	15°♁		opposition	-131 Feb 08 j 22:11	17°♁39'18	1°29'20
	-137 May 08 j 18:03	0°♁		min. Earth dist.	-131 Feb 09 j 08:48	17°♁35'50	4.42511 AU
retrograde	-137 Jun 27 j 04:04	3°♁41'31			-131 Mar 02 j 10:32	15°♁	
	-137 Aug 16 j 02:36	30°♁		direct	-131 Apr 12 j 01:53	12°♁36'09	
min. Earth dist.	-137 Aug 25 j 11:44	28°♁45'40	3.96816 AU		-131 May 23 j 02:23	15°♁	
opposition	-137 Aug 26 j 05:13	28°♁39'49	-1°-40'-18		-131 Aug 15 j 23:31	0°♁	
direct	-137 Oct 23 j 09:17	23°♁46'08		evening set	-131 Aug 17 j 03:23	0°♁14'59	
	-137 Dec 25 j 20:40	0°♁		max. Earth dist.	-131 Aug 28 j 22:33	2°♁48'14	6.43847 AU
evening set	-136 Feb 25 j 15:22	13°♁23'14					
				conjunction	-131 Aug 30 j 03:29	3°♁03'56	1°09'19
conjunction	-136 Mar 09 j 23:42	16°♁35'33	-1°-10'-55	minimum elong	-131 Aug 30 j 03:27	3°♁03'55	1°09'20
minimum elong	-136 Mar 09 j 23:42	16°♁35'33	1°10'56	morning rise	-131 Sep 12 j 00:38	5°♁51'26	
max. Earth dist.	-136 Mar 11 j 14:57	16°♁59'09	5.96862 AU	retrograde	-130 Jan 10 j 02:44	22°♁39'27	
morning rise	-136 Mar 23 j 11:23	19°♁49'34		opposition	-130 Mar 11 j 15:41	17°♁46'48	1°44'33
	-136 May 07 j 16:11	0°♁		min. Earth dist.	-130 Mar 12 j 18:17	17°♁38'16	4.43565 AU
retrograde	-136 Aug 02 j 15:56	10°♁21'04		direct	-130 May 13 j 09:58	12°♁44'39	
min. Earth dist.	-136 Sep 30 j 00:29	5°♁27'18	3.99272 AU		-130 Sep 15 j 04:59	0°♁	
opposition	-136 Oct 01 j 08:28	5°♁16'26	-1°-42'-6	evening set	-130 Sep 16 j 22:55	0°♁22'47	
direct	-136 Nov 28 j 05:18	0°♁20'37		max. Earth dist.	-130 Sep 27 j 20:17	2°♁45'43	6.41324 AU
evening set	-135 Apr 03 j 03:04	19°♁48'05					
				conjunction	-130 Sep 29 j 16:49	3°♁10'09	1°09'52
conjunction	-135 Apr 16 j 18:41	23°♁00'42	0°-58'-43	minimum elong	-130 Sep 29 j 16:50	3°♁10'09	1°09'51
minimum elong	-135 Apr 16 j 18:44	23°♁00'43	0°58'43	morning rise	-130 Oct 12 j 08:13	5°♁56'25	
max. Earth dist.	-135 Apr 18 j 23:09	23°♁31'35	6.03385 AU	retrograde	-129 Feb 10 j 06:48	23°♁00'06	
morning rise	-135 Apr 30 j 12:40	26°♁14'19		opposition	-129 Apr 12 j 03:52	18°♁08'20	1°31'36
	-135 May 16 j 21:00	0°♁		min. Earth dist.	-129 Apr 13 j 13:58	17°♁57'29	4.37666 AU
	-135 Aug 13 j 04:18	15°♁		direct	-129 Jun 13 j 18:10	13°♁08'04	
retrograde	-135 Sep 07 j 08:47	16°♁01'50			-129 Oct 13 j 03:25	0°♁	
	-135 Oct 02 j 07:18	15°♁		evening set	-129 Oct 17 j 17:13	1°♁00'51	
opposition	-135 Nov 05 j 21:05	10°♁56'48	-1°-4'-58	max. Earth dist.	-129 Oct 28 j 08:34	3°♁23'44	6.32460 AU
min. Earth dist.	-135 Nov 04 j 12:49	11°♁07'49	4.09085 AU				
direct	-134 Jan 03 j 09:47	5°♁57'52		conjunction	-129 Oct 30 j 08:14	3°♁50'30	0°50'57
	-134 Mar 24 j 14:24	15°♁		minimum elong	-129 Oct 30 j 08:16	3°♁50'32	0°50'57
evening set	-134 May 09 j 22:25	24°♁56'06		morning rise	-129 Nov 11 j 21:46	6°♁39'40	
					-129 Dec 21 j 04:17	15°♁	
conjunction	-134 May 23 j 17:11	28°♁04'37	0°-25'-14	retrograde	-128 Mar 14 j 05:14	24°♁24'54	
minimum elong	-134 May 23 j 17:13	28°♁04'38	0°25'14	opposition	-128 May 14 j 04:40	19°♁32'29	0°51'46
max. Earth dist.	-134 May 25 j 15:45	28°♁31'12	6.15638 AU	min. Earth dist.	-128 May 15 j 14:06	19°♁21'50	4.26299 AU
	-134 Jun 01 j 03:33	0°♁			-128 Jun 28 j 11:12	15°♁	
morning rise	-134 Jun 06 j 12:12	1°♁13'01		direct	-128 Jul 15 j 00:38	14°♁34'46	
retrograde	-134 Oct 10 j 18:28	19°♁53'56			-128 Jul 31 j 12:38	15°♁	
min. Earth dist.	-134 Dec 08 j 09:26	14°♁59'09	4.22443 AU		-128 Nov 04 j 10:43	0°♁	
opposition	-134 Dec 09 j 08:39	14°♁51'18	0°-7'-18	evening set	-128 Nov 17 j 08:04	2°♁55'18	
asc. node	-133 Jan 26 j 15:12	10°♁02'40		max. Earth dist.	-128 Nov 28 j 08:12	5°♁27'37	6.19548 AU
direct	-133 Feb 07 j 01:33	9°♁49'47					
evening set	-133 Jun 14 j 02:36	28°♁12'57		conjunction	-128 Nov 29 j 23:40	5°♁50'27	0°16'13
	-133 Jun 22 j 04:10	0°♁		minimum elong	-128 Nov 29 j 23:41	5°♁50'27	0°16'13
				behind sun begin	-128 Nov 29 j 22:52	5°♁49'59	
conjunction	-133 Jun 27 j 18:12	1°♁14'22	0°15'23	behind sun end	-128 Nov 30 j 00:30	5°♁50'56	
minimum elong	-133 Jun 27 j 18:11	1°♁14'21	0°15'24	morning rise	-128 Dec 12 j 15:32	8°♁45'58	
behind sun begin	-133 Jun 27 j 16:21	1°♁13'21		retrograde	-127 Apr 18 j 07:54	27°♁32'26	
behind sun end	-133 Jun 27 j 20:01	1°♁15'22		desc. node	-127 May 05 j 02:51	27°♁06'01	

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Attention, astronomical year style is used: The year -127 in astronomical counting style is the year 128 BCE in historical counting style.

opposition	-127 Jun 18 j 04:25	22°♃37'42	0°-6'-54	direct	-121 Feb 11 j 20:15	14°♃31'32	
min. Earth dist.	-127 Jun 19 j 00:32	22°♃31'12	4.12677 AU		-121 Jun 05 j 21:27	0°♃	
direct	-127 Aug 17 j 15:59	17°♃42'33		evening set	-121 Jun 18 j 20:18	2°♃48'56	
	-127 Nov 21 j 13:23	0°♃					
evening set	-127 Dec 20 j 14:45	6°♃37'58		conjunction	-121 Jul 02 j 11:11	5°♃49'10	0°20'46
				minimum elong	-121 Jul 02 j 11:09	5°♃49'09	0°20'47
conjunction	-126 Jan 02 j 10:14	9°♃40'18	0°-25'-21	max. Earth dist.	-121 Jul 03 j 07:12	6°♃00'13	6.31052 AU
minimum elong	-126 Jan 02 j 10:13	9°♃40'17	0°25'22	morning rise	-121 Jul 16 j 00:07	8°♃48'16	
max. Earth dist.	-126 Jan 01 j 19:09	9°♃31'20	6.06466 AU	retrograde	-121 Nov 15 j 12:48	26°♃20'13	
morning rise	-126 Jan 15 j 07:18	12°♃43'44		opposition	-120 Jan 14 j 10:20	21°♃21'53	0°56'02
	-126 Apr 14 j 06:48	0°♃		min. Earth dist.	-120 Jan 14 j 06:10	21°♃23'16	4.36431 AU
retrograde	-126 May 25 j 12:40	2°♃35'08		direct	-120 Mar 15 j 16:43	16°♃18'46	
	-126 Jul 05 j 23:28	30°♃			-120 Jul 01 j 05:40	0°♃	
opposition	-126 Jul 24 j 22:55	27°♃36'52	-1°-6'-46	evening set	-120 Jul 20 j 20:50	4°♃09'37	
min. Earth dist.	-126 Jul 24 j 23:25	27°♃36'42	4.01314 AU				
direct	-126 Sep 22 j 00:30	22°♃43'22		conjunction	-120 Aug 03 j 03:59	7°♃02'47	0°53'28
	-126 Nov 30 j 17:52	0°♃		minimum elong	-120 Aug 03 j 03:57	7°♃02'45	0°53'28
evening set	-125 Jan 24 j 23:07	12°♃09'17		max. Earth dist.	-120 Aug 02 j 18:42	6°♃57'44	6.40537 AU
	-125 Feb 05 j 18:40	15°♃		morning rise	-120 Aug 16 j 08:28	9°♃54'30	
					-120 Sep 09 j 12:20	15°♃	
conjunction	-125 Feb 07 j 00:44	15°♃18'09	0°-59'-14	retrograde	-120 Dec 14 j 22:19	26°♃51'13	
minimum elong	-125 Feb 07 j 00:42	15°♃18'07	0°59'14	opposition	-119 Feb 13 j 03:39	21°♃56'27	1°33'01
max. Earth dist.	-125 Feb 07 j 15:39	15°♃27'08	5.97854 AU	min. Earth dist.	-119 Feb 13 j 17:59	21°♃51'47	4.43099 AU
morning rise	-125 Feb 20 j 05:25	18°♃28'41		direct	-119 Apr 16 j 11:17	16°♃53'18	
	-125 Apr 12 j 22:25	0°♃			-119 Jul 30 j 23:29	0°♃	
retrograde	-125 Jul 02 j 12:32	9°♃01'36		evening set	-119 Aug 21 j 10:07	4°♃31'13	
opposition	-125 Aug 31 j 12:54	3°♃59'24	-1°-43'-11	max. Earth dist.	-119 Sep 02 j 01:57	7°♃02'43	6.43816 AU
min. Earth dist.	-125 Aug 30 j 15:39	4°♃06'32	3.96549 AU				
	-125 Oct 05 j 11:55	30°♃		conjunction	-119 Sep 03 j 09:22	7°♃19'47	1°10'33
direct	-125 Oct 28 j 13:46	29°♃05'33		minimum elong	-119 Sep 03 j 09:21	7°♃19'47	1°10'34
	-125 Nov 20 j 16:25	0°♃		morning rise	-119 Sep 16 j 05:26	10°♃06'54	
evening set	-124 Mar 01 j 22:59	18°♃43'06		retrograde	-118 Jan 14 j 07:29	26°♃55'58	
				opposition	-118 Mar 15 j 22:36	22°♃03'33	1°44'27
conjunction	-124 Mar 15 j 08:28	21°♃55'44	-1°-10'-50	min. Earth dist.	-118 Mar 17 j 02:16	21°♃54'41	4.42942 AU
minimum elong	-124 Mar 15 j 08:28	21°♃55'44	1°10'51	direct	-118 May 17 j 16:08	17°♃01'36	
max. Earth dist.	-124 Mar 17 j 03:11	22°♃21'22	5.97298 AU		-118 Aug 30 j 04:16	0°♃	
morning rise	-124 Mar 28 j 21:08	25°♃09'57		evening set	-118 Sep 21 j 05:04	4°♃41'47	
	-124 Apr 18 j 13:58	0°♃		max. Earth dist.	-118 Oct 02 j 00:16	7°♃04'00	6.40145 AU
retrograde	-124 Aug 07 j 20:46	15°♃37'32					
min. Earth dist.	-124 Oct 05 j 03:47	10°♃43'41	4.00372 AU	conjunction	-118 Oct 03 j 22:19	7°♃29'22	1°08'21
opposition	-124 Oct 06 j 12:19	10°♃32'35	-1°-38'-53	minimum elong	-118 Oct 03 j 22:20	7°♃29'23	1°08'21
direct	-124 Dec 03 j 11:06	5°♃36'20		morning rise	-118 Oct 16 j 13:17	10°♃15'56	
evening set	-123 Apr 08 j 09:47	24°♃59'54		retrograde	-117 Feb 14 j 19:23	27°♃25'01	
				opposition	-117 Apr 16 j 15:54	22°♃33'20	1°27'34
conjunction	-123 Apr 22 j 02:13	28°♃12'07	0°-54'-58	min. Earth dist.	-117 Apr 18 j 03:35	22°♃21'59	4.35995 AU
minimum elong	-123 Apr 22 j 02:16	28°♃12'08	0°54'59	direct	-117 Jun 18 j 05:11	17°♃33'25	
max. Earth dist.	-123 Apr 24 j 08:47	28°♃44'05	6.05053 AU		-117 Sep 26 j 16:57	0°♃	
	-123 Apr 29 j 18:30	0°♃		evening set	-117 Oct 22 j 01:56	5°♃30'47	
morning rise	-123 May 05 j 20:36	1°♃25'07		max. Earth dist.	-117 Nov 01 j 16:27	7°♃53'54	6.30428 AU
	-123 Jul 09 j 22:35	15°♃					
retrograde	-123 Sep 12 j 04:53	21°♃02'51		conjunction	-117 Nov 03 j 16:55	8°♃21'14	0°46'53
min. Earth dist.	-123 Nov 09 j 09:19	16°♃08'58	4.11129 AU	minimum elong	-117 Nov 03 j 16:57	8°♃21'16	0°46'53
opposition	-123 Nov 10 j 17:30	15°♃57'59	0°-57'-32	morning rise	-117 Nov 16 j 06:44	11°♃11'21	
	-123 Nov 17 j 20:51	15°♃			-117 Dec 03 j 12:20	15°♃	
direct	-122 Jan 08 j 09:06	10°♃58'38		retrograde	-116 Mar 19 j 00:46	29°♃05'40	
	-122 Feb 28 j 15:11	15°♃		opposition	-116 May 19 j 00:12	24°♃13'02	0°44'21
evening set	-122 May 14 j 23:40	29°♃50'40		min. Earth dist.	-116 May 20 j 07:33	24°♃03'01	4.24043 AU
	-122 May 15 j 16:11	0°♃		direct	-116 Jul 19 j 14:47	19°♃15'43	
					-116 Oct 17 j 23:02	0°♃	
conjunction	-122 May 28 j 18:06	2°♃58'05	0°-19'-37	evening set	-116 Nov 21 j 22:32	7°♃42'23	
minimum elong	-122 May 28 j 18:07	2°♃58'06	0°19'38	max. Earth dist.	-116 Dec 03 j 03:19	10°♃18'08	6.17277 AU
max. Earth dist.	-122 May 30 j 12:51	3°♃22'22	6.17867 AU				
morning rise	-122 Jun 11 j 12:50	6°♃05'19		conjunction	-116 Dec 04 j 14:39	10°♃38'41	0°10'28
retrograde	-122 Oct 15 j 05:57	24°♃35'39		minimum elong	-116 Dec 04 j 14:40	10°♃38'41	0°10'29
asc. node	-122 Dec 06 j 15:28	20°♃31'45		behind sun begin	-116 Dec 04 j 08:22	10°♃35'02	
opposition	-122 Dec 13 j 21:23	19°♃33'26	0°01'05	behind sun end	-116 Dec 04 j 20:58	10°♃42'20	
min. Earth dist.	-122 Dec 13 j 00:41	19°♃40'25	4.24638 AU	morning rise	-116 Dec 17 j 07:02	13°♃35'25	

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Attention, astronomical year style is used: The year -115 in astronomical counting style is the year 116 BCE in historical counting style.

	-115 Mar 13 j 10:56	0°♁	opposition	-110 Dec 18 j 09:06	24°♁13'32	0°09'24
desc. node	-115 Mar 14 j 07:25	0°♁06'01	min. Earth dist.	-110 Dec 17 j 14:43	24°♁19'43	4.26614 AU
retrograde	-115 Apr 23 j 14:01	2°♁32'36	direct	-109 Feb 16 j 12:39	19°♁11'25	
	-115 Jun 04 j 02:22	30°♁♂		-109 May 19 j 08:48	0°♁	
opposition	-115 Jun 23 j 08:00	27°♁37'29	0°-15'-53	evening set	-109 Jun 23 j 13:12	7°♁24'03
min. Earth dist.	-115 Jun 24 j 02:05	27°♁31'38	4.10579 AU			
direct	-115 Aug 22 j 14:43	22°♁42'45		conjunction	-109 Jul 07 j 03:03	10°♁23'10
	-115 Nov 01 j 12:18	0°♁		minimum elong	-109 Jul 07 j 03:01	10°♁23'09
evening set	-115 Dec 25 j 13:05	11°♁43'54		max. Earth dist.	-109 Jul 07 j 17:42	10°♁31'14
				morning rise	-109 Jul 20 j 15:04	13°♁21'09
conjunction	-114 Jan 07 j 09:15	14°♁47'19	0°-31'-1		-109 Oct 28 j 17:49	0°♁
minimum elong	-114 Jan 07 j 09:13	14°♁47'17	0°31'02	retrograde	-109 Nov 19 j 19:31	0°♁46'39
max. Earth dist.	-114 Jan 06 j 21:43	14°♁40'26	6.04734 AU		-109 Dec 11 j 18:27	30°♁♂
morning rise	-114 Jan 20 j 07:26	17°♁51'59		opposition	-108 Jan 18 j 17:57	25°♁48'50
	-114 Mar 16 j 23:23	0°♁		min. Earth dist.	-108 Jan 18 j 16:50	25°♁49'12
retrograde	-114 May 30 j 21:11	7°♁51'39		direct	-108 Mar 20 j 04:30	20°♁45'35
opposition	-114 Jul 30 j 07:20	2°♁52'49	-1°-13'-57		-108 Jun 13 j 09:12	0°♁
min. Earth dist.	-114 Jul 30 j 03:12	2°♁54'11	4.00155 AU	evening set	-108 Jul 25 j 08:04	8°♁33'50
	-114 Aug 22 j 17:06	30°♁♂				
direct	-114 Sep 27 j 03:34	27°♁59'27		conjunction	-108 Aug 07 j 14:14	11°♁26'14
	-114 Nov 01 j 04:51	0°♁		minimum elong	-108 Aug 07 j 14:11	11°♁26'12
	-113 Jan 19 j 18:56	15°♁		max. Earth dist.	-108 Aug 07 j 02:26	11°♁19'49
evening set	-113 Jan 30 j 04:09	17°♁28'18		morning rise	-108 Aug 20 j 17:18	14°♁17'05
					-108 Aug 24 j 01:02	15°♁
conjunction	-113 Feb 12 j 06:51	20°♁37'51	-1°-2'-30		-108 Nov 21 j 12:27	0°♁
minimum elong	-113 Feb 12 j 06:49	20°♁37'49	1°02'31	retrograde	-108 Dec 19 j 03:05	1°♁11'20
max. Earth dist.	-113 Feb 13 j 03:13	20°♁50'09	5.97359 AU		-107 Jan 15 j 17:24	30°♁♂
morning rise	-113 Feb 25 j 12:34	23°♁49'05		opposition	-107 Feb 17 j 10:11	26°♁17'00
	-113 Mar 24 j 00:32	0°♁		min. Earth dist.	-107 Feb 18 j 02:17	26°♁11'47
retrograde	-113 Jul 07 j 22:36	14°♁23'42		direct	-107 Apr 20 j 19:20	21°♁13'58
opposition	-113 Sep 05 j 21:09	9°♁20'57	-1°-45'-11		-107 Jul 13 j 01:50	0°♁
min. Earth dist.	-113 Sep 04 j 21:58	9°♁28'46	3.96774 AU	evening set	-107 Aug 25 j 18:16	8°♁51'42
direct	-113 Nov 02 j 21:44	4°♁26'52		max. Earth dist.	-107 Sep 06 j 04:56	11°♁20'39
evening set	-112 Mar 07 j 06:36	24°♁02'55				
				conjunction	-107 Sep 07 j 16:23	11°♁39'56
conjunction	-112 Mar 20 j 17:14	27°♁15'38	-1°-10'-11	minimum elong	-107 Sep 07 j 16:23	11°♁39'56
minimum elong	-112 Mar 20 j 17:15	27°♁15'39	1°10'11	morning rise	-107 Sep 20 j 11:44	14°♁26'50
max. Earth dist.	-112 Mar 22 j 16:06	27°♁43'40	5.98192 AU		-107 Dec 20 j 16:40	0°♁
	-112 Apr 01 j 04:34	0°♁		retrograde	-106 Jan 18 j 17:00	1°♁17'34
morning rise	-112 Apr 03 j 06:50	0°♁29'51			-106 Feb 16 j 18:01	30°♁♂
retrograde	-112 Aug 12 j 23:46	20°♁51'29		opposition	-106 Mar 20 j 07:44	26°♁25'21
min. Earth dist.	-112 Oct 10 j 05:21	15°♁57'48	4.01831 AU	min. Earth dist.	-106 Mar 21 j 13:52	26°♁15'42
opposition	-112 Oct 11 j 14:51	15°♁46'24	-1°-34'-53	direct	-106 May 22 j 02:15	21°♁23'35
direct	-112 Dec 08 j 14:25	10°♁49'46			-106 Aug 12 j 03:55	0°♁
evening set	-111 Apr 13 j 15:20	0°♁08'32		evening set	-106 Sep 25 j 12:31	9°♁05'56
	-111 Apr 13 j 00:37	0°♁		max. Earth dist.	-106 Oct 06 j 06:35	11°♁27'56
conjunction	-111 Apr 27 j 08:10	3°♁20'06	0°-50'-50	conjunction	-106 Oct 08 j 05:26	11°♁53'48
minimum elong	-111 Apr 27 j 08:13	3°♁20'08	0°50'50	minimum elong	-106 Oct 08 j 05:27	11°♁53'49
max. Earth dist.	-111 Apr 29 j 12:51	3°♁50'50	6.06918 AU	morning rise	-106 Oct 20 j 19:58	14°♁40'43
morning rise	-111 May 11 j 03:04	6°♁32'26			-105 Jan 14 j 16:46	0°♁
	-111 Jun 18 j 10:18	15°♁		retrograde	-105 Feb 19 j 08:15	1°♁55'21
retrograde	-111 Sep 16 j 22:19	26°♁00'07			-105 Mar 27 j 08:27	30°♁♂
min. Earth dist.	-111 Nov 14 j 05:00	21°♁06'04	4.13192 AU	opposition	-105 Apr 21 j 06:09	27°♁03'37
opposition	-111 Nov 15 j 11:59	20°♁55'30	0°-49'-46	min. Earth dist.	-105 Apr 22 j 16:49	26°♁52'35
direct	-110 Jan 13 j 08:13	15°♁55'44		direct	-105 Jun 22 j 15:37	22°♁04'04
	-110 Apr 28 j 16:22	0°♁			-105 Sep 08 j 00:49	0°♁
evening set	-110 May 19 j 23:18	4°♁42'02		evening set	-105 Oct 26 j 12:14	10°♁05'27
				max. Earth dist.	-105 Nov 06 j 04:28	12°♁30'10
conjunction	-110 Jun 02 j 17:41	7°♁48'28	0°-13'-56	conjunction	-105 Nov 08 j 03:08	12°♁56'38
minimum elong	-110 Jun 02 j 17:42	7°♁48'29	0°13'57	minimum elong	-105 Nov 08 j 03:11	12°♁56'39
behind sun begin	-110 Jun 02 j 13:42	7°♁46'13			-105 Nov 17 j 04:51	15°♁
behind sun end	-110 Jun 02 j 21:43	7°♁50'44		morning rise	-105 Nov 20 j 17:06	15°♁47'33
max. Earth dist.	-110 Jun 04 j 10:28	8°♁11'31	6.19984 AU		-104 Feb 01 j 17:38	0°♁
morning rise	-110 Jun 16 j 11:45	10°♁54'30		retrograde	-104 Mar 23 j 23:39	3°♁50'14
asc. node	-110 Oct 16 j 12:19	29°♁14'09			-104 May 15 j 15:35	30°♁♂
retrograde	-110 Oct 19 j 17:43	29°♁15'11				

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Attention, astronomical year style is used: The year -104 in astronomical counting style is the year 105 BCE in historical counting style.

opposition	-104 May 23 j 21:25	28°♁57'22	0°36'30	direct	-98 Jan 18 j 03:32	20°♁42'47	
min. Earth dist.	-104 May 25 j 04:02	28°♁47'35	4.22105 AU		-98 Apr 10 j 11:09	0°♁	
direct	-104 Jul 24 j 08:47	24°♁00'28		evening set	-98 May 24 j 19:39	9°♁24'23	
	-104 Sep 27 j 06:17	0°♁					
evening set	-104 Nov 26 j 14:04	12°♁31'53		conjunction	-98 Jun 07 j 13:39	12°♁29'55	0°-8'-20
max. Earth dist.	-104 Dec 07 j 21:44	15°♁09'58	6.15428 AU	minimum elong	-98 Jun 07 j 13:39	12°♁29'55	0°08'20
				behind sun begin	-98 Jun 07 j 06:21	12°♁25'50	
conjunction	-104 Dec 09 j 06:35	15°♁29'09	0°04'38	behind sun end	-98 Jun 07 j 20:58	12°♁34'01	
minimum elong	-104 Dec 09 j 06:35	15°♁29'09	0°04'38	max. Earth dist.	-98 Jun 09 j 02:29	12°♁50'39	6.21757 AU
behind sun begin	-104 Dec 08 j 22:45	15°♁24'36		morning rise	-98 Jun 21 j 07:17	15°♁34'59	
behind sun end	-104 Dec 09 j 14:25	15°♁33'42		asc. node	-98 Aug 27 j 12:31	28°♁53'59	
morning rise	-104 Dec 21 j 23:41	18°♁26'58			-98 Sep 03 j 22:55	0°♁	
desc. node	-103 Jan 21 j 16:12	25°♁20'14		retrograde	-98 Oct 24 j 01:41	3°♁47'37	
	-103 Feb 14 j 01:05	0°♁			-98 Dec 13 j 13:13	30°♁	
retrograde	-103 Apr 28 j 17:01	7°♁33'01		opposition	-98 Dec 22 j 18:18	28°♁46'31	0°17'25
opposition	-103 Jun 28 j 11:22	2°♁37'24	0°-24'-46	min. Earth dist.	-98 Dec 22 j 02:00	28°♁51'59	4.28181 AU
min. Earth dist.	-103 Jun 29 j 01:17	2°♁32'53	4.08993 AU	direct	-97 Feb 21 j 01:32	23°♁44'11	
	-103 Jul 19 j 20:35	30°♁			-97 Apr 29 j 07:52	0°♁	
direct	-103 Aug 27 j 12:04	27°♁42'58		evening set	-97 Jun 28 j 04:04	11°♁53'40	
	-103 Oct 04 j 14:25	0°♁					
evening set	-103 Dec 30 j 10:53	16°♁47'56		conjunction	-97 Jul 11 j 17:05	14°♁51'54	0°31'01
				minimum elong	-97 Jul 11 j 17:03	14°♁51'53	0°31'00
conjunction	-102 Jan 12 j 07:47	19°♁52'10	0°-36'-24	max. Earth dist.	-97 Jul 12 j 04:19	14°♁58'04	6.33992 AU
minimum elong	-102 Jan 12 j 07:45	19°♁52'09	0°36'25	morning rise	-97 Jul 25 j 03:54	17°♁48'54	
max. Earth dist.	-102 Jan 12 j 01:32	19°♁48'26	6.03558 AU		-97 Sep 25 j 10:48	0°♁	
morning rise	-102 Jan 25 j 06:49	22°♁57'44		retrograde	-97 Nov 24 j 02:03	5°♁09'29	
	-102 Feb 24 j 21:43	0°♁		opposition	-96 Jan 23 j 00:22	0°♁12'18	1°08'29
retrograde	-102 Jun 05 j 05:31	13°♁03'23		min. Earth dist.	-96 Jan 23 j 01:58	0°♁11'46	4.38606 AU
opposition	-102 Aug 04 j 13:55	8°♁03'56	-1°-20'-24		-96 Jan 24 j 13:44	30°♁	
min. Earth dist.	-102 Aug 04 j 07:13	8°♁06'09	3.99516 AU	direct	-96 Mar 24 j 14:23	25°♁09'05	
direct	-102 Oct 02 j 07:54	3°♁10'34			-96 May 22 j 23:09	0°♁	
	-101 Jan 02 j 02:08	15°♁		evening set	-96 Jul 29 j 18:34	12°♁56'03	
evening set	-101 Feb 04 j 06:56	22°♁40'24			-96 Aug 08 j 07:31	15°♁	
				conjunction	-96 Aug 11 j 23:33	15°♁47'49	0°59'58
conjunction	-101 Feb 17 j 10:39	25°♁50'25	-1°-5'-11	minimum elong	-96 Aug 11 j 23:30	15°♁47'48	0°59'58
minimum elong	-101 Feb 17 j 10:37	25°♁50'24	1°05'12	max. Earth dist.	-96 Aug 11 j 07:09	15°♁38'55	6.41777 AU
max. Earth dist.	-101 Feb 18 j 11:53	26°♁05'38	5.97302 AU	morning rise	-96 Aug 25 j 01:38	18°♁38'06	
morning rise	-101 Mar 02 j 17:23	29°♁02'07			-96 Oct 22 j 05:14	0°♁	
	-101 Mar 06 j 18:25	0°♁		retrograde	-96 Dec 23 j 09:45	5°♁31'10	
retrograde	-101 Jul 13 j 04:04	19°♁36'20		opposition	-95 Feb 21 j 17:03	0°♁37'13	1°38'54
min. Earth dist.	-101 Sep 10 j 00:01	14°♁41'43	3.97339 AU	min. Earth dist.	-95 Feb 22 j 11:28	0°♁31'15	4.43397 AU
opposition	-101 Sep 11 j 01:27	14°♁33'09	-1°-46'-13		-95 Feb 26 j 12:12	30°♁	
direct	-101 Nov 08 j 00:13	9°♁38'48		direct	-95 Apr 25 j 03:56	25°♁34'19	
evening set	-100 Mar 12 j 11:03	29°♁12'29			-95 Jun 21 j 02:56	0°♁	
	-100 Mar 15 j 19:03	0°♁		evening set	-95 Aug 30 j 02:07	13°♁12'38	
conjunction	-100 Mar 25 j 22:28	2°♁25'05	-1°-8'-58	max. Earth dist.	-95 Sep 10 j 11:28	15°♁41'03	6.43134 AU
minimum elong	-100 Mar 25 j 22:29	2°♁25'06	1°09'00				
max. Earth dist.	-100 Mar 27 j 21:41	2°♁53'14	5.99285 AU	conjunction	-95 Sep 11 j 23:31	16°♁00'43	1°11'52
morning rise	-100 Apr 08 j 13:04	5°♁39'10		minimum elong	-95 Sep 11 j 23:30	16°♁00'42	1°11'52
retrograde	-100 Aug 17 j 21:07	25°♁54'10		morning rise	-95 Sep 24 j 17:51	18°♁47'25	
min. Earth dist.	-100 Oct 15 j 03:05	21°♁00'29	4.03324 AU		-95 Nov 20 j 17:49	0°♁	
opposition	-100 Oct 16 j 12:50	20°♁48'58	-1°-30'-17	retrograde	-94 Jan 23 j 01:01	5°♁40'25	
direct	-100 Dec 13 j 14:33	15°♁51'53		opposition	-94 Mar 24 j 17:22	0°♁48'24	1°42'29
	-99 Mar 27 j 04:48	0°♁		min. Earth dist.	-94 Mar 25 j 23:46	0°♁38'41	4.41352 AU
evening set	-99 Apr 18 j 16:50	5°♁06'06			-94 Mar 31 j 01:29	30°♁	
				direct	-94 May 26 j 10:25	25°♁46'59	
conjunction	-99 May 02 j 10:21	8°♁17'08	0°-46'-28		-94 Jul 20 j 18:54	0°♁	
minimum elong	-99 May 02 j 10:24	8°♁17'10	0°46'28	evening set	-94 Sep 29 j 20:28	13°♁31'25	
max. Earth dist.	-99 May 04 j 14:51	8°♁47'37	6.08688 AU	max. Earth dist.	-94 Oct 10 j 12:46	15°♁52'57	6.37756 AU
morning rise	-99 May 16 j 05:19	11°♁28'43					
	-99 May 31 j 17:30	15°♁		conjunction	-94 Oct 12 j 12:44	16°♁19'33	1°04'05
	-99 Aug 30 j 14:41	0°♁		minimum elong	-94 Oct 12 j 12:46	16°♁19'34	1°04'05
retrograde	-99 Sep 21 j 14:38	0°♁47'09		morning rise	-94 Oct 25 j 03:05	19°♁06'49	
	-99 Oct 13 j 07:48	30°♁			-94 Dec 18 j 00:28	0°♁	
min. Earth dist.	-99 Nov 18 j 22:06	25°♁52'43	4.15040 AU	retrograde	-93 Feb 23 j 23:51	6°♁26'42	
opposition	-99 Nov 20 j 02:57	25°♁42'54	0°-41'-58	opposition	-93 Apr 25 j 20:47	1°♁34'54	1°17'43

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Attention, astronomical year style is used: The year -93 in astronomical counting style is the year 94 BCE in historical counting style.

min. Earth dist.	-93 Apr 27 j 08:03	1°♄23'40	4.32947 AU	min. Earth dist.	-88 Oct 20 j 02:16	26°♃04'44	4.04502 AU
	-93 May 08 j 11:58	30°♃♄		opposition	-88 Oct 21 j 11:14	25°♃53'29	-1°-25'-2
direct	-93 Jun 27 j 04:49	26°♄35'40		direct	-88 Dec 18 j 15:44	20°♃55'56	
	-93 Aug 14 j 22:48	0°♄			-87 Mar 08 j 06:37	0°♃	
evening set	-93 Oct 30 j 22:14	14°♄40'22		evening set	-87 Apr 23 j 19:46	10°♃06'49	
	-93 Nov 01 j 09:02	15°♄					
max. Earth dist.	-93 Nov 10 j 16:06	17°♄06'31	6.26982 AU	conjunction	-87 May 07 j 13:41	13°♃17'25	0°-41'-43
				minimum elong	-87 May 07 j 13:44	13°♃17'26	0°41'44
conjunction	-93 Nov 12 j 13:17	17°♄32'13	0°37'46	max. Earth dist.	-87 May 09 j 16:38	13°♃46'52	6.10146 AU
minimum elong	-93 Nov 12 j 13:19	17°♄32'14	0°37'46		-87 May 14 j 23:14	15°♃	
morning rise	-93 Nov 25 j 03:26	20°♄23'54		morning rise	-87 May 21 j 09:00	16°♃28'26	
	-92 Jan 09 j 08:14	0°♃			-87 Jul 26 j 07:24	0°♂	
retrograde	-92 Mar 28 j 19:05	8°♃34'07		retrograde	-87 Sep 26 j 05:46	5°♂38'31	
opposition	-92 May 28 j 17:54	3°♃40'55	0°28'25	opposition	-87 Nov 24 j 19:07	0°♂34'34	0°-33'-46
min. Earth dist.	-92 May 29 j 21:57	3°♃31'57	4.20413 AU	min. Earth dist.	-87 Nov 23 j 14:51	0°♂44'11	4.16626 AU
	-92 Jun 30 j 07:16	30°♃♄			-87 Nov 29 j 01:07	30°♃♄	
direct	-92 Jul 28 j 23:48	28°♄44'24		direct	-86 Jan 22 j 22:33	25°♃34'03	
	-92 Aug 26 j 14:13	0°♃			-86 Mar 18 j 10:59	0°♂	
evening set	-92 Dec 01 j 04:40	17°♃19'49		evening set	-86 May 29 j 18:11	14°♂11'52	
desc. node	-92 Dec 01 j 13:01	17°♃24'40					
				conjunction	-86 Jun 12 j 11:51	17°♂16'34	0°-2'-33
conjunction	-92 Dec 13 j 21:30	20°♃17'54	0°-1'-19	minimum elong	-86 Jun 12 j 11:51	17°♂16'34	0°02'34
minimum elong	-92 Dec 13 j 21:32	20°♃17'55	0°01'21	behind sun begin	-86 Jun 12 j 03:31	17°♂11'55	
behind sun begin	-92 Dec 13 j 13:31	20°♃13'14		behind sun end	-86 Jun 12 j 20:12	17°♂21'13	
behind sun end	-92 Dec 14 j 05:33	20°♃22'35		max. Earth dist.	-86 Jun 13 j 21:24	17°♂35'24	6.23368 AU
max. Earth dist.	-92 Dec 12 j 15:54	20°♃00'33	6.13789 AU	morning rise	-86 Jun 26 j 04:49	20°♂20'39	
morning rise	-92 Dec 26 j 15:16	23°♃16'42		asc. node	-86 Jul 07 j 00:53	22°♂44'05	
	-91 Jan 25 j 10:34	0°♂			-86 Aug 11 j 10:19	0°♂	
retrograde	-91 May 03 j 20:30	12°♂31'05		retrograde	-86 Oct 28 j 13:53	8°♂25'39	
opposition	-91 Jul 03 j 13:24	7°♂34'58	0°-33'-25	opposition	-86 Dec 27 j 05:54	3°♂25'06	0°25'31
min. Earth dist.	-91 Jul 04 j 01:25	7°♂31'03	4.07521 AU	min. Earth dist.	-86 Dec 26 j 16:22	3°♂29'38	4.29681 AU
direct	-91 Sep 01 j 10:56	2°♂40'44			-85 Jan 24 j 11:32	30°♃♂	
evening set	-90 Jan 04 j 07:32	21°♂49'24		direct	-85 Feb 25 j 17:58	28°♂22'37	
					-85 Mar 30 j 10:15	0°♂	
conjunction	-90 Jan 17 j 05:17	24°♂54'30	0°-41'-29	evening set	-85 Jul 02 j 21:06	16°♂28'49	
minimum elong	-90 Jan 17 j 05:15	24°♂54'28	0°41'30				
max. Earth dist.	-90 Jan 17 j 03:18	24°♂53'18	6.02388 AU	conjunction	-85 Jul 16 j 09:10	19°♂26'08	0°35'56
morning rise	-90 Jan 30 j 05:15	28°♂00'59		minimum elong	-85 Jul 16 j 09:07	19°♂26'07	0°35'57
	-90 Feb 07 j 14:34	0°♂		max. Earth dist.	-85 Jul 16 j 17:10	19°♂30'32	6.35286 AU
	-90 Apr 25 j 10:58	15°♂		morning rise	-85 Jul 29 j 18:52	22°♂22'08	
retrograde	-90 Jun 10 j 11:44	18°♂12'27			-85 Sep 04 j 11:12	0°♂	
	-90 Jul 26 j 22:25	15°♂♂		retrograde	-85 Nov 28 j 08:57	9°♂37'35	
opposition	-90 Aug 09 j 18:28	13°♂12'29	-1°-26'-12	opposition	-84 Jan 27 j 09:18	4°♂40'52	1°14'14
min. Earth dist.	-90 Aug 09 j 08:51	13°♂15'40	3.98795 AU	min. Earth dist.	-84 Jan 27 j 12:16	4°♂39'54	4.39653 AU
direct	-90 Oct 07 j 08:17	8°♂19'05			-84 Mar 13 j 14:11	30°♃♂	
	-90 Dec 12 j 13:29	15°♂		direct	-84 Mar 29 j 02:04	29°♂37'40	
evening set	-89 Feb 09 j 09:11	27°♂50'46			-84 Apr 13 j 18:29	0°♂	
	-89 Feb 18 j 08:07	0°♂			-84 Jul 23 j 03:47	15°♂	
				evening set	-84 Aug 03 j 06:41	17°♂22'23	
conjunction	-89 Feb 22 j 13:48	1°♂01'19	-1°-7'-21				
minimum elong	-89 Feb 22 j 13:47	1°♂01'18	1°07'22	conjunction	-84 Aug 16 j 10:30	20°♂13'22	1°02'46
max. Earth dist.	-89 Feb 23 j 17:18	1°♂17'53	5.97069 AU	minimum elong	-84 Aug 16 j 10:27	20°♂13'21	1°02'46
morning rise	-89 Mar 07 j 21:46	4°♂13'37		max. Earth dist.	-84 Aug 15 j 16:19	20°♂03'30	6.42529 AU
retrograde	-89 Jul 18 j 07:09	24°♂48'10		morning rise	-84 Aug 29 j 11:15	23°♂02'50	
min. Earth dist.	-89 Sep 15 j 01:15	19°♂53'46	3.97629 AU		-84 Oct 02 j 00:40	0°♂	
opposition	-89 Sep 16 j 04:36	19°♂44'31	-1°-46'-28	retrograde	-84 Dec 27 j 16:33	9°♂53'31	
direct	-89 Nov 13 j 02:32	14°♂49'48		opposition	-83 Feb 26 j 01:23	4°♂59'57	1°41'03
	-88 Feb 27 j 21:09	0°♂		min. Earth dist.	-83 Feb 26 j 21:23	4°♂53'30	4.43834 AU
evening set	-88 Mar 17 j 15:22	4°♂22'25			-83 Apr 24 j 03:00	30°♃♂	
				direct	-83 Apr 29 j 14:31	29°♂57'17	
conjunction	-88 Mar 31 j 04:01	7°♂35'10	-1°-7'-15		-83 May 05 j 02:39	0°♂	
minimum elong	-88 Mar 31 j 04:03	7°♂35'11	1°07'16	evening set	-83 Sep 03 j 10:32	17°♂34'18	
max. Earth dist.	-88 Apr 02 j 06:00	8°♂04'53	6.00072 AU	max. Earth dist.	-83 Sep 14 j 15:54	20°♂00'43	6.43217 AU
morning rise	-88 Apr 13 j 19:22	10°♂49'14					
	-88 Jul 29 j 07:45	0°♂		conjunction	-83 Sep 16 j 06:51	20°♂21'57	1°11'57
retrograde	-88 Aug 22 j 21:37	0°♂58'43		minimum elong	-83 Sep 16 j 06:51	20°♂21'57	1°11'58
	-88 Sep 16 j 04:31	30°♃♂		morning rise	-83 Sep 29 j 00:28	23°♂08'19	

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Attention, astronomical year style is used: The year -83 in astronomical counting style is the year 84 BCE in historical counting style.

	-83 Oct 31 j 22:15	0°♅			-76 Feb 09 j 17:01	0°♃	
retrograde	-82 Jan 27 j 09:56	10°♅01'52		evening set	-76 Mar 22 j 18:15	9°♃27'24	
opposition	-82 Mar 29 j 03:08	5°♅09'56	1°40'38				
min. Earth dist.	-82 Mar 30 j 10:38	4°♅59'52	4.41083 AU	conjunction	-76 Apr 05 j 07:51	12°♃40'26	-1°-5'-3
direct	-82 May 30 j 20:43	0°♅08'45		minimum elong	-76 Apr 05 j 07:54	12°♃40'28	1°05'03
evening set	-82 Oct 04 j 02:47	17°♅53'12		max. Earth dist.	-76 Apr 07 j 10:36	13°♃10'33	6.00495 AU
max. Earth dist.	-82 Oct 14 j 19:46	20°♅15'19	6.37156 AU	morning rise	-76 Apr 19 j 00:19	15°♃54'46	
					-76 Jun 24 j 21:27	0°♄	
conjunction	-82 Oct 16 j 18:44	20°♅41'23	1°01'27	retrograde	-76 Aug 27 j 18:56	6°♄00'05	
minimum elong	-82 Oct 16 j 18:46	20°♅41'24	1°01'26	min. Earth dist.	-76 Oct 24 j 21:57	1°♄06'30	4.05356 AU
morning rise	-82 Oct 29 j 08:34	23°♅28'45		opposition	-76 Oct 26 j 07:58	0°♄54'53	-1°-19'-15
	-82 Nov 28 j 22:16	0°♄			-76 Nov 02 j 01:48	30°♄	
retrograde	-81 Feb 28 j 10:31	10°♄52'10		direct	-76 Dec 23 j 13:03	25°♄56'57	
opposition	-81 Apr 30 j 09:33	6°♄00'16	1°12'11		-75 Feb 12 j 11:41	0°♄	
min. Earth dist.	-81 May 01 j 20:07	5°♄49'17	4.32032 AU	evening set	-75 Apr 28 j 22:03	15°♄05'54	
direct	-81 Jul 01 j 14:58	1°♄01'25			-75 Apr 28 j 11:47	15°♄	
	-81 Oct 16 j 15:01	15°♄					
evening set	-81 Nov 04 j 05:33	19°♄07'40		conjunction	-75 May 12 j 16:25	18°♄16'09	0°-36'-42
max. Earth dist.	-81 Nov 14 j 23:34	21°♄34'22	6.25821 AU	minimum elong	-75 May 12 j 16:28	18°♄16'10	0°36'43
				max. Earth dist.	-75 May 14 j 18:02	18°♄44'46	6.11372 AU
conjunction	-81 Nov 16 j 20:24	21°♄59'57	0°33'00	morning rise	-75 May 26 j 11:53	21°♄26'40	
minimum elong	-81 Nov 16 j 20:26	21°♄59'58	0°32'59		-75 Jul 04 j 18:11	0°♅	
morning rise	-81 Nov 29 j 10:50	24°♄52'13		retrograde	-75 Sep 30 j 22:46	10°♅29'21	
	-81 Dec 22 j 13:45	0°♆		min. Earth dist.	-75 Nov 28 j 08:50	5°♅34'40	4.18073 AU
retrograde	-80 Apr 02 j 12:53	13°♆08'46		opposition	-75 Nov 29 j 11:10	5°♅25'43	0°-25'-25
opposition	-80 Jun 02 j 11:04	8°♆15'15	0°20'24	direct	-74 Jan 27 j 19:01	0°♅24'52	
min. Earth dist.	-80 Jun 03 j 14:31	8°♆06'27	4.19050 AU	asc. node	-74 May 16 j 11:33	14°♅59'56	
direct	-80 Aug 02 j 14:30	3°♆19'01		evening set	-74 Jun 03 j 16:11	18°♅59'05	
desc. node	-80 Oct 13 j 12:04	10°♆36'18					
evening set	-80 Dec 05 j 15:36	21°♆57'35		conjunction	-74 Jun 17 j 09:28	22°♅02'56	0°03'20
max. Earth dist.	-80 Dec 17 j 06:02	24°♆40'39	6.12355 AU	minimum elong	-74 Jun 17 j 09:28	22°♅02'56	0°03'20
				behind sun begin	-74 Jun 17 j 01:11	21°♅58'19	
conjunction	-80 Dec 18 j 09:01	24°♆56'30	0°-6'-59	behind sun end	-74 Jun 17 j 17:45	22°♅07'33	
minimum elong	-80 Dec 18 j 09:01	24°♆56'30	0°07'00	max. Earth dist.	-74 Jun 18 j 17:40	22°♅20'57	6.24923 AU
behind sun begin	-80 Dec 18 j 01:34	24°♆52'09		morning rise	-74 Jul 01 j 01:39	25°♅06'01	
behind sun end	-80 Dec 18 j 16:27	25°♆00'51			-74 Jul 23 j 15:34	0°♆	
morning rise	-80 Dec 31 j 03:19	27°♆56'10		retrograde	-74 Nov 01 j 22:57	13°♆03'29	
	-79 Jan 09 j 00:47	0°♇		opposition	-74 Dec 31 j 17:05	8°♆03'22	0°33'23
retrograde	-79 May 08 j 18:51	17°♇18'16		min. Earth dist.	-74 Dec 31 j 04:22	8°♆07'37	4.31204 AU
opposition	-79 Jul 08 j 10:57	12°♇21'45	0°-41'-32	direct	-73 Mar 02 j 08:28	3°♇00'41	
min. Earth dist.	-79 Jul 08 j 20:48	12°♇18'32	4.06143 AU	evening set	-73 Jul 07 j 13:27	21°♇03'14	
direct	-79 Sep 06 j 03:34	7°♇27'44					
evening set	-78 Jan 09 j 00:32	26°♇40'19		conjunction	-73 Jul 21 j 00:19	23°♇59'30	0°40'37
				minimum elong	-73 Jul 21 j 00:16	23°♇59'29	0°40'38
conjunction	-78 Jan 21 j 22:58	29°♇46'18	0°-46'-5	max. Earth dist.	-73 Jul 21 j 04:26	24°♇01'46	6.36637 AU
minimum elong	-78 Jan 21 j 22:55	29°♇46'16	0°46'07	morning rise	-73 Aug 03 j 08:48	26°♇54'26	
max. Earth dist.	-78 Jan 21 j 22:59	29°♇46'18	6.01175 AU		-73 Aug 17 j 18:46	0°♈	
	-78 Jan 22 j 21:48	0°♉		retrograde	-73 Dec 02 j 16:33	14°♈04'31	
morning rise	-78 Feb 04 j 00:01	2°♉53'47		opposition	-72 Jan 31 j 17:33	9°♈08'14	1°19'31
	-78 Mar 31 j 01:16	15°♉		min. Earth dist.	-72 Jan 31 j 23:32	9°♈06'17	4.40715 AU
retrograde	-78 Jun 15 j 13:45	23°♉11'42		direct	-72 Apr 02 j 15:04	4°♈04'59	
opposition	-78 Aug 14 j 19:03	18°♉11'13	-1°-31'-12		-72 Jul 05 j 23:01	15°♈	
min. Earth dist.	-78 Aug 14 j 07:02	18°♉15'13	3.97881 AU	evening set	-72 Aug 07 j 17:27	21°♈47'11	
	-78 Sep 09 j 23:21	15°♊					
direct	-78 Oct 12 j 05:15	13°♊17'45		conjunction	-72 Aug 20 j 20:09	24°♈37'26	1°05'13
	-78 Nov 13 j 05:21	15°♊		minimum elong	-72 Aug 20 j 20:07	24°♈37'25	1°05'12
	-77 Feb 02 j 05:50	0°♋		max. Earth dist.	-72 Aug 19 j 22:42	24°♈25'49	6.43172 AU
evening set	-77 Feb 14 j 08:10	2°♋52'30		morning rise	-72 Sep 02 j 19:44	27°♈26'10	
					-72 Sep 14 j 19:57	0°♌	
conjunction	-77 Feb 27 j 14:05	6°♋03'50	-1°-8'-57	retrograde	-72 Dec 31 j 22:14	14°♌15'03	
minimum elong	-77 Feb 27 j 14:04	6°♋03'50	1°08'58	opposition	-71 Mar 02 j 09:10	9°♌21'42	1°42'40
max. Earth dist.	-77 Feb 28 j 21:58	6°♋23'04	5.96551 AU	min. Earth dist.	-71 Mar 03 j 06:38	9°♌14'46	4.44019 AU
morning rise	-77 Mar 12 j 23:03	9°♋16'51		direct	-71 May 03 j 23:34	4°♌19'07	
retrograde	-77 Jul 23 j 10:36	29°♋53'04		evening set	-71 Sep 07 j 17:55	21°♌55'40	
min. Earth dist.	-77 Sep 20 j 01:06	24°♋58'36	3.97582 AU	max. Earth dist.	-71 Sep 18 j 21:38	24°♌21'20	6.42908 AU
opposition	-77 Sep 21 j 04:59	24°♋49'09	-1°-45'-56				
direct	-77 Nov 18 j 02:08	19°♋54'11		conjunction	-71 Sep 20 j 13:26	24°♌43'05	1°11'39

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Attention, astronomical year style is used: The year -71 in astronomical counting style is the year 72 BCE in historical counting style.

minimum elong	-71 Sep 20 j 13:27	24°♎43'05	1°11'39	min. Earth dist.	-65 Sep 25 j 03:21	0°♑16'48	3.98225 AU
morning rise	-71 Oct 03 j 06:10	27°♎29'14		opposition	-65 Sep 26 j 10:07	0°♑06'22	-1°-44'-30
	-71 Oct 14 j 22:32	0°♏			-65 Sep 27 j 04:51	30°♊	
retrograde	-70 Jan 31 j 18:46	14°♏24'53		direct	-65 Nov 23 j 06:22	25°♋11'04	
opposition	-70 Apr 02 j 13:22	9°♏33'02	1°38'15		-64 Jan 17 j 12:58	0°♌	
min. Earth dist.	-70 Apr 03 j 22:13	9°♏22'34	4.40281 AU	evening set	-64 Mar 28 j 01:26	14°♌41'51	
direct	-70 Jun 04 j 06:59	4°♏32'08					
evening set	-70 Oct 08 j 10:07	22°♏18'24		conjunction	-64 Apr 10 j 15:59	17°♌54'43	-1°-2'-17
max. Earth dist.	-70 Oct 19 j 00:36	24°♏39'37	6.35909 AU	minimum elong	-64 Apr 10 j 16:02	17°♌54'44	1°02'17
				max. Earth dist.	-64 Apr 12 j 20:12	18°♌25'36	6.01790 AU
conjunction	-70 Oct 21 j 01:34	25°♏06'53	0°58'26	morning rise	-64 Apr 24 j 09:07	21°♌08'44	
minimum elong	-70 Oct 21 j 01:36	25°♏06'55	0°58'25		-64 Jun 02 j 23:47	0°♍	
morning rise	-70 Nov 02 j 15:23	27°♏54'43		retrograde	-64 Sep 01 j 18:00	11°♍05'57	
	-70 Nov 12 j 03:09	0°♎		min. Earth dist.	-64 Oct 29 j 21:31	6°♍12'06	4.07138 AU
retrograde	-69 Feb 17 j 00:18	15°♎		opposition	-64 Oct 31 j 06:46	6°♍00'44	-1°-12'-47
	-69 Mar 05 j 01:35	15°♎24'02		direct	-64 Dec 28 j 15:51	1°♍02'21	
	-69 Mar 21 j 02:48	15°♎		evening set	-63 Apr 11 j 06:57	15°♍	
opposition	-69 May 05 j 00:47	10°♎31'57	1°06'07		-63 May 04 j 01:07	20°♍05'41	
min. Earth dist.	-69 May 06 j 11:20	10°♎20'57	4.30398 AU	conjunction	-63 May 17 j 19:43	23°♍15'04	0°-31'-27
direct	-69 Jul 06 j 03:47	5°♎33'22		minimum elong	-63 May 17 j 19:46	23°♍15'05	0°31'27
	-69 Sep 28 j 22:35	15°♎		max. Earth dist.	-63 May 19 j 21:13	23°♍43'28	6.13494 AU
evening set	-69 Nov 08 j 15:50	23°♎43'39		morning rise	-63 May 31 j 14:57	26°♍24'33	
max. Earth dist.	-69 Nov 19 j 12:30	26°♎12'25	6.23947 AU		-63 Jun 16 j 15:16	0°♎	
conjunction	-69 Nov 21 j 07:02	26°♎36'47	0°27'52	retrograde	-63 Oct 05 j 11:58	15°♎16'24	
minimum elong	-69 Nov 21 j 07:04	26°♎36'48	0°27'52	min. Earth dist.	-63 Dec 03 j 00:14	10°♎21'52	4.20312 AU
morning rise	-69 Dec 03 j 21:41	29°♎29'58		opposition	-63 Dec 04 j 01:52	10°♎13'11	0°-17'-1
	-69 Dec 06 j 02:30	0°♏		direct	-62 Feb 01 j 13:22	5°♎12'01	
retrograde	-68 Apr 07 j 10:52	17°♏55'21		asc. node	-62 Mar 26 j 15:20	9°♎22'07	
opposition	-68 Jun 07 j 09:01	13°♏01'31	0°11'54	evening set	-62 Jun 08 j 12:14	23°♎40'07	
min. Earth dist.	-68 Jun 08 j 10:46	12°♏53'16	4.17061 AU				
direct	-68 Aug 07 j 07:46	8°♏05'39		conjunction	-62 Jun 22 j 04:41	26°♎42'43	0°08'56
desc. node	-68 Aug 23 j 06:25	8°♏29'48		minimum elong	-62 Jun 22 j 04:39	26°♎42'43	0°08'56
evening set	-68 Dec 10 j 08:06	26°♏49'29		behind sun begin	-62 Jun 21 j 21:35	26°♎38'48	
max. Earth dist.	-68 Dec 22 j 00:57	29°♏34'42	6.10422 AU	behind sun end	-62 Jun 22 j 11:43	26°♎46'38	
				max. Earth dist.	-62 Jun 23 j 07:48	26°♎57'50	6.27091 AU
conjunction	-68 Dec 23 j 01:56	29°♏49'26	0°-12'-51	morning rise	-62 Jul 05 j 20:02	29°♎44'29	
minimum elong	-68 Dec 23 j 01:55	29°♏49'25	0°12'52		-62 Jul 07 j 00:10	0°♏	
behind sun begin	-68 Dec 22 j 20:50	29°♏46'26		retrograde	-62 Nov 06 j 06:46	17°♏32'54	
behind sun end	-68 Dec 23 j 07:00	29°♏52'24		opposition	-61 Jan 05 j 01:37	12°♏33'19	0°40'48
	-68 Dec 23 j 19:51	0°♑		min. Earth dist.	-61 Jan 04 j 16:20	12°♏36'25	4.33118 AU
morning rise	-67 Jan 04 j 21:10	2°♑50'19		direct	-61 Mar 06 j 22:54	7°♏30'26	
retrograde	-67 May 14 j 00:30	22°♑22'01		evening set	-61 Jul 12 j 01:56	25°♏28'23	
opposition	-67 Jul 13 j 15:15	17°♑24'56	0°-49'-51				
min. Earth dist.	-67 Jul 13 j 21:57	17°♑22'45	4.04439 AU	conjunction	-61 Jul 25 j 11:50	28°♏23'36	0°44'55
direct	-67 Sep 11 j 03:02	12°♑31'04		minimum elong	-61 Jul 25 j 11:47	28°♏23'35	0°44'55
	-66 Jan 06 j 09:50	0°♒		max. Earth dist.	-61 Jul 25 j 12:49	28°♏24'08	6.38139 AU
evening set	-66 Jan 14 j 00:30	1°♒48'32			-61 Aug 01 j 20:32	0°♓	
				morning rise	-61 Aug 07 j 18:57	1°♓17'23	
conjunction	-66 Jan 27 j 00:03	4°♒55'32	0°-50'-38		-61 Oct 20 j 08:13	15°♓	
minimum elong	-66 Jan 27 j 00:00	4°♒55'30	0°50'39	retrograde	-61 Dec 06 j 19:09	18°♓22'21	
max. Earth dist.	-66 Jan 27 j 05:53	4°♒59'02	5.99877 AU		-60 Jan 23 j 19:42	15°♓	
morning rise	-66 Feb 09 j 02:03	8°♒04'03		opposition	-60 Feb 04 j 22:44	13°♓26'32	1°24'10
	-66 Mar 11 j 00:41	15°♒		min. Earth dist.	-60 Feb 05 j 06:33	13°♓23'59	4.41722 AU
retrograde	-66 Jun 20 j 23:41	28°♒28'02		direct	-60 Apr 06 j 22:34	8°♓23'20	
opposition	-66 Aug 20 j 02:23	23°♒27'03	-1°-35'-47		-60 Jun 16 j 18:42	15°♓	
min. Earth dist.	-66 Aug 19 j 12:14	23°♒31'46	3.97169 AU	evening set	-60 Aug 12 j 00:52	26°♓03'32	
direct	-66 Oct 17 j 09:40	18°♒33'33		max. Earth dist.	-60 Aug 24 j 00:42	28°♓39'14	6.43591 AU
	-65 Jan 15 j 03:14	0°♋					
evening set	-65 Feb 19 j 14:19	8°♋10'14		conjunction	-60 Aug 25 j 02:20	28°♓53'09	1°07'13
				minimum elong	-60 Aug 25 j 02:18	28°♓53'08	1°07'13
conjunction	-65 Mar 04 j 21:15	11°♋22'06	-1°-10'-7		-60 Aug 30 j 05:33	0°♌	
minimum elong	-65 Mar 04 j 21:14	11°♋22'05	1°10'08	morning rise	-60 Sep 07 j 00:53	1°♌41'17	
max. Earth dist.	-65 Mar 06 j 08:16	11°♋43'11	5.96489 AU	retrograde	-59 Jan 05 j 03:29	18°♌29'34	
morning rise	-65 Mar 18 j 07:34	14°♋35'41		opposition	-59 Mar 06 j 14:44	13°♌36'35	1°43'43
	-65 May 30 j 16:56	0°♍		min. Earth dist.	-59 Mar 07 j 15:27	13°♌28'38	4.43834 AU
retrograde	-65 Jul 28 j 16:05	5°♍10'37		direct	-59 May 08 j 07:40	8°♌34'10	

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Attention, astronomical year style is used: The year -59 in astronomical counting style is the year 60 BCE in historical counting style.

evening set	-59 Sep 11 j 23:12	26°♎11'41		max. Earth dist.	-53 Mar 11 j 21:04	17°♋07'17	5.96913 AU
max. Earth dist.	-59 Sep 22 j 23:02	28°♎35'36	6.42111 AU	morning rise	-53 Mar 23 j 17:04	19°♋57'29	
					-53 May 07 j 06:22	0°♍	
conjunction	-59 Sep 24 j 18:02	28°♎59'08	1°10'58	retrograde	-53 Aug 02 j 22:12	10°♍28'52	
minimum elong	-59 Sep 24 j 18:03	28°♎59'08	1°10'58	min. Earth dist.	-53 Sep 30 j 07:38	5°♍34'53	3.99306 AU
	-59 Sep 29 j 09:14	0°♎		opposition	-53 Oct 01 j 14:57	5°♍24'13	-1°-42'-12
morning rise	-59 Oct 07 j 10:13	1°♎45'24		direct	-53 Nov 28 j 13:01	0°♍28'28	
retrograde	-58 Feb 05 j 03:01	18°♎45'02		evening set	-52 Apr 02 j 08:18	19°♍55'19	
opposition	-58 Apr 06 j 22:41	13°♎53'15	1°35'24				
min. Earth dist.	-58 Apr 08 j 08:12	13°♎42'34	4.38932 AU	conjunction	-52 Apr 15 j 23:44	23°♍07'49	0°-59'-3
direct	-58 Jun 08 j 14:18	8°♎52'36		minimum elong	-52 Apr 15 j 23:46	23°♍07'50	0°59'04
evening set	-58 Oct 12 j 16:46	26°♎42'41		max. Earth dist.	-52 Apr 18 j 05:56	23°♍39'43	6.03407 AU
max. Earth dist.	-58 Oct 23 j 08:00	29°♎04'55	6.34111 AU	morning rise	-52 Apr 29 j 17:24	26°♍21'18	
					-52 May 15 j 13:25	0°♎	
conjunction	-58 Oct 25 j 08:08	29°♎31'50	0°55'06		-52 Aug 10 j 22:38	15°♎	
minimum elong	-58 Oct 25 j 08:10	29°♎31'51	0°55'06	retrograde	-52 Sep 06 j 14:52	16°♎09'04	
	-58 Oct 27 j 10:27	0°♏			-52 Oct 03 j 00:35	15°♏	
morning rise	-58 Nov 06 j 21:48	2°♏20'23		min. Earth dist.	-52 Nov 03 j 18:43	11°♏15'19	4.09105 AU
	-57 Jan 09 j 21:22	15°♏		opposition	-52 Nov 05 j 03:52	11°♏04'00	-1°-5'-49
retrograde	-57 Mar 09 j 18:09	19°♏57'45		direct	-51 Jan 02 j 15:20	6°♏05'12	
opposition	-57 May 09 j 17:01	15°♏05'35	0°59'39		-51 Mar 23 j 05:25	15°♏	
	-57 May 10 j 10:35	15°♏		evening set	-51 May 09 j 03:05	25°♏02'42	
min. Earth dist.	-57 May 11 j 03:30	14°♏54'37	4.28255 AU				
direct	-57 Jul 10 j 16:54	10°♏07'27		conjunction	-51 May 22 j 21:33	28°♏11'07	0°-25'-59
	-57 Sep 07 j 07:16	15°♏		minimum elong	-51 May 22 j 21:35	28°♏11'08	0°26'00
evening set	-57 Nov 13 j 03:31	28°♏23'32		max. Earth dist.	-51 May 24 j 19:10	28°♏37'09	6.15632 AU
	-57 Nov 20 j 03:50	0°♐			-51 May 30 j 20:32	0°♐	
max. Earth dist.	-57 Nov 24 j 00:47	0°♐53'30	6.21638 AU	morning rise	-51 Jun 05 j 16:42	1°♐19'32	
				retrograde	-51 Oct 10 j 00:47	20°♐01'05	
conjunction	-57 Nov 25 j 18:51	1°♐17'43	0°22'32	opposition	-51 Dec 08 j 15:35	14°♐58'17	0°-8'-34
minimum elong	-57 Nov 25 j 18:53	1°♐17'44	0°22'31	min. Earth dist.	-51 Dec 07 j 16:31	15°♐06'05	4.22414 AU
morning rise	-57 Dec 08 j 10:11	4°♐12'08		asc. node	-50 Feb 03 j 11:42	9°♐57'34	
retrograde	-56 Apr 12 j 12:11	22°♐48'11		direct	-50 Feb 06 j 08:50	9°♐56'45	
opposition	-56 Jun 12 j 09:20	17°♐53'59	0°03'11	evening set	-50 Jun 13 j 07:04	28°♐19'26	
min. Earth dist.	-56 Jun 13 j 08:12	17°♐46'37	4.14762 AU		-50 Jun 20 j 21:01	0°♑	
desc. node	-56 Jul 02 j 19:05	15°♐23'56					
direct	-56 Aug 12 j 02:39	12°♐58'27		conjunction	-50 Jun 26 j 22:57	1°♑20'56	0°14'29
	-56 Dec 07 j 09:06	0°♑		minimum elong	-50 Jun 26 j 22:56	1°♑20'56	0°14'29
evening set	-56 Dec 15 j 03:15	1°♑48'43		behind sun begin	-50 Jun 26 j 19:33	1°♑19'04	
				behind sun end	-50 Jun 27 j 02:18	1°♑22'47	
conjunction	-56 Dec 27 j 21:56	4°♑49'53	0°-18'-44	max. Earth dist.	-50 Jun 27 j 23:34	1°♑34'35	6.29009 AU
minimum elong	-56 Dec 27 j 21:55	4°♑49'52	0°18'44	morning rise	-50 Jul 10 j 13:10	4°♑21'26	
max. Earth dist.	-56 Dec 27 j 02:28	4°♑38'21	6.08359 AU	retrograde	-50 Nov 10 j 13:39	22°♑02'00	
morning rise	-55 Jan 09 j 17:55	7°♑52'02		opposition	-49 Jan 09 j 09:56	17°♑03'00	0°48'00
retrograde	-55 May 19 j 10:21	27°♑33'34		min. Earth dist.	-49 Jan 09 j 02:43	17°♑05'24	4.34718 AU
opposition	-55 Jul 18 j 22:15	22°♑36'00	0°-57'-55	direct	-49 Mar 11 j 11:02	12°♑00'01	
min. Earth dist.	-55 Jul 19 j 02:12	22°♑34'42	4.02828 AU	evening set	-49 Jul 16 j 14:47	29°♑54'26	
direct	-55 Sep 16 j 05:11	17°♑42'22			-49 Jul 17 j 01:06	0°♒	
	-55 Dec 19 j 14:40	0°♒					
evening set	-54 Jan 19 j 03:28	7°♒04'11		conjunction	-49 Jul 29 j 23:22	2°♒48'41	0°49'00
				minimum elong	-49 Jul 29 j 23:19	2°♒48'39	0°48'59
conjunction	-54 Feb 01 j 03:51	10°♒12'03	0°-54'-50	max. Earth dist.	-49 Jul 29 j 18:44	2°♒46'09	6.39295 AU
minimum elong	-54 Feb 01 j 03:48	10°♒12'02	0°54'51	morning rise	-49 Aug 12 j 05:24	5°♒41'31	
max. Earth dist.	-54 Feb 01 j 13:37	10°♒17'56	5.98850 AU		-49 Sep 27 j 04:08	15°♒	
morning rise	-54 Feb 14 j 07:09	13°♒21'33		retrograde	-49 Dec 11 j 01:16	22°♒42'31	
	-54 Feb 21 j 04:32	15°♒		opposition	-48 Feb 09 j 05:02	17°♒47'11	1°28'27
	-54 May 06 j 23:52	0°♓		min. Earth dist.	-48 Feb 09 j 16:29	17°♒43'27	4.42387 AU
retrograde	-54 Jun 26 j 08:41	3°♓49'55			-48 Mar 02 j 21:56	15°♓	
	-54 Aug 16 j 10:56	30°♓		direct	-48 Apr 11 j 09:07	12°♓43'57	
opposition	-54 Aug 25 j 11:11	28°♓48'19	-1°-39'-35		-48 May 21 j 03:30	15°♓	
min. Earth dist.	-54 Aug 24 j 16:50	28°♓54'28	3.96870 AU		-48 Aug 14 j 14:19	0°♔	
direct	-54 Oct 22 j 14:59	23°♓54'41		evening set	-48 Aug 16 j 09:17	0°♔23'06	
	-54 Dec 24 j 08:13	0°♔		max. Earth dist.	-48 Aug 28 j 05:55	2°♔57'05	6.43705 AU
evening set	-53 Feb 24 j 21:43	13°♔31'31					
				conjunction	-48 Aug 29 j 09:53	3°♔12'16	1°08'54
conjunction	-53 Mar 10 j 05:48	16°♔43'41	-1°-10'-41	minimum elong	-48 Aug 29 j 09:52	3°♔12'15	1°08'54
minimum elong	-53 Mar 10 j 05:48	16°♔43'40	1°10'43	morning rise	-48 Sep 11 j 07:17	5°♔59'57	

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Attention, astronomical year style is used: The year -47 in astronomical counting style is the year 48 BCE in historical counting style.

retrograde	-47 Jan 09 j 08:42	22°♃48'30		direct	-42 Oct 27 j 20:08	29°♁07'56	
opposition	-47 Mar 10 j 22:13	17°♃55'46	1°44'15		-42 Nov 19 j 08:58	0°♃	
min. Earth dist.	-47 Mar 11 j 23:54	17°♃47'32	4.43419 AU	evening set	-41 Mar 02 j 02:07	18°♃43'31	
direct	-47 May 12 j 14:49	12°♃53'33					
	-47 Sep 13 j 18:25	0°♁		conjunction	-41 Mar 15 j 11:16	21°♃55'48	-1°-10'-40
evening set	-47 Sep 16 j 06:14	0°♁32'28		minimum elong	-41 Mar 15 j 11:16	21°♃55'48	1°10'41
max. Earth dist.	-47 Sep 27 j 03:50	2°♁55'33	6.41191 AU	max. Earth dist.	-41 Mar 17 j 06:11	22°♃21'32	5.97672 AU
				morning rise	-41 Mar 28 j 23:30	25°♃09'41	
conjunction	-47 Sep 29 j 00:20	3°♁19'58	1°09'53		-41 Apr 18 j 17:11	0°♃	
minimum elong	-47 Sep 29 j 00:21	3°♁19'59	1°09'52	retrograde	-41 Aug 07 j 23:00	15°♃36'04	
morning rise	-47 Oct 11 j 15:59	6°♁06'24		min. Earth dist.	-41 Oct 05 j 06:49	10°♃42'17	4.00583 AU
retrograde	-46 Feb 09 j 15:10	23°♁10'22		opposition	-41 Oct 06 j 15:15	10°♃31'15	-1°-39'-7
opposition	-46 Apr 11 j 10:41	18°♁18'41	1°31'56	direct	-41 Dec 03 j 13:29	5°♃35'10	
min. Earth dist.	-46 Apr 12 j 21:44	18°♁07'32	4.37559 AU	evening set	-40 Apr 07 j 11:08	24°♃57'50	
direct	-46 Jun 13 j 01:55	13°♁18'23					
	-46 Oct 11 j 15:35	0°♃		conjunction	-40 Apr 21 j 03:05	28°♃09'51	0°-55'-27
evening set	-46 Oct 17 j 01:32	1°♃12'01		minimum elong	-40 Apr 21 j 03:08	28°♃09'53	0°55'28
max. Earth dist.	-46 Oct 27 j 15:48	3°♃34'18	6.32400 AU	max. Earth dist.	-40 Apr 23 j 07:31	28°♃40'35	6.05058 AU
					-40 Apr 28 j 23:15	0°♃	
conjunction	-46 Oct 29 j 16:44	4°♃01'47	0°51'23	morning rise	-40 May 04 j 21:23	1°♃22'49	
minimum elong	-46 Oct 29 j 16:46	4°♃01'48	0°51'23		-40 Jul 09 j 04:10	15°♃	
morning rise	-46 Nov 11 j 06:31	6°♃51'03		retrograde	-40 Sep 11 j 07:07	21°♃01'36	
	-46 Dec 19 j 13:34	15°♃		opposition	-40 Nov 09 j 20:52	15°♃56'44	0°-58'-39
retrograde	-45 Mar 14 j 11:58	24°♃36'07		min. Earth dist.	-40 Nov 08 j 12:56	16°♃07'37	4.10938 AU
opposition	-45 May 14 j 11:21	19°♃43'46	0°52'40		-40 Nov 16 j 20:21	15°♃	
min. Earth dist.	-45 May 15 j 19:55	19°♃33'23	4.26327 AU	direct	-39 Jan 07 j 12:22	10°♃57'30	
	-45 Jul 03 j 00:35	15°♃			-39 Feb 27 j 20:13	15°♃	
direct	-45 Jul 15 j 06:37	14°♃46'01		evening set	-39 May 14 j 00:58	29°♃50'02	
	-45 Jul 27 j 13:09	15°♃			-39 May 14 j 18:36	0°♃	
	-45 Nov 03 j 22:26	0°♃					
evening set	-45 Nov 17 j 16:54	3°♃07'03		conjunction	-39 May 27 j 19:34	2°♃57'39	0°-20'-33
max. Earth dist.	-45 Nov 28 j 18:30	5°♃40'08	6.19688 AU	minimum elong	-39 May 27 j 19:36	2°♃57'40	0°20'34
				max. Earth dist.	-39 May 29 j 15:28	3°♃22'36	6.17516 AU
conjunction	-45 Nov 30 j 08:38	6°♃02'12	0°16'57	morning rise	-39 Jun 10 j 14:12	6°♃05'03	
minimum elong	-45 Nov 30 j 08:39	6°♃02'13	0°16'57	retrograde	-39 Oct 14 j 11:42	24°♃37'42	
morning rise	-45 Dec 13 j 00:20	8°♃57'38		min. Earth dist.	-39 Dec 12 j 05:16	19°♃42'30	4.24170 AU
retrograde	-44 Apr 17 j 15:35	27°♃42'56		opposition	-39 Dec 13 j 02:05	19°♃35'29	0°00'-21
desc. node	-44 May 12 j 05:16	26°♃46'50		asc. node	-39 Dec 15 j 12:12	19°♃15'54	
opposition	-44 Jun 17 j 10:50	22°♃48'23	0°-5'-39	direct	-38 Feb 10 j 23:38	14°♃33'44	
min. Earth dist.	-44 Jun 18 j 07:49	22°♃41'37	4.12948 AU		-38 Jun 04 j 18:11	0°♃	
direct	-44 Aug 16 j 23:53	17°♃53'16		evening set	-38 Jun 17 j 23:27	2°♃52'32	
	-44 Nov 20 j 02:26	0°♃					
evening set	-44 Dec 19 j 22:56	6°♃48'03		conjunction	-38 Jul 01 j 14:25	5°♃53'04	0°19'48
				minimum elong	-38 Jul 01 j 14:24	5°♃53'03	0°19'48
conjunction	-43 Jan 01 j 18:09	9°♃50'08	0°-24'-29	max. Earth dist.	-38 Jul 02 j 09:41	6°♃03'42	6.30503 AU
minimum elong	-43 Jan 01 j 18:07	9°♃50'07	0°24'30	morning rise	-38 Jul 15 j 03:51	8°♃52'35	
max. Earth dist.	-43 Jan 01 j 01:49	9°♃40'26	6.06853 AU	retrograde	-38 Nov 14 j 19:54	26°♃27'05	
morning rise	-43 Jan 14 j 15:09	12°♃53'21		opposition	-37 Jan 13 j 16:42	21°♃28'38	0°54'45
	-43 Apr 12 j 11:08	0°♃		min. Earth dist.	-37 Jan 13 j 12:26	21°♃30'03	4.35867 AU
retrograde	-43 May 24 j 15:51	2°♃42'25		direct	-37 Mar 15 j 21:52	16°♃25'31	
	-43 Jul 06 j 06:07	30°♃			-37 Jun 30 j 19:14	0°♃	
opposition	-43 Jul 24 j 04:07	27°♃44'16	-1°-5'-29	evening set	-37 Jul 21 j 02:00	4°♃17'59	
min. Earth dist.	-43 Jul 24 j 03:38	27°♃44'25	4.01801 AU				
direct	-43 Sep 21 j 05:55	22°♃50'48		conjunction	-37 Aug 03 j 09:41	7°♃11'33	0°52'43
	-43 Nov 29 j 09:52	0°♃		minimum elong	-37 Aug 03 j 09:38	7°♃11'31	0°52'43
evening set	-42 Jan 24 j 05:03	12°♃14'55		max. Earth dist.	-37 Aug 03 j 02:42	7°♃07'45	6.40024 AU
	-42 Feb 04 j 15:36	15°♃		morning rise	-37 Aug 16 j 14:23	10°♃03'35	
					-37 Sep 08 j 23:52	15°♃	
conjunction	-42 Feb 06 j 06:24	15°♃23'24	0°-58'-32	retrograde	-37 Dec 15 j 05:51	27°♃02'12	
minimum elong	-42 Feb 06 j 06:22	15°♃23'23	0°58'32	opposition	-36 Feb 13 j 11:07	22°♃07'21	1°32'11
max. Earth dist.	-42 Feb 06 j 21:32	15°♃32'31	5.98389 AU	min. Earth dist.	-36 Feb 14 j 00:07	22°♃03'08	4.42681 AU
morning rise	-42 Feb 19 j 10:36	18°♃33'31		direct	-36 Apr 15 j 16:45	17°♃04'16	
	-42 Apr 11 j 19:25	0°♃			-36 Jul 29 j 07:21	0°♃	
retrograde	-42 Jul 01 j 16:00	9°♃03'53		evening set	-36 Aug 20 j 17:35	4°♃43'22	
opposition	-42 Aug 30 j 16:43	4°♃01'46	-1°-42'-26	max. Earth dist.	-36 Sep 01 j 09:13	7°♃14'54	6.43533 AU
min. Earth dist.	-42 Aug 29 j 20:39	4°♃08'30	3.97036 AU				
	-42 Oct 05 j 04:46	30°♃		conjunction	-36 Sep 02 j 17:00	7°♃32'11	1°10'10

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Attention, astronomical year style is used: The year -36 in astronomical counting style is the year 37 BCE in historical counting style.

minimum elong	-36 Sep 02 j 16:59	7°♎32'10	1°10'09	retrograde	-30 Jul 06 j 21:30	14°♋14'43	
morning rise	-36 Sep 15 j 13:36	10°♎19'34		opposition	-30 Sep 04 j 20:36	9°♋12'07	-1°-44'-31
retrograde	-35 Jan 13 j 17:23	27°♎09'21		min. Earth dist.	-30 Sep 03 j 22:05	9°♋19'42	3.97046 AU
opposition	-35 Mar 15 j 06:37	22°♎16'53	1°44'10	direct	-30 Nov 01 j 21:12	4°♋18'04	
min. Earth dist.	-35 Mar 16 j 10:34	22°♎07'55	4.42817 AU	evening set	-29 Mar 07 j 05:53	23°♋53'16	
direct	-35 May 17 j 00:37	17°♎14'51					
	-35 Aug 28 j 10:05	0°♎		conjunction	-29 Mar 20 j 15:58	27°♋05'46	-1°-10'-8
evening set	-35 Sep 20 j 13:35	4°♎55'28		minimum elong	-29 Mar 20 j 15:59	27°♋05'46	1°10'08
max. Earth dist.	-35 Oct 01 j 10:10	7°♎18'21	6.40201 AU	max. Earth dist.	-29 Mar 22 j 11:47	27°♋31'59	5.98189 AU
					-29 Apr 01 j 19:54	0°♎	
conjunction	-35 Oct 03 j 07:14	7°♎43'09	1°08'22	morning rise	-29 Apr 03 j 05:20	20°♎19'50	
minimum elong	-35 Oct 03 j 07:15	7°♎43'09	1°08'22	retrograde	-29 Aug 12 j 22:36	0°♎42'15	
morning rise	-35 Oct 15 j 22:19	10°♎29'46		min. Earth dist.	-29 Oct 10 j 05:57	15°♎48'27	4.01544 AU
retrograde	-34 Feb 14 j 02:07	27°♎38'09		opposition	-29 Oct 11 j 14:56	15°♎37'12	-1°-35'-23
opposition	-34 Apr 15 j 23:19	22°♎46'25	1°27'53	direct	-29 Dec 08 j 14:32	10°♎40'38	
min. Earth dist.	-34 Apr 17 j 09:25	22°♎35'34	4.36250 AU	evening set	-28 Apr 12 j 14:20	0°♎00'27	
direct	-34 Jun 17 j 11:25	17°♎46'27			-28 Apr 12 j 13:33	0°♎	
	-34 Sep 25 j 01:11	0°♎					
evening set	-34 Oct 21 j 10:30	5°♎43'06		conjunction	-28 Apr 26 j 07:10	3°♎12'13	0°-51'-28
max. Earth dist.	-34 Nov 01 j 02:08	8°♎06'40	6.30873 AU	minimum elong	-28 Apr 26 j 07:13	3°♎12'15	0°51'29
				max. Earth dist.	-28 Apr 28 j 12:29	3°♎43'22	6.06389 AU
conjunction	-34 Nov 03 j 01:31	8°♎33'24	0°47'20	morning rise	-28 May 10 j 01:45	6°♎24'43	
minimum elong	-34 Nov 03 j 01:33	8°♎33'25	0°47'19		-28 Jun 17 j 22:36	15°♎	
morning rise	-34 Nov 15 j 15:20	11°♎23'19		retrograde	-28 Sep 16 j 02:26	25°♎55'35	
	-34 Dec 01 j 23:18	15°♎		min. Earth dist.	-28 Nov 13 j 08:10	21°♎01'19	4.12474 AU
retrograde	-33 Mar 19 j 07:53	29°♎15'22		opposition	-28 Nov 14 j 14:33	20°♎50'59	0°-51'-3
opposition	-33 May 19 j 06:05	24°♎22'47	0°45'18	direct	-27 Jan 12 j 09:51	15°♎51'21	
min. Earth dist.	-33 May 20 j 14:20	24°♎12'29	4.24648 AU		-27 Apr 27 j 22:16	0°♎	
direct	-33 Jul 19 j 22:45	19°♎25'22		evening set	-27 May 19 j 00:29	4°♎40'00	
	-33 Oct 17 j 13:29	0°♎					
evening set	-33 Nov 22 j 05:40	7°♎50'11		conjunction	-27 Jun 01 j 18:53	7°♎46'51	0°-14'-53
max. Earth dist.	-33 Dec 03 j 09:14	10°♎24'59	6.17991 AU	minimum elong	-27 Jun 01 j 18:54	7°♎46'52	0°14'55
				behind sun begin	-27 Jun 01 j 16:09	7°♎45'19	
conjunction	-33 Dec 04 j 21:40	10°♎46'08	0°11'18	behind sun end	-27 Jun 01 j 21:40	7°♎48'25	
minimum elong	-33 Dec 04 j 21:41	10°♎46'08	0°11'18	max. Earth dist.	-27 Jun 03 j 11:29	8°♎09'51	6.19127 AU
behind sun begin	-33 Dec 04 j 15:44	10°♎42'43		morning rise	-27 Jun 15 j 13:18	10°♎53'25	
behind sun end	-33 Dec 05 j 03:37	10°♎49'34		retrograde	-27 Oct 18 j 22:52	29°♎18'03	
morning rise	-33 Dec 17 j 13:58	13°♎42'30		asc. node	-27 Oct 25 j 06:31	29°♎14'04	
	-32 Mar 12 j 01:19	0°♎		opposition	-27 Dec 17 j 14:24	24°♎16'17	0°07'59
desc. node	-32 Mar 22 j 02:49	1°♎04'38		min. Earth dist.	-27 Dec 16 j 19:12	24°♎22'46	4.25718 AU
retrograde	-32 Apr 22 j 15:14	2°♎36'05		direct	-26 Feb 15 j 15:41	19°♎14'17	
	-32 Jun 03 j 17:53	30°♎♊			-26 May 18 j 03:27	0°♎	
opposition	-32 Jun 22 j 11:05	27°♎41'02	0°-14'-26	evening set	-26 Jun 22 j 17:33	7°♎29'43	
min. Earth dist.	-32 Jun 23 j 04:33	27°♎35'23	4.11358 AU				
direct	-32 Aug 21 j 18:19	22°♎46'11		conjunction	-26 Jul 06 j 07:47	10°♎29'21	0°25'07
	-32 Oct 31 j 11:53	0°♎		minimum elong	-26 Jul 06 j 07:45	10°♎29'20	0°25'07
evening set	-32 Dec 24 j 17:33	11°♎44'51		max. Earth dist.	-26 Jul 07 j 00:22	10°♎38'30	6.31895 AU
				morning rise	-26 Jul 19 j 20:02	13°♎27'49	
conjunction	-31 Jan 06 j 13:27	14°♎47'47	0°-30'-1		-26 Oct 25 j 19:50	0°♎	
minimum elong	-31 Jan 06 j 13:25	14°♎47'46	0°30'02	retrograde	-26 Nov 19 j 04:52	0°♎56'34	
max. Earth dist.	-31 Jan 06 j 01:42	14°♎40'47	6.05503 AU		-26 Dec 13 j 09:16	30°♎♋	
morning rise	-31 Jan 19 j 11:12	17°♎51'55		opposition	-25 Jan 18 j 01:50	25°♎58'44	1°01'21
	-31 Mar 16 j 06:04	0°♎		min. Earth dist.	-25 Jan 17 j 23:48	25°♎59'24	4.37024 AU
retrograde	-31 May 29 j 21:56	7°♎47'56		direct	-25 Mar 20 j 10:47	20°♎55'40	
opposition	-31 Jul 29 j 08:12	2°♎49'11	-1°-12'-30		-25 Jun 12 j 15:54	0°♎	
min. Earth dist.	-31 Jul 29 j 05:43	2°♎50'00	4.00820 AU	evening set	-25 Jul 25 j 15:16	8°♎45'49	
	-31 Aug 21 j 04:54	30°♎♋					
direct	-31 Sep 26 j 07:23	27°♎55'44		conjunction	-25 Aug 07 j 21:40	11°♎38'33	0°56'15
	-31 Oct 31 j 21:43	0°♎		minimum elong	-25 Aug 07 j 21:38	11°♎38'31	0°56'15
	-30 Jan 19 j 06:13	15°♎		max. Earth dist.	-25 Aug 07 j 10:41	11°♎32'34	6.40871 AU
evening set	-30 Jan 29 j 05:24	17°♎22'16		morning rise	-25 Aug 21 j 01:17	14°♎29'47	
					-25 Aug 23 j 09:18	15°♎	
conjunction	-30 Feb 11 j 07:46	20°♎31'25	-1°-1'-46		-25 Nov 19 j 05:23	0°♎	
minimum elong	-30 Feb 11 j 07:43	20°♎31'23	1°01'47	retrograde	-25 Dec 19 j 13:12	1°♎25'32	
max. Earth dist.	-30 Feb 12 j 03:00	20°♎43'01	5.97856 AU		-24 Jan 18 j 20:01	30°♎♌	
morning rise	-30 Feb 24 j 13:04	23°♎42'14		opposition	-24 Feb 17 j 19:14	26°♎31'06	1°35'30
	-30 Mar 23 j 13:52	0°♎		min. Earth dist.	-24 Feb 18 j 10:13	26°♎26'14	4.43219 AU

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Attention, astronomical year style is used: The year -24 in astronomical counting style is the year 25 BCE in historical counting style.

direct	-24 Apr 20 j 03:28	21°♃28'08		min. Earth dist.	-19 Aug 03 j 02:51	7°♁46'06	3.99829 AU
	-24 Jul 11 j 02:38	0°♃		direct	-19 Oct 01 j 02:29	2°♁51'02	
evening set	-24 Aug 25 j 02:46	9°♃06'05			-18 Jan 02 j 09:54	15°♁	
max. Earth dist.	-24 Sep 05 j 17:12	11°♃36'56	6.43740 AU	evening set	-18 Feb 03 j 02:23	22°♁20'36	
conjunction	-24 Sep 07 j 01:19	11°♃54'25	1°11'06	conjunction	-18 Feb 16 j 05:39	25°♁30'30	-1°-4'-25
minimum elong	-24 Sep 07 j 01:19	11°♃54'24	1°11'05	minimum elong	-18 Feb 16 j 05:37	25°♁30'28	1°04'27
morning rise	-24 Sep 19 j 20:44	14°♃41'19		max. Earth dist.	-18 Feb 17 j 02:51	25°♁43'17	5.97189 AU
	-24 Dec 17 j 12:42	0°♃		morning rise	-18 Mar 01 j 12:08	28°♁42'07	
retrograde	-23 Jan 18 j 00:10	1°♃31'04			-18 Mar 06 j 22:45	0°♃	
	-23 Feb 18 j 14:54	30°♃		retrograde	-18 Jul 11 j 22:18	19°♃17'32	
opposition	-23 Mar 19 j 15:46	26°♃38'50	1°43'33	opposition	-18 Sep 09 j 20:36	14°♃14'31	-1°-45'-46
min. Earth dist.	-23 Mar 20 j 19:56	26°♃29'49	4.42696 AU	min. Earth dist.	-18 Sep 08 j 20:24	14°♃22'41	3.96789 AU
direct	-23 May 21 j 09:23	21°♃37'09		direct	-18 Nov 06 j 19:30	9°♃20'12	
	-23 Aug 10 j 08:15	0°♃		evening set	-17 Mar 12 j 07:04	28°♃56'34	
evening set	-23 Sep 24 j 20:34	9°♃17'35			-17 Mar 16 j 17:36	0°♃	
max. Earth dist.	-23 Oct 05 j 14:59	11°♃39'34	6.39758 AU	conjunction	-17 Mar 25 j 18:29	2°♃09'33	-1°-9'-4
conjunction	-23 Oct 07 j 13:23	12°♃05'09	1°06'32	minimum elong	-17 Mar 25 j 18:30	2°♃09'34	1°09'05
minimum elong	-23 Oct 07 j 13:25	12°♃05'10	1°06'32	max. Earth dist.	-17 Mar 27 j 17:30	2°♃37'39	5.98385 AU
morning rise	-23 Oct 20 j 04:06	14°♃51'47		morning rise	-17 Apr 08 j 08:45	5°♃23'59	
	-22 Jan 12 j 15:59	0°♃		retrograde	-17 Aug 17 j 22:37	25°♃43'40	
retrograde	-22 Feb 18 j 14:16	2°♃03'00		min. Earth dist.	-17 Oct 15 j 03:31	20°♃49'45	4.02172 AU
	-22 Mar 27 j 19:34	30°♃		opposition	-17 Oct 16 j 12:16	20°♃38'35	-1°-31'-2
opposition	-22 Apr 20 j 11:26	27°♃11'17	1°23'23	direct	-17 Dec 13 j 13:14	15°♃41'38	
min. Earth dist.	-22 Apr 21 j 22:29	27°♃00'08	4.35488 AU		-16 Mar 26 j 16:48	0°♃	
direct	-22 Jun 21 j 23:12	22°♃11'37		evening set	-16 Apr 17 j 16:15	5°♃00'03	
	-22 Sep 06 j 17:23	0°♃		conjunction	-16 May 01 j 09:40	8°♃11'40	0°-47'-10
evening set	-22 Oct 25 j 17:28	10°♃09'25		minimum elong	-16 May 01 j 09:43	8°♃11'42	0°47'10
max. Earth dist.	-22 Nov 05 j 09:51	12°♃33'46	6.29858 AU	max. Earth dist.	-16 May 03 j 14:06	8°♃42'12	6.07392 AU
conjunction	-22 Nov 07 j 08:25	13°♃00'05	0°43'06	morning rise	-16 May 15 j 04:53	11°♃23'56	
minimum elong	-22 Nov 07 j 08:27	13°♃00'06	0°43'06		-16 May 31 j 00:22	15°♃	
	-22 Nov 16 j 04:39	15°♃			-16 Aug 29 j 15:10	0°♃	
morning rise	-22 Nov 19 j 22:12	15°♃50'26		retrograde	-16 Sep 20 j 18:31	0°♃48'05	
	-21 Jan 31 j 22:55	0°♃			-16 Oct 12 j 17:58	30°♃	
retrograde	-21 Mar 23 j 22:06	3°♃47'56		min. Earth dist.	-16 Nov 18 j 00:42	25°♃54'03	4.13746 AU
	-21 May 15 j 08:53	30°♃		opposition	-16 Nov 19 j 07:07	25°♃43'41	0°-43'-14
opposition	-21 May 23 j 21:57	28°♃55'06	0°37'51	direct	-15 Jan 17 j 04:46	20°♃43'39	
min. Earth dist.	-21 May 25 j 04:16	28°♃45'26	4.23430 AU		-15 Apr 09 j 08:10	0°♃	
direct	-21 Jul 24 j 10:05	23°♃58'04		evening set	-15 May 23 j 23:19	9°♃29'16	
	-21 Sep 27 j 17:25	0°♃		conjunction	-15 Jun 06 j 17:34	12°♃35'24	0°-9'-12
evening set	-21 Nov 26 j 15:34	12°♃25'27		minimum elong	-15 Jun 06 j 17:35	12°♃35'25	0°09'12
max. Earth dist.	-21 Dec 07 j 21:39	15°♃02'11	6.16675 AU	behind sun begin	-15 Jun 06 j 10:35	12°♃31'29	
conjunction	-21 Dec 09 j 07:47	15°♃22'04	0°05'47	behind sun end	-15 Jun 07 j 00:35	12°♃39'20	
minimum elong	-21 Dec 09 j 07:47	15°♃22'04	0°05'47	max. Earth dist.	-15 Jun 08 j 07:59	12°♃57'06	6.20585 AU
behind sun begin	-21 Dec 09 j 00:08	15°♃17'38		morning rise	-15 Jun 20 j 11:27	15°♃41'05	
behind sun end	-21 Dec 09 j 15:26	15°♃26'30			-15 Sep 02 j 02:49	0°♃	
morning rise	-21 Dec 22 j 00:33	18°♃19'12		asc. node	-15 Sep 04 j 04:04	0°♃17'22	
desc. node	-20 Feb 02 j 01:18	27°♃31'52		retrograde	-15 Oct 23 j 11:28	3°♃58'07	
	-20 Feb 14 j 23:21	0°♃			-15 Dec 14 j 04:48	30°♃	
retrograde	-20 Apr 27 j 13:17	7°♃20'03		min. Earth dist.	-15 Dec 21 j 09:28	29°♃02'29	4.27210 AU
opposition	-20 Jun 27 j 07:38	2°♃24'36	0°-22'-49	opposition	-15 Dec 22 j 02:22	28°♃56'48	0°16'13
min. Earth dist.	-20 Jun 28 j 00:06	2°♃19'16	4.10018 AU	direct	-14 Feb 20 j 08:28	23°♃54'32	
	-20 Jul 16 j 19:03	30°♃			-14 Apr 27 j 11:21	0°♃	
direct	-20 Aug 26 j 11:58	27°♃29'58		evening set	-14 Jun 27 j 11:11	12°♃06'24	
	-20 Oct 05 j 10:19	0°♃		conjunction	-14 Jul 11 j 00:30	15°♃05'03	0°30'15
evening set	-20 Dec 29 j 08:21	16°♃32'03		minimum elong	-14 Jul 11 j 00:28	15°♃05'02	0°30'14
conjunction	-19 Jan 11 j 04:59	19°♃35'50	0°-35'-9	max. Earth dist.	-14 Jul 11 j 14:08	15°♃12'33	6.33292 AU
minimum elong	-19 Jan 11 j 04:57	19°♃35'49	0°35'09	morning rise	-14 Jul 24 j 11:41	18°♃02'28	
max. Earth dist.	-19 Jan 10 j 20:09	19°♃30'34	6.04267 AU		-14 Sep 23 j 05:56	0°♃	
morning rise	-19 Jan 24 j 03:37	22°♃40'55		retrograde	-14 Nov 23 j 11:10	5°♃25'11	
	-19 Feb 25 j 02:23	0°♃		opposition	-13 Jan 22 j 10:15	0°♃27'42	1°07'32
retrograde	-19 Jun 03 j 23:04	12°♃43'36		min. Earth dist.	-13 Jan 22 j 09:41	0°♃27'54	4.38222 AU
opposition	-19 Aug 03 j 07:55	7°♃44'26	-1°-18'-45		-13 Jan 25 j 22:21	30°♃	

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Attention, astronomical year style is used: The year -13 in astronomical counting style is the year 14 BCE in historical counting style.

direct	-13 Mar 24 j 22:24	25°♄24'29		opposition	-8 Jul 02 j 09:21	7°♃20'35	0°-31'-29
	-13 May 21 j 13:34	0°♌		min. Earth dist.	-8 Jul 02 j 22:56	7°♃16'11	4.08178 AU
evening set	-13 Jul 30 j 03:15	13°♌11'49		direct	-8 Aug 31 j 08:00	2°♃26'15	
	-13 Aug 07 j 11:16	15°♌		evening set	-7 Jan 03 j 05:27	21°♃33'33	
conjunction	-13 Aug 12 j 08:31	16°♌03'42	0°59'25	conjunction	-7 Jan 16 j 02:47	24°♃38'22	0°-40'-18
minimum elong	-13 Aug 12 j 08:29	16°♌03'41	0°59'25	minimum elong	-7 Jan 16 j 02:45	24°♃38'20	0°40'18
max. Earth dist.	-13 Aug 11 j 19:06	15°♌56'24	6.41750 AU	max. Earth dist.	-7 Jan 15 j 21:12	24°♃35'02	6.02709 AU
morning rise	-13 Aug 25 j 10:48	18°♌54'04		morning rise	-7 Jan 29 j 02:31	27°♃44'36	
	-13 Oct 20 j 23:40	0°♍			-7 Feb 07 j 15:51	0°♁	
retrograde	-13 Dec 23 j 19:09	5°♍46'48			-7 Apr 26 j 12:39	15°♁	
opposition	-12 Feb 22 j 02:36	0°♍52'42	1°38'16	retrograde	-7 Jun 09 j 06:54	17°♁55'00	
min. Earth dist.	-12 Feb 22 j 19:44	0°♍47'09	4.43698 AU		-7 Jul 23 j 08:59	15°♁	
	-12 Feb 28 j 22:14	30°♌♌		opposition	-7 Aug 08 j 13:55	12°♁55'16	-1°-24'-47
direct	-12 Apr 24 j 13:27	25°♌49'49		min. Earth dist.	-7 Aug 08 j 05:48	12°♁57'58	3.98732 AU
	-12 Jun 18 j 17:06	0°♍		direct	-7 Oct 06 j 04:43	8°♁01'52	
evening set	-12 Aug 29 j 10:43	13°♍26'32			-7 Dec 12 j 23:02	15°♁	
max. Earth dist.	-12 Sep 09 j 20:14	15°♍54'53	6.43737 AU	evening set	-6 Feb 08 j 06:08	27°♁34'43	
					-6 Feb 18 j 07:30	0°♁	
conjunction	-12 Sep 11 j 08:11	16°♍14'26	1°11'38	conjunction	-6 Feb 21 j 10:43	0°♁45'24	-1°-6'-45
minimum elong	-12 Sep 11 j 08:10	16°♍14'26	1°11'38	minimum elong	-6 Feb 21 j 10:41	0°♁45'23	1°06'46
morning rise	-12 Sep 24 j 02:50	19°♍01'00		max. Earth dist.	-6 Feb 22 j 13:44	1°♁01'42	5.96672 AU
	-12 Nov 18 j 20:38	0°♎		morning rise	-6 Mar 06 j 18:16	3°♁57'46	
retrograde	-11 Jan 22 j 08:27	5°♎51'33		retrograde	-6 Jul 17 j 06:49	24°♁34'43	
opposition	-11 Mar 24 j 00:39	0°♎59'24	1°42'22	min. Earth dist.	-6 Sep 14 j 00:44	19°♁40'04	3.96954 AU
min. Earth dist.	-11 Mar 25 j 06:37	0°♎49'48	4.42207 AU	opposition	-6 Sep 15 j 02:35	19°♁31'20	-1°-46'-14
	-11 Mar 31 j 19:33	30°♌♍		direct	-6 Nov 12 j 00:12	14°♁36'50	
direct	-11 May 25 j 18:51	25°♍57'51			-5 Feb 27 j 14:17	0°♎	
	-11 Jul 18 j 21:19	0°♎		evening set	-5 Mar 17 j 14:03	4°♎12'24	
evening set	-11 Sep 29 j 03:11	13°♎39'22					
max. Earth dist.	-11 Oct 09 j 21:27	16°♎01'34	6.38808 AU	conjunction	-5 Mar 31 j 02:23	7°♎25'27	-1°-7'-26
				minimum elong	-5 Mar 31 j 02:25	7°♎25'29	1°07'28
conjunction	-11 Oct 11 j 19:40	16°♎27'07	1°04'18	max. Earth dist.	-5 Apr 02 j 03:14	7°♎54'34	5.99215 AU
minimum elong	-11 Oct 11 j 19:42	16°♎27'08	1°04'18	morning rise	-5 Apr 13 j 17:47	10°♎39'57	
morning rise	-11 Oct 24 j 09:50	19°♎13'57			-5 Jul 30 j 13:02	0°♏	
	-11 Dec 16 j 18:43	0°♏		retrograde	-5 Aug 22 j 23:01	0°♏53'38	
retrograde	-10 Feb 23 j 01:38	6°♏29'46			-5 Sep 15 j 04:33	30°♌♎	
opposition	-10 Apr 25 j 00:18	1°♏37'57	1°18'23	min. Earth dist.	-5 Oct 20 j 02:34	26°♎00'12	4.03596 AU
min. Earth dist.	-10 Apr 26 j 11:06	1°♏26'54	4.34123 AU	opposition	-5 Oct 21 j 12:57	25°♎48'28	-1°-25'-52
	-10 May 08 j 02:04	30°♌♏		direct	-5 Dec 18 j 15:12	20°♎51'08	
direct	-10 Jun 26 j 09:13	26°♏38'38			-4 Mar 07 j 14:27	0°♏	
	-10 Aug 13 j 20:41	0°♏		evening set	-4 Apr 22 j 20:57	10°♏04'59	
evening set	-10 Oct 30 j 02:07	14°♏39'42					
	-10 Oct 31 j 14:12	15°♏		conjunction	-4 May 06 j 14:50	13°♏15'57	0°-42'-27
max. Earth dist.	-10 Nov 09 j 18:21	17°♏04'34	6.28177 AU	minimum elong	-4 May 06 j 14:53	13°♏15'59	0°42'29
				max. Earth dist.	-4 May 08 j 18:40	13°♏46'00	6.09296 AU
conjunction	-10 Nov 11 j 16:55	17°♏31'00	0°38'32		-4 May 14 j 02:28	15°♏	
minimum elong	-10 Nov 11 j 16:57	17°♏31'01	0°38'32	morning rise	-4 May 20 j 10:08	16°♏27'23	
morning rise	-10 Nov 24 j 07:02	20°♏22'09			-4 Jul 25 j 06:51	0°♐	
	-9 Jan 08 j 18:51	0°♑		retrograde	-4 Sep 25 j 11:58	5°♐41'16	
retrograde	-9 Mar 28 j 18:39	8°♑27'40		min. Earth dist.	-4 Nov 22 j 19:50	0°♐46'51	4.15903 AU
opposition	-9 May 28 j 17:16	3°♑34'32	0°29'55	opposition	-4 Nov 24 j 00:16	0°♐37'10	0°-35'-5
min. Earth dist.	-9 May 29 j 23:05	3°♑25'00	4.21520 AU		-4 Nov 28 j 13:50	30°♌♐	
	-9 Jun 29 j 01:11	30°♌♑		direct	-3 Jan 22 j 03:09	25°♏36'47	
direct	-9 Jul 29 j 02:17	28°♑37'48			-3 Mar 17 j 05:56	0°♐	
	-9 Aug 27 j 22:37	0°♑		evening set	-3 May 28 j 21:31	14°♐16'14	
evening set	-9 Dec 01 j 05:07	17°♑10'07					
				conjunction	-3 Jun 11 j 15:24	17°♐21'14	0°-3'-31
conjunction	-9 Dec 13 j 21:53	20°♑07'45	0°00'-5	minimum elong	-3 Jun 11 j 15:24	17°♐21'14	0°03'31
minimum elong	-9 Dec 13 j 21:54	20°♑07'45	0°00'06	behind sun begin	-3 Jun 11 j 07:07	17°♐16'36	
behind sun begin	-9 Dec 13 j 14:09	20°♑03'15		behind sun end	-3 Jun 11 j 23:41	17°♐25'52	
behind sun end	-9 Dec 14 j 05:40	20°♑12'16		max. Earth dist.	-3 Jun 13 j 03:51	17°♐41'43	6.22817 AU
max. Earth dist.	-9 Dec 12 j 14:38	19°♑49'29	6.14711 AU	morning rise	-3 Jun 25 j 08:31	20°♐25'38	
desc. node	-9 Dec 13 j 01:46	19°♑55'59		asc. node	-3 Jul 15 j 11:49	24°♐49'45	
morning rise	-9 Dec 26 j 15:18	23°♑06'01			-3 Aug 10 j 02:12	0°♑	
	-8 Jan 26 j 08:00	0°♒		retrograde	-3 Oct 27 j 19:06	8°♑32'43	
retrograde	-8 May 02 j 15:33	12°♒16'28					

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Attention, astronomical year style is used: The year -3 in astronomical counting style is the year 4 BCE in historical counting style.

opposition	-3 Dec 26 j 12:22	3°♄31'55	0°24'08	conjunction	03 Dec 18 j 14:26	25°♁00'15	0°-6'00
min. Earth dist.	-3 Dec 25 j 20:45	3°♄37'09	4.29321 AU	minimum elong	03 Dec 18 j 14:26	25°♁00'15	0°06'01
	-2 Jan 24 j 22:09	30°♁II		behind sun begin	03 Dec 18 j 06:48	24°♁55'47	
direct	-2 Feb 24 j 22:13	28°♁29'28		behind sun end	03 Dec 18 j 22:04	25°♁04'43	
	-2 Mar 28 j 09:58	0°♄		morning rise	03 Dec 31 j 08:46	27°♁59'52	
evening set	-2 Jul 02 j 01:44	16°♄35'58			04 Jan 08 j 23:48	0°♄	
				retrograde	04 May 07 j 21:56	17°♄21'05	
conjunction	-2 Jul 15 j 13:54	19°♄33'24	0°35'03	opposition	04 Jul 07 j 13:58	12°♄24'40	0°-40'-4
minimum elong	-2 Jul 15 j 13:52	19°♄33'23	0°35'03	min. Earth dist.	04 Jul 08 j 00:10	12°♄21'21	4.06178 AU
max. Earth dist.	-2 Jul 15 j 22:45	19°♄38'16	6.35111 AU	direct	04 Sep 05 j 07:40	7°♄30'33	
morning rise	-2 Jul 28 j 23:54	22°♄29'34		evening set	05 Jan 08 j 05:32	26°♄43'27	
	-2 Sep 03 j 00:51	0°♁					
retrograde	-2 Nov 27 j 16:17	9°♁45'39		conjunction	05 Jan 21 j 03:57	29°♄49'22	0°-45'-13
opposition	-1 Jan 26 j 15:59	4°♁48'43	1°13'06	minimum elong	05 Jan 21 j 03:55	29°♄49'20	0°45'14
min. Earth dist.	-1 Jan 26 j 18:59	4°♁47'44	4.39617 AU	max. Earth dist.	05 Jan 21 j 04:45	29°♄49'50	6.01193 AU
	-1 Mar 16 j 20:19	30°♁♄			05 Jan 21 j 21:41	0°♁	
direct	-1 Mar 29 j 09:03	29°♄45'28		morning rise	05 Feb 03 j 04:38	2°♁56'42	
	-1 Apr 10 j 23:15	0°♁			05 Mar 29 j 23:38	15°♁	
	-1 Jul 22 j 18:49	15°♁		retrograde	05 Jun 14 j 18:03	23°♁14'03	
evening set	-1 Aug 03 j 11:33	17°♁29'40		opposition	05 Aug 13 j 22:40	18°♁13'42	-1°-30'-11
				min. Earth dist.	05 Aug 13 j 11:41	18°♁17'21	3.97889 AU
conjunction	-1 Aug 16 j 15:42	20°♁20'45	1°02'09		05 Sep 09 j 13:23	15°♁	
minimum elong	-1 Aug 16 j 15:40	20°♁20'44	1°02'09	direct	05 Oct 11 j 09:53	13°♁20'18	
max. Earth dist.	-1 Aug 15 j 22:07	20°♁11'12	6.42591 AU		05 Nov 12 j 00:00	15°♁	
morning rise	-1 Aug 29 j 16:48	23°♁10'18			06 Feb 01 j 06:01	0°♁	
	-1 Oct 01 j 15:13	0°♁		evening set	06 Feb 13 j 12:40	2°♁55'01	
retrograde	-1 Dec 27 j 21:45	10°♁00'47					
opposition	00 Feb 26 j 07:01	5°♁07'01	1°40'26	conjunction	06 Feb 26 j 18:10	6°♁06'13	-1°-8'-33
min. Earth dist.	00 Feb 27 j 02:15	5°♁00'48	4.43959 AU	minimum elong	06 Feb 26 j 18:09	6°♁06'12	1°08'33
direct	00 Apr 28 j 19:10	0°♁04'13		max. Earth dist.	06 Feb 28 j 00:42	6°♁24'37	5.96544 AU
evening set	00 Sep 02 j 15:41	17°♁40'46		morning rise	06 Mar 12 j 03:01	9°♁19'08	
max. Earth dist.	00 Sep 13 j 22:34	20°♁07'53	6.43385 AU	retrograde	06 Jul 22 j 13:09	29°♁55'09	
				min. Earth dist.	06 Sep 19 j 04:04	25°♁01'06	3.97572 AU
conjunction	00 Sep 15 j 12:21	20°♁28'28	1°11'46	opposition	06 Sep 20 j 09:02	24°♁51'18	-1°-45'-47
minimum elong	00 Sep 15 j 12:20	20°♁28'28	1°11'46	direct	06 Nov 17 j 05:45	19°♁56'24	
morning rise	00 Sep 28 j 06:06	23°♁14'51			07 Feb 08 j 17:06	0°♁	
	00 Oct 30 j 15:09	0°♁		evening set	07 Mar 22 j 21:49	9°♁29'19	
retrograde	01 Jan 26 j 14:45	10°♁07'42					
opposition	01 Mar 28 j 07:42	5°♁15'45	1°40'42	conjunction	07 Apr 05 j 11:09	12°♁42'14	-1°-5'-15
min. Earth dist.	01 Mar 29 j 15:33	5°♁05'35	4.41261 AU	minimum elong	07 Apr 05 j 11:12	12°♁42'15	1°05'16
direct	01 May 30 j 01:48	0°♁14'29		max. Earth dist.	07 Apr 07 j 13:59	13°♁12'25	6.00487 AU
evening set	01 Oct 03 j 08:15	17°♁58'41		morning rise	07 Apr 19 j 03:14	15°♁56'24	
max. Earth dist.	01 Oct 13 j 23:23	20°♁19'44	6.37321 AU		07 Jun 24 j 20:20	0°♁	
				retrograde	07 Aug 27 j 23:25	6°♁02'08	
conjunction	01 Oct 16 j 00:15	20°♁46'51	1°01'46	min. Earth dist.	07 Oct 25 j 03:16	1°♁08'19	4.05341 AU
minimum elong	01 Oct 16 j 00:17	20°♁46'52	1°01'45	opposition	07 Oct 26 j 12:47	0°♁56'52	-1°-20'00
morning rise	01 Oct 28 j 14:24	23°♁34'15			07 Nov 02 j 12:23	30°♁♁	
	01 Nov 27 j 17:39	0°♁		direct	07 Dec 23 j 18:48	25°♁59'01	
retrograde	02 Feb 27 j 15:02	10°♁56'49			08 Feb 12 j 10:20	0°♁	
opposition	02 Apr 29 j 13:19	6°♁04'54	1°13'00		08 Apr 27 j 11:57	15°♁	
min. Earth dist.	02 May 01 j 00:28	5°♁53'42	4.32176 AU	evening set	08 Apr 28 j 00:45	15°♁07'21	
direct	02 Jun 30 j 19:31	1°♁05'52					
	02 Oct 15 j 11:56	15°♁		conjunction	08 May 11 j 19:00	18°♁17'32	0°-37'-27
evening set	02 Nov 03 j 11:00	19°♁12'13		minimum elong	08 May 11 j 19:03	18°♁17'33	0°37'28
max. Earth dist.	02 Nov 14 j 05:34	21°♁39'06	6.25943 AU	max. Earth dist.	08 May 13 j 22:30	18°♁47'14	6.11352 AU
				morning rise	08 May 25 j 14:17	21°♁28'00	
conjunction	02 Nov 16 j 02:08	22°♁04'31	0°33'45		08 Jul 03 j 17:53	0°♁	
minimum elong	02 Nov 16 j 02:10	22°♁04'32	0°33'45	retrograde	08 Sep 30 j 02:32	10°♁31'17	
morning rise	02 Nov 28 j 16:26	24°♁56'43		opposition	08 Nov 28 j 16:08	5°♁27'34	0°-26'-46
	02 Dec 21 j 11:13	0°♁		min. Earth dist.	08 Nov 27 j 12:25	5°♁36'59	4.18058 AU
retrograde	03 Apr 02 j 15:42	13°♁12'15		direct	09 Jan 26 j 22:14	0°♁26'50	
opposition	03 Jun 02 j 14:05	8°♁18'52	0°21'45	asc. node	09 May 25 j 08:01	17°♁08'25	
min. Earth dist.	03 Jun 03 j 18:05	8°♁09'54	4.19156 AU	evening set	09 Jun 02 j 18:50	19°♁00'29	
direct	03 Aug 02 j 18:06	3°♁22'33					
desc. node	03 Oct 22 j 23:16	12°♁25'24		conjunction	09 Jun 16 j 12:00	22°♁04'19	0°02'19
evening set	03 Dec 05 j 21:14	22°♁01'25		minimum elong	09 Jun 16 j 11:59	22°♁04'19	0°02'19
max. Earth dist.	03 Dec 17 j 09:27	24°♁43'14	6.12428 AU	behind sun begin	09 Jun 16 j 03:39	21°♁59'41	

behind sun end	09 Jun 16 j 20:19	22°♄08'57		desc. node	15 Sep 01 j 10:22	9°♃10'14	
max. Earth dist.	09 Jun 17 j 19:23	22°♄21'52	6.24899 AU	evening set	15 Dec 10 j 14:31	26°♃55'50	
morning rise	09 Jun 30 j 04:25	25°♄07'28		max. Earth dist.	15 Dec 22 j 08:46	29°♃41'44	6.10653 AU
	09 Jul 22 j 15:31	0°♄					
retrograde	09 Nov 01 j 04:21	13°♄05'38		conjunction	15 Dec 23 j 08:26	29°♃55'42	0°-11'-53
opposition	09 Dec 30 j 22:06	8°♄05'22	0°31'56	minimum elong	15 Dec 23 j 08:25	29°♃55'41	0°11'54
min. Earth dist.	09 Dec 30 j 09:56	8°♄09'26	4.31164 AU	behind sun begin	15 Dec 23 j 02:46	29°♃52'22	
direct	10 Mar 01 j 13:51	3°♄02'41		behind sun end	15 Dec 23 j 14:04	29°♃59'00	
evening set	10 Jul 06 j 16:13	21°♄04'56			15 Dec 23 j 15:44	0°♃	
				morning rise	16 Jan 05 j 03:21	2°♃56'23	
conjunction	10 Jul 20 j 03:28	24°♄01'21	0°39'41	retrograde	16 May 13 j 05:02	22°♃26'22	
minimum elong	10 Jul 20 j 03:26	24°♄01'20	0°39'42	opposition	16 Jul 12 j 18:54	17°♃29'30	0°-48'-24
max. Earth dist.	10 Jul 20 j 09:10	24°♄04'29	6.36581 AU	min. Earth dist.	16 Jul 13 j 02:24	17°♃27'03	4.04789 AU
morning rise	10 Aug 02 j 12:07	26°♄56'24		direct	16 Sep 10 j 07:58	12°♃35'41	
	10 Aug 16 j 18:27	0°♄			17 Jan 05 j 08:50	0°♃	
retrograde	10 Dec 01 j 20:15	14°♄07'07		evening set	17 Jan 13 j 05:34	1°♃52'00	
opposition	11 Jan 30 j 22:16	9°♄10'42	1°18'22				
min. Earth dist.	11 Jan 31 j 03:04	9°♄09'07	4.40645 AU	conjunction	17 Jan 26 j 04:40	4°♃58'39	0°-49'-46
direct	11 Apr 02 j 17:48	4°♄07'28		minimum elong	17 Jan 26 j 04:37	4°♃58'38	0°49'48
	11 Jul 05 j 21:16	15°♄		max. Earth dist.	17 Jan 26 j 08:56	5°♃01'14	6.00305 AU
evening set	11 Aug 07 j 21:02	21°♄49'45		morning rise	17 Feb 08 j 06:30	8°♃06'52	
					17 Mar 10 j 00:40	15°♃	
conjunction	11 Aug 20 j 23:57	24°♄40'09	1°04'37	retrograde	17 Jun 19 j 23:53	28°♃28'24	
minimum elong	11 Aug 20 j 23:55	24°♄40'08	1°04'36	opposition	17 Aug 19 j 04:49	23°♃27'30	-1°-34'-45
max. Earth dist.	11 Aug 20 j 02:13	24°♄28'21	6.43094 AU	min. Earth dist.	17 Aug 18 j 13:50	23°♃32'30	3.97632 AU
morning rise	11 Sep 02 j 23:58	27°♄29'04		direct	17 Oct 16 j 12:30	18°♃34'02	
	11 Sep 14 j 18:42	0°♄			18 Jan 14 j 07:26	0°♄	
retrograde	12 Jan 01 j 04:11	14°♄18'25		evening set	18 Feb 18 j 16:41	8°♄08'48	
opposition	12 Mar 01 j 13:44	9°♄25'03	1°42'08				
min. Earth dist.	12 Mar 02 j 12:05	9°♄17'50	4.43924 AU	conjunction	18 Mar 03 j 23:18	11°♄20'17	-1°-9'-44
direct	12 May 03 j 04:46	4°♄22'24		minimum elong	18 Mar 03 j 23:18	11°♄20'17	1°09'45
evening set	12 Sep 06 j 22:34	21°♄59'30		max. Earth dist.	18 Mar 05 j 10:14	11°♄41'19	5.96923 AU
max. Earth dist.	12 Sep 18 j 01:41	24°♄24'52	6.42795 AU	morning rise	18 Mar 17 j 09:04	14°♄33'27	
					18 May 30 j 02:19	0°♄	
conjunction	12 Sep 19 j 18:26	24°♄47'07	1°11'32	retrograde	18 Jul 27 j 17:30	5°♄06'42	
minimum elong	12 Sep 19 j 18:26	24°♄47'07	1°11'32	min. Earth dist.	18 Sep 24 j 06:13	0°♄12'27	3.98539 AU
morning rise	12 Oct 02 j 11:31	27°♄33'27		opposition	18 Sep 25 j 11:39	0°♄02'28	-1°-44'-27
	12 Oct 13 j 19:52	0°♄			18 Sep 25 j 18:55	30°♄♃	
retrograde	13 Jan 30 j 23:18	14°♄29'25		direct	18 Nov 22 j 09:52	25°♄07'13	
opposition	13 Apr 01 j 17:37	9°♄37'34	1°38'27		19 Jan 17 j 01:08	0°♄	
min. Earth dist.	13 Apr 03 j 02:06	9°♄27'12	4.40171 AU	evening set	19 Mar 28 j 01:30	14°♄36'33	
direct	13 Jun 03 j 10:16	4°♄36'34					
evening set	13 Oct 07 j 15:54	22°♄23'48		conjunction	19 Apr 10 j 15:44	17°♄49'11	-1°-2'-38
max. Earth dist.	13 Oct 18 j 07:39	24°♄45'41	6.35822 AU	minimum elong	19 Apr 10 j 15:46	17°♄49'13	1°02'38
				max. Earth dist.	19 Apr 12 j 20:27	18°♄20'21	6.01936 AU
conjunction	13 Oct 20 j 07:40	25°♄12'27	0°58'49	morning rise	19 Apr 24 j 08:30	21°♄02'59	
minimum elong	13 Oct 20 j 07:42	25°♄12'28	0°58'48		19 Jun 03 j 10:21	0°♄	
morning rise	13 Nov 01 j 21:31	28°♄00'22		retrograde	19 Sep 01 j 18:37	11°♄00'21	
	13 Nov 10 j 23:02	0°♄		min. Earth dist.	19 Oct 29 j 22:36	6°♄06'39	4.07110 AU
retrograde	14 Feb 14 j 10:00	15°♄		opposition	19 Oct 31 j 08:13	5°♄55'11	-1°-13'-46
	14 Mar 04 j 06:46	15°♄29'41		direct	19 Dec 28 j 15:52	0°♄56'58	
	14 Mar 22 j 03:44	15°♄♄			20 Apr 10 j 16:55	15°♄	
opposition	14 May 04 j 05:07	10°♄37'45	1°06'59	evening set	20 May 03 j 00:32	20°♄00'06	
min. Earth dist.	14 May 05 j 16:14	10°♄26'35	4.30361 AU				
direct	14 Jul 05 j 08:47	5°♄39'11		conjunction	20 May 16 j 18:50	23°♄09'29	0°-32'-21
	14 Sep 27 j 15:31	15°♄		minimum elong	20 May 16 j 18:52	23°♄09'31	0°32'22
evening set	14 Nov 07 j 22:26	23°♄50'16		max. Earth dist.	20 May 18 j 18:35	23°♄36'54	6.13278 AU
max. Earth dist.	14 Nov 18 j 17:23	26°♄18'07	6.23970 AU	morning rise	20 May 30 j 14:10	26°♄19'05	
					20 Jun 16 j 00:03	0°♄	
conjunction	14 Nov 20 j 13:34	26°♄43'26	0°28'38	retrograde	20 Oct 04 j 14:15	15°♄12'51	
minimum elong	14 Nov 20 j 13:36	26°♄43'27	0°28'38	min. Earth dist.	20 Dec 02 j 03:18	10°♄18'02	4.19943 AU
morning rise	14 Dec 03 j 04:26	29°♄36'39		opposition	20 Dec 03 j 04:23	10°♄09'32	0°-18'-34
	14 Dec 04 j 21:27	0°♄		direct	21 Jan 31 j 15:52	5°♄08'26	
retrograde	15 Apr 07 j 15:17	18°♄01'27		asc. node	21 Apr 05 j 08:44	10°♄58'06	
opposition	15 Jun 07 j 13:10	13°♄07'44	0°13'15	evening set	21 Jun 07 j 12:35	23°♄37'29	
min. Earth dist.	15 Jun 08 j 14:32	12°♄59'36	4.17179 AU				
direct	15 Aug 07 j 12:25	8°♄11'49		conjunction	21 Jun 21 j 05:24	26°♄40'24	0°07'51

minimum elong	21 Jun 21 j 05:23	26°♄40'23	0°07'50	retrograde	27 Apr 12 j 15:12	22°♃49'23	
behind sun begin	21 Jun 20 j 21:57	26°♄36'16		opposition	27 Jun 12 j 11:49	17°♃55'18	0°04'38
behind sun end	21 Jun 21 j 12:49	26°♄44'30		min. Earth dist.	27 Jun 13 j 11:46	17°♃47'37	4.15503 AU
max. Earth dist.	21 Jun 22 j 10:19	26°♄56'30	6.26616 AU	desc. node	27 Jul 12 j 08:13	14°♃28'03	
morning rise	21 Jul 04 j 20:50	29°♄42'26		direct	27 Aug 12 j 07:21	12°♃59'43	
	21 Jul 06 j 04:39	0°♄			27 Dec 07 j 14:32	0°♄	
retrograde	21 Nov 05 j 10:43	17°♃33'16		evening set	27 Dec 15 j 07:12	1°♄47'40	
opposition	22 Jan 04 j 05:31	12°♃33'36	0°39'18	max. Earth dist.	27 Dec 27 j 04:03	4°♄35'41	6.09140 AU
min. Earth dist.	22 Jan 03 j 19:17	12°♃37'00	4.32588 AU				
direct	22 Mar 06 j 00:42	7°♃30'49		conjunction	27 Dec 28 j 01:32	4°♄48'23	0°-17'-40
evening set	22 Jul 11 j 04:35	25°♃30'12		minimum elong	27 Dec 28 j 01:31	4°♄48'22	0°17'41
				morning rise	28 Jan 09 j 21:23	7°♄50'05	
conjunction	22 Jul 24 j 14:38	28°♃25'45	0°44'00	retrograde	28 May 18 j 07:58	27°♄27'46	
minimum elong	22 Jul 24 j 14:36	28°♃25'43	0°44'00	opposition	28 Jul 17 j 22:02	22°♄30'18	0°-56'-18
max. Earth dist.	22 Jul 24 j 14:52	28°♃25'52	6.37604 AU	min. Earth dist.	28 Jul 18 j 01:38	22°♄29'08	4.03580 AU
	22 Jul 31 j 19:17	0°♄		direct	28 Sep 15 j 05:51	17°♄36'37	
morning rise	22 Aug 06 j 22:19	1°♄19'56			28 Dec 19 j 05:10	0°♄	
	22 Oct 19 j 00:35	15°♄		evening set	29 Jan 18 j 04:05	6°♄55'56	
retrograde	22 Dec 06 j 02:06	18°♄27'00					
	23 Jan 23 j 15:44	15°♄		conjunction	29 Jan 31 j 04:10	10°♄03'21	0°-53'-55
opposition	23 Feb 04 j 04:07	13°♄31'05	1°23'07	minimum elong	29 Jan 31 j 04:08	10°♄03'19	0°53'56
min. Earth dist.	23 Feb 04 j 12:21	13°♄28'23	4.41232 AU	max. Earth dist.	29 Jan 31 j 13:28	10°♄08'57	5.99504 AU
direct	23 Apr 07 j 03:53	8°♄27'50		morning rise	29 Feb 13 j 06:53	13°♄12'19	
	23 Jun 16 j 10:37	15°♄			29 Feb 20 j 20:12	15°♄	
evening set	23 Aug 12 j 05:31	26°♄09'22			29 May 07 j 06:22	0°♄	
max. Earth dist.	23 Aug 24 j 07:46	28°♄46'25	6.43200 AU	retrograde	29 Jun 25 j 06:36	3°♄37'51	
					29 Aug 13 j 19:37	30°♄	
conjunction	23 Aug 25 j 07:33	28°♄59'20	1°06'40	opposition	29 Aug 24 j 09:17	28°♄36'24	-1°-38'-34
minimum elong	23 Aug 25 j 07:31	28°♄59'19	1°06'40	min. Earth dist.	29 Aug 23 j 16:47	28°♄41'55	3.97332 AU
	23 Aug 29 j 23:17	0°♄		direct	29 Oct 21 j 15:41	23°♄42'46	
morning rise	23 Sep 07 j 06:23	1°♄47'46			29 Dec 24 j 11:22	0°♄	
retrograde	24 Jan 05 j 08:49	18°♄37'13		evening set	30 Feb 23 j 19:33	13°♄18'00	
opposition	24 Mar 05 j 20:37	13°♄44'07	1°43'15				
min. Earth dist.	24 Mar 06 j 19:43	13°♄36'41	4.43582 AU	conjunction	30 Mar 09 j 03:14	16°♄29'52	-1°-10'-24
direct	24 May 07 j 11:36	8°♄41'40		minimum elong	30 Mar 09 j 03:14	16°♄29'52	1°10'25
evening set	24 Sep 11 j 05:41	26°♄19'59		max. Earth dist.	30 Mar 10 j 17:33	16°♄52'53	5.97137 AU
max. Earth dist.	24 Sep 22 j 06:39	28°♄44'31	6.42033 AU	morning rise	30 Mar 22 j 14:07	19°♄43'24	
					30 May 07 j 07:09	0°♄	
conjunction	24 Sep 24 j 00:45	29°♄07'34	1°10'52	retrograde	30 Aug 01 j 19:29	10°♄14'22	
minimum elong	24 Sep 24 j 00:45	29°♄07'34	1°10'52	min. Earth dist.	30 Sep 29 j 05:44	5°♄20'24	3.99267 AU
	24 Sep 28 j 00:29	0°♄		opposition	30 Sep 30 j 12:43	5°♄09'53	-1°-42'-23
morning rise	24 Oct 06 j 17:13	1°♄53'58		direct	30 Nov 27 j 10:04	0°♄14'17	
retrograde	25 Feb 04 j 10:09	18°♄53'26		evening set	31 Apr 02 j 05:10	19°♄41'22	
opposition	25 Apr 06 j 04:36	14°♄01'40	1°35'36				
min. Earth dist.	25 Apr 07 j 14:26	13°♄50'53	4.39034 AU	conjunction	31 Apr 15 j 20:07	22°♄53'50	0°-59'-33
direct	25 Jun 07 j 21:23	9°♄00'58		minimum elong	31 Apr 15 j 20:10	22°♄53'51	0°59'34
evening set	25 Oct 11 j 23:43	26°♄50'50		max. Earth dist.	31 Apr 17 j 23:49	23°♄24'18	6.03088 AU
max. Earth dist.	25 Oct 22 j 14:30	29°♄12'42	6.34396 AU	morning rise	31 Apr 29 j 13:41	26°♄07'24	
					31 May 16 j 09:46	0°♄	
conjunction	25 Oct 24 j 15:13	29°♄39'55	0°55'29		31 Aug 13 j 06:59	15°♄	
minimum elong	25 Oct 24 j 15:15	29°♄39'56	0°55'29	retrograde	31 Sep 06 j 13:41	15°♄57'38	
	25 Oct 26 j 03:08	0°♄			31 Sep 30 j 16:08	15°♄	
morning rise	25 Nov 06 j 05:03	2°♄28'24		min. Earth dist.	31 Nov 03 j 18:42	11°♄03'43	4.08542 AU
	26 Jan 08 j 09:47	15°♄		opposition	31 Nov 05 j 03:23	10°♄52'33	-1°-7'-4
retrograde	26 Mar 08 j 22:16	20°♄04'08		direct	32 Jan 02 j 14:19	5°♄53'53	
opposition	26 May 08 j 21:43	15°♄11'58	1°00'31		32 Mar 23 j 01:00	15°♄	
min. Earth dist.	26 May 10 j 07:03	15°♄01'20	4.28724 AU	evening set	32 May 08 j 00:51	24°♄53'15	
	26 May 10 j 11:16	15°♄					
direct	26 Jul 09 j 21:30	10°♄13'43		conjunction	32 May 21 j 19:31	28°♄02'03	0°-27'-1
	26 Sep 05 j 21:35	15°♄		minimum elong	32 May 21 j 19:33	28°♄02'04	0°27'01
evening set	26 Nov 12 j 09:39	28°♄28'29		max. Earth dist.	32 May 23 j 18:31	28°♄28'56	6.14885 AU
	26 Nov 19 j 01:38	0°♄			32 May 30 j 09:58	0°♄	
max. Earth dist.	26 Nov 23 j 08:23	0°♄59'02	6.22265 AU	morning rise	32 Jun 04 j 14:34	1°♄10'50	
				retrograde	32 Oct 09 j 04:15	19°♄56'17	
conjunction	26 Nov 25 j 01:03	1°♄22'25	0°23'20	opposition	32 Dec 07 j 17:49	14°♄53'27	0°-10'-10
minimum elong	26 Nov 25 j 01:04	1°♄22'26	0°23'19	min. Earth dist.	32 Dec 06 j 18:25	15°♄01'22	4.21556 AU
morning rise	26 Dec 07 j 16:07	4°♄16'29		direct	33 Feb 05 j 09:09	9°♄52'07	

asc. node	33 Feb 13 j 07:55	9°♄58'17		conjunction	38 Nov 29 j 10:14	5°♄56'26	0°18'02
evening set	33 Jun 12 j 08:01	28°♄17'31		minimum elong	38 Nov 29 j 10:15	5°♄56'26	0°18'02
	33 Jun 20 j 00:58	0°♄		morning rise	38 Dec 12 j 01:46	8°♄51'11	
				retrograde	39 Apr 17 j 09:42	27°♄30'44	
conjunction	33 Jun 26 j 00:00	1°♄19'30	0°13'24	desc. node	39 May 24 j 04:36	25°♄29'40	
minimum elong	33 Jun 25 j 23:59	1°♄19'29	0°13'25	opposition	39 Jun 17 j 07:10	22°♄36'14	0°-3'-44
behind sun begin	33 Jun 25 j 19:29	1°♄17'00		min. Earth dist.	39 Jun 18 j 04:20	22°♄29'25	4.14219 AU
behind sun end	33 Jun 26 j 04:30	1°♄21'59		direct	39 Aug 16 j 21:24	17°♄40'55	
max. Earth dist.	33 Jun 27 j 00:13	1°♄32'57	6.28104 AU		39 Nov 21 j 04:03	0°♄	
morning rise	33 Jul 09 j 14:46	4°♄20'35		evening set	39 Dec 19 j 20:27	6°♄31'48	
retrograde	33 Nov 09 j 19:30	22°♄04'57					
opposition	34 Jan 08 j 14:54	17°♄05'50	0°46'36	conjunction	40 Jan 01 j 15:22	9°♄33'16	0°-23'-7
min. Earth dist.	34 Jan 08 j 07:15	17°♄08'23	4.33861 AU	minimum elong	40 Jan 01 j 15:21	9°♄33'15	0°23'09
direct	34 Mar 10 j 14:29	12°♄02'56		max. Earth dist.	39 Dec 31 j 21:43	9°♄22'48	6.07922 AU
evening set	34 Jul 15 j 18:50	29°♄59'55		morning rise	40 Jan 14 j 11:50	12°♄35'47	
	34 Jul 15 j 19:00	0°♄			40 Apr 14 j 05:13	0°♄	
				retrograde	40 May 23 j 08:47	2°♄20'17	
conjunction	34 Jul 29 j 03:58	2°♄54'40	0°48'10		40 Jul 01 j 16:39	30°♄	
minimum elong	34 Jul 29 j 03:56	2°♄54'38	0°48'09	opposition	40 Jul 22 j 21:01	27°♄22'19	-1°-3'-32
max. Earth dist.	34 Jul 29 j 02:22	2°♄53'47	6.38589 AU	min. Earth dist.	40 Jul 22 j 23:23	27°♄21'32	4.02533 AU
morning rise	34 Aug 11 j 10:15	5°♄47'56		direct	40 Sep 20 j 02:11	22°♄28'42	
	34 Sep 25 j 17:04	15°♄			40 Nov 30 j 05:27	0°♄	
retrograde	34 Dec 10 j 08:10	22°♄51'26		evening set	41 Jan 22 j 23:00	11°♄50'51	
opposition	35 Feb 08 j 11:51	17°♄56'03	1°27'32				
min. Earth dist.	35 Feb 08 j 21:19	17°♄52'58	4.41908 AU	conjunction	41 Feb 04 j 23:59	14°♄59'00	0°-57'-31
	35 Mar 04 j 13:42	15°♄♄		minimum elong	41 Feb 04 j 23:56	14°♄58'58	0°57'31
direct	35 Apr 11 j 13:45	12°♄52'59			41 Feb 05 j 01:39	15°♄	
	35 May 19 j 22:41	15°♄		max. Earth dist.	41 Feb 05 j 12:11	15°♄06'21	5.98722 AU
	35 Aug 14 j 01:46	0°♄		morning rise	41 Feb 18 j 03:49	18°♄08'47	
evening set	35 Aug 16 j 15:48	0°♄33'20			41 Apr 12 j 15:53	0°♄	
				retrograde	41 Jun 30 j 08:04	8°♄38'05	
conjunction	35 Aug 29 j 16:34	3°♄22'42	1°08'26	opposition	41 Aug 29 j 09:01	3°♄36'13	-1°-41'-32
minimum elong	35 Aug 29 j 16:33	3°♄22'42	1°08'27	min. Earth dist.	41 Aug 28 j 14:09	3°♄42'32	3.96934 AU
max. Earth dist.	35 Aug 28 j 13:17	3°♄07'53	6.43526 AU		41 Sep 28 j 17:45	30°♄	
morning rise	35 Sep 11 j 14:29	6°♄10'38		direct	41 Oct 26 j 11:59	28°♄42'25	
retrograde	36 Jan 09 j 17:22	22°♄59'30			41 Nov 23 j 04:37	0°♄	
opposition	36 Mar 10 j 05:25	18°♄06'43	1°43'52	evening set	42 Feb 28 j 19:14	18°♄19'03	
min. Earth dist.	36 Mar 11 j 06:37	17°♄58'38	4.43573 AU				
direct	36 May 11 j 22:41	13°♄04'30		conjunction	42 Mar 14 j 03:58	21°♄31'25	-1°-10'-31
	36 Sep 12 j 06:29	0°♄		minimum elong	42 Mar 14 j 03:59	21°♄31'25	1°10'32
evening set	36 Sep 15 j 13:11	0°♄42'39		max. Earth dist.	42 Mar 15 j 19:14	21°♄55'00	5.97146 AU
max. Earth dist.	36 Sep 26 j 13:09	3°♄06'49	6.41693 AU	morning rise	42 Mar 27 j 16:02	24°♄45'27	
					42 Apr 19 j 03:26	0°♄	
conjunction	36 Sep 28 j 07:37	3°♄30'05	1°09'52	retrograde	42 Aug 06 j 17:47	15°♄15'05	
minimum elong	36 Sep 28 j 07:38	3°♄30'06	1°09'51	min. Earth dist.	42 Oct 04 j 02:50	10°♄21'05	3.99684 AU
morning rise	36 Oct 10 j 23:20	6°♄16'22		opposition	42 Oct 05 j 10:24	10°♄10'20	-1°-39'-40
retrograde	37 Feb 08 j 18:49	23°♄18'02		direct	42 Dec 02 j 08:10	5°♄14'20	
opposition	37 Apr 10 j 15:45	18°♄26'18	1°32'14	evening set	43 Apr 07 j 06:15	24°♄40'32	
min. Earth dist.	37 Apr 12 j 00:49	18°♄15'47	4.38394 AU				
direct	37 Jun 12 j 06:32	13°♄25'58		conjunction	43 Apr 20 j 22:18	27°♄53'05	0°-56'-8
	37 Oct 10 j 11:58	0°♄		minimum elong	43 Apr 20 j 22:21	27°♄53'07	0°56'09
evening set	37 Oct 16 j 06:58	1°♄16'47		max. Earth dist.	43 Apr 23 j 03:43	28°♄24'29	6.03904 AU
max. Earth dist.	37 Oct 26 j 22:30	3°♄39'25	6.33509 AU		43 Apr 29 j 22:28	0°♄	
				morning rise	43 May 04 j 16:24	1°♄06'33	
conjunction	37 Oct 28 j 22:05	4°♄06'05	0°51'54		43 Jul 10 j 07:31	15°♄	
minimum elong	37 Oct 28 j 22:07	4°♄06'06	0°51'55	retrograde	43 Sep 11 j 09:09	20°♄50'57	
morning rise	37 Nov 10 j 11:45	6°♄54'52		opposition	43 Nov 09 j 20:51	15°♄46'03	-1°00'-4
	37 Dec 18 j 13:49	15°♄		min. Earth dist.	43 Nov 08 j 13:02	15°♄56'53	4.09656 AU
retrograde	38 Mar 13 j 13:47	24°♄35'19			43 Nov 15 j 12:22	15°♄	
opposition	38 May 13 j 12:46	19°♄43'00	0°53'49	direct	44 Jan 07 j 10:40	10°♄46'58	
min. Earth dist.	38 May 14 j 22:21	19°♄32'18	4.27616 AU		44 Feb 28 j 20:42	15°♄	
	38 Jul 01 j 17:42	15°♄		evening set	44 May 13 j 00:16	29°♄43'41	
direct	38 Jul 14 j 11:01	14°♄45'06			44 May 14 j 05:02	0°♄	
	38 Jul 27 j 03:04	15°♄					
	38 Nov 03 j 08:25	0°♄		conjunction	44 May 26 j 18:55	2°♄51'56	0°-21'-34
evening set	38 Nov 16 j 18:42	3°♄01'56		minimum elong	44 May 26 j 18:57	2°♄51'57	0°21'35
max. Earth dist.	38 Nov 27 j 18:21	5°♄33'26	6.21029 AU	max. Earth dist.	44 May 28 j 15:21	3°♄17'15	6.16212 AU

morning rise	44 Jun 09 j 14:00	6°II00'04		conjunction	50 Dec 03 j 21:50	10°♁35'55	0°12'29
retrograde	44 Oct 13 j 15:55	24°II38'02		minimum elong	50 Dec 03 j 21:51	10°♁35'56	0°12'29
min. Earth dist.	44 Dec 11 j 08:06	19°II43'05	4.22970 AU	behind sun begin	50 Dec 03 j 16:34	10°♁32'53	
opposition	44 Dec 12 j 06:20	19°II35'34	0°-1'-51	behind sun end	50 Dec 04 j 03:08	10°♁38'59	
asc. node	44 Dec 24 j 15:37	17°II57'11		morning rise	50 Dec 16 j 13:52	13°♁31'42	
direct	45 Feb 10 j 01:25	14°II33'52			51 Mar 14 j 00:34	0°♁	
	45 Jun 03 j 15:46	0°♁		desc. node	51 Apr 03 j 10:05	1°♁46'45	
evening set	45 Jun 17 j 02:48	2°♁56'03		retrograde	51 Apr 22 j 11:13	2°♁20'35	
					51 Jun 01 j 05:20	30°R♁	
conjunction	45 Jun 30 j 18:13	5°♁57'09	0°18'50	opposition	51 Jun 22 j 06:28	27°♁25'43	0°-12'-25
minimum elong	45 Jun 30 j 18:12	5°♁57'08	0°18'51	min. Earth dist.	51 Jun 23 j 02:29	27°♁19'15	4.12305 AU
max. Earth dist.	45 Jul 01 j 16:23	6°♁09'26	6.29516 AU	direct	51 Aug 21 j 17:04	22°♁30'42	
morning rise	45 Jul 14 j 07:54	8°♁57'12			51 Nov 01 j 20:50	0°♁	
retrograde	45 Nov 14 j 04:16	26°♁35'05		evening set	51 Dec 24 j 14:30	11°♁26'54	
opposition	46 Jan 12 j 23:54	21°♁36'27	0°53'33				
min. Earth dist.	46 Jan 12 j 18:15	21°♁38'19	4.35145 AU	conjunction	52 Jan 06 j 10:10	14°♁29'27	0°-28'-40
direct	46 Mar 15 j 03:33	16°♁33'25		minimum elong	52 Jan 06 j 10:08	14°♁29'26	0°28'42
	46 Jun 29 j 07:29	0°♁		max. Earth dist.	52 Jan 05 j 19:43	14°♁20'52	6.06175 AU
evening set	46 Jul 20 j 08:08	4°♁27'23		morning rise	52 Jan 19 j 07:35	17°♁33'09	
					52 Mar 16 j 21:08	0°≈	
conjunction	46 Aug 02 j 16:02	7°♁21'13	0°52'00	retrograde	52 May 28 j 14:30	7°≈26'17	
minimum elong	46 Aug 02 j 15:59	7°♁21'12	0°52'00	opposition	52 Jul 28 j 01:26	2°≈27'52	-1°-10'-42
max. Earth dist.	46 Aug 02 j 10:17	7°♁18'06	6.39615 AU	min. Earth dist.	52 Jul 28 j 00:18	2°≈28'15	4.01148 AU
morning rise	46 Aug 15 j 21:14	10°♁13'36			52 Aug 16 j 17:08	30°R♁	
	46 Sep 07 j 10:53	15°♁		direct	52 Sep 25 j 01:04	27°♁34'25	
retrograde	46 Dec 14 j 14:25	27°♁13'15			52 Nov 02 j 18:14	0°≈	
opposition	47 Feb 12 j 19:07	22°♁18'11	1°31'23		53 Jan 19 j 13:38	15°≈	
min. Earth dist.	47 Feb 13 j 06:53	22°♁14'21	4.42603 AU	evening set	53 Jan 28 j 00:21	17°≈00'43	
direct	47 Apr 16 j 00:06	17°♁15'04					
	47 Jul 28 j 17:28	0°♁		conjunction	53 Feb 10 j 02:18	20°≈09'44	-1°00'-53
evening set	47 Aug 21 j 00:27	4°♁53'46		minimum elong	53 Feb 10 j 02:15	20°≈09'42	1°00'54
max. Earth dist.	47 Sep 01 j 19:49	7°♁27'08	6.43804 AU	max. Earth dist.	53 Feb 10 j 18:09	20°≈19'18	5.97818 AU
				morning rise	53 Feb 23 j 07:19	23°≈20'27	
conjunction	47 Sep 03 j 00:18	7°♁42'36	1°09'48		53 Mar 23 j 22:42	0°♁	
minimum elong	47 Sep 03 j 00:17	7°♁42'35	1°09'47	retrograde	53 Jul 05 j 15:22	13°♁53'45	
morning rise	47 Sep 15 j 20:59	10°♁29'57		opposition	53 Sep 03 j 14:58	8°♁51'24	-1°-43'-52
retrograde	48 Jan 13 j 22:47	27°♁18'24		min. Earth dist.	53 Sep 02 j 17:37	8°♁58'35	3.96636 AU
opposition	48 Mar 14 j 13:06	22°♁25'50	1°43'54	direct	53 Oct 31 j 15:56	3°♁57'26	
min. Earth dist.	48 Mar 15 j 15:13	22°♁17'28	4.43402 AU	evening set	54 Mar 06 j 01:08	23°♁34'52	
direct	48 May 16 j 06:22	17°♁23'49					
	48 Aug 27 j 01:47	0°♁		conjunction	54 Mar 19 j 11:10	26°♁47'38	-1°-10'-7
evening set	48 Sep 19 j 19:46	5°♁02'17		minimum elong	54 Mar 19 j 11:11	26°♁47'39	1°10'07
max. Earth dist.	48 Sep 30 j 16:24	7°♁24'58	6.41055 AU	max. Earth dist.	54 Mar 21 j 07:16	27°♁14'05	5.97504 AU
					54 Apr 01 j 20:54	0°♁	
conjunction	48 Oct 02 j 13:21	7°♁49'40	1°08'28	morning rise	54 Apr 02 j 00:10	0°♁01'56	
minimum elong	48 Oct 02 j 13:22	7°♁49'41	1°08'28	retrograde	54 Aug 11 j 22:04	20°♁28'04	
morning rise	48 Oct 15 j 04:40	10°♁36'00		min. Earth dist.	54 Oct 09 j 04:26	15°♁34'13	4.00690 AU
retrograde	49 Feb 13 j 06:25	27°♁41'04		opposition	54 Oct 10 j 12:47	15°♁23'12	-1°-36'-3
opposition	49 Apr 15 j 02:55	22°♁49'21	1°28'21	direct	54 Dec 07 j 11:34	10°♁26'53	
min. Earth dist.	49 Apr 16 j 13:37	22°♁38'19	4.37301 AU	evening set	55 Apr 12 j 12:02	29°♁49'48	
direct	49 Jun 16 j 17:16	17°♁49'15			55 Apr 13 j 05:33	0°♁	
	49 Sep 24 j 03:52	0°♁		conjunction	55 Apr 26 j 04:37	3°♁01'56	0°-52'-12
evening set	49 Oct 20 j 14:04	5°♁42'36		minimum elong	55 Apr 26 j 04:40	3°♁01'57	0°52'12
max. Earth dist.	49 Oct 31 j 05:41	8°♁05'46	6.32043 AU	max. Earth dist.	55 Apr 28 j 09:48	3°♁33'03	6.05465 AU
				morning rise	55 May 09 j 23:20	6°♁14'53	
conjunction	49 Nov 02 j 05:09	8°♁32'27	0°48'00		55 Jun 18 j 12:49	15°♁	
minimum elong	49 Nov 02 j 05:11	8°♁32'29	0°47'59	retrograde	55 Sep 16 j 03:15	25°♁50'01	
morning rise	49 Nov 14 j 18:49	11°♁21'51		min. Earth dist.	55 Nov 13 j 07:59	20°♁56'14	4.11608 AU
	49 Dec 01 j 06:36	15°♁		opposition	55 Nov 14 j 16:03	20°♁45'18	0°-52'-29
retrograde	50 Mar 18 j 05:19	29°♁09'17		direct	56 Jan 12 j 09:09	15°♁45'49	
opposition	50 May 18 j 05:24	24°♁16'45	0°46'40		56 Apr 27 j 05:20	0°♁	
min. Earth dist.	50 May 19 j 13:17	24°♁06'35	4.25858 AU	evening set	56 May 18 j 00:38	4°♁36'48	
direct	50 Jul 18 j 22:40	19°♁19'13					
	50 Oct 17 j 06:15	0°♁		conjunction	56 May 31 j 19:10	7°♁44'01	0°-15'-58
evening set	50 Nov 21 j 06:04	7°♁40'32		minimum elong	56 May 31 j 19:11	7°♁44'01	0°15'59
max. Earth dist.	50 Dec 02 j 08:18	10°♁14'11	6.19130 AU	max. Earth dist.	56 Jun 02 j 13:37	8°♁08'06	6.18402 AU

morning rise	56 Jun 14 j 13:39	10°♊50'56			62 Jan 31 j 08:16	0°♌	
retrograde	56 Oct 18 j 04:03	29°♊18'31		retrograde	62 Mar 23 j 00:24	3°♌45'14	
asc. node	56 Nov 04 j 02:10	28°♊49'56			62 May 14 j 01:05	30°♌	
opposition	56 Dec 16 j 18:25	24°♊16'32	0°06'23	opposition	62 May 22 j 22:45	28°♌52'28	0°39'15
min. Earth dist.	56 Dec 15 j 22:41	24°♊23'11	4.25173 AU	min. Earth dist.	62 May 24 j 06:32	28°♌42'19	4.23544 AU
direct	57 Feb 14 j 18:58	19°♊14'35		direct	62 Jul 23 j 12:38	23°♌55'14	
	57 May 17 j 03:56	0°♌			62 Sep 27 j 02:12	0°♌	
evening set	57 Jun 21 j 19:35	7°♌30'50		evening set	62 Nov 25 j 18:44	12°♌22'57	
				max. Earth dist.	62 Dec 07 j 00:11	14°♌59'15	6.16738 AU
conjunction	57 Jul 05 j 10:01	10°♌30'42	0°24'03				
minimum elong	57 Jul 05 j 10:00	10°♌30'41	0°24'03	conjunction	62 Dec 08 j 11:06	15°♌19'34	0°06'51
max. Earth dist.	57 Jul 06 j 04:28	10°♌40'52	6.31541 AU	minimum elong	62 Dec 08 j 11:06	15°♌19'34	0°06'51
morning rise	57 Jul 18 j 22:37	13°♌29'25		behind sun begin	62 Dec 08 j 03:39	15°♌15'15	
	57 Oct 24 j 10:02	0°♍		behind sun end	62 Dec 08 j 18:33	15°♌23'53	
retrograde	57 Nov 18 j 08:21	0°♍59'19		morning rise	62 Dec 21 j 03:46	18°♌16'39	
	57 Dec 13 j 03:49	30°♌		desc. node	63 Feb 11 j 17:46	29°♌31'16	
opposition	58 Jan 17 j 06:19	26°♌01'09	0°59'58		63 Feb 14 j 08:27	0°♌	
min. Earth dist.	58 Jan 17 j 02:42	26°♌02'21	4.36853 AU	retrograde	63 Apr 27 j 13:16	7°♌16'31	
direct	58 Mar 19 j 13:42	20°♌58'00		opposition	63 Jun 27 j 08:02	2°♌21'14	0°-21'-8
	58 Jun 11 j 14:02	0°♍		min. Earth dist.	63 Jun 28 j 00:48	2°♌15'49	4.10047 AU
evening set	58 Jul 24 j 18:03	8°♍47'54			63 Jul 16 j 07:37	30°♌	
				direct	63 Aug 26 j 12:24	27°♌26'34	
conjunction	58 Aug 07 j 00:47	11°♍40'43	0°55'26		63 Oct 05 j 23:30	0°♌	
minimum elong	58 Aug 07 j 00:44	11°♍40'42	0°55'26	evening set	63 Dec 29 j 11:30	16°♌29'12	
max. Earth dist.	58 Aug 06 j 15:35	11°♍35'43	6.40867 AU				
morning rise	58 Aug 20 j 04:36	14°♍32'03		conjunction	64 Jan 11 j 07:52	19°♌32'55	0°-34'-5
	58 Aug 22 j 08:28	15°♍		minimum elong	64 Jan 11 j 07:50	19°♌32'53	0°34'06
	58 Nov 17 j 23:52	0°♎		max. Earth dist.	64 Jan 10 j 21:30	19°♌26'43	6.04252 AU
retrograde	58 Dec 18 j 17:15	1°♎27'40		morning rise	64 Jan 24 j 06:22	22°♌37'55	
	59 Jan 18 j 09:09	30°♌			64 Feb 25 j 10:30	0°♎	
opposition	59 Feb 16 j 23:09	26°♍33'03	1°34'37	retrograde	64 Jun 02 j 23:58	12°♎40'10	
min. Earth dist.	59 Feb 17 j 13:44	26°♍28'19	4.43325 AU	opposition	64 Aug 02 j 08:54	7°♎41'06	-1°-17'-25
direct	59 Apr 20 j 07:06	21°♍29'59		min. Earth dist.	64 Aug 02 j 04:17	7°♎42'38	3.99768 AU
	59 Jul 11 j 02:14	0°♎		direct	64 Sep 30 j 04:44	2°♎47'41	
evening set	59 Aug 25 j 05:47	9°♎07'13			65 Jan 01 j 17:55	15°♎	
max. Earth dist.	59 Sep 05 j 19:15	11°♎37'30	6.43908 AU	evening set	65 Feb 02 j 04:51	22°♎17'44	
conjunction	59 Sep 07 j 04:32	11°♎55'35	1°10'44	conjunction	65 Feb 15 j 08:03	25°♎27'35	-1°-3'-47
minimum elong	59 Sep 07 j 04:31	11°♎55'34	1°10'44	minimum elong	65 Feb 15 j 08:01	25°♎27'34	1°03'48
morning rise	59 Sep 20 j 00:25	14°♎42'33		max. Earth dist.	65 Feb 16 j 06:27	25°♎41'07	5.97114 AU
	59 Dec 17 j 13:45	0°♏		morning rise	65 Feb 28 j 14:07	28°♎39'07	
retrograde	60 Jan 18 j 03:56	1°♏31'34			65 Mar 06 j 05:44	0°♏	
	60 Feb 18 j 19:46	30°♌		retrograde	65 Jul 11 j 01:07	19°♏14'36	
opposition	60 Mar 18 j 18:30	26°♎39'10	1°43'25	opposition	65 Sep 08 j 22:42	14°♏11'43	-1°-45'-19
min. Earth dist.	60 Mar 19 j 23:07	26°♎30'00	4.42892 AU	min. Earth dist.	65 Sep 07 j 23:04	14°♏19'41	3.96711 AU
direct	60 May 20 j 12:25	21°♎37'15		direct	65 Nov 05 j 21:59	9°♏17'32	
	60 Aug 09 j 11:18	0°♏		evening set	66 Mar 11 j 09:10	28°♏54'00	
evening set	60 Sep 23 j 23:42	9°♏17'17			66 Mar 15 j 23:56	0°♏	
max. Earth dist.	60 Oct 04 j 19:22	11°♏39'47	6.39959 AU				
				conjunction	66 Mar 24 j 20:06	2°♏06'51	-1°-9'-6
conjunction	60 Oct 06 j 16:56	12°♏04'53	1°06'44	minimum elong	66 Mar 24 j 20:07	2°♏06'51	1°09'07
minimum elong	60 Oct 06 j 16:57	12°♏04'54	1°06'45	max. Earth dist.	66 Mar 26 j 18:14	2°♏34'25	5.98303 AU
morning rise	60 Oct 19 j 07:40	14°♏51'28		morning rise	66 Apr 07 j 10:16	5°♏21'13	
	61 Jan 11 j 23:04	0°♐		retrograde	66 Aug 16 j 23:50	25°♏41'25	
retrograde	61 Feb 17 j 15:16	2°♐01'38		min. Earth dist.	66 Oct 14 j 05:03	20°♏47'57	4.02102 AU
	61 Mar 26 j 15:56	30°♌		opposition	66 Oct 15 j 15:07	20°♏36'20	-1°-31'-36
opposition	61 Apr 19 j 12:51	27°♏09'54	1°24'05	direct	66 Dec 12 j 15:16	15°♏39'33	
min. Earth dist.	61 Apr 20 j 23:47	26°♏58'47	4.35680 AU		67 Mar 26 j 22:40	0°♏	
direct	61 Jun 21 j 00:18	22°♏10'07		evening set	67 Apr 17 j 17:35	4°♏57'40	
	61 Sep 05 j 23:33	0°♐					
evening set	61 Oct 24 j 20:51	10°♐07'51		conjunction	67 May 01 j 10:47	8°♏09'12	0°-47'-50
max. Earth dist.	61 Nov 04 j 11:44	12°♐31'19	6.30017 AU	minimum elong	67 May 01 j 10:50	8°♏09'14	0°47'51
				max. Earth dist.	67 May 03 j 15:47	8°♏40'05	6.07346 AU
conjunction	61 Nov 06 j 11:45	12°♐58'27	0°43'51	morning rise	67 May 15 j 05:43	11°♏21'23	
minimum elong	61 Nov 06 j 11:47	12°♐58'29	0°43'51		67 May 31 j 05:41	15°♏	
	61 Nov 15 j 11:00	15°♐			67 Aug 30 j 03:29	0°♐	
morning rise	61 Nov 19 j 01:42	15°♐48'47		retrograde	67 Sep 20 j 22:22	0°♐46'22	

	67 Oct 12 j 11:02	30°♃			72 Dec 15 j 21:26	0°♄		
min. Earth dist.	67 Nov 18 j 04:40	25°♃52'08	4.13717 AU	retrograde	73 Feb 22 j 05:07	6°♄30'15		
opposition	67 Nov 19 j 10:44	25°♃41'53	0°-44'-34	opposition	73 Apr 24 j 02:26	1°♄38'29	1°19'11	
direct	68 Jan 17 j 08:51	20°♃42'00		min. Earth dist.	73 Apr 25 j 13:44	1°♄27'15	4.34046 AU	
	68 Apr 08 j 13:50	0°♄			73 May 07 j 05:41	30°♃		
evening set	68 May 23 j 00:13	9°♄26'59		direct	73 Jun 25 j 11:34	26°♄39'03		
					73 Aug 12 j 21:29	0°♄		
conjunction	68 Jun 05 j 18:29	12°♄33'08	0°-10'-15	evening set	73 Oct 29 j 06:13	14°♄41'03		
minimum elong	68 Jun 05 j 18:30	12°♄33'09	0°10'15		73 Oct 30 j 15:54	15°♄		
behind sun begin	68 Jun 05 j 11:57	12°♄29'28		max. Earth dist.	73 Nov 08 j 23:21	17°♄06'23	6.28122 AU	
behind sun end	68 Jun 06 j 01:03	12°♄36'49						
max. Earth dist.	68 Jun 07 j 10:39	12°♄55'49	6.20566 AU	conjunction	73 Nov 10 j 21:20	17°♄32'29	0°39'19	
morning rise	68 Jun 19 j 12:24	15°♄38'51		minimum elong	73 Nov 10 j 21:22	17°♄32'30	0°39'18	
	68 Sep 01 j 09:51	0°♅		morning rise	73 Nov 23 j 11:22	20°♄23'41		
asc. node	68 Sep 13 j 21:04	1°♅36'40			74 Jan 07 j 19:58	0°♅		
retrograde	68 Oct 22 j 13:25	3°♅56'36		retrograde	74 Mar 27 j 20:42	8°♅28'53		
	68 Dec 13 j 03:25	30°♃		opposition	74 May 27 j 19:22	3°♅35'55	0°31'20	
min. Earth dist.	68 Dec 20 j 11:25	29°♄01'19	4.27207 AU	min. Earth dist.	74 May 29 j 01:12	3°♅26'23	4.21526 AU	
opposition	68 Dec 21 j 05:48	28°♄55'09	0°14'36		74 Jun 28 j 09:50	30°♃		
direct	69 Feb 19 j 09:55	23°♄52'59		direct	74 Jul 28 j 04:34	28°♄39'11		
	69 Apr 26 j 17:11	0°♅			74 Aug 26 j 19:11	0°♅		
evening set	69 Jun 26 j 12:15	12°♅04'20		evening set	74 Nov 30 j 09:54	17°♅12'08		
				max. Earth dist.	74 Dec 11 j 17:57	19°♅50'42	6.14788 AU	
conjunction	69 Jul 10 j 01:40	15°♅03'03	0°29'10					
minimum elong	69 Jul 10 j 01:38	15°♅03'02	0°29'10	conjunction	74 Dec 13 j 02:32	20°♅09'44	0°00'59	
max. Earth dist.	69 Jul 10 j 15:14	15°♅10'31	6.33300 AU	minimum elong	74 Dec 13 j 02:31	20°♅09'43	0°00'58	
morning rise	69 Jul 23 j 13:08	18°♅00'35		behind sun begin	74 Dec 12 j 18:30	20°♅05'04		
	69 Sep 22 j 12:17	0°♆		behind sun end	74 Dec 13 j 10:31	20°♅14'23		
retrograde	69 Nov 22 j 15:22	5°♆23'49		desc. node	74 Dec 22 j 05:58	22°♅17'55		
opposition	70 Jan 21 j 13:34	0°♆26'15	1°06'08	morning rise	74 Dec 25 j 19:57	23°♅07'57		
min. Earth dist.	70 Jan 21 j 13:30	0°♆26'17	4.38220 AU		75 Jan 25 j 09:09	0°♆		
	70 Jan 24 j 21:14	30°♃		retrograde	75 May 02 j 17:49	12°♆17'22		
direct	70 Mar 24 j 01:49	25°♅23'04		opposition	75 Jul 02 j 11:21	7°♆21'37	0°-29'-52	
	70 May 20 j 19:23	0°♆		min. Earth dist.	75 Jul 03 j 00:59	7°♆17'11	4.08341 AU	
evening set	70 Jul 29 j 04:37	13°♆10'06		direct	75 Aug 31 j 11:27	2°♆27'14		
	70 Aug 06 j 15:47	15°♆		evening set	76 Jan 03 j 09:24	21°♆34'15		
conjunction	70 Aug 11 j 10:14	16°♆02'08	0°58'38	conjunction	76 Jan 16 j 06:42	24°♆38'53	0°-39'-17	
minimum elong	70 Aug 11 j 10:12	16°♆02'07	0°58'38	minimum elong	76 Jan 16 j 06:40	24°♆38'52	0°39'18	
max. Earth dist.	70 Aug 10 j 20:59	15°♆54'57	6.41730 AU	max. Earth dist.	76 Jan 16 j 02:16	24°♆36'14	6.02970 AU	
morning rise	70 Aug 24 j 12:53	18°♆52'40		morning rise	76 Jan 29 j 06:00	27°♆44'50		
	70 Oct 20 j 05:17	0°♇			76 Feb 07 j 19:03	0°♇		
retrograde	70 Dec 22 j 21:42	5°♇45'49			76 Apr 25 j 18:15	15°♇		
opposition	71 Feb 21 j 05:20	0°♇51'35	1°37'28	retrograde	76 Jun 08 j 08:45	17°♇53'21		
min. Earth dist.	71 Feb 21 j 21:52	0°♇46'13	4.43665 AU		76 Jul 22 j 05:01	15°♇		
	71 Feb 27 j 21:18	30°♃		opposition	76 Aug 07 j 15:32	12°♇53'44	-1°-23'-29	
direct	71 Apr 24 j 14:37	25°♅48'39		min. Earth dist.	76 Aug 07 j 08:04	12°♇56'13	3.99078 AU	
	71 Jun 18 j 22:06	0°♇		direct	76 Oct 05 j 07:30	8°♇00'23		
evening set	71 Aug 29 j 12:57	13°♇25'35			76 Dec 12 j 06:15	15°♇		
max. Earth dist.	71 Sep 09 j 23:50	15°♇54'37	6.43698 AU	evening set	77 Feb 07 j 08:13	27°♇31'42		
					77 Feb 17 j 14:38	0°♈		
conjunction	71 Sep 11 j 10:49	16°♇13'39	1°11'21					
minimum elong	71 Sep 11 j 10:48	16°♇13'39	1°11'20	conjunction	77 Feb 20 j 12:13	0°♈41'59	-1°-6'-9	
morning rise	71 Sep 24 j 05:41	19°♇00'21		minimum elong	77 Feb 20 j 12:12	0°♈41'58	1°06'10	
	71 Nov 19 j 01:03	0°♈		max. Earth dist.	77 Feb 21 j 13:43	0°♈57'22	5.97045 AU	
retrograde	72 Jan 22 j 11:28	5°♈51'05		morning rise	77 Mar 05 j 19:33	3°♈54'01		
opposition	72 Mar 23 j 02:51	0°♈58'56	1°42'22	retrograde	77 Jul 16 j 05:12	24°♈29'02		
min. Earth dist.	72 Mar 24 j 09:10	0°♈49'15	4.42153 AU	min. Earth dist.	77 Sep 13 j 00:35	19°♈34'39	3.97296 AU	
	72 Mar 30 j 20:22	30°♃		opposition	77 Sep 14 j 03:12	19°♈25'40	-1°-45'-50	
direct	72 May 24 j 21:00	25°♇57'21		direct	77 Nov 11 j 01:13	14°♈31'10		
	72 Jul 18 j 00:29	0°♈			78 Feb 27 j 02:38	0°♉		
evening set	72 Sep 28 j 06:32	13°♈39'32		evening set	78 Mar 16 j 13:41	4°♉05'02		
max. Earth dist.	72 Oct 08 j 23:01	16°♈00'48	6.38735 AU					
conjunction	72 Oct 10 j 23:09	16°♈27'24	1°04'35	conjunction	78 Mar 30 j 01:40	7°♉17'47	-1°-7'-34	
minimum elong	72 Oct 10 j 23:11	16°♈27'25	1°04'35	minimum elong	78 Mar 30 j 01:42	7°♉17'48	1°07'35	
morning rise	72 Oct 23 j 13:43	19°♈14'24		max. Earth dist.	78 Apr 01 j 02:18	7°♉46'46	5.99467 AU	
				morning rise	78 Apr 12 j 16:31	10°♉31'55		

	78 Jul 31 j 11:35	0°♄		morning rise	83 Sep 28 j 11:13	23°♎18'36	
retrograde	78 Aug 21 j 23:03	0°♄45'06			83 Oct 30 j 12:25	0°♎	
	78 Sep 12 j 04:54	30°♊♃		retrograde	84 Jan 26 j 19:15	10°♎11'54	
min. Earth dist.	78 Oct 19 j 04:04	25°♃51'14	4.03696 AU	opposition	84 Mar 27 j 12:04	5°♎19'52	1°40'44
opposition	78 Oct 20 j 13:16	25°♃39'54	-1°-26'-37	min. Earth dist.	84 Mar 28 j 18:52	5°♎10'02	4.41208 AU
direct	78 Dec 17 j 16:42	20°♃42'38		direct	84 May 29 j 05:09	0°♎18'32	
	79 Mar 08 j 07:36	0°♄		evening set	84 Oct 02 j 13:44	18°♎03'09	
evening set	79 Apr 22 j 19:03	9°♄55'40		max. Earth dist.	84 Oct 13 j 07:00	20°♎25'17	6.37452 AU
conjunction	79 May 06 j 12:43	13°♄06'33	0°-43'-17	conjunction	84 Oct 15 j 06:01	20°♎51'22	1°02'03
minimum elong	79 May 06 j 12:46	13°♄06'34	0°43'18	minimum elong	84 Oct 15 j 06:03	20°♎51'23	1°02'02
max. Earth dist.	79 May 08 j 17:16	13°♄37'00	6.09221 AU	morning rise	84 Oct 27 j 20:11	23°♎38'45	
	79 May 14 j 16:38	15°♄			84 Nov 26 j 14:54	0°♎	
morning rise	79 May 20 j 07:49	16°♄17'55		retrograde	85 Feb 26 j 19:01	11°♎00'18	
	79 Jul 26 j 02:39	0°♂		opposition	85 Apr 28 j 17:00	6°♎08'29	1°13'44
retrograde	79 Sep 25 j 11:35	5°♂33'01		min. Earth dist.	85 Apr 30 j 04:08	5°♎57'19	4.32496 AU
min. Earth dist.	79 Nov 22 j 19:41	0°♂38'51	4.15680 AU	direct	85 Jun 30 j 00:12	1°♎09'27	
opposition	79 Nov 24 j 01:03	0°♂28'52	0°-36'-38		85 Oct 14 j 11:23	15°♎	
	79 Nov 27 j 14:08	30°♊♄		evening set	85 Nov 02 j 16:21	19°♎15'04	
direct	80 Jan 22 j 01:49	25°♄28'36		max. Earth dist.	85 Nov 13 j 09:37	21°♎41'08	6.26428 AU
	80 Mar 17 j 02:56	0°♂					
evening set	80 May 27 j 20:01	14°♂08'25		conjunction	85 Nov 15 j 07:20	22°♎07'10	0°34'30
				minimum elong	85 Nov 15 j 07:22	22°♎07'12	0°34'30
conjunction	80 Jun 10 j 13:48	17°♂13'34	0°-4'-40	morning rise	85 Nov 27 j 21:47	24°♎59'12	
minimum elong	80 Jun 10 j 13:49	17°♂13'34	0°04'41		85 Dec 20 j 12:33	0°♄	
behind sun begin	80 Jun 10 j 05:40	17°♂09'00		retrograde	86 Apr 01 j 17:22	13°♄12'16	
behind sun end	80 Jun 10 j 21:58	17°♂18'08		opposition	86 Jun 01 j 16:03	8°♄18'57	0°23'09
max. Earth dist.	80 Jun 12 j 01:03	17°♂33'23	6.22457 AU	min. Earth dist.	86 Jun 02 j 19:43	8°♄10'05	4.19784 AU
morning rise	80 Jun 24 j 07:12	20°♂18'12		direct	86 Aug 01 j 21:19	3°♄22'32	
asc. node	80 Jul 25 j 21:23	27°♂06'10		desc. node	86 Nov 01 j 02:41	14°♄26'02	
	80 Aug 09 j 15:28	0°♄		evening set	86 Dec 05 j 00:43	21°♄59'38	
retrograde	80 Oct 26 j 21:59	8°♄27'32					
opposition	80 Dec 25 j 14:29	3°♄26'35	0°22'28	conjunction	86 Dec 17 j 17:56	24°♄58'08	0°-4'-56
min. Earth dist.	80 Dec 24 j 23:33	3°♄31'36	4.28865 AU	minimum elong	86 Dec 17 j 17:56	24°♄58'08	0°04'57
	81 Jan 23 j 01:23	30°♊♂		behind sun begin	86 Dec 17 j 10:08	24°♄53'35	
direct	81 Feb 24 j 00:11	28°♂24'10		behind sun end	86 Dec 18 j 01:45	25°♄02'42	
	81 Mar 28 j 08:41	0°♄		max. Earth dist.	86 Dec 16 j 13:56	24°♄41'43	6.13155 AU
evening set	81 Jul 01 j 01:53	16°♄31'51		morning rise	86 Dec 30 j 11:52	27°♄57'19	
					87 Jan 08 j 07:43	0°♄	
conjunction	81 Jul 14 j 14:30	19°♄29'39	0°33'59	retrograde	87 May 07 j 21:34	17°♄14'53	
minimum elong	81 Jul 14 j 14:28	19°♄29'38	0°33'59	opposition	87 Jul 07 j 13:27	12°♄18'41	0°-38'-21
max. Earth dist.	81 Jul 15 j 01:01	19°♄35'25	6.34605 AU	min. Earth dist.	87 Jul 08 j 00:49	12°♄14'59	4.06946 AU
morning rise	81 Jul 28 j 00:45	22°♄26'10		direct	87 Sep 05 j 09:05	7°♄24'34	
	81 Sep 02 j 07:48	0°♂		evening set	88 Jan 08 j 06:14	26°♄35'00	
retrograde	81 Nov 26 j 18:53	9°♂44'26					
opposition	82 Jan 25 j 19:10	4°♂47'22	1°11'48	conjunction	88 Jan 21 j 04:09	29°♄40'25	0°-44'-10
min. Earth dist.	82 Jan 25 j 20:49	4°♂46'49	4.39117 AU	minimum elong	88 Jan 21 j 04:06	29°♄40'23	0°44'11
	82 Mar 15 j 09:02	30°♊♄		max. Earth dist.	88 Jan 21 j 02:24	29°♄39'22	6.01917 AU
direct	82 Mar 28 j 09:44	29°♄44'09			88 Jan 22 j 12:49	0°♂	
	82 Apr 10 j 14:20	0°♂		morning rise	88 Feb 03 j 04:35	2°♂47'17	
	82 Jul 21 j 21:15	15°♂			88 Mar 29 j 21:56	15°♂	
evening set	82 Aug 02 j 14:03	17°♂29'46		retrograde	88 Jun 13 j 12:47	23°♂01'13	
				opposition	88 Aug 12 j 19:50	18°♂01'02	-1°-28'-51
conjunction	82 Aug 15 j 18:28	20°♂21'09	1°01'26	min. Earth dist.	88 Aug 12 j 08:44	18°♂04'43	3.98492 AU
minimum elong	82 Aug 15 j 18:26	20°♂21'08	1°01'26		88 Sep 06 j 09:20	15°♂	
max. Earth dist.	82 Aug 15 j 01:11	20°♂11'46	6.42153 AU	direct	88 Oct 10 j 07:51	13°♂07'39	
morning rise	82 Aug 28 j 20:02	23°♂11'04			88 Nov 12 j 23:39	15°♂	
	82 Sep 30 j 16:19	0°♎			89 Feb 01 j 04:12	0°♂	
retrograde	82 Dec 27 j 03:38	10°♎03'04		evening set	89 Feb 12 j 10:01	2°♂40'20	
opposition	83 Feb 25 j 11:20	5°♎09'15	1°39'45				
min. Earth dist.	83 Feb 26 j 06:51	5°♎02'56	4.43617 AU	conjunction	89 Feb 25 j 15:11	5°♂51'08	-1°-8'00
direct	83 Apr 28 j 23:42	0°♎06'26		minimum elong	89 Feb 25 j 15:10	5°♂51'08	1°08'00
evening set	83 Sep 02 j 20:00	17°♎44'02		max. Earth dist.	89 Feb 26 j 21:07	6°♂09'11	5.96974 AU
max. Earth dist.	83 Sep 14 j 03:23	20°♎11'27	6.43171 AU	morning rise	89 Mar 10 j 23:26	9°♂03'38	
				retrograde	89 Jul 21 j 09:53	29°♂38'17	
conjunction	83 Sep 15 j 17:03	20°♎31'59	1°11'32	min. Earth dist.	89 Sep 18 j 02:23	24°♂43'44	3.97754 AU
minimum elong	83 Sep 15 j 17:03	20°♎31'59	1°11'33	opposition	89 Sep 19 j 05:30	24°♂34'34	-1°-45'-35

direct	89 Nov 16 j 04:13	19° κ 39'45		conjunction	95 Sep 20 j 00:22	24° η 54'35	1°11'23
	90 Feb 08 j 22:11	0° γ		minimum elong	95 Sep 20 j 00:23	24° η 54'35	1°11'23
evening set	90 Mar 21 j 17:16	9° γ 12'02		morning rise	95 Oct 02 j 17:45	27° η 40'59	
					95 Oct 13 j 12:10	0° ϖ	
conjunction	90 Apr 04 j 06:16	12° γ 24'50	-1°-5'-34	retrograde	96 Jan 31 j 04:53	14° ϖ 35'52	
minimum elong	90 Apr 04 j 06:18	12° γ 24'51	1°05'34	opposition	96 Mar 31 j 22:32	9° ϖ 43'59	1°38'34
max. Earth dist.	90 Apr 06 j 08:44	12° γ 54'48	6.00400 AU	min. Earth dist.	96 Apr 02 j 06:40	9° ϖ 33'45	4.40667 AU
morning rise	90 Apr 17 j 22:02	15° γ 38'56		direct	96 Jun 02 j 16:45	4° ϖ 42'58	
	90 Jun 25 j 07:19	0° ϖ		evening set	96 Oct 06 j 21:06	22° ϖ 28'23	
retrograde	90 Aug 26 j 20:12	5° ϖ 45'58		max. Earth dist.	96 Oct 17 j 13:00	24° ϖ 50'07	6.36637 AU
min. Earth dist.	90 Oct 24 j 00:21	0° ϖ 52'18	4.05003 AU				
opposition	90 Oct 25 j 10:06	0° ϖ 40'48	-1°-21'-4	conjunction	96 Oct 19 j 12:56	25° ϖ 16'44	0°59'12
	90 Oct 30 j 10:09	30° ρ γ		minimum elong	96 Oct 19 j 12:57	25° ϖ 16'45	0°59'11
direct	90 Dec 22 j 14:17	25° γ 43'08		morning rise	96 Nov 01 j 02:54	28° ϖ 04'22	
	91 Feb 13 j 00:59	0° ϖ			96 Nov 09 j 21:24	0° ♄	
evening set	91 Apr 27 j 20:27	14° ϖ 52'35			97 Feb 13 j 08:39	15° ♄	
	91 Apr 28 j 09:22	15° ϖ		retrograde	97 Mar 03 j 07:28	15° ♄ 30'05	
					97 Mar 21 j 07:51	15° ρ ♄	
conjunction	91 May 11 j 14:26	18° ϖ 02'56	0°-38'-27	opposition	97 May 03 j 07:07	10° ♄ 38'05	1°07'56
minimum elong	91 May 11 j 14:29	18° ϖ 02'58	0°38'28	min. Earth dist.	97 May 04 j 16:53	10° ♄ 27'20	4.31451 AU
max. Earth dist.	91 May 13 j 16:06	18° ϖ 31'37	6.10778 AU	direct	97 Jul 04 j 11:34	5° ♄ 39'21	
morning rise	91 May 25 j 09:49	21° ϖ 13'42			97 Sep 26 j 21:56	15° ♄	
	91 Jul 04 j 16:05	0° ♄		evening set	97 Nov 07 j 00:54	23° ♄ 46'47	
retrograde	91 Sep 30 j 02:22	10° ♄ 20'26		max. Earth dist.	97 Nov 17 j 21:15	26° ♄ 14'57	6.25246 AU
opposition	91 Nov 28 j 15:50	5° ♄ 16'37	0°-28'-28				
min. Earth dist.	91 Nov 27 j 12:43	5° ♄ 25'49	4.17308 AU	conjunction	97 Nov 19 j 16:01	26° ♄ 39'23	0°29'36
direct	92 Jan 26 j 21:23	0° ♄ 15'59		minimum elong	97 Nov 19 j 16:03	26° ♄ 39'24	0°29'36
evening set	92 Jun 01 j 16:37	18° ♄ 51'56		morning rise	97 Dec 02 j 06:31	29° ♄ 31'58	
asc. node	92 Jun 05 j 01:28	19° ♄ 37'01			97 Dec 04 j 07:57	0° ♄	
				retrograde	98 Apr 06 j 12:33	17° ♄ 51'13	
conjunction	92 Jun 15 j 10:12	21° ♄ 56'17	0°01'06	opposition	98 Jun 06 j 10:45	12° ♄ 57'35	0°15'02
minimum elong	92 Jun 15 j 10:12	21° ♄ 56'17	0°01'05	min. Earth dist.	98 Jun 07 j 13:28	12° ♄ 49'01	4.18524 AU
behind sun begin	92 Jun 15 j 01:51	21° ♄ 51'38		direct	98 Aug 06 j 13:00	8° ♄ 01'29	
behind sun end	92 Jun 15 j 18:33	22° ♄ 00'56		desc. node	98 Sep 12 j 19:01	10° ♄ 09'09	
max. Earth dist.	92 Jun 16 j 19:36	22° ♄ 15'00	6.24045 AU	evening set	98 Dec 09 j 12:57	26° ♄ 41'07	
morning rise	92 Jun 29 j 02:46	24° ♄ 59'55		max. Earth dist.	98 Dec 21 j 03:44	29° ♄ 24'35	6.11920 AU
	92 Jul 22 j 03:11	0° ♄					
retrograde	92 Oct 31 j 06:56	13° ♄ 01'56		conjunction	98 Dec 22 j 06:26	29° ♄ 40'16	0°-10'-31
min. Earth dist.	92 Dec 29 j 10:59	8° ♄ 06'02	4.30285 AU	minimum elong	98 Dec 22 j 06:25	29° ♄ 40'15	0°10'32
opposition	92 Dec 30 j 00:21	8° ♄ 01'34	0°30'17	behind sun begin	98 Dec 22 j 00:06	29° ♄ 36'34	
direct	93 Feb 28 j 13:25	2° ♄ 59'02		behind sun end	98 Dec 22 j 12:43	29° ♄ 43'57	
evening set	93 Jul 05 j 17:30	21° ♄ 03'54			98 Dec 23 j 16:00	0° ♄	
				morning rise	99 Jan 04 j 01:08	2° ♄ 40'16	
conjunction	93 Jul 19 j 04:58	24° ♄ 00'49	0°38'41	retrograde	99 May 12 j 19:34	22° ♄ 04'37	
minimum elong	93 Jul 19 j 04:56	24° ♄ 00'47	0°38'41	opposition	99 Jul 12 j 11:47	17° ♄ 07'52	0°-46'-16
max. Earth dist.	93 Jul 19 j 10:24	24° ♄ 03'47	6.35752 AU	min. Earth dist.	99 Jul 12 j 19:55	17° ♄ 05'12	4.05844 AU
morning rise	93 Aug 01 j 14:15	26° ♄ 56'25		direct	99 Sep 10 j 02:30	12° ♄ 13'52	
	93 Aug 15 j 19:53	0° ♄			100 Jan 06 j 20:59	0° ♄	
retrograde	93 Dec 01 j 02:42	14° ♄ 10'15		evening set	100 Jan 12 j 23:36	1° ♄ 27'00	
opposition	94 Jan 30 j 03:00	9° ♄ 13'44	1°17'12				
min. Earth dist.	94 Jan 30 j 07:45	9° ♄ 12'10	4.39945 AU	conjunction	100 Jan 25 j 22:24	4° ♄ 33'08	0°-48'-32
direct	94 Apr 01 j 22:09	4° ♄ 10'33		minimum elong	100 Jan 25 j 22:21	4° ♄ 33'07	0°48'34
	94 Jul 04 j 15:55	15° ♄		max. Earth dist.	100 Jan 26 j 01:03	4° ♄ 34'44	6.01051 AU
evening set	94 Aug 07 j 00:59	21° ♄ 54'44		morning rise	100 Feb 07 j 23:36	7° ♄ 40'45	
max. Earth dist.	94 Aug 19 j 09:33	24° ♄ 35'15	6.42614 AU		100 Mar 10 j 18:20	15° ♄	
				retrograde	100 Jun 18 j 15:14	27° ♄ 59'21	
conjunction	94 Aug 20 j 04:29	24° ♄ 45'32	1°04'00	opposition	100 Aug 17 j 19:50	22° ♄ 58'40	-1°-33'-23
minimum elong	94 Aug 20 j 04:27	24° ♄ 45'31	1°03'59	min. Earth dist.	100 Aug 17 j 07:43	23° ♄ 02'42	3.97961 AU
morning rise	94 Sep 02 j 04:48	27° ♄ 34'48		direct	100 Oct 15 j 06:03	18° ♄ 05'09	
	94 Sep 13 j 12:31	0° ♄					
retrograde	94 Dec 31 j 09:05	14° ♄ 25'35					
opposition	95 Mar 01 j 19:24	9° ♄ 32'06	1°41'35				
min. Earth dist.	95 Mar 02 j 15:24	9° ♄ 25'39	4.43732 AU				
direct	95 May 03 j 08:24	4° ♄ 29'31					
evening set	95 Sep 07 j 04:18	22° ♄ 06'55					
max. Earth dist.	95 Sep 18 j 09:29	24° ♄ 33'21	6.42947 AU				