

Planetary Phenomena of Saturn 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 Feb 18 j 16:43	6°♌00'31		conjunction	-395 Dec 30 j 05:51	4°♌32'03	0°-4'-51
opposition	-400 Apr 28 j 19:05	2°♌44'16	2°27'57	minimum elong	-395 Dec 30 j 05:50	4°♌32'03	0°04'52
min. Earth dist.	-400 Apr 29 j 01:05	2°♌43'10	9.13647 AU	behind sun begin	-395 Dec 29 j 23:01	4°♌30'02	
	-400 Jun 11 j 17:53	30°♌		behind sun end	-395 Dec 30 j 12:39	4°♌34'04	
direct	-400 Jul 09 j 06:11	29°♌24'55		max. Earth dist.	-395 Dec 29 j 19:50	4°♌29'04	10.90988 AU
	-400 Aug 05 j 10:14	0°♌		morning rise	-394 Jan 16 j 00:41	6°♌31'47	
evening set	-400 Oct 19 j 09:35	6°♌25'51		retrograde	-394 Apr 29 j 07:25	13°♌49'33	
				opposition	-394 Jul 09 j 06:09	10°♌27'54	0°-23'-32
conjunction	-400 Nov 04 j 22:24	8°♌20'53	1°53'55	min. Earth dist.	-394 Jul 09 j 14:19	10°♌26'22	8.85651 AU
minimum elong	-400 Nov 04 j 22:26	8°♌20'54	1°53'55	direct	-394 Sep 16 j 18:14	7°♌08'51	
max. Earth dist.	-400 Nov 04 j 14:28	8°♌18'34	11.14544 AU	evening set	-394 Dec 25 j 07:21	14°♌15'54	
morning rise	-400 Nov 21 j 09:40	10°♌15'30					
	-399 Jan 08 j 00:06	15°♌		conjunction	-393 Jan 11 j 01:44	16°♌16'45	0°-33'-10
retrograde	-399 Mar 01 j 05:35	17°♌08'39		minimum elong	-393 Jan 11 j 01:43	16°♌16'44	0°33'12
	-399 Apr 24 j 22:13	15°♌		max. Earth dist.	-393 Jan 10 j 16:33	16°♌13'58	10.80027 AU
opposition	-399 May 10 j 16:44	13°♌52'10	2°08'34	morning rise	-393 Jan 27 j 23:14	18°♌18'38	
min. Earth dist.	-399 May 10 j 23:49	13°♌50'52	9.15061 AU	retrograde	-393 May 12 j 03:42	25°♌45'45	
direct	-399 Jul 21 j 00:59	10°♌33'28		opposition	-393 Jul 21 j 21:16	22°♌22'34	0°-58'-13
	-399 Oct 07 j 07:40	15°♌		min. Earth dist.	-393 Jul 22 j 04:24	22°♌21'13	8.73978 AU
evening set	-399 Oct 30 j 12:56	17°♌31'35		direct	-393 Sep 28 j 20:04	19°♌02'48	
				evening set	-392 Jan 06 j 09:40	26°♌16'25	
conjunction	-399 Nov 16 j 01:27	19°♌26'33	1°36'01				
minimum elong	-399 Nov 16 j 01:29	19°♌26'34	1°36'00	conjunction	-392 Jan 23 j 06:14	28°♌19'30	-1°00'-44
max. Earth dist.	-399 Nov 15 j 16:54	19°♌24'03	11.14694 AU	minimum elong	-392 Jan 23 j 06:12	28°♌19'29	1°00'46
morning rise	-399 Dec 02 j 13:03	21°♌21'19		max. Earth dist.	-392 Jan 22 j 21:14	28°♌16'44	10.67752 AU
retrograde	-398 Mar 12 j 21:50	28°♌16'15			-392 Feb 05 j 23:40	0°≈	
opposition	-398 May 22 j 14:37	24°♌59'12	1°44'26	morning rise	-392 Feb 09 j 06:44	0°≈23'48	
min. Earth dist.	-398 May 22 j 22:05	24°♌57'50	9.13877 AU	retrograde	-392 May 24 j 09:09	8°≈01'17	
direct	-398 Aug 01 j 19:04	21°♌40'55		opposition	-392 Aug 02 j 18:36	4°≈36'34	-1°-31'-16
evening set	-398 Nov 10 j 15:36	28°♌37'39		min. Earth dist.	-392 Aug 03 j 01:05	4°≈35'19	8.61253 AU
	-398 Nov 22 j 11:43	0°♌		direct	-392 Oct 10 j 02:27	1°≈15'53	
conjunction	-398 Nov 27 j 04:25	0°♌33'00	1°14'28	evening set	-391 Jan 17 j 21:37	8°≈37'30	
minimum elong	-398 Nov 27 j 04:27	0°♌33'01	1°14'27				
max. Earth dist.	-398 Nov 26 j 19:27	0°♌30'22	11.12279 AU	conjunction	-391 Feb 03 j 20:46	10°≈43'02	-1°-26'-12
morning rise	-398 Dec 13 j 17:03	2°♌28'23		minimum elong	-391 Feb 03 j 20:43	10°≈43'01	1°26'14
retrograde	-397 Mar 24 j 17:09	9°♌26'39		max. Earth dist.	-391 Feb 03 j 12:38	10°≈40'31	10.54677 AU
opposition	-397 Jun 03 j 13:51	6°♌08'47	1°16'15	morning rise	-391 Feb 21 j 00:29	12°≈50'00	
min. Earth dist.	-397 Jun 03 j 22:04	6°♌07'16	9.10170 AU		-391 Mar 11 j 10:27	15°≈	
direct	-397 Aug 13 j 09:58	2°♌50'39		retrograde	-391 Jun 06 j 21:41	20°≈38'30	
evening set	-397 Nov 21 j 19:23	9°♌47'32		opposition	-391 Aug 15 j 23:00	17°≈12'16	-2°-1'-2
				min. Earth dist.	-391 Aug 16 j 04:28	17°≈11'12	8.48033 AU
conjunction	-397 Dec 08 j 08:53	11°♌43'41	0°49'58		-391 Sep 15 j 18:54	15°≈	
minimum elong	-397 Dec 08 j 08:54	11°♌43'41	0°49'57	direct	-391 Oct 22 j 17:31	13°≈50'31	
max. Earth dist.	-397 Dec 07 j 22:27	11°♌40'37	11.07399 AU		-391 Nov 27 j 20:48	15°≈	
morning rise	-397 Dec 24 j 23:17	13°♌40'09		evening set	-390 Jan 30 j 20:18	21°≈21'14	
retrograde	-396 Apr 04 j 14:48	20°♌43'21					
opposition	-396 Jun 14 j 15:29	17°♌24'24	0°44'52	conjunction	-390 Feb 16 j 22:33	23°≈29'27	-1°-48'-9
min. Earth dist.	-396 Jun 15 j 00:46	17°♌22'42	9.04076 AU	minimum elong	-390 Feb 16 j 22:31	23°≈29'26	1°48'10
direct	-396 Aug 24 j 01:40	14°♌06'10		max. Earth dist.	-390 Feb 16 j 16:46	23°≈27'38	10.41400 AU
evening set	-396 Dec 02 j 02:04	21°♌04'50		morning rise	-390 Mar 06 j 05:40	25°≈39'13	
					-390 Apr 13 j 17:58	0°✠	
conjunction	-396 Dec 18 j 16:43	23°♌02'11	0°23'16	retrograde	-390 Jun 20 j 19:32	3°✠38'50	
minimum elong	-396 Dec 18 j 16:44	23°♌02'11	0°23'15	opposition	-390 Aug 29 j 10:28	0°✠11'09	-2°-25'-40
max. Earth dist.	-396 Dec 18 j 05:47	22°♌58'57	11.00220 AU	min. Earth dist.	-390 Aug 29 j 14:06	0°✠10'26	8.34951 AU
morning rise	-395 Jan 04 j 09:15	25°♌00'06			-390 Aug 31 j 18:53	30°≈	
	-395 Feb 23 j 01:27	0°♌		direct	-390 Nov 04 j 17:09	26°≈48'16	
retrograde	-395 Apr 16 j 19:47	2°♌09'50		evening set	-389 Jan 04 j 18:02	0°✠	
	-395 Jun 10 j 16:56	30°♌			-389 Feb 13 j 06:49	4°✠28'45	
opposition	-395 Jun 26 j 20:30	28°♌49'37	0°11'14				
min. Earth dist.	-395 Jun 27 j 05:49	28°♌47'54	8.95805 AU	conjunction	-389 Mar 02 j 12:41	6°✠39'49	-2°-5'-5
direct	-395 Sep 04 j 21:15	25°♌31'04		minimum elong	-389 Mar 02 j 12:39	6°✠39'48	2°05'07
desc. node	-395 Oct 27 j 12:27	27°♌44'48		max. Earth dist.	-389 Mar 02 j 09:46	6°✠38'53	10.28586 AU
	-395 Nov 20 j 16:22	0°♌		morning rise	-389 Mar 19 j 23:22	8°✠52'27	
evening set	-395 Dec 13 j 13:28	2°♌33'07		retrograde	-389 Jul 05 j 02:41	17°✠02'27	
				opposition	-389 Sep 12 j 04:41	13°✠33'33	-2°-43'-16

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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.

min. Earth dist.	-389 Sep 12 j 05:51	13° Υ 33'19	8.22688 AU	direct	-382 Feb 10 j 00:25	5° Π 34'12	
direct	-389 Nov 17 j 23:55	10° Υ 09'27		evening set	-382 May 26 j 14:06	13° Π 52'35	
evening set	-388 Feb 27 j 05:13	17° Υ 59'54					
conjunction	-388 Mar 15 j 15:03	20° Υ 13'48	-2°-15'-37	conjunction	-382 Jun 13 j 19:26	16° Π 14'09	0°-39'-10
minimum elong	-388 Mar 15 j 15:02	20° Υ 13'48	2°15'39	minimum elong	-382 Jun 13 j 19:28	16° Π 14'09	0°39'10
max. Earth dist.	-388 Mar 15 j 14:55	20° Υ 13'46	10.16949 AU	max. Earth dist.	-382 Jun 14 j 05:44	16° Π 17'30	10.02241 AU
morning rise	-388 Apr 02 j 05:30	22° Υ 29'15		morning rise	-382 Jul 01 j 23:28	18° Π 35'17	
retrograde	-388 Jun 18 j 10:29	0° Υ		retrograde	-382 Oct 13 j 21:54	26° Π 45'35	
retrograde	-388 Jul 18 j 17:50	0° Υ 48'07		opposition	-382 Dec 19 j 08:44	23° Π 17'58	0°-28'-9
opposition	-388 Aug 18 j 03:30	30° Υ		min. Earth dist.	-382 Dec 19 j 00:26	23° Π 19'41	8.05830 AU
min. Earth dist.	-388 Sep 25 j 05:25	27° Υ 18'16	-2°-52'-9	direct	-381 Feb 24 j 17:12	19° Π 48'24	
direct	-388 Nov 30 j 14:52	23° Υ 52'59		evening set	-381 Jun 10 j 17:07	28° Π 03'29	
evening set	-387 Feb 25 j 11:57	0° Υ			-381 Jun 25 j 20:50	0° Θ	
conjunction	-387 Mar 12 j 14:43	1° Υ 52'51		conjunction	-381 Jun 28 j 21:18	0° Θ 23'25	0°-5'-33
minimum elong	-387 Mar 30 j 04:49	4° Υ 09'28	-2°-18'-35	minimum elong	-381 Jun 28 j 21:19	0° Θ 23'25	0°05'33
max. Earth dist.	-387 Mar 30 j 07:22	4° Υ 10'18	10.07201 AU	behind sun begin	-381 Jun 28 j 14:16	0° Θ 21'10	
morning rise	-387 Apr 16 j 23:15	6° Υ 27'32		behind sun end	-381 Jun 29 j 04:22	0° Θ 25'40	
retrograde	-387 Aug 02 j 13:06	14° Υ 52'54		max. Earth dist.	-381 Jun 29 j 07:53	0° Θ 26'49	10.10075 AU
opposition	-387 Oct 09 j 11:28	11° Υ 22'27	-2°-51'00	morning rise	-381 Jul 16 j 22:50	2° Θ 42'30	
min. Earth dist.	-387 Oct 09 j 08:06	11° Υ 23'09	8.03410 AU	asc. node	-381 Aug 29 j 16:42	7° Θ 40'41	
direct	-387 Dec 14 j 15:16	7° Υ 56'01		retrograde	-381 Oct 27 j 20:41	10° Θ 43'05	
evening set	-386 Mar 27 j 10:14	16° Υ 04'05		opposition	-380 Jan 02 j 08:32	7° Θ 16'56	0°13'52
conjunction	-386 Apr 14 j 04:47	18° Υ 23'07	-2°-13'-16	min. Earth dist.	-380 Jan 02 j 00:24	7° Θ 18'35	8.14815 AU
minimum elong	-386 Apr 14 j 04:49	18° Υ 23'08	2°13'16	direct	-380 Mar 10 j 06:15	3° Θ 47'37	
max. Earth dist.	-386 Apr 14 j 09:34	18° Υ 24'41	9.99976 AU	evening set	-380 Jun 24 j 12:56	11° Θ 57'25	
morning rise	-386 May 02 j 03:06	20° Υ 43'22		conjunction	-380 Jul 12 j 14:19	14° Θ 14'56	0°27'53
retrograde	-386 Aug 17 j 10:35	29° Υ 12'05		minimum elong	-380 Jul 12 j 14:17	14° Θ 14'56	0°27'53
opposition	-386 Oct 23 j 21:02	25° Υ 41'28	-2°-39'-17	max. Earth dist.	-380 Jul 13 j 00:22	14° Θ 18'09	10.20144 AU
min. Earth dist.	-386 Oct 23 j 16:17	25° Υ 42'27	7.97629 AU	morning rise	-380 Jul 30 j 11:55	16° Θ 31'16	
direct	-386 Dec 28 j 23:05	22° Υ 13'58		retrograde	-380 Nov 09 j 11:24	24° Θ 21'24	
evening set	-385 Apr 07 j 21:05	0° Υ		opposition	-379 Jan 15 j 02:19	20° Θ 56'47	0°54'05
conjunction	-385 Apr 11 j 13:26	0° Υ 28'21		min. Earth dist.	-379 Jan 14 j 19:05	20° Θ 58'15	8.25802 AU
conjunction	-385 Apr 29 j 12:12	2° Υ 49'15	-1°-59'-36	direct	-379 Mar 24 j 13:34	17° Θ 27'57	
minimum elong	-385 Apr 29 j 12:16	2° Υ 49'16	1°59'37	evening set	-379 Jul 08 j 23:28	25° Θ 30'55	
max. Earth dist.	-385 Apr 29 j 19:05	2° Υ 51'31	9.95750 AU	conjunction	-379 Jul 26 j 20:37	27° Θ 45'27	0°58'57
morning rise	-385 May 17 j 13:51	5° Υ 11'04		minimum elong	-379 Jul 26 j 20:35	27° Θ 45'26	0°58'58
retrograde	-385 Sep 01 j 07:47	13° Υ 39'40		max. Earth dist.	-379 Jul 27 j 05:15	27° Θ 48'10	10.31892 AU
opposition	-385 Nov 07 j 08:25	10° Υ 09'16	-2°-17'-21	morning rise	-379 Aug 13 j 13:21	29° Θ 58'34	
min. Earth dist.	-385 Nov 07 j 02:25	10° Υ 10'31	7.94982 AU		-379 Aug 13 j 17:59	0° Ω	
direct	-384 Jan 12 j 12:38	6° Υ 40'52		retrograde	-379 Nov 22 j 16:25	7° Ω 38'08	
evening set	-384 Apr 25 j 21:11	14° Υ 59'05		opposition	-378 Jan 28 j 13:34	4° Ω 15'04	1°30'13
conjunction	-384 Apr 26 j 00:01	15° Υ		min. Earth dist.	-378 Jan 28 j 07:36	4° Ω 16'15	8.38165 AU
conjunction	-384 May 13 j 23:27	17° Υ 21'08	-1°-38'-19	direct	-378 Apr 07 j 16:04	0° Ω 46'59	
minimum elong	-384 May 13 j 23:31	17° Υ 21'09	1°38'20	evening set	-378 Jul 22 j 23:15	8° Ω 42'00	
max. Earth dist.	-384 May 14 j 08:12	17° Υ 24'01	9.94776 AU	conjunction	-378 Aug 09 j 15:16	10° Ω 53'13	1°26'08
morning rise	-384 Jun 01 j 03:23	19° Υ 43'39		minimum elong	-378 Aug 09 j 15:13	10° Ω 53'12	1°26'10
retrograde	-384 Sep 15 j 02:08	28° Υ 08'45		max. Earth dist.	-378 Aug 09 j 21:53	10° Ω 55'16	10.44654 AU
opposition	-384 Nov 20 j 19:24	24° Υ 38'56	-1°-46'-37	morning rise	-378 Aug 27 j 02:34	13° Ω 02'56	
min. Earth dist.	-384 Nov 20 j 12:16	24° Υ 40'25	7.95594 AU		-378 Sep 12 j 14:02	15° Ω	
direct	-383 Jan 26 j 05:55	21° Υ 09'50		retrograde	-378 Dec 05 j 10:47	20° Ω 32'23	
evening set	-383 May 11 j 06:27	29° Υ 29'19		opposition	-377 Feb 10 j 17:59	17° Ω 10'47	2°00'37
conjunction	-383 May 15 j 05:37	0° Π		min. Earth dist.	-377 Feb 10 j 13:04	17° Ω 11'45	8.51223 AU
conjunction	-383 May 29 j 11:03	1° Π 51'35	-1°-10'-51		-377 Mar 12 j 19:24	15° Ω	
minimum elong	-383 May 29 j 11:06	1° Π 51'36	1°10'51	direct	-377 Apr 21 j 11:50	13° Ω 43'40	
max. Earth dist.	-383 May 29 j 20:55	1° Π 54'49	9.97031 AU	evening set	-377 May 30 j 18:52	15° Ω	
morning rise	-383 Jun 16 j 15:53	4° Π 13'53		conjunction	-377 Aug 05 j 11:29	21° Ω 30'05	
retrograde	-383 Sep 29 j 15:23	12° Π 32'36		conjunction	-377 Aug 22 j 22:07	23° Ω 37'56	1°48'21
opposition	-383 Dec 05 j 03:55	9° Π 03'43	-1°-9'-18	minimum elong	-377 Aug 22 j 22:04	23° Ω 37'55	1°48'21
min. Earth dist.	-383 Dec 04 j 20:06	9° Π 05'20	7.99313 AU	max. Earth dist.	-377 Aug 23 j 02:50	23° Ω 39'23	10.57763 AU
				morning rise	-377 Sep 09 j 03:55	25° Ω 44'16	
					-377 Oct 18 j 03:49	0° Υ	
				retrograde	-377 Dec 17 j 22:30	3° Υ 04'31	

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Attention, astronomical year style is used: The year -376 in astronomical counting style is the year 377 BCE in historical counting style.

	-376 Feb 20 j 06:17	30°R♄		min. Earth dist.	-370 May 06 j 01:31	9°M♄14'21	9.14400 AU
opposition	-376 Feb 23 j 15:42	29°Q♄44'13	2°24'15	direct	-370 Jul 16 j 07:07	5°M♄55'59	
min. Earth dist.	-376 Feb 23 j 11:30	29°Q♄45'02	8.64303 AU	evening set	-370 Oct 26 j 01:13	12°M♄54'55	
direct	-376 May 03 j 22:49	26°Q♄18'13					
	-376 Jul 12 j 15:31	0°M♄		conjunction	-370 Nov 11 j 13:49	14°M♄49'49	1°44'25
evening set	-376 Aug 17 j 12:02	3°M♄55'47		minimum elong	-370 Nov 11 j 13:51	14°M♄49'50	1°44'25
				max. Earth dist.	-370 Nov 11 j 07:21	14°M♄47'56	11.14934 AU
conjunction	-376 Sep 03 j 17:32	6°M♄00'29	2°04'52		-370 Nov 13 j 00:43	15°M♄	
minimum elong	-376 Sep 03 j 17:29	6°M♄00'28	2°04'52	morning rise	-370 Nov 28 j 01:08	16°M♄44'24	
max. Earth dist.	-376 Sep 03 j 21:08	6°M♄01'34	10.70570 AU	retrograde	-369 Mar 08 j 03:05	23°M♄37'57	
morning rise	-376 Sep 20 j 18:06	8°M♄03'42		opposition	-369 May 17 j 18:13	20°M♄21'02	1°55'39
retrograde	-376 Dec 29 j 04:13	15°M♄15'48		min. Earth dist.	-369 May 18 j 00:34	20°M♄19'52	9.15062 AU
opposition	-375 Mar 07 j 07:12	11°M♄56'38	2°40'36	direct	-369 Jul 28 j 00:02	17°M♄02'30	
min. Earth dist.	-375 Mar 07 j 04:16	11°M♄57'12	8.76775 AU	evening set	-369 Nov 06 j 03:40	23°M♄59'13	
direct	-375 May 16 j 23:56	8°M♄31'50					
evening set	-375 Aug 30 j 01:53	16°M♄00'49		conjunction	-369 Nov 22 j 16:07	25°M♄54'13	1°24'24
				minimum elong	-369 Nov 22 j 16:10	25°M♄54'14	1°24'24
conjunction	-375 Sep 16 j 02:36	18°M♄02'41	2°15'26	max. Earth dist.	-369 Nov 22 j 08:04	25°M♄51'52	11.14370 AU
minimum elong	-375 Sep 16 j 02:35	18°M♄02'40	2°15'25	morning rise	-369 Dec 09 j 04:21	27°M♄49'10	
max. Earth dist.	-375 Sep 16 j 04:49	18°M♄03'21	10.82488 AU		-369 Dec 29 j 00:16	0°♄	
morning rise	-375 Oct 02 j 22:34	20°M♄03'10		retrograde	-368 Mar 18 j 19:16	4°♄45'06	
retrograde	-374 Jan 10 j 02:21	27°M♄08'25		opposition	-368 May 28 j 16:03	1°♄27'42	1°29'09
opposition	-374 Mar 19 j 17:13	23°M♄50'12	2°49'34	min. Earth dist.	-368 May 28 j 23:17	1°♄26'22	9.13195 AU
min. Earth dist.	-374 Mar 19 j 16:20	23°M♄50'22	8.88103 AU		-368 Jun 18 j 08:18	30°R♄	
direct	-374 May 29 j 18:44	20°M♄26'37		direct	-368 Aug 07 j 16:15	28°M♄09'38	
evening set	-374 Sep 11 j 05:56	27°M♄47'36			-368 Sep 25 j 03:14	0°♄	
				evening set	-368 Nov 16 j 06:15	5°♄05'39	
conjunction	-374 Sep 28 j 02:27	29°M♄47'02	2°20'01				
minimum elong	-374 Sep 28 j 02:27	29°M♄47'02	2°20'00	conjunction	-368 Dec 02 j 19:20	7°♄01'12	1°01'08
max. Earth dist.	-374 Sep 28 j 02:23	29°M♄47'01	10.93042 AU	minimum elong	-368 Dec 02 j 19:22	7°♄01'12	1°01'08
	-374 Sep 29 j 22:04	0°♄		max. Earth dist.	-368 Dec 02 j 11:10	6°♄58'48	11.11295 AU
morning rise	-374 Oct 14 j 18:49	1°♄45'16		morning rise	-368 Dec 19 j 08:51	8°♄56'57	
retrograde	-373 Jan 21 j 20:38	8°♄45'06		retrograde	-367 Mar 30 j 15:44	15°♄56'55	
opposition	-373 Mar 31 j 22:42	5°♄27'38	2°51'19	opposition	-367 Jun 09 j 15:51	12°♄38'45	0°59'06
min. Earth dist.	-373 Mar 31 j 23:52	5°♄27'24	8.97852 AU	min. Earth dist.	-367 Jun 09 j 22:52	12°♄37'27	9.08851 AU
direct	-373 Jun 11 j 06:15	2°♄05'16		direct	-367 Aug 19 j 08:02	9°♄20'56	
evening set	-373 Sep 23 j 01:20	9°♄19'01		evening set	-367 Nov 27 j 10:51	16°♄17'46	
conjunction	-373 Oct 09 j 18:30	11°♄16'32	2°18'49	conjunction	-367 Dec 14 j 00:57	18°♄14'17	0°35'21
minimum elong	-373 Oct 09 j 18:31	11°♄16'33	2°18'48	minimum elong	-367 Dec 14 j 00:58	18°♄14'18	0°35'21
max. Earth dist.	-373 Oct 09 j 15:57	11°♄15'47	11.01843 AU	max. Earth dist.	-367 Dec 13 j 16:42	18°♄11'51	11.05799 AU
morning rise	-373 Oct 26 j 08:19	13°♄13'05		morning rise	-367 Dec 30 j 16:12	20°♄11'14	
retrograde	-372 Feb 02 j 10:09	20°♄08'59		retrograde	-366 Apr 11 j 18:48	27°♄16'49	
opposition	-372 Apr 12 j 00:21	16°♄52'00	2°46'16	opposition	-366 Jun 21 j 18:43	23°♄57'41	0°26'25
min. Earth dist.	-372 Apr 12 j 02:41	16°♄51'34	9.05656 AU	min. Earth dist.	-366 Jun 22 j 01:57	23°♄56'21	9.02177 AU
direct	-372 Jun 22 j 11:18	13°♄30'48		direct	-366 Aug 31 j 00:25	20°♄39'52	
evening set	-372 Oct 03 j 13:53	20°♄38'24		evening set	-366 Dec 08 j 19:27	27°♄39'06	
conjunction	-372 Oct 20 j 04:46	22°♄34'31	2°12'11	conjunction	-366 Dec 25 j 10:51	29°♄36'58	0°07'53
minimum elong	-372 Oct 20 j 04:48	22°♄34'32	2°12'10	minimum elong	-366 Dec 25 j 10:51	29°♄36'58	0°07'53
max. Earth dist.	-372 Oct 20 j 00:59	22°♄33'25	11.08569 AU	behind sun begin	-366 Dec 25 j 04:34	29°♄35'07	
morning rise	-372 Nov 05 j 16:51	24°♄29'53		behind sun end	-366 Dec 25 j 17:08	29°♄38'49	
	-371 Jan 02 j 14:41	0°M♄		max. Earth dist.	-366 Dec 25 j 01:40	29°♄34'15	10.98069 AU
retrograde	-371 Feb 13 j 00:19	1°M♄23'25			-366 Dec 28 j 16:22	0°♄	
	-371 Mar 27 j 15:48	30°R♄		morning rise	-365 Jan 11 j 04:26	1°♄35'31	
opposition	-371 Apr 23 j 23:13	28°♄06'42	2°34'53	desc. node	-365 Apr 09 j 03:20	8°♄37'22	
min. Earth dist.	-371 Apr 24 j 02:22	28°♄06'07	9.11233 AU	retrograde	-365 Apr 24 j 01:32	8°♄48'11	
direct	-371 Jul 04 j 12:30	24°♄46'33		opposition	-365 Jul 04 j 01:28	5°♄27'51	0°-7'-53
	-371 Sep 28 j 11:23	0°M♄		min. Earth dist.	-365 Jul 04 j 09:19	5°♄26'24	8.93398 AU
evening set	-371 Oct 14 j 21:17	1°M♄49'11		direct	-365 Sep 11 j 18:20	2°♄09'43	
				evening set	-365 Dec 20 j 09:38	9°♄13'03	
conjunction	-371 Oct 31 j 10:43	3°M♄44'27	2°00'32				
minimum elong	-371 Oct 31 j 10:46	3°M♄44'28	2°00'32	conjunction	-364 Jan 06 j 02:45	11°♄12'36	0°-20'-27
max. Earth dist.	-371 Oct 31 j 06:10	3°M♄43'07	11.12981 AU	minimum elong	-364 Jan 06 j 02:44	11°♄12'36	0°20'28
morning rise	-371 Nov 16 j 21:54	5°M♄39'09		max. Earth dist.	-364 Jan 05 j 17:04	11°♄09'42	10.88352 AU
retrograde	-370 Feb 24 j 13:48	12°M♄31'53		morning rise	-364 Jan 22 j 22:57	13°♄13'05	
opposition	-370 May 05 j 20:53	9°M♄15'12	2°17'48	retrograde	-364 May 05 j 16:03	20°♄34'15	

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Attention, astronomical year style is used: The year -364 in astronomical counting style is the year 365 BCE in historical counting style.

opposition	-364 Jul 15 j 13:07	17°♁12'33	0°-42'-38	retrograde	-358 Jul 26 j 20:14	8°♃25'49	
min. Earth dist.	-364 Jul 15 j 21:08	17°♁11'02	8.82785 AU	opposition	-358 Oct 03 j 02:48	4°♃55'44	-2°-52'-51
direct	-364 Sep 22 j 18:27	13°♁53'50		min. Earth dist.	-358 Oct 03 j 02:28	4°♃55'48	8.08428 AU
evening set	-364 Dec 31 j 06:57	21°♁02'49		direct	-358 Dec 08 j 11:12	1°♃29'50	
				evening set	-357 Mar 20 j 18:10	9°♃33'10	
conjunction	-363 Jan 17 j 02:13	23°♁04'23	0°-48'-26	conjunction	-357 Apr 07 j 10:32	11°♃50'53	-2°-16'-54
minimum elong	-363 Jan 17 j 02:12	23°♁04'22	0°48'27	minimum elong	-357 Apr 07 j 10:33	11°♃50'53	2°16'55
max. Earth dist.	-363 Jan 16 j 17:29	23°♁01'44	10.76934 AU	max. Earth dist.	-357 Apr 07 j 12:45	11°♃51'36	10.04000 AU
morning rise	-363 Feb 03 j 01:06	25°♁07'05		morning rise	-357 Apr 25 j 06:53	14°♃09'54	
	-363 Mar 21 j 12:00	0°♁		retrograde	-357 Aug 10 j 15:32	22°♃36'34	
retrograde	-363 May 18 j 16:03	2°♁38'02		opposition	-357 Oct 17 j 09:44	19°♃05'52	-2°-46'-15
	-363 Jul 18 j 06:48	30°♁		min. Earth dist.	-357 Oct 17 j 06:58	19°♃06'26	8.00585 AU
opposition	-363 Jul 28 j 06:31	29°♁14'48	-1°-16'-28	direct	-357 Dec 22 j 14:08	15°♃38'40	
min. Earth dist.	-363 Jul 28 j 13:34	29°♁13'28	8.70669 AU	evening set	-356 Apr 03 j 16:48	23°♃49'33	
direct	-363 Oct 04 j 22:27	25°♁55'17					
	-363 Dec 15 j 07:50	0°♁		conjunction	-356 Apr 21 j 13:39	26°♃09'32	-2°-7'-14
evening set	-362 Jan 12 j 13:14	3°♁11'28		minimum elong	-356 Apr 21 j 13:42	26°♃09'32	2°07'15
				max. Earth dist.	-356 Apr 21 j 18:47	26°♃11'13	9.97581 AU
conjunction	-362 Jan 29 j 11:01	5°♁15'22	-1°-14'-54	morning rise	-356 May 09 j 13:34	28°♃30'32	
minimum elong	-362 Jan 29 j 10:59	5°♁15'22	1°14'56		-356 May 21 j 08:35	0°♃	
max. Earth dist.	-362 Jan 29 j 03:13	5°♁12'58	10.64208 AU	retrograde	-356 Aug 24 j 13:06	6°♃59'12	
morning rise	-362 Feb 15 j 12:50	7°♁20'36		opposition	-356 Oct 30 j 19:41	3°♃28'18	-2°-29'-12
	-362 May 25 j 07:08	15°♁		min. Earth dist.	-356 Oct 30 j 14:46	3°♃29'19	7.95686 AU
retrograde	-362 Jun 01 j 00:16	15°♁02'17		direct	-355 Jan 04 j 23:08	29°♃59'58	
	-362 Jun 07 j 18:09	15°♁			-355 Jan 04 j 03:58	30°♁	
opposition	-362 Aug 10 j 06:28	11°♁37'28	-1°-47'-48		-355 Jan 05 j 18:19	0°♃	
min. Earth dist.	-362 Aug 10 j 12:15	11°♁36'21	8.57518 AU	evening set	-355 Apr 18 j 21:46	8°♃16'16	
direct	-362 Oct 17 j 08:19	8°♁16'57					
	-361 Jan 19 j 11:52	15°♁		conjunction	-355 May 06 j 22:36	10°♃37'53	-1°-49'-31
evening set	-361 Jan 25 j 05:50	15°♁41'43		minimum elong	-355 May 06 j 22:39	10°♃37'55	1°49'31
				max. Earth dist.	-355 May 07 j 05:58	10°♃40'19	9.94321 AU
conjunction	-361 Feb 11 j 06:25	17°♁48'14	-1°-38'-33	morning rise	-355 May 25 j 01:26	13°♃00'11	
minimum elong	-361 Feb 11 j 06:23	17°♁48'13	1°38'35		-355 Jun 09 j 22:38	15°♃	
max. Earth dist.	-361 Feb 10 j 23:15	17°♁46'00	10.50737 AU	retrograde	-355 Sep 08 j 09:57	21°♃27'24	
morning rise	-361 Feb 28 j 11:35	19°♁56'13		opposition	-355 Nov 14 j 06:37	17°♃56'46	-2°-2'-32
retrograde	-361 Jun 14 j 18:03	27°♁49'03		min. Earth dist.	-355 Nov 14 j 00:23	17°♃58'04	7.94051 AU
opposition	-361 Aug 23 j 13:28	24°♁22'41	-2°-14'-55		-355 Dec 26 j 13:15	15°♁	
min. Earth dist.	-361 Aug 23 j 18:03	24°♁21'47	8.43977 AU	direct	-354 Jan 19 j 13:23	14°♃27'30	
direct	-361 Oct 30 j 01:53	21°♁00'58			-354 Feb 12 j 14:22	15°♃	
evening set	-360 Feb 07 j 09:46	28°♁35'18		evening set	-354 May 04 j 06:26	22°♃46'48	
	-360 Feb 18 j 16:25	0°♁					
conjunction	-360 Feb 24 j 13:32	0°♁44'35	-1°-57'-55	conjunction	-354 May 22 j 10:12	25°♃09'12	-1°-24'-50
minimum elong	-360 Feb 24 j 13:29	0°♁44'35	1°57'57	minimum elong	-354 May 22 j 10:15	25°♃09'14	1°24'50
max. Earth dist.	-360 Feb 24 j 07:19	0°♁42'38	10.37234 AU	max. Earth dist.	-354 May 22 j 19:01	25°♃12'06	9.94421 AU
morning rise	-360 Mar 12 j 22:17	2°♁55'28		morning rise	-354 Jun 09 j 14:45	27°♃31'52	
retrograde	-360 Jun 27 j 20:20	10°♁59'10			-354 Jun 29 j 10:46	0°♁	
opposition	-360 Sep 05 j 03:30	7°♁31'21	-2°-35'-57	retrograde	-354 Sep 23 j 02:46	5°♁54'22	
min. Earth dist.	-360 Sep 05 j 07:03	7°♁30'39	8.30789 AU	opposition	-354 Nov 28 j 16:25	2°♁24'27	-1°-28'-5
direct	-360 Nov 11 j 03:20	4°♁08'16		min. Earth dist.	-354 Nov 28 j 09:28	2°♁25'54	7.95784 AU
evening set	-359 Feb 20 j 01:21	11°♁52'40			-354 Dec 30 j 15:11	30°♁	
				direct	-353 Feb 03 j 07:31	28°♃54'32	
conjunction	-359 Mar 09 j 08:52	14°♁04'49	-2°-11'-34		-353 Mar 09 j 20:10	0°♁	
minimum elong	-359 Mar 09 j 08:50	14°♁04'49	2°11'36	evening set	-353 May 19 j 15:17	7°♁14'13	
max. Earth dist.	-359 Mar 09 j 04:53	14°♁03'33	10.24460 AU				
morning rise	-359 Mar 26 j 21:25	16°♁18'36		conjunction	-353 Jun 06 j 20:29	9°♁36'25	0°-54'-54
retrograde	-359 Jul 12 j 05:47	24°♁32'08		minimum elong	-353 Jun 06 j 20:32	9°♁36'26	0°54'54
opposition	-359 Sep 19 j 00:16	21°♁03'02	-2°-49'-6	max. Earth dist.	-353 Jun 07 j 06:07	9°♁39'34	9.97860 AU
min. Earth dist.	-359 Sep 19 j 02:07	21°♁02'39	8.18705 AU	morning rise	-353 Jun 25 j 01:11	11°♁58'26	
direct	-359 Nov 24 j 14:35	17°♁38'31		retrograde	-353 Oct 07 j 12:19	20°♁13'36	
evening set	-358 Mar 06 j 04:22	25°♁32'48		opposition	-353 Dec 12 j 23:29	16°♁44'45	0°-48'-23
				min. Earth dist.	-353 Dec 12 j 16:07	16°♁46'17	8.00764 AU
conjunction	-358 Mar 23 j 16:11	27°♁47'50	-2°-18'-13	direct	-352 Feb 18 j 01:48	13°♁14'34	
minimum elong	-358 Mar 23 j 16:11	27°♁47'50	2°18'14	evening set	-352 Jun 02 j 20:50	21°♁32'01	
max. Earth dist.	-358 Mar 23 j 15:12	27°♁47'30	10.13155 AU				
	-358 Apr 09 j 18:54	0°♁		conjunction	-352 Jun 21 j 01:46	23°♁53'02	0°-21'-54
morning rise	-358 Apr 10 j 08:41	0°♁04'22		minimum elong	-352 Jun 21 j 01:47	23°♁53'02	0°21'54

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Attention, astronomical year style is used: The year -352 in astronomical counting style is the year 353 BCE in historical counting style.

max. Earth dist.	-352 Jun 21 j 11:38	23°II56'14	10.04392 AU	evening set	-346 Aug 24 j 13:27	10°♄33'34	
morning rise	-352 Jul 09 j 04:55	26°II13'25					
	-352 Aug 09 j 22:07	0°♄		conjunction	-346 Sep 10 j 16:16	12°♄36'47	2°11'03
retrograde	-352 Oct 20 j 14:19	4°♄19'23		minimum elong	-346 Sep 10 j 16:14	12°♄36'46	2°11'02
opposition	-352 Dec 26 j 02:02	0°♄51'54	0°-6'-23	max. Earth dist.	-346 Sep 10 j 19:09	12°♄37'39	10.76948 AU
min. Earth dist.	-352 Dec 25 j 18:16	0°♄53'30	8.08652 AU	morning rise	-346 Sep 27 j 14:31	14°♄38'36	
	-351 Jan 05 j 16:38	30°RII		retrograde	-345 Jan 04 j 20:47	21°♄47'17	
asc. node	-351 Feb 21 j 15:08	27°II27'24		opposition	-345 Mar 14 j 06:25	18°♄28'57	2°46'04
direct	-351 Mar 03 j 17:33	27°II21'48		min. Earth dist.	-345 Mar 14 j 04:05	18°♄29'23	8.83049 AU
	-351 Apr 28 j 11:06	0°♄		direct	-345 May 24 j 04:10	15°♄05'08	
evening set	-351 Jun 17 j 20:32	5°♄34'49		evening set	-345 Sep 05 j 22:37	22°♄30'12	
conjunction	-351 Jul 05 j 23:29	7°♄53'45	0°11'56	conjunction	-345 Sep 22 j 21:03	24°♄30'46	2°18'27
minimum elong	-351 Jul 05 j 23:28	7°♄53'45	0°11'57	minimum elong	-345 Sep 22 j 21:02	24°♄30'45	2°18'27
behind sun begin	-351 Jul 05 j 18:31	7°♄52'10		max. Earth dist.	-345 Sep 22 j 22:20	24°♄31'09	10.88544 AU
behind sun end	-351 Jul 06 j 04:26	7°♄55'20		morning rise	-345 Oct 09 j 15:09	26°♄30'03	
max. Earth dist.	-351 Jul 06 j 09:15	7°♄56'53	10.13577 AU		-345 Nov 10 j 21:13	0°♄	
morning rise	-351 Jul 23 j 23:27	10°♄11'41		retrograde	-344 Jan 16 j 18:38	3°♄32'35	
retrograde	-351 Nov 03 j 08:24	18°♄07'20		opposition	-344 Mar 25 j 14:21	0°♄15'10	2°51'11
opposition	-350 Jan 08 j 22:46	14°♄41'24	0°35'03	min. Earth dist.	-344 Mar 25 j 13:15	0°♄15'23	8.93897 AU
min. Earth dist.	-350 Jan 08 j 14:40	14°♄43'03	8.18933 AU		-344 Mar 28 j 23:11	30°R♄	
direct	-350 Mar 18 j 04:31	11°♄11'46		direct	-344 Jun 04 j 18:58	26°♄52'42	
evening set	-350 Jul 02 j 11:54	19°♄18'35			-344 Aug 08 j 06:17	0°♄	
				evening set	-344 Sep 16 j 22:34	4°♄10'03	
conjunction	-350 Jul 20 j 11:21	21°♄34'45	0°44'20				
minimum elong	-350 Jul 20 j 11:19	21°♄34'44	0°44'21	conjunction	-344 Oct 03 j 17:25	6°♄08'27	2°19'57
max. Earth dist.	-350 Jul 20 j 20:57	21°♄37'48	10.24826 AU	minimum elong	-344 Oct 03 j 17:25	6°♄08'27	2°19'56
morning rise	-350 Aug 07 j 06:45	23°♄49'37		max. Earth dist.	-344 Oct 03 j 17:17	6°♄08'24	10.98466 AU
	-350 Oct 05 j 18:34	0°♄		morning rise	-344 Oct 20 j 08:16	8°♄05'44	
retrograde	-350 Nov 16 j 18:21	1°♄34'37		retrograde	-343 Jan 27 j 11:23	15°♄03'32	
	-350 Dec 29 j 13:47	30°R♄		opposition	-343 Apr 06 j 18:12	11°♄46'47	2°49'17
opposition	-349 Jan 22 j 13:19	28°♄10'22	1°13'25	min. Earth dist.	-343 Apr 06 j 19:26	11°♄46'33	9.02827 AU
min. Earth dist.	-349 Jan 22 j 05:23	28°♄11'57	8.30974 AU	direct	-343 Jun 17 j 02:33	8°♄25'32	
direct	-349 Apr 01 j 09:36	24°♄41'32		evening set	-343 Sep 28 j 14:53	15°♄36'09	
	-349 Jun 23 j 22:58	0°♄					
evening set	-349 Jul 16 j 16:59	2°♄40'47		conjunction	-343 Oct 15 j 06:49	17°♄32'53	2°15'48
				minimum elong	-343 Oct 15 j 06:50	17°♄32'53	2°15'48
				max. Earth dist.	-343 Oct 15 j 03:55	17°♄32'02	11.06277 AU
conjunction	-349 Aug 03 j 11:46	4°♄53'45	1°13'35	morning rise	-343 Oct 31 j 19:31	19°♄28'44	
minimum elong	-349 Aug 03 j 11:43	4°♄53'44	1°13'36	retrograde	-342 Feb 08 j 01:50	26°♄23'23	
max. Earth dist.	-349 Aug 03 j 20:52	4°♄56'36	10.37470 AU	opposition	-342 Apr 18 j 18:56	23°♄07'03	2°40'47
morning rise	-349 Aug 21 j 01:47	7°♄05'14		min. Earth dist.	-342 Apr 18 j 22:42	23°♄06'21	9.09457 AU
retrograde	-349 Nov 29 j 18:51	14°♄39'52		direct	-342 Jun 29 j 06:01	19°♄46'51	
opposition	-348 Feb 04 j 21:12	11°♄17'17	1°46'46	evening set	-342 Oct 10 j 01:09	26°♄51'57	
min. Earth dist.	-348 Feb 04 j 14:13	11°♄18'41	8.44086 AU				
direct	-348 Apr 14 j 07:38	7°♄49'32					
	-348 Jul 23 j 20:40	15°♄		conjunction	-342 Oct 26 j 15:03	28°♄47'36	2°06'27
evening set	-348 Jul 29 j 11:05	15°♄40'25		minimum elong	-342 Oct 26 j 15:05	28°♄47'36	2°06'27
				max. Earth dist.	-342 Oct 26 j 09:22	28°♄45'56	11.11671 AU
					-342 Nov 05 j 23:07	0°♄	
conjunction	-348 Aug 16 j 00:35	17°♄50'00	1°38'18	morning rise	-342 Nov 12 j 02:40	0°♄42'34	
minimum elong	-348 Aug 16 j 00:31	17°♄49'59	1°38'19	retrograde	-341 Feb 19 j 14:07	7°♄35'45	
max. Earth dist.	-348 Aug 16 j 08:22	17°♄52'24	10.50817 AU	opposition	-341 Apr 30 j 17:36	4°♄19'30	2°26'17
morning rise	-348 Sep 02 j 08:59	19°♄58'02		min. Earth dist.	-341 Apr 30 j 22:58	4°♄18'31	9.13560 AU
retrograde	-348 Dec 11 j 11:28	27°♄22'57		direct	-341 Jul 11 j 04:12	1°♄00'12	
opposition	-347 Feb 16 j 22:21	24°♄01'59	2°13'45	evening set	-341 Oct 21 j 06:57	8°♄01'06	
min. Earth dist.	-347 Feb 16 j 17:16	24°♄02'58	8.57572 AU				
direct	-347 Apr 27 j 21:27	20°♄35'27					
evening set	-347 Aug 11 j 17:53	28°♄17'37		conjunction	-341 Nov 06 j 19:53	9°♄56'10	1°52'21
	-347 Aug 25 j 19:43	0°♄		minimum elong	-341 Nov 06 j 19:55	9°♄56'10	1°52'20
				max. Earth dist.	-341 Nov 06 j 12:59	9°♄54'09	11.14498 AU
				morning rise	-341 Nov 23 j 07:10	11°♄50'48	
conjunction	-347 Aug 29 j 01:53	0°♄23'54	1°57'37		-341 Dec 22 j 19:15	15°♄	
minimum elong	-347 Aug 29 j 01:50	0°♄23'53	1°57'37	retrograde	-340 Mar 02 j 04:30	18°♄44'09	
max. Earth dist.	-347 Aug 29 j 07:09	0°♄25'30	10.64186 AU	opposition	-340 May 11 j 15:18	15°♄27'39	2°06'25
morning rise	-347 Sep 15 j 04:57	2°♄28'39		min. Earth dist.	-340 May 11 j 21:20	15°♄26'33	9.15044 AU
retrograde	-347 Dec 23 j 19:37	9°♄44'50			-340 May 17 j 22:55	15°R♄	
opposition	-346 Mar 01 j 17:17	6°♄25'18	2°33'37	direct	-340 Jul 22 j 00:08	12°♄09'02	
min. Earth dist.	-346 Mar 01 j 13:49	6°♄25'58	8.70763 AU		-340 Sep 21 j 09:31	15°♄	
direct	-346 May 11 j 03:46	3°♄00'06					

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Attention, astronomical year style is used: The year -340 in astronomical counting style is the year 341 BCE in historical counting style.

evening set	-340 Oct 31 j 10:25	19°♄07'05		evening set	-333 Jan 07 j 07:21	27°♄51'33	
conjunction	-340 Nov 16 j 23:03	21°♄02'05	1°34'04	conjunction	-333 Jan 24 j 03:53	29°♄54'34	-1°-3'-3
minimum elong	-340 Nov 16 j 23:05	21°♄02'05	1°34'03	minimum elong	-333 Jan 24 j 03:51	29°♄54'33	1°03'04
max. Earth dist.	-340 Nov 16 j 15:22	20°♄59'50	11.14710 AU	max. Earth dist.	-333 Jan 23 j 18:42	29°♄51'45	10.68022 AU
morning rise	-340 Dec 03 j 10:40	22°♄56'52			-333 Jan 24 j 21:38	0°≈	
retrograde	-339 Mar 13 j 20:59	29°♄51'54		morning rise	-333 Feb 10 j 04:33	1°≈58'51	
opposition	-339 May 23 j 13:13	26°♄34'54	1°41'51	retrograde	-333 May 26 j 05:33	9°≈36'10	
min. Earth dist.	-339 May 23 j 20:24	26°♄33'35	9.13918 AU	opposition	-333 Aug 04 j 16:44	6°≈11'26	-1°-33'-56
direct	-339 Aug 02 j 16:02	23°♄16'43		min. Earth dist.	-333 Aug 04 j 23:37	6°≈10'06	8.61538 AU
	-339 Nov 09 j 14:27	0°♄		direct	-333 Oct 12 j 00:48	2°≈50'42	
evening set	-339 Nov 11 j 13:14	0°♄13'21		evening set	-332 Jan 19 j 19:11	10°≈12'06	
conjunction	-339 Nov 28 j 02:02	2°♄08'43	1°12'13	conjunction	-332 Feb 05 j 18:27	12°≈17'36	-1°-28'-12
minimum elong	-339 Nov 28 j 02:04	2°♄08'44	1°12'12	minimum elong	-332 Feb 05 j 18:25	12°≈17'35	1°28'13
max. Earth dist.	-339 Nov 27 j 16:46	2°♄06'00	11.12351 AU	max. Earth dist.	-332 Feb 05 j 10:55	12°≈15'15	10.54967 AU
morning rise	-339 Dec 14 j 14:50	4°♄04'09		morning rise	-332 Feb 22 j 22:13	14°≈24'30	
retrograde	-338 Mar 25 j 14:24	11°♄02'30			-332 Feb 27 j 19:54	15°≈	
opposition	-338 Jun 04 j 12:38	7°♄44'40	1°13'20	retrograde	-332 Jun 07 j 18:37	22°≈12'48	
min. Earth dist.	-338 Jun 04 j 21:11	7°♄43'05	9.10264 AU	opposition	-332 Aug 16 j 20:41	18°≈46'31	-2°-3'-14
direct	-338 Aug 14 j 07:44	4°♄26'37		min. Earth dist.	-332 Aug 17 j 02:02	18°≈45'28	8.48331 AU
evening set	-338 Nov 22 j 17:00	11°♄23'23		direct	-332 Oct 23 j 16:22	15°≈24'44	
				evening set	-331 Jan 31 j 17:45	22°≈55'11	
conjunction	-338 Dec 09 j 06:31	13°♄19'32	0°47'29	conjunction	-331 Feb 17 j 20:08	25°≈03'22	-1°-49'-43
minimum elong	-338 Dec 09 j 06:32	13°♄19'32	0°47'28	minimum elong	-331 Feb 17 j 20:05	25°≈03'21	1°49'44
max. Earth dist.	-338 Dec 08 j 20:09	13°♄16'29	11.07524 AU	max. Earth dist.	-331 Feb 17 j 15:06	25°≈01'47	10.41686 AU
morning rise	-338 Dec 25 j 21:06	15°♄16'01		morning rise	-331 Mar 07 j 03:10	27°≈13'04	
retrograde	-337 Apr 06 j 13:42	22°♄19'18			-331 Mar 30 j 17:50	0°♄	
opposition	-337 Jun 16 j 14:17	19°♄00'22	0°41'45	retrograde	-331 Jun 21 j 17:34	5°♄12'27	
min. Earth dist.	-337 Jun 16 j 23:17	18°♄58'43	9.04220 AU	opposition	-331 Aug 30 j 07:45	1°♄44'42	-2°-27'-17
direct	-337 Aug 26 j 01:23	15°♄42'13		min. Earth dist.	-331 Aug 30 j 10:46	1°♄44'07	8.35238 AU
evening set	-337 Dec 03 j 23:43	22°♄40'42			-331 Sep 22 j 11:43	30°R≈	
conjunction	-337 Dec 20 j 14:34	24°♄38'03	0°20'40	direct	-331 Nov 05 j 14:05	28°≈21'47	
minimum elong	-337 Dec 20 j 14:35	24°♄38'04	0°20'40		-331 Dec 18 j 10:20	0°♄	
max. Earth dist.	-337 Dec 20 j 04:38	24°♄35'07	11.00389 AU	evening set	-330 Feb 14 j 04:08	6°♄02'01	
morning rise	-336 Jan 06 j 07:09	26°♄36'00		conjunction	-330 Mar 03 j 10:02	8°♄13'01	-2°-6'-9
	-336 Feb 06 j 19:09	0°♄		minimum elong	-330 Mar 03 j 10:00	8°♄13'00	2°06'10
retrograde	-336 Apr 17 j 18:00	3°♄45'44		max. Earth dist.	-330 Mar 03 j 07:07	8°♄12'05	10.28855 AU
opposition	-336 Jun 27 j 19:07	0°♄25'31	0°08'01	morning rise	-330 Mar 20 j 20:42	10°♄25'36	
min. Earth dist.	-336 Jun 28 j 03:31	0°♄23'57	8.95991 AU	retrograde	-330 Jul 06 j 00:48	18°♄35'20	
	-336 Jul 03 j 12:55	30°R♄		opposition	-330 Sep 13 j 01:42	15°♄06'22	-2°-44'-14
direct	-336 Sep 05 j 19:05	27°♄07'02		min. Earth dist.	-330 Sep 13 j 02:37	15°♄06'11	8.22947 AU
desc. node	-336 Sep 23 j 10:59	27°♄22'45		direct	-330 Nov 18 j 20:15	11°♄42'13	
	-336 Nov 05 j 03:42	0°♄		evening set	-329 Feb 28 j 02:23	19°♄32'27	
evening set	-336 Dec 14 j 11:12	4°♄08'54		conjunction	-329 Mar 17 j 12:13	21°♄46'18	-2°-16'-7
conjunction	-336 Dec 31 j 03:42	6°♄07'49	0°-7'-27	minimum elong	-329 Mar 17 j 12:12	21°♄46'18	2°16'08
minimum elong	-336 Dec 31 j 03:41	6°♄07'49	0°07'28	max. Earth dist.	-329 Mar 17 j 11:16	21°♄46'00	10.17187 AU
behind sun begin	-336 Dec 30 j 21:18	6°♄05'56		morning rise	-329 Apr 04 j 02:49	24°♄01'43	
behind sun end	-336 Dec 31 j 10:05	6°♄09'42			-329 May 28 j 19:27	0°♄	
max. Earth dist.	-336 Dec 30 j 18:19	6°♄05'02	10.91189 AU	retrograde	-329 Jul 20 j 14:32	2°♄20'17	
morning rise	-335 Jan 16 j 22:34	8°♄07'32			-329 Sep 12 j 12:42	30°R♄	
retrograde	-335 Apr 30 j 06:31	15°♄25'16		opposition	-329 Sep 27 j 02:06	28°♄50'24	-2°-52'-22
opposition	-335 Jul 10 j 04:38	12°♄03'36	0°-26'-42	min. Earth dist.	-329 Sep 27 j 01:18	28°♄50'33	8.12163 AU
min. Earth dist.	-335 Jul 10 j 12:17	12°♄02'10	8.85868 AU	direct	-329 Dec 02 j 11:52	25°♄25'02	
direct	-335 Sep 17 j 16:40	8°♄44'35			-328 Feb 14 j 03:55	0°♄	
evening set	-335 Dec 26 j 05:08	15°♄51'25		evening set	-328 Mar 13 j 11:46	3°♄24'45	
conjunction	-334 Jan 11 j 23:27	17°♄52'14	0°-35'-42	conjunction	-328 Mar 31 j 01:53	5°♄41'21	-2°-18'-29
minimum elong	-334 Jan 11 j 23:26	17°♄52'14	0°35'43	minimum elong	-328 Mar 31 j 01:53	5°♄41'21	2°18'30
max. Earth dist.	-334 Jan 11 j 13:51	17°♄49'20	10.80261 AU	max. Earth dist.	-328 Mar 31 j 03:14	5°♄41'47	10.07386 AU
morning rise	-334 Jan 28 j 21:05	19°♄54'06		morning rise	-328 Apr 17 j 20:30	7°♄59'22	
retrograde	-334 May 13 j 02:44	27°♄21'07		retrograde	-328 Aug 03 j 09:13	16°♄24'25	
opposition	-334 Jul 22 j 19:41	23°♄57'56	-1°-1'-12	opposition	-328 Oct 10 j 07:49	12°♄53'59	-2°-50'-29
min. Earth dist.	-334 Jul 23 j 03:06	23°♄56'31	8.74230 AU	min. Earth dist.	-328 Oct 10 j 05:22	12°♄54'29	8.03561 AU
direct	-334 Sep 29 j 17:22	20°♄38'09					

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Attention, astronomical year style is used: The year -328 in astronomical counting style is the year 329 BCE in historical counting style.

direct	-328 Dec 15 j 11:51	9°Υ27'28		asc. node	-322 Aug 03 j 20:49	6°♄18'47	
evening set	-327 Mar 28 j 07:03	17°Υ35'27		retrograde	-322 Oct 28 j 17:31	12°♄13'26	
				opposition	-321 Jan 03 j 04:13	8°♄47'20	0°16'48
conjunction	-327 Apr 15 j 01:40	19°Υ54'29	-2°-12'-34	min. Earth dist.	-321 Jan 02 j 20:57	8°♄48'49	8.14972 AU
minimum elong	-327 Apr 15 j 01:43	19°Υ54'29	2°12'34	direct	-321 Mar 12 j 01:14	5°♄18'01	
max. Earth dist.	-327 Apr 15 j 05:37	19°Υ55'46	10.00100 AU	evening set	-321 Jun 26 j 09:30	13°♄27'51	
morning rise	-327 May 03 j 00:10	22°Υ14'44					
	-327 Jul 21 j 01:30	0°♄		conjunction	-321 Jul 14 j 10:37	15°♄45'19	0°30'11
retrograde	-327 Aug 18 j 06:36	0°♄43'11		minimum elong	-321 Jul 14 j 10:36	15°♄45'18	0°30'12
	-327 Sep 15 j 12:53	30°♄		max. Earth dist.	-321 Jul 14 j 19:38	15°♄48'11	10.20267 AU
opposition	-327 Oct 24 j 17:10	27°Υ12'35	-2°-38'-2	morning rise	-321 Aug 01 j 08:06	18°♄01'36	
min. Earth dist.	-327 Oct 24 j 13:05	27°Υ13'25	7.97720 AU	retrograde	-321 Nov 11 j 07:26	25°♄51'37	
direct	-327 Dec 29 j 19:35	23°Υ45'02		opposition	-320 Jan 16 j 22:08	22°♄27'05	0°56'51
	-326 Mar 27 j 14:03	0°♄		min. Earth dist.	-320 Jan 16 j 15:39	22°♄28'24	8.25889 AU
evening set	-326 Apr 12 j 10:01	1°♄59'22		direct	-320 Mar 25 j 10:15	18°♄58'17	
				evening set	-320 Jul 09 j 19:49	27°♄01'20	
conjunction	-326 Apr 30 j 09:00	4°♄20'18	-1°-58'-21				
minimum elong	-326 Apr 30 j 09:03	4°♄20'20	1°58'21	conjunction	-320 Jul 27 j 16:42	29°♄15'48	1°01'04
max. Earth dist.	-326 Apr 30 j 15:40	4°♄22'30	9.95818 AU	minimum elong	-320 Jul 27 j 16:39	29°♄15'47	1°01'05
morning rise	-326 May 18 j 10:46	6°♄42'08		max. Earth dist.	-320 Jul 28 j 00:13	29°♄18'10	10.31926 AU
	-326 Aug 19 j 09:51	15°♄			-320 Aug 02 j 12:47	0°♄	
retrograde	-326 Sep 02 j 03:47	15°♄10'33		morning rise	-320 Aug 14 j 09:20	1°♄28'54	
	-326 Sep 15 j 21:53	15°♄		retrograde	-320 Nov 23 j 10:41	9°♄08'30	
opposition	-326 Nov 08 j 04:20	11°♄40'10	-2°-15'-28	opposition	-319 Jan 29 j 09:27	5°♄45'30	1°32'41
min. Earth dist.	-326 Nov 07 j 22:24	11°♄41'24	7.95024 AU	min. Earth dist.	-319 Jan 29 j 03:37	5°♄46'40	8.38156 AU
direct	-325 Jan 13 j 09:25	8°♄11'46		direct	-319 Apr 08 j 13:35	2°♄17'28	
	-325 Apr 15 j 21:29	15°♄		evening set	-319 Jul 23 j 19:35	10°♄12'38	
evening set	-325 Apr 27 j 17:52	16°♄30'03					
				conjunction	-319 Aug 10 j 11:26	12°♄23'49	1°27'59
conjunction	-325 May 15 j 20:22	18°♄52'08	-1°-36'-36	minimum elong	-319 Aug 10 j 11:23	12°♄23'48	1°27'59
minimum elong	-325 May 15 j 20:26	18°♄52'09	1°36'36	max. Earth dist.	-319 Aug 10 j 17:30	12°♄25'42	10.44589 AU
max. Earth dist.	-325 May 16 j 05:25	18°♄55'06	9.94811 AU	morning rise	-319 Aug 27 j 22:34	14°♄33'30	
morning rise	-325 Jun 03 j 00:19	21°♄14'40			-319 Aug 31 j 13:55	15°♄	
retrograde	-325 Sep 16 j 22:00	29°♄39'37		retrograde	-319 Dec 06 j 07:09	22°♄03'08	
opposition	-325 Nov 22 j 15:10	26°♄09'51	-1°-44'-13	opposition	-318 Feb 11 j 13:57	18°♄41'34	2°02'40
min. Earth dist.	-325 Nov 22 j 07:38	26°♄11'25	7.95629 AU	min. Earth dist.	-318 Feb 11 j 08:36	18°♄42'37	8.51106 AU
direct	-324 Jan 28 j 02:47	22°♄40'47		direct	-318 Apr 22 j 07:57	15°♄14'30	
	-324 May 04 j 05:11	0°♄		evening set	-318 Aug 06 j 07:54	23°♄01'06	
evening set	-324 May 12 j 03:11	1°♄00'21					
				conjunction	-318 Aug 23 j 18:27	25°♄08'58	1°49'49
conjunction	-324 May 30 j 07:57	3°♄22'39	-1°-8'-46	minimum elong	-318 Aug 23 j 18:23	25°♄08'57	1°49'49
minimum elong	-324 May 30 j 08:00	3°♄22'40	1°08'46	max. Earth dist.	-318 Aug 23 j 23:34	25°♄10'32	10.57592 AU
max. Earth dist.	-324 May 30 j 18:30	3°♄26'07	9.97093 AU	morning rise	-318 Sep 09 j 23:58	27°♄15'17	
morning rise	-324 Jun 17 j 12:40	5°♄44'56			-318 Oct 03 j 22:01	0°♄	
retrograde	-324 Sep 30 j 10:56	14°♄03'30		retrograde	-318 Dec 18 j 19:51	4°♄35'45	
opposition	-324 Dec 05 j 23:44	10°♄34'40	-1°-6'-32	opposition	-317 Feb 24 j 12:03	1°♄15'29	2°25'49
min. Earth dist.	-324 Dec 05 j 15:25	10°♄36'24	7.99412 AU	min. Earth dist.	-317 Feb 24 j 07:46	1°♄16'19	8.64081 AU
direct	-323 Feb 10 j 20:12	7°♄05'11			-317 Mar 13 j 02:34	30°♄	
evening set	-323 May 27 j 10:43	15°♄23'32		direct	-317 May 05 j 17:59	27°♄49'33	
					-317 Jun 27 j 04:33	0°♄	
conjunction	-323 Jun 14 j 16:05	17°♄45'05	0°-36'-51	evening set	-317 Aug 19 j 08:35	5°♄27'20	
minimum elong	-323 Jun 14 j 16:07	17°♄45'06	0°36'51				
max. Earth dist.	-323 Jun 15 j 03:00	17°♄48'38	10.02384 AU	conjunction	-317 Sep 05 j 13:56	7°♄32'02	2°05'55
morning rise	-323 Jul 02 j 19:58	20°♄06'10		minimum elong	-317 Sep 05 j 13:53	7°♄32'02	2°05'54
retrograde	-323 Oct 14 j 18:11	28°♄16'15		max. Earth dist.	-317 Sep 05 j 17:56	7°♄33'16	10.70299 AU
opposition	-323 Dec 20 j 04:30	24°♄48'41	0°-25'-13	morning rise	-317 Sep 22 j 14:13	9°♄35'16	
min. Earth dist.	-323 Dec 19 j 20:20	24°♄50'22	8.05997 AU	retrograde	-317 Dec 31 j 00:36	16°♄47'40	
direct	-322 Feb 25 j 12:11	21°♄19'07		opposition	-316 Mar 08 j 03:59	13°♄28'32	2°41'36
evening set	-322 Jun 11 j 13:43	29°♄34'08		min. Earth dist.	-316 Mar 08 j 01:37	13°♄28'59	8.76467 AU
	-322 Jun 14 j 23:11	0°♄		direct	-316 May 17 j 20:39	10°♄03'45	
				evening set	-316 Aug 30 j 22:36	17°♄32'59	
conjunction	-322 Jun 29 j 17:49	1°♄54'02	0°-3'-11				
minimum elong	-322 Jun 29 j 17:49	1°♄54'02	0°03'11	conjunction	-316 Sep 16 j 23:06	19°♄34'51	2°16'00
behind sun begin	-322 Jun 29 j 10:30	1°♄51'42		minimum elong	-316 Sep 16 j 23:04	19°♄34'51	2°15'59
behind sun end	-322 Jun 30 j 01:08	1°♄56'23		max. Earth dist.	-316 Sep 17 j 00:50	19°♄35'22	10.82139 AU
max. Earth dist.	-322 Jun 30 j 04:08	1°♄57'21	10.10247 AU	morning rise	-316 Oct 03 j 18:59	21°♄35'22	
morning rise	-322 Jul 17 j 19:11	4°♄13'03		retrograde	-315 Jan 10 j 23:37	28°♄40'56	

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Attention, astronomical year style is used: The year -315 in astronomical counting style is the year 316 BCE in historical counting style.

opposition	-315 Mar 20 j 14:17	25°♄22'44	2°49'58	min. Earth dist.	-309 May 30 j 21:07	3°♃02'16	9.12675 AU
min. Earth dist.	-315 Mar 20 j 14:00	25°♄22'47	8.87725 AU		-309 Jul 23 j 01:32	30°♂♄	
direct	-315 May 30 j 15:19	21°♄59'08		direct	-309 Aug 09 j 15:02	29°♄45'18	
evening set	-315 Sep 12 j 02:49	29°♄20'22			-309 Aug 26 j 23:21	0°♃	
	-315 Sep 17 j 18:05	0°♄		evening set	-309 Nov 18 j 03:57	6°♃41'26	
conjunction	-315 Sep 28 j 23:09	1°♄19'50	2°20'05	conjunction	-309 Dec 04 j 17:13	8°♃37'05	0°58'45
minimum elong	-315 Sep 28 j 23:09	1°♄19'50	2°20'04	minimum elong	-309 Dec 04 j 17:15	8°♃37'06	0°58'44
max. Earth dist.	-315 Sep 28 j 22:21	1°♄19'36	10.92630 AU	max. Earth dist.	-309 Dec 04 j 09:54	8°♃34'56	11.10791 AU
morning rise	-315 Oct 15 j 15:33	3°♄18'08		morning rise	-309 Dec 21 j 06:49	10°♃32'55	
retrograde	-314 Jan 22 j 16:44	10°♄18'17		retrograde	-308 Mar 31 j 15:58	17°♃33'14	
opposition	-314 Apr 01 j 20:03	7°♄00'45	2°51'07	opposition	-308 Jun 10 j 14:53	14°♃14'58	0°56'04
min. Earth dist.	-314 Apr 01 j 20:57	7°♄00'35	8.97409 AU	min. Earth dist.	-308 Jun 10 j 21:27	14°♃13'46	9.08365 AU
direct	-314 Jun 12 j 03:41	3°♄38'22		direct	-308 Aug 20 j 06:19	10°♃57'08	
evening set	-314 Sep 23 j 22:19	10°♄52'21		evening set	-308 Nov 28 j 08:53	17°♃54'05	
conjunction	-314 Oct 10 j 15:30	12°♄49'55	2°18'23	conjunction	-308 Dec 14 j 23:00	19°♃50'41	0°32'46
minimum elong	-314 Oct 10 j 15:30	12°♄49'56	2°18'23	minimum elong	-308 Dec 14 j 23:01	19°♃50'41	0°32'46
max. Earth dist.	-314 Oct 10 j 13:23	12°♄49'18	11.01374 AU	max. Earth dist.	-308 Dec 14 j 14:30	19°♃48'11	11.05339 AU
morning rise	-314 Oct 27 j 05:15	14°♄46'31		morning rise	-308 Dec 31 j 14:29	21°♃47'44	
retrograde	-313 Feb 03 j 08:49	21°♄42'47		retrograde	-307 Apr 12 j 16:51	28°♃53'38	
opposition	-313 Apr 13 j 22:06	18°♄25'43	2°45'27	opposition	-307 Jun 22 j 17:54	25°♃34'25	0°23'12
min. Earth dist.	-313 Apr 13 j 23:45	18°♄25'24	9.05158 AU	min. Earth dist.	-307 Jun 23 j 01:22	25°♃33'02	9.01747 AU
direct	-313 Jun 24 j 10:11	15°♄04'29		direct	-307 Aug 31 j 21:44	22°♃16'34	
evening set	-313 Oct 05 j 11:01	22°♄12'15		evening set	-307 Dec 09 j 17:41	29°♃15'59	
conjunction	-313 Oct 22 j 01:58	24°♄08'27	2°11'15		-307 Dec 16 j 00:01	0°♃	
minimum elong	-313 Oct 22 j 02:00	24°♄08'28	2°11'16	conjunction	-307 Dec 26 j 09:07	1°♃13'54	0°05'14
max. Earth dist.	-313 Oct 21 j 23:01	24°♄07'36	11.08057 AU	minimum elong	-307 Dec 26 j 09:07	1°♃13'54	0°05'14
morning rise	-313 Nov 07 j 13:58	26°♄03'53		behind sun begin	-307 Dec 26 j 02:21	1°♃11'55	
	-313 Dec 15 j 07:13	0°♄		behind sun end	-307 Dec 26 j 15:53	1°♃15'53	
retrograde	-312 Feb 14 j 22:32	2°♄57'44		max. Earth dist.	-307 Dec 25 j 23:58	1°♃11'12	10.97682 AU
	-312 Apr 20 j 13:51	30°♂♄		morning rise	-306 Jan 12 j 02:55	3°♃12'32	
opposition	-312 Apr 24 j 21:21	29°♄40'56	2°33'30	desc. node	-306 Mar 05 j 13:01	8°♃26'14	
min. Earth dist.	-312 Apr 25 j 00:30	29°♄40'21	9.10705 AU	retrograde	-306 Apr 25 j 00:36	10°♃25'33	
direct	-312 Jul 05 j 08:46	26°♄20'45		opposition	-306 Jul 05 j 00:51	7°♃05'09	0°-11'-9
	-312 Sep 13 j 19:50	0°♄		min. Earth dist.	-306 Jul 05 j 08:34	7°♃03'43	8.93057 AU
evening set	-312 Oct 15 j 18:37	3°♄23'31		direct	-306 Sep 12 j 18:20	3°♃47'00	
				evening set	-306 Dec 21 j 07:58	10°♃50'27	
conjunction	-312 Nov 01 j 08:02	5°♄18'52	1°59'10	conjunction	-305 Jan 07 j 01:16	12°♃50'04	0°-23'-5
minimum elong	-312 Nov 01 j 08:04	5°♄18'53	1°59'10	minimum elong	-305 Jan 07 j 01:15	12°♃50'04	0°23'07
max. Earth dist.	-312 Nov 01 j 03:15	5°♄17'28	11.12446 AU	max. Earth dist.	-305 Jan 06 j 16:49	12°♃47'32	10.88066 AU
morning rise	-312 Nov 17 j 19:21	7°♄13'40		morning rise	-305 Jan 23 j 21:33	14°♃50'37	
retrograde	-311 Feb 25 j 11:10	14°♄06'43		retrograde	-305 May 07 j 16:05	22°♃12'06	
opposition	-311 May 06 j 19:17	10°♄49'56	2°15'53	opposition	-305 Jul 17 j 12:35	18°♃50'20	0°-45'-48
min. Earth dist.	-311 May 07 j 00:25	10°♄48'59	9.13861 AU	min. Earth dist.	-305 Jul 17 j 19:33	18°♃49'01	8.82570 AU
direct	-311 Jul 17 j 05:03	7°♄30'38		direct	-305 Sep 24 j 17:18	15°♃31'39	
evening set	-311 Oct 26 j 22:44	14°♄29'45		evening set	-304 Jan 02 j 05:40	22°♃40'43	
	-311 Oct 31 j 08:08	15°♄					
conjunction	-311 Nov 12 j 11:19	16°♄24'43	1°42'39	conjunction	-304 Jan 19 j 01:05	24°♃42'19	0°-50'-55
minimum elong	-311 Nov 12 j 11:21	16°♄24'44	1°42'38	minimum elong	-304 Jan 19 j 01:03	24°♃42'18	0°50'57
max. Earth dist.	-311 Nov 12 j 04:32	16°♄22'44	11.14397 AU	max. Earth dist.	-304 Jan 18 j 17:24	24°♃39'59	10.76794 AU
morning rise	-311 Nov 28 j 22:50	18°♄19'24		morning rise	-304 Feb 04 j 23:59	26°♃45'04	
retrograde	-310 Mar 09 j 01:14	25°♄13'16			-304 Mar 05 j 01:54	0°♂	
opposition	-310 May 18 j 16:48	21°♄56'14	1°53'16	retrograde	-304 May 19 j 15:24	4°♂16'12	
min. Earth dist.	-310 May 18 j 22:52	21°♄55'08	9.14525 AU	opposition	-304 Jul 29 j 05:52	0°♂52'55	-1°-19'-23
direct	-310 Jul 28 j 22:49	18°♄37'39		min. Earth dist.	-304 Jul 29 j 11:53	0°♂51'47	8.70626 AU
evening set	-310 Nov 07 j 01:14	25°♄34'31			-304 Aug 09 j 23:25	30°♂♄	
				direct	-304 Oct 05 j 21:04	27°♃33'27	
conjunction	-310 Nov 23 j 13:52	27°♄29'36	1°22'17		-304 Nov 28 j 23:43	0°♂	
minimum elong	-310 Nov 23 j 13:54	27°♄29'37	1°22'17	evening set	-303 Jan 13 j 12:12	4°♂49'39	
max. Earth dist.	-310 Nov 23 j 06:39	27°♄27'29	11.13843 AU				
morning rise	-310 Dec 10 j 02:09	29°♄24'39		conjunction	-303 Jan 30 j 09:57	6°♂53'33	-1°-17'-8
	-310 Dec 15 j 06:46	0°♃		minimum elong	-303 Jan 30 j 09:55	6°♂53'32	1°17'10
retrograde	-309 Mar 20 j 18:00	6°♃20'56		max. Earth dist.	-303 Jan 30 j 02:14	6°♂51'11	10.64255 AU
opposition	-309 May 30 j 14:54	3°♃03'24	1°26'23	morning rise	-303 Feb 16 j 11:53	8°♂58'47	

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Attention, astronomical year style is used: The year -303 in astronomical counting style is the year 304 BCE in historical counting style.

	-303 Apr 17 j 09:46	15°♊		opposition	-297 Nov 01 j 17:05	5°♄03'11	-2°-27'-29
retrograde	-303 Jun 02 j 00:32	16°♊40'29		min. Earth dist.	-297 Nov 01 j 12:43	5°♄04'06	7.96245 AU
	-303 Jul 18 j 13:05	15°♋		direct	-296 Jan 06 j 20:53	1°♄34'53	
opposition	-303 Aug 11 j 05:48	13°♋15'41	-1°-50'-19	evening set	-296 Apr 19 j 19:53	9°♄50'52	
min. Earth dist.	-303 Aug 11 j 11:20	13°♋14'37	8.57660 AU				
direct	-303 Oct 18 j 06:54	9°♋55'11		conjunction	-296 May 07 j 20:42	12°♄12'23	-1°-47'-56
	-302 Jan 06 j 08:15	15°♋		minimum elong	-296 May 07 j 20:46	12°♄12'24	1°47'56
evening set	-302 Jan 26 j 04:48	17°♋19'52		max. Earth dist.	-296 May 08 j 02:57	12°♄14'26	9.94882 AU
				morning rise	-296 May 25 j 23:40	14°♄34'36	
conjunction	-302 Feb 12 j 05:20	19°♋26'21	-1°-40'-24		-296 May 29 j 06:50	15°♄	
minimum elong	-302 Feb 12 j 05:17	19°♋26'20	1°40'25	retrograde	-296 Sep 09 j 07:10	23°♄01'11	
max. Earth dist.	-302 Feb 11 j 21:52	19°♋24'01	10.50958 AU	opposition	-296 Nov 15 j 03:41	19°♄30'40	-2°00'-14
morning rise	-302 Mar 01 j 10:39	21°♋34'19		min. Earth dist.	-296 Nov 14 j 22:18	19°♄31'47	7.94600 AU
retrograde	-302 Jun 15 j 17:41	29°♋27'02		direct	-295 Jan 20 j 11:55	16°♄01'25	
opposition	-302 Aug 24 j 12:39	26°♋00'44	-2°-16'-53	evening set	-295 May 05 j 04:08	24°♄20'22	
min. Earth dist.	-302 Aug 24 j 17:36	25°♋59'46	8.44270 AU				
direct	-302 Oct 31 j 00:07	22°♋39'01		conjunction	-295 May 23 j 07:53	26°♄42'41	-1°-22'-50
	-301 Feb 06 j 13:42	0°♌		minimum elong	-295 May 23 j 07:56	26°♄42'42	1°22'50
evening set	-301 Feb 08 j 08:41	0°♌13'15		max. Earth dist.	-295 May 23 j 15:37	26°♄45'13	9.94961 AU
				morning rise	-295 Jun 10 j 12:33	29°♄05'15	
conjunction	-301 Feb 25 j 12:33	2°♌22'29	-1°-59'-16		-295 Jun 17 j 16:24	0°♍	
minimum elong	-301 Feb 25 j 12:30	2°♌22'28	1°59'17	retrograde	-295 Sep 23 j 22:14	7°♍27'10	
max. Earth dist.	-301 Feb 25 j 06:38	2°♌20'37	10.37584 AU	opposition	-295 Nov 29 j 13:06	3°♍57'20	-1°-25'-22
morning rise	-301 Mar 14 j 21:25	4°♌33'18		min. Earth dist.	-295 Nov 29 j 06:50	3°♍58'39	7.96301 AU
retrograde	-301 Jun 29 j 18:21	12°♌36'48		direct	-294 Feb 04 j 05:15	0°♍27'26	
opposition	-301 Sep 07 j 02:18	9°♌09'03	-2°-37'-15	evening set	-294 May 20 j 12:37	8°♍46'46	
min. Earth dist.	-301 Sep 07 j 06:00	9°♌08'19	8.31191 AU				
direct	-301 Nov 13 j 02:59	5°♌46'01		conjunction	-294 Jun 07 j 17:50	11°♍08'54	0°-52'-38
evening set	-300 Feb 22 j 00:13	13°♌30'14		minimum elong	-294 Jun 07 j 17:53	11°♍08'55	0°52'38
				max. Earth dist.	-294 Jun 08 j 02:38	11°♍11'46	9.98350 AU
conjunction	-300 Mar 10 j 07:57	15°♌42'22	-2°-12'-21	morning rise	-294 Jun 25 j 22:35	13°♍30'48	
minimum elong	-300 Mar 10 j 07:55	15°♌42'21	2°12'22	retrograde	-294 Oct 08 j 07:55	21°♍45'27	
max. Earth dist.	-300 Mar 10 j 04:43	15°♌41'20	10.24895 AU	opposition	-294 Dec 13 j 19:46	18°♍16'40	0°-45'-27
morning rise	-300 Mar 27 j 20:30	17°♌56'03		min. Earth dist.	-294 Dec 13 j 12:37	18°♍18'09	8.01214 AU
retrograde	-300 Jul 13 j 02:55	26°♌09'17		direct	-293 Feb 18 j 22:46	14°♍46'29	
opposition	-300 Sep 19 j 22:41	22°♌40'15	-2°-49'-39	evening set	-293 Jun 04 j 17:54	23°♍03'39	
min. Earth dist.	-300 Sep 20 j 00:09	22°♌39'58	8.19178 AU				
direct	-300 Nov 25 j 14:18	19°♌15'50		conjunction	-293 Jun 22 j 22:49	25°♍24'35	0°-19'-30
evening set	-299 Mar 07 j 03:04	27°♌09'50		minimum elong	-293 Jun 22 j 22:50	25°♍24'35	0°19'31
				max. Earth dist.	-293 Jun 23 j 08:24	25°♍27'41	10.04797 AU
conjunction	-299 Mar 24 j 15:04	29°♌24'50	-2°-18'-22	morning rise	-293 Jul 11 j 01:50	27°♍44'52	
minimum elong	-299 Mar 24 j 15:04	29°♌24'50	2°18'23		-293 Jul 29 j 08:40	0°♎	
max. Earth dist.	-299 Mar 24 j 14:46	29°♌24'44	10.13650 AU	retrograde	-293 Oct 22 j 10:20	5°♎50'24	
	-299 Mar 29 j 03:44	0°♏		opposition	-293 Dec 27 j 22:00	2°♎22'57	0°-3'-23
morning rise	-299 Apr 11 j 07:32	1°♏41'18		min. Earth dist.	-293 Dec 27 j 13:58	2°♎24'36	8.09004 AU
retrograde	-299 Jul 27 j 18:41	10°♏02'22		asc. node	-292 Jan 27 j 13:44	0°♎04'40	
opposition	-299 Oct 04 j 00:53	6°♏32'20	-2°-52'-37		-292 Jan 28 j 20:39	30°♏♌	
min. Earth dist.	-299 Oct 03 j 23:59	6°♏32'31	8.08948 AU	direct	-292 Mar 04 j 14:08	28°♏52'52	
direct	-299 Dec 09 j 08:27	3°♏06'31			-292 Apr 09 j 03:31	0°♎	
evening set	-298 Mar 21 j 16:43	11°♏09'31		evening set	-292 Jun 18 j 17:15	7°♎05'39	
conjunction	-298 Apr 08 j 09:13	13°♏27'11	-2°-16'-25	conjunction	-292 Jul 06 j 20:08	9°♎24'30	0°14'18
minimum elong	-298 Apr 08 j 09:15	13°♏27'11	2°16'26	minimum elong	-292 Jul 06 j 20:07	9°♎24'30	0°14'19
max. Earth dist.	-298 Apr 08 j 11:34	13°♏27'56	10.04539 AU	behind sun begin	-292 Jul 06 j 16:55	9°♎23'29	
morning rise	-298 Apr 26 j 05:38	15°♏46'08		behind sun end	-292 Jul 06 j 23:19	9°♎25'31	
retrograde	-298 Aug 11 j 14:54	24°♏12'18		max. Earth dist.	-292 Jul 07 j 06:13	9°♎27'44	10.13871 AU
opposition	-298 Oct 18 j 07:29	20°♏41'40	-2°-45'-15	morning rise	-292 Jul 24 j 19:49	11°♎42'20	
min. Earth dist.	-298 Oct 18 j 04:33	20°♏42'17	8.01136 AU	retrograde	-292 Nov 04 j 04:25	19°♎37'41	
direct	-298 Dec 23 j 11:01	17°♏14'31		opposition	-291 Jan 09 j 18:35	16°♎11'46	0°37'55
evening set	-297 Apr 05 j 15:13	25°♏25'04		min. Earth dist.	-291 Jan 09 j 10:27	16°♎13'26	8.19167 AU
				direct	-291 Mar 19 j 00:54	12°♎42'08	
conjunction	-297 Apr 23 j 12:07	27°♏44'59	-2°-6'-10	evening set	-291 Jul 03 j 08:18	20°♎48'48	
minimum elong	-297 Apr 23 j 12:10	27°♏44'59	2°06'10				
max. Earth dist.	-297 Apr 23 j 16:36	27°♏46'27	9.98144 AU	conjunction	-291 Jul 21 j 07:38	23°♎04'53	0°46'33
	-297 May 10 j 17:46	0°♏		minimum elong	-291 Jul 21 j 07:36	23°♎04'52	0°46'34
morning rise	-297 May 11 j 12:11	0°♏05'56		max. Earth dist.	-291 Jul 21 j 17:29	23°♎08'01	10.24992 AU
retrograde	-297 Aug 26 j 11:51	8°♏33'59		morning rise	-291 Aug 08 j 02:44	25°♎19'40	

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Attention, astronomical year style is used: The year -291 in astronomical counting style is the year 292 BCE in historical counting style.

	-291 Sep 18 j 17:24	0°♈		minimum elong	-285 Oct 05 j 13:28	7°♊39'54	2°19'44
retrograde	-291 Nov 17 j 14:00	3°♈04'30		max. Earth dist.	-285 Oct 05 j 13:10	7°♊39'49	10.97969 AU
	-290 Jan 19 j 06:49	30°♈♁		morning rise	-285 Oct 22 j 04:18	9°♊37'16	
opposition	-290 Jan 23 j 09:04	29°♈40'15	1°16'02	retrograde	-284 Jan 29 j 08:19	16°♊35'27	
min. Earth dist.	-290 Jan 23 j 01:43	29°♈41'44	8.31074 AU	opposition	-284 Apr 07 j 15:11	13°♊18'42	2°48'45
direct	-290 Apr 02 j 05:21	26°♈11'23		min. Earth dist.	-284 Apr 07 j 16:50	13°♊18'24	9.02334 AU
	-290 Jun 10 j 15:43	0°♈		direct	-284 Jun 17 j 23:37	9°♊57'27	
evening set	-290 Jul 17 j 13:21	4°♈10'37		evening set	-284 Sep 29 j 11:15	17°♊08'19	
conjunction	-290 Aug 04 j 07:53	6°♈23'31	1°15'33	conjunction	-284 Oct 16 j 03:05	19°♊05'08	2°15'07
minimum elong	-290 Aug 04 j 07:50	6°♈23'30	1°15'34	minimum elong	-284 Oct 16 j 03:06	19°♊05'08	2°15'07
max. Earth dist.	-290 Aug 04 j 16:30	6°♈26'13	10.37495 AU	max. Earth dist.	-284 Oct 15 j 23:48	19°♊04'10	11.05802 AU
morning rise	-290 Aug 21 j 21:38	8°♈34'56		morning rise	-284 Nov 01 j 15:54	21°♊01'04	
	-290 Oct 25 j 14:26	15°♈		retrograde	-283 Feb 08 j 21:47	27°♊56'04	
retrograde	-290 Nov 30 j 15:15	16°♈09'30		opposition	-283 Apr 19 j 16:05	24°♊39'42	2°39'41
	-289 Jan 06 j 04:31	15°♈♁		min. Earth dist.	-283 Apr 19 j 19:27	24°♊39'04	9.09006 AU
opposition	-289 Feb 05 j 16:58	12°♈46'56	1°49'00	direct	-283 Jun 30 j 02:21	21°♊19'31	
min. Earth dist.	-289 Feb 05 j 10:59	12°♈48'07	8.44048 AU	evening set	-283 Oct 10 j 21:37	28°♊24'48	
direct	-289 Apr 16 j 02:46	9°♈19'07			-283 Oct 24 j 13:35	0°♌	
	-289 Jul 12 j 19:53	15°♈		conjunction	-283 Oct 27 j 11:36	0°♌20'31	2°05'18
evening set	-289 Jul 31 j 07:20	17°♈10'05		minimum elong	-283 Oct 27 j 11:38	0°♌20'31	2°05'18
conjunction	-289 Aug 17 j 20:29	19°♈19'38	1°39'56	max. Earth dist.	-283 Oct 27 j 06:37	0°♌19'03	11.11250 AU
minimum elong	-289 Aug 17 j 20:26	19°♈19'37	1°39'56	morning rise	-283 Nov 12 j 23:15	2°♌15'34	
max. Earth dist.	-289 Aug 18 j 03:06	19°♈21'41	10.50703 AU	retrograde	-282 Feb 20 j 11:55	9°♌09'05	
morning rise	-289 Sep 04 j 04:44	21°♈27'38		opposition	-282 May 01 j 15:03	5°♌52'47	2°24'39
retrograde	-289 Dec 13 j 06:25	28°♈52'37		min. Earth dist.	-282 May 01 j 19:25	5°♌51'59	9.13155 AU
opposition	-288 Feb 18 j 18:14	25°♈31'38	2°15'31	direct	-282 Jul 12 j 02:26	2°♌33'31	
min. Earth dist.	-288 Feb 18 j 13:36	25°♈32'33	8.57403 AU	evening set	-282 Oct 22 j 03:35	9°♌34'32	
direct	-288 Apr 28 j 17:51	22°♈05'03		conjunction	-282 Nov 07 j 16:37	11°♌29'41	1°50'47
evening set	-288 Aug 12 j 13:53	29°♈47'23		minimum elong	-282 Nov 07 j 16:39	11°♌29'41	1°50'46
	-288 Aug 14 j 07:58	0°♎		max. Earth dist.	-282 Nov 07 j 10:44	11°♌27'58	11.14117 AU
conjunction	-288 Aug 29 j 21:39	1°♎53'38	1°58'50	morning rise	-282 Nov 24 j 03:52	13°♌24'23	
minimum elong	-288 Aug 29 j 21:36	1°♎53'37	1°58'50		-282 Dec 08 j 11:04	15°♌	
max. Earth dist.	-288 Aug 30 j 02:04	1°♎54'59	10.63947 AU	retrograde	-281 Mar 04 j 03:19	20°♌18'02	
morning rise	-288 Sep 16 j 00:37	3°♎58'25		opposition	-281 May 13 j 13:10	17°♌01'31	2°04'17
retrograde	-288 Dec 24 j 14:28	11°♎14'49		min. Earth dist.	-281 May 13 j 18:54	17°♌00'29	9.14677 AU
opposition	-287 Mar 02 j 13:14	7°♎55'14	2°34'51	direct	-281 Jun 12 j 08:30	15°♌♁	
min. Earth dist.	-287 Mar 02 j 09:26	7°♎55'58	8.70467 AU		-281 Jul 23 j 20:49	13°♌42'58	
direct	-287 May 12 j 01:26	4°♎30'01		evening set	-281 Sep 02 j 07:44	15°♌	
evening set	-287 Aug 25 j 09:26	12°♎03'41			-281 Nov 02 j 07:20	20°♌41'06	
conjunction	-287 Sep 11 j 12:12	14°♎06'55	2°11'48	conjunction	-281 Nov 18 j 19:59	22°♌36'10	1°32'08
minimum elong	-287 Sep 11 j 12:10	14°♎06'55	2°11'48	minimum elong	-281 Nov 18 j 20:01	22°♌36'11	1°32'07
max. Earth dist.	-287 Sep 11 j 15:17	14°♎07'51	10.76593 AU	max. Earth dist.	-281 Nov 18 j 12:11	22°♌33'54	11.14368 AU
morning rise	-287 Sep 28 j 10:15	16°♎08'45		morning rise	-281 Dec 05 j 07:46	24°♌31'04	
retrograde	-286 Jan 05 j 18:17	23°♎17'44			-280 Feb 01 j 03:15	0°♏	
opposition	-286 Mar 15 j 02:31	19°♎59'22	2°46'44	retrograde	-280 Mar 14 j 17:52	1°♏26'24	
min. Earth dist.	-286 Mar 14 j 23:50	19°♎59'52	8.82640 AU		-280 Apr 27 j 16:42	30°♌♁	
direct	-286 May 24 j 23:26	16°♎35'33		opposition	-280 May 24 j 11:20	28°♌09'23	1°39'18
evening set	-286 Sep 06 j 18:42	24°♎00'52		min. Earth dist.	-280 May 24 j 18:50	28°♌08'00	9.13593 AU
				direct	-280 Aug 03 j 12:46	24°♌51'13	
conjunction	-286 Sep 23 j 17:06	26°♎01'30	2°18'44		-280 Oct 27 j 05:30	0°♏	
minimum elong	-286 Sep 23 j 17:05	26°♎01'30	2°18'44	evening set	-280 Nov 12 j 10:25	1°♏48'00	
max. Earth dist.	-286 Sep 23 j 18:58	26°♎02'03	10.88093 AU	conjunction	-280 Nov 28 j 23:14	3°♏43'26	1°09'58
morning rise	-286 Oct 10 j 11:00	28°♎00'50		minimum elong	-280 Nov 28 j 23:17	3°♏43'26	1°09'58
	-286 Oct 27 j 23:57	0°♐		max. Earth dist.	-280 Nov 28 j 13:47	3°♏40'39	11.12051 AU
retrograde	-285 Jan 17 j 15:01	5°♐03'43		morning rise	-280 Dec 15 j 12:17	5°♏38'56	
opposition	-285 Mar 27 j 10:58	1°♐46'17	2°51'16	retrograde	-279 Mar 26 j 12:52	12°♏37'35	
min. Earth dist.	-285 Mar 27 j 10:09	1°♐46'26	8.93415 AU	opposition	-279 Jun 05 j 10:56	9°♏19'45	1°10'28
	-285 Apr 21 j 07:19	30°♐♁		min. Earth dist.	-279 Jun 05 j 19:21	9°♏18'12	9.09981 AU
direct	-285 Jun 06 j 14:22	28°♐23'49		direct	-279 Aug 15 j 06:27	6°♏01'44	
	-285 Jul 21 j 22:35	0°♐		evening set	-279 Nov 23 j 14:22	12°♏58'36	
evening set	-285 Sep 18 j 18:45	5°♐41'27					
conjunction	-285 Oct 05 j 13:28	7°♐39'54	2°19'44	conjunction	-279 Dec 10 j 04:04	14°♏54'50	0°45'01

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Attention, astronomical year style is used: The year -279 in astronomical counting style is the year 280 BCE in historical counting style.

minimum elong	-279 Dec 10 j 04:06	14°♄54'50	0°45'01	conjunction	-272 Feb 19 j 18:39	26°♁39'29	-1°-51'-17
max. Earth dist.	-279 Dec 09 j 18:39	14°♄52'03	11.07266 AU	minimum elong	-272 Feb 19 j 18:36	26°♁39'28	1°51'19
morning rise	-279 Dec 26 j 18:43	16°♄51'24		max. Earth dist.	-272 Feb 19 j 13:45	26°♁37'57	10.41908 AU
retrograde	-278 Apr 07 j 11:55	23°♄54'57		morning rise	-272 Mar 08 j 01:43	28°♁49'09	
opposition	-278 Jun 17 j 12:48	20°♄36'00	0°38'38		-272 Mar 17 j 19:22	0°♁	
min. Earth dist.	-278 Jun 17 j 20:48	20°♄34'31	9.03984 AU	retrograde	-272 Jun 22 j 16:14	6°♁48'20	
direct	-278 Aug 26 j 23:11	17°♄17'54		opposition	-272 Aug 31 j 06:03	3°♁20'34	-2°-28'-54
evening set	-278 Dec 04 j 21:22	24°♄16'28		min. Earth dist.	-272 Aug 31 j 08:42	3°♁20'02	8.35507 AU
					-272 Oct 30 j 22:21	30°♁	
conjunction	-278 Dec 21 j 12:23	26°♄13'52	0°18'04	direct	-272 Nov 06 j 12:06	29°♁57'37	
minimum elong	-278 Dec 21 j 12:23	26°♄13'53	0°18'05		-272 Nov 13 j 01:14	0°♁	
max. Earth dist.	-278 Dec 21 j 03:18	26°♄11'12	11.00181 AU	evening set	-271 Feb 15 j 02:30	7°♁37'40	
morning rise	-277 Jan 07 j 05:01	28°♄11'52					
	-277 Jan 23 j 04:52	0°♁		conjunction	-271 Mar 04 j 08:21	9°♁48'37	-2°-7'-12
retrograde	-277 Apr 19 j 17:57	5°♁21'52		minimum elong	-271 Mar 04 j 08:19	9°♁48'36	2°07'13
opposition	-277 Jun 29 j 17:53	2°♁01'37	0°04'49	max. Earth dist.	-271 Mar 04 j 04:47	9°♁47'29	10.29160 AU
min. Earth dist.	-277 Jun 30 j 01:38	2°♁00'10	8.95816 AU	morning rise	-271 Mar 21 j 19:10	12°♁01'09	
	-277 Jul 29 j 02:31	30°♁		retrograde	-271 Jul 06 j 22:42	20°♁10'34	
desc. node	-277 Aug 21 j 08:15	28°♄58'04		opposition	-271 Sep 13 j 23:44	16°♁41'36	-2°-45'-9
direct	-277 Sep 07 j 17:40	28°♄43'10		min. Earth dist.	-271 Sep 14 j 01:01	16°♁41'20	8.23288 AU
	-277 Oct 17 j 04:21	0°♁		direct	-271 Nov 19 j 18:22	13°♁17'25	
evening set	-277 Dec 16 j 09:10	5°♁45'04		evening set	-270 Mar 01 j 00:25	21°♁07'23	
conjunction	-276 Jan 02 j 01:41	7°♁44'02	0°-10'-4	conjunction	-270 Mar 18 j 10:16	23°♁21'11	-2°-16'-34
minimum elong	-276 Jan 02 j 01:40	7°♁44'02	0°10'05	minimum elong	-270 Mar 18 j 10:15	23°♁21'10	2°16'35
behind sun begin	-276 Jan 01 j 20:00	7°♁42'21		max. Earth dist.	-270 Mar 18 j 08:44	23°♁20'41	10.17558 AU
behind sun end	-276 Jan 02 j 07:20	7°♁45'42		morning rise	-270 Apr 05 j 01:03	25°♁36'33	
max. Earth dist.	-276 Jan 01 j 16:05	7°♁41'11	10.91051 AU		-270 May 12 j 19:39	0°♁	
morning rise	-276 Jan 18 j 20:46	9°♁43'49		retrograde	-270 Jul 21 j 12:15	3°♁54'42	
retrograde	-276 May 01 j 05:41	17°♁01'41		opposition	-270 Sep 27 j 23:42	0°♁24'49	-2°-52'-32
opposition	-276 Jul 11 j 03:31	13°♁40'02	0°-29'-53	min. Earth dist.	-270 Sep 27 j 23:30	0°♁24'51	8.12554 AU
min. Earth dist.	-276 Jul 11 j 11:22	13°♁38'33	8.85770 AU		-270 Oct 03 j 01:58	30°♁	
direct	-276 Sep 18 j 13:45	10°♁21'00		direct	-270 Dec 03 j 09:17	26°♁59'24	
evening set	-276 Dec 27 j 03:19	17°♁27'53			-269 Jan 30 j 21:16	0°♁	
				evening set	-269 Mar 15 j 09:31	4°♁58'49	
conjunction	-275 Jan 12 j 21:39	19°♁28'42	0°-38'-14	conjunction	-269 Apr 01 j 23:47	7°♁15'21	-2°-18'-19
minimum elong	-275 Jan 12 j 21:38	19°♁28'42	0°38'15	minimum elong	-269 Apr 01 j 23:47	7°♁15'21	2°18'20
max. Earth dist.	-275 Jan 12 j 11:56	19°♁25'46	10.80207 AU	max. Earth dist.	-269 Apr 02 j 00:56	7°♁15'44	10.07792 AU
morning rise	-275 Jan 29 j 19:29	21°♁30'36		morning rise	-269 Apr 19 j 18:32	9°♁33'20	
retrograde	-275 May 14 j 00:06	28°♁57'43		retrograde	-269 Aug 05 j 06:10	17°♁57'52	
opposition	-275 Jul 23 j 18:34	25°♁34'30	-1°-4'-12	opposition	-269 Oct 12 j 04:45	14°♁27'27	-2°-49'-53
min. Earth dist.	-275 Jul 24 j 02:13	25°♁33'03	8.74223 AU	min. Earth dist.	-269 Oct 12 j 02:41	14°♁27'52	8.03970 AU
direct	-275 Sep 30 j 16:17	22°♁14'43		direct	-269 Dec 17 j 09:57	11°♁00'54	
evening set	-274 Jan 08 j 05:37	29°♁28'06		evening set	-268 Mar 29 j 04:24	19°♁08'34	
	-274 Jan 12 j 15:37	0°♁					
conjunction	-274 Jan 25 j 02:17	1°♁31'07	-1°-5'-23	conjunction	-268 Apr 15 j 23:15	21°♁27'33	-2°-11'-48
minimum elong	-274 Jan 25 j 02:15	1°♁31'07	1°05'24	minimum elong	-268 Apr 15 j 23:17	21°♁27'33	2°11'49
max. Earth dist.	-274 Jan 24 j 17:59	1°♁28'34	10.68059 AU	max. Earth dist.	-268 Apr 16 j 03:29	21°♁28'56	10.00506 AU
morning rise	-274 Feb 11 j 02:59	3°♁35'24		morning rise	-268 May 03 j 21:46	23°♁47'43	
retrograde	-274 May 27 j 04:21	11°♁12'46			-268 Jun 29 j 01:17	0°♁	
opposition	-274 Aug 05 j 15:35	7°♁47'59	-1°-36'-37	retrograde	-268 Aug 19 j 02:18	2°♁15'40	
min. Earth dist.	-274 Aug 05 j 21:54	7°♁46'46	8.61630 AU		-268 Oct 10 j 03:14	30°♁	
direct	-274 Oct 13 j 00:33	4°♁27'15		opposition	-268 Oct 25 j 13:37	28°♁45'05	-2°-36'-44
evening set	-273 Jan 20 j 17:31	11°♁48'32		min. Earth dist.	-268 Oct 25 j 09:21	28°♁45'58	7.98114 AU
				direct	-268 Dec 30 j 17:27	25°♁17'31	
					-267 Mar 15 j 07:36	0°♁	
conjunction	-273 Feb 06 j 16:56	13°♁54'01	-1°-30'-12	evening set	-267 Apr 13 j 06:53	3°♁31'32	
minimum elong	-273 Feb 06 j 16:54	13°♁54'00	1°30'14				
max. Earth dist.	-273 Feb 06 j 10:26	13°♁52'00	10.55099 AU				
	-273 Feb 15 j 13:52	15°♁		conjunction	-267 May 01 j 06:05	5°♁52'27	-1°-57'-4
morning rise	-273 Feb 23 j 20:40	16°♁00'55		minimum elong	-267 May 01 j 06:08	5°♁52'28	1°57'04
retrograde	-273 Jun 09 j 18:16	23°♁49'10		max. Earth dist.	-267 May 01 j 13:20	5°♁54'50	9.96200 AU
opposition	-273 Aug 18 j 19:19	20°♁22'49	-2°-5'-27	morning rise	-267 May 19 j 07:50	8°♁14'12	
min. Earth dist.	-273 Aug 18 j 23:47	20°♁21'57	8.48518 AU		-267 Jul 21 j 06:51	15°♁	
direct	-273 Oct 25 j 14:07	17°♁01'02		retrograde	-267 Sep 02 j 23:05	16°♁42'09	
evening set	-272 Feb 02 j 16:14	24°♁31'21			-267 Oct 17 j 04:43	15°♁	
				opposition	-267 Nov 09 j 00:20	13°♁11'48	-2°-13'-33

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Attention, astronomical year style is used: The year -267 in astronomical counting style is the year 268 BCE in historical counting style.

min. Earth dist.	-267 Nov 08 j 17:59	13°♄13'07	7.95385 AU	retrograde	-261 Nov 25 j 06:07	10°♄36'28	
direct	-266 Jan 14 j 06:00	9°♄43'24		opposition	-260 Jan 31 j 04:18	7°♄13'30	1°34'59
	-266 Apr 04 j 01:23	15°♄		min. Earth dist.	-260 Jan 30 j 22:12	7°♄14'43	8.38253 AU
evening set	-266 Apr 28 j 14:30	18°♄01'25		direct	-260 Apr 09 j 08:00	3°♄45'30	
				evening set	-260 Jul 24 j 14:45	11°♄40'41	
conjunction	-266 May 16 j 17:10	20°♄23'28	-1°-34'-51				
minimum elong	-266 May 16 j 17:14	20°♄23'29	1°34'51	conjunction	-260 Aug 11 j 06:31	13°♄51'50	1°29'41
max. Earth dist.	-266 May 17 j 02:33	20°♄26'33	9.95159 AU	minimum elong	-260 Aug 11 j 06:27	13°♄51'49	1°29'41
morning rise	-266 Jun 03 j 21:06	22°♄45'57		max. Earth dist.	-260 Aug 11 j 12:52	13°♄53'49	10.44597 AU
	-266 Aug 12 j 20:58	0°♄			-260 Aug 20 j 09:33	15°♄	
retrograde	-266 Sep 17 j 17:37	1°♄10'29		morning rise	-260 Aug 28 j 17:21	16°♄01'28	
	-266 Oct 23 j 20:46	30°♄		retrograde	-260 Dec 07 j 02:38	23°♄31'11	
opposition	-266 Nov 23 j 10:49	27°♄40'46	-1°-41'-48	opposition	-259 Feb 12 j 08:56	20°♄09'39	2°04'34
min. Earth dist.	-266 Nov 23 j 03:14	27°♄42'20	7.95958 AU	min. Earth dist.	-259 Feb 12 j 03:45	20°♄10'40	8.51029 AU
direct	-265 Jan 28 j 21:26	24°♄11'43		direct	-259 Apr 23 j 02:28	16°♄42'37	
	-265 Apr 23 j 16:11	0°♄		evening set	-259 Aug 07 j 03:11	24°♄29'23	
evening set	-265 May 13 j 23:41	2°♄31'06					
				conjunction	-259 Aug 24 j 13:36	26°♄37'14	1°51'09
conjunction	-265 Jun 01 j 04:29	4°♄53'22	-1°-6'-42	minimum elong	-259 Aug 24 j 13:33	26°♄37'13	1°51'09
minimum elong	-265 Jun 01 j 04:32	4°♄53'23	1°06'42	max. Earth dist.	-259 Aug 24 j 18:50	28°♄38'51	10.57424 AU
max. Earth dist.	-265 Jun 01 j 14:57	4°♄56'48	9.97422 AU	morning rise	-259 Sep 10 j 18:50	28°♄43'33	
morning rise	-265 Jun 19 j 09:09	7°♄15'36			-259 Sep 21 j 13:16	0°♄	
retrograde	-265 Oct 02 j 07:51	15°♄33'46		retrograde	-259 Dec 19 j 15:07	6°♄04'15	
opposition	-265 Dec 07 j 19:16	12°♄05'01	-1°-3'-48	opposition	-258 Feb 25 j 07:23	2°♄44'01	2°27'13
min. Earth dist.	-265 Dec 07 j 11:20	12°♄06'40	7.99746 AU	min. Earth dist.	-258 Feb 25 j 03:59	2°♄44'41	8.63833 AU
direct	-264 Feb 12 j 14:51	8°♄35'33			-258 Apr 07 j 06:06	30°♄	
evening set	-264 May 28 j 06:56	16°♄53'42		direct	-258 May 06 j 13:17	29°♄18'05	
					-258 Jun 04 j 16:54	0°♄	
conjunction	-264 Jun 15 j 12:10	19°♄15'11	0°-34'-36	evening set	-258 Aug 20 j 04:12	6°♄56'10	
minimum elong	-264 Jun 15 j 12:12	19°♄15'11	0°34'36				
max. Earth dist.	-264 Jun 15 j 22:36	19°♄18'35	10.02743 AU	conjunction	-258 Sep 06 j 09:16	9°♄00'53	2°06'50
morning rise	-264 Jul 03 j 16:00	21°♄36'11		minimum elong	-258 Sep 06 j 09:14	9°♄00'52	2°06'50
retrograde	-264 Oct 15 j 14:21	29°♄45'51		max. Earth dist.	-258 Sep 06 j 12:28	9°♄01'51	10.69964 AU
opposition	-264 Dec 20 j 23:51	26°♄18'21	0°-22'-22	morning rise	-258 Sep 23 j 09:26	11°♄04'08	
min. Earth dist.	-264 Dec 20 j 16:26	26°♄19'53	8.06378 AU	retrograde	-258 Dec 31 j 20:43	18°♄16'52	
direct	-263 Feb 26 j 08:16	22°♄48'46		opposition	-257 Mar 09 j 23:46	14°♄57'45	2°42'29
	-263 Jun 03 j 21:57	0°♄		min. Earth dist.	-257 Mar 09 j 22:08	14°♄58'03	8.76064 AU
evening set	-263 Jun 12 j 09:36	1°♄03'33		direct	-257 May 19 j 15:52	11°♄32'59	
				evening set	-257 Sep 01 j 18:26	19°♄02'33	
conjunction	-263 Jun 30 j 13:30	3°♄23'20	0°00'-51				
minimum elong	-263 Jun 30 j 13:30	3°♄23'20	0°00'52	conjunction	-257 Sep 18 j 18:41	21°♄04'28	2°16'28
behind sun begin	-263 Jun 30 j 06:09	3°♄21'00		minimum elong	-257 Sep 18 j 18:40	21°♄04'28	2°16'27
behind sun end	-263 Jun 30 j 20:51	3°♄25'41		max. Earth dist.	-257 Sep 18 j 19:29	21°♄04'42	10.81663 AU
max. Earth dist.	-263 Jun 30 j 22:45	3°♄26'18	10.10633 AU	morning rise	-257 Oct 05 j 14:33	23°♄05'03	
asc. node	-263 Jul 10 j 00:23	4°♄36'28			-257 Dec 29 j 06:08	0°♄	
morning rise	-263 Jul 18 j 14:51	5°♄42'17		retrograde	-256 Jan 12 j 18:34	0°♄11'02	
retrograde	-263 Oct 29 j 11:37	13°♄42'13			-256 Jan 27 j 11:17	30°♄	
opposition	-262 Jan 03 j 23:15	10°♄16'12	0°19'36	opposition	-256 Mar 21 j 10:29	26°♄52'48	2°50'17
min. Earth dist.	-262 Jan 03 j 16:37	10°♄17'33	8.15340 AU	min. Earth dist.	-256 Mar 21 j 10:04	26°♄52'53	8.87191 AU
direct	-262 Mar 12 j 22:08	6°♄46'51		direct	-256 May 31 j 11:50	23°♄29'14	
evening set	-262 Jun 27 j 05:05	14°♄56'31			-256 Sep 05 j 14:17	0°♄	
				evening set	-256 Sep 12 j 22:48	0°♄50'50	
conjunction	-262 Jul 15 j 06:00	17°♄13'52	0°32'23				
minimum elong	-262 Jul 15 j 05:58	17°♄13'51	0°32'23	conjunction	-256 Sep 29 j 19:07	2°♄50'22	2°20'04
max. Earth dist.	-262 Jul 15 j 13:54	17°♄16'23	10.20586 AU	minimum elong	-256 Sep 29 j 19:07	2°♄50'22	2°20'04
morning rise	-262 Aug 02 j 03:25	19°♄30'04		max. Earth dist.	-256 Sep 29 j 18:23	2°♄50'09	10.92034 AU
retrograde	-262 Nov 12 j 00:37	27°♄19'49		morning rise	-256 Oct 16 j 11:28	4°♄48'45	
opposition	-261 Jan 17 j 16:58	23°♄55'20	0°59'27	retrograde	-255 Jan 23 j 14:10	11°♄49'24	
min. Earth dist.	-261 Jan 17 j 10:35	23°♄56'38	8.26147 AU	opposition	-255 Apr 02 j 16:39	8°♄31'49	2°50'51
direct	-261 Mar 27 j 06:42	20°♄26'33		min. Earth dist.	-255 Apr 02 j 16:59	8°♄31'46	8.96755 AU
evening set	-261 Jul 11 j 15:08	28°♄29'31		direct	-255 Jun 13 j 00:50	5°♄09'27	
	-261 Jul 23 j 16:45	0°♄		evening set	-255 Sep 24 j 18:39	12°♄23'48	
conjunction	-261 Jul 29 j 11:51	0°♄43'55	1°03'03	conjunction	-255 Oct 11 j 11:53	14°♄21'29	2°17'53
minimum elong	-261 Jul 29 j 11:49	0°♄43'54	1°03'04	minimum elong	-255 Oct 11 j 11:54	14°♄21'29	2°17'54
max. Earth dist.	-261 Jul 29 j 18:58	0°♄46'09	10.32104 AU	max. Earth dist.	-255 Oct 11 j 10:29	14°♄21'04	11.00670 AU
morning rise	-261 Aug 16 j 04:16	2°♄56'55		morning rise	-255 Oct 28 j 01:31	16°♄18'10	

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Attention, astronomical year style is used: The year -254 in astronomical counting style is the year 255 BCE in historical counting style.

retrograde	-254 Feb 04 j 06:28	23°♄14'56			-248 Mar 19 j 00:39	0°♄	
opposition	-254 Apr 14 j 19:14	19°♄57'49	2°44'36	retrograde	-248 Apr 13 j 16:01	0°♄31'46	
min. Earth dist.	-254 Apr 14 j 21:03	19°♄57'28	9.04408 AU		-248 May 09 j 16:07	30°♄	
direct	-254 Jun 25 j 05:33	16°♄36'35		opposition	-248 Jun 23 j 17:24	27°♄12'27	0°19'57
evening set	-254 Oct 06 j 07:44	23°♄44'43		min. Earth dist.	-248 Jun 24 j 00:47	27°♄11'05	9.01080 AU
				direct	-248 Sep 01 j 21:50	23°♄54'32	
conjunction	-254 Oct 22 j 22:38	25°♄41'02	2°10'18		-248 Dec 02 j 19:21	0°♄	
minimum elong	-254 Oct 22 j 22:40	25°♄41'02	2°10'18	evening set	-248 Dec 10 j 16:18	0°♄54'14	
max. Earth dist.	-254 Oct 22 j 19:30	25°♄40'06	11.07274 AU				
morning rise	-254 Nov 08 j 10:41	27°♄36'35		conjunction	-248 Dec 27 j 07:58	2°♄52'16	0°02'32
	-254 Nov 30 j 04:11	0°♄		minimum elong	-248 Dec 27 j 07:57	2°♄52'16	0°02'33
retrograde	-253 Feb 15 j 19:58	4°♄30'58		behind sun begin	-248 Dec 27 j 00:59	2°♄50'13	
opposition	-253 Apr 26 j 19:09	1°♄14'06	2°32'05	behind sun end	-248 Dec 27 j 14:56	2°♄54'19	
min. Earth dist.	-253 Apr 26 j 22:50	1°♄13'25	9.09899 AU	max. Earth dist.	-248 Dec 26 j 23:47	2°♄49'52	10.97065 AU
	-253 May 13 j 22:40	30°♄		morning rise	-247 Jan 13 j 01:52	4°♄51'01	
direct	-253 Jul 07 j 06:06	27°♄53'52		desc. node	-247 Jan 29 j 11:29	6°♄42'14	
	-253 Aug 28 j 15:30	0°♄		retrograde	-247 Apr 26 j 00:39	12°♄04'28	
evening set	-253 Oct 17 j 15:33	4°♄57'01		opposition	-247 Jul 06 j 00:34	8°♄43'58	0°-14'-27
				min. Earth dist.	-247 Jul 06 j 07:19	8°♄42'42	8.92497 AU
conjunction	-253 Nov 03 j 04:56	6°♄52'29	1°57'46	direct	-247 Sep 13 j 17:10	5°♄25'48	
minimum elong	-253 Nov 03 j 04:58	6°♄52'29	1°57'46	evening set	-247 Dec 22 j 06:54	12°♄29'29	
max. Earth dist.	-253 Nov 02 j 23:39	6°♄50'56	11.11626 AU				
morning rise	-253 Nov 19 j 16:28	8°♄47'25		conjunction	-246 Jan 08 j 00:22	14°♄29'11	0°-25'-45
	-252 Jan 29 j 10:46	15°♄		minimum elong	-246 Jan 08 j 00:22	14°♄29'11	0°25'46
retrograde	-252 Feb 27 j 08:57	15°♄41'01		max. Earth dist.	-246 Jan 07 j 17:03	14°♄26'59	10.87569 AU
	-252 Mar 27 j 20:16	15°♄		morning rise	-246 Jan 24 j 20:41	16°♄29'49	
opposition	-252 May 07 j 17:25	12°♄24'08	2°13'57	retrograde	-246 May 08 j 16:15	23°♄51'42	
min. Earth dist.	-252 May 07 j 22:24	12°♄23'13	9.13031 AU	opposition	-246 Jul 18 j 12:31	20°♄29'51	0°-49'00
direct	-252 Jul 18 j 02:52	9°♄04'47		min. Earth dist.	-246 Jul 18 j 18:25	20°♄28'44	8.82155 AU
	-252 Oct 18 j 07:27	15°♄		direct	-246 Sep 25 j 16:41	17°♄11'09	
evening set	-252 Oct 27 j 19:57	16°♄04'15		evening set	-245 Jan 03 j 05:00	24°♄20'24	
conjunction	-252 Nov 13 j 08:42	17°♄59'21	1°40'50	conjunction	-245 Jan 20 j 00:28	26°♄22'05	0°-53'-26
minimum elong	-252 Nov 13 j 08:44	17°♄59'22	1°40'50	minimum elong	-245 Jan 20 j 00:26	26°♄22'04	0°53'28
max. Earth dist.	-252 Nov 13 j 02:31	17°♄57'33	11.13565 AU	max. Earth dist.	-245 Jan 19 j 17:00	26°♄19'49	10.76470 AU
morning rise	-252 Nov 29 j 20:19	19°♄54'11		morning rise	-245 Feb 05 j 23:33	28°♄24'54	
retrograde	-251 Mar 09 j 23:22	26°♄48'36			-245 Feb 19 j 15:04	0°♄	
opposition	-251 May 19 j 15:12	23°♄31'27	1°50'52	retrograde	-245 May 21 j 16:37	5°♄56'17	
min. Earth dist.	-251 May 19 j 20:22	23°♄30'30	9.13690 AU	opposition	-245 Jul 31 j 05:57	2°♄32'59	-1°-22'-20
direct	-251 Jul 29 j 21:04	20°♄12'49		min. Earth dist.	-245 Jul 31 j 11:39	2°♄31'53	8.70413 AU
evening set	-251 Nov 07 j 22:48	27°♄10'01			-245 Sep 07 j 09:44	30°♄	
				direct	-245 Oct 07 j 20:20	29°♄13'29	
conjunction	-251 Nov 24 j 11:37	29°♄05'15	1°20'08		-245 Nov 06 j 17:40	0°♄	
minimum elong	-251 Nov 24 j 11:40	29°♄05'16	1°20'07	evening set	-244 Jan 15 j 11:49	6°♄29'47	
max. Earth dist.	-251 Nov 24 j 05:19	29°♄03'24	11.13018 AU				
	-251 Dec 02 j 06:56	0°♄		conjunction	-244 Feb 01 j 09:36	8°♄33'42	-1°-19'-23
morning rise	-251 Dec 10 j 23:57	1°♄00'25		minimum elong	-244 Feb 01 j 09:33	8°♄33'41	1°19'24
retrograde	-250 Mar 21 j 18:23	7°♄57'15		max. Earth dist.	-244 Feb 01 j 01:55	8°♄31'20	10.64159 AU
opposition	-250 May 31 j 13:49	4°♄39'37	1°23'36	morning rise	-244 Feb 18 j 11:45	10°♄38'59	
min. Earth dist.	-250 May 31 j 19:29	4°♄38'34	9.11862 AU		-244 Mar 29 j 05:32	15°♄	
direct	-250 Aug 10 j 13:13	1°♄21'29		retrograde	-244 Jun 03 j 00:36	18°♄20'44	
evening set	-250 Nov 19 j 01:54	8°♄17'54			-244 Aug 11 j 08:40	15°♄	
				opposition	-244 Aug 12 j 05:50	14°♄55'55	-1°-52'-51
conjunction	-250 Dec 05 j 15:12	10°♄13'41	0°56'20	min. Earth dist.	-244 Aug 12 j 11:28	14°♄54'50	8.57688 AU
minimum elong	-250 Dec 05 j 15:14	10°♄13'41	0°56'19	direct	-244 Oct 19 j 05:51	11°♄35'24	
max. Earth dist.	-250 Dec 05 j 07:50	10°♄11'31	11.10006 AU		-244 Dec 22 j 10:21	15°♄	
morning rise	-250 Dec 22 j 05:00	12°♄09'40		evening set	-243 Jan 27 j 04:28	19°♄00'04	
retrograde	-249 Apr 02 j 14:18	19°♄10'29					
opposition	-249 Jun 12 j 14:15	15°♄52'07	0°52'59	conjunction	-243 Feb 13 j 05:06	21°♄06'31	-1°-42'-14
min. Earth dist.	-249 Jun 12 j 21:02	15°♄50'52	9.07610 AU	minimum elong	-243 Feb 13 j 05:03	21°♄06'30	1°42'15
direct	-249 Aug 22 j 03:41	12°♄34'13		max. Earth dist.	-243 Feb 12 j 22:22	21°♄04'25	10.51095 AU
evening set	-249 Nov 30 j 07:13	19°♄31'30		morning rise	-243 Mar 02 j 10:30	23°♄14'27	
					-243 May 10 j 23:12	0°♄	
conjunction	-249 Dec 16 j 21:24	21°♄28'12	0°30'10	retrograde	-243 Jun 16 j 16:00	1°♄07'06	
minimum elong	-249 Dec 16 j 21:26	21°♄28'12	0°30'10		-243 Jul 23 j 20:42	30°♄	
max. Earth dist.	-249 Dec 16 j 12:48	21°♄25'40	11.04629 AU	opposition	-243 Aug 25 j 12:30	27°♄40'46	-2°-18'-51
morning rise	-248 Jan 02 j 13:10	23°♄25'23		min. Earth dist.	-243 Aug 25 j 17:16	27°♄39'50	8.44513 AU

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Attention, astronomical year style is used: The year -243 in astronomical counting style is the year 244 BCE in historical counting style.

direct	-243 Nov 01 j 01:09	24°≈19'04		conjunction	-236 May 24 j 06:08	28°♁17'03	-1°-20'-46
	-242 Jan 24 j 16:05	0°♁		minimum elong	-236 May 24 j 06:12	28°♁17'04	1°20'46
evening set	-242 Feb 09 j 08:20	1°♁53'08		max. Earth dist.	-236 May 24 j 13:38	28°♁19'30	9.95615 AU
					-236 Jun 06 j 08:37	0°♁	
conjunction	-242 Feb 26 j 12:24	4°♁02'21	-2°00'-36	morning rise	-236 Jun 11 j 10:48	0°♁39'30	
minimum elong	-242 Feb 26 j 12:21	4°♁02'20	2°00'37	retrograde	-236 Sep 24 j 19:02	9°♁00'46	
max. Earth dist.	-242 Feb 26 j 07:42	4°♁00'52	10.37906 AU	opposition	-236 Nov 30 j 10:05	5°♁31'03	-1°-22'-36
morning rise	-242 Mar 15 j 21:14	6°♁13'07		min. Earth dist.	-236 Nov 30 j 03:43	5°♁32'22	7.96930 AU
retrograde	-242 Jun 30 j 17:37	14°♁16'24		direct	-235 Feb 05 j 03:09	2°♁01'12	
opposition	-242 Sep 08 j 01:52	10°♁48'39	-2°-38'-31	evening set	-235 May 21 j 10:14	10°♁20'07	
min. Earth dist.	-242 Sep 08 j 04:50	10°♁48'04	8.31594 AU				
direct	-242 Nov 14 j 02:58	7°♁25'39		conjunction	-235 Jun 08 j 15:34	12°♁42'09	0°-50'-19
evening set	-241 Feb 22 j 23:52	15°♁09'36		minimum elong	-235 Jun 08 j 15:37	12°♁42'10	0°50'19
				max. Earth dist.	-235 Jun 09 j 00:34	12°♁45'06	9.98952 AU
conjunction	-241 Mar 12 j 07:46	17°♁21'41	-2°-13'-5	morning rise	-235 Jun 26 j 20:12	15°♁03'57	
minimum elong	-241 Mar 12 j 07:44	17°♁21'41	2°13'06	retrograde	-235 Oct 09 j 04:27	23°♁18'01	
max. Earth dist.	-241 Mar 12 j 05:14	17°♁20'53	10.25352 AU	opposition	-235 Dec 14 j 16:18	19°♁49'20	0°-42'-28
morning rise	-241 Mar 29 j 20:20	19°♁35'20		min. Earth dist.	-235 Dec 14 j 08:53	19°♁50'52	8.01774 AU
retrograde	-241 Jul 15 j 03:24	27°♁48'11		direct	-234 Feb 19 j 20:22	16°♁19'12	
opposition	-241 Sep 21 j 21:54	24°♁19'12	-2°-50'-9	evening set	-234 Jun 05 j 15:16	24°♁36'02	
min. Earth dist.	-241 Sep 21 j 22:42	24°♁19'02	8.19691 AU				
direct	-241 Nov 27 j 12:22	20°♁54'49		conjunction	-234 Jun 23 j 20:12	26°♁56'52	0°-17'-5
evening set	-240 Mar 08 j 02:40	28°♁48'31		minimum elong	-234 Jun 23 j 20:13	26°♁56'52	0°17'05
	-240 Mar 17 j 10:18	0°♁		max. Earth dist.	-234 Jun 24 j 06:04	27°♁00'04	10.05312 AU
				morning rise	-234 Jul 11 j 23:00	29°♁17'01	
conjunction	-240 Mar 25 j 14:43	1°♁03'25	-2°-18'-28		-234 Jul 17 j 15:27	0°♁	
minimum elong	-240 Mar 25 j 14:43	1°♁03'25	2°18'29	retrograde	-234 Oct 23 j 06:29	7°♁22'05	
max. Earth dist.	-240 Mar 25 j 14:15	1°♁03'16	10.14201 AU	opposition	-234 Dec 28 j 18:13	3°♁54'43	0°00'-23
morning rise	-240 Apr 12 j 07:15	3°♁19'50		min. Earth dist.	-234 Dec 28 j 10:21	3°♁56'20	8.09460 AU
retrograde	-240 Jul 28 j 18:58	11°♁40'23		asc. node	-233 Jan 01 j 07:16	3°♁37'14	
opposition	-240 Oct 04 j 23:43	8°♁10'26	-2°-52'-18	direct	-233 Mar 06 j 10:40	0°♁24'40	
min. Earth dist.	-240 Oct 04 j 22:45	8°♁10'38	8.09538 AU	evening set	-233 Jun 20 j 14:18	8°♁37'12	
direct	-240 Dec 10 j 07:05	4°♁44'39					
evening set	-239 Mar 22 j 16:02	12°♁47'18		conjunction	-233 Jul 08 j 17:04	10°♁55'58	0°16'41
				minimum elong	-233 Jul 08 j 17:03	10°♁55'58	0°16'42
conjunction	-239 Apr 09 j 08:32	15°♁04'52	-2°-15'-53	max. Earth dist.	-233 Jul 09 j 03:06	10°♁59'11	10.14266 AU
minimum elong	-239 Apr 09 j 08:34	15°♁04'52	2°15'53	morning rise	-233 Jul 26 j 16:29	13°♁13'40	
max. Earth dist.	-239 Apr 09 j 10:05	15°♁05'22	10.05161 AU	retrograde	-233 Nov 06 j 00:58	21°♁08'41	
morning rise	-239 Apr 27 j 05:06	17°♁23'45		opposition	-232 Jan 11 j 14:43	17°♁42'50	0°40'48
retrograde	-239 Aug 12 j 13:26	25°♁49'18		min. Earth dist.	-232 Jan 11 j 07:21	17°♁44'20	8.19499 AU
opposition	-239 Oct 19 j 05:58	22°♁18'47	-2°-44'-9	direct	-232 Mar 19 j 20:32	14°♁13'12	
min. Earth dist.	-239 Oct 19 j 03:36	22°♁19'16	8.01781 AU	evening set	-232 Jul 04 j 04:57	22°♁19'41	
direct	-239 Dec 24 j 10:11	18°♁51'40					
evening set	-238 Apr 06 j 14:09	27°♁01'48		conjunction	-232 Jul 22 j 04:00	24°♁35'42	0°48'46
				minimum elong	-232 Jul 22 j 03:58	24°♁35'41	0°48'47
conjunction	-238 Apr 24 j 11:07	29°♁21'38	-2°-5'00	max. Earth dist.	-232 Jul 22 j 13:06	24°♁38'35	10.25249 AU
minimum elong	-238 Apr 24 j 11:10	29°♁21'39	2°05'01	morning rise	-232 Aug 08 j 22:55	26°♁50'22	
max. Earth dist.	-238 Apr 24 j 14:35	29°♁22'46	9.98811 AU		-232 Sep 04 j 18:52	0°♁	
	-238 Apr 29 j 08:08	0°♁		retrograde	-232 Nov 18 j 10:40	4°♁35'00	
morning rise	-238 May 12 j 11:23	1°♁42'29		opposition	-231 Jan 24 j 05:04	1°♁10'47	1°18'37
retrograde	-238 Aug 27 j 09:13	10°♁09'52		min. Earth dist.	-231 Jan 23 j 22:41	1°♁12'04	8.31266 AU
opposition	-238 Nov 02 j 15:05	6°♁39'12	-2°-25'-41		-231 Feb 08 j 04:19	30°♁	
min. Earth dist.	-238 Nov 02 j 11:32	6°♁39'56	7.96917 AU	direct	-231 Apr 03 j 00:59	27°♁41'54	
direct	-237 Jan 07 j 19:45	3°♁10'55			-231 May 25 j 23:19	0°♁	
evening set	-237 Apr 21 j 18:31	11°♁26'28		evening set	-231 Jul 18 j 09:45	5°♁41'04	
conjunction	-237 May 09 j 19:25	13°♁47'54	-1°-46'-15	conjunction	-231 Aug 05 j 03:59	7°♁53'53	1°17'29
minimum elong	-237 May 09 j 19:29	13°♁47'56	1°46'15	minimum elong	-231 Aug 05 j 03:56	7°♁53'52	1°17'30
max. Earth dist.	-237 May 10 j 00:55	13°♁49'43	9.95558 AU	max. Earth dist.	-231 Aug 05 j 11:18	7°♁56'11	10.37602 AU
	-237 May 18 j 22:59	15°♁		morning rise	-231 Aug 22 j 17:37	10°♁05'15	
morning rise	-237 May 27 j 22:31	16°♁10'01			-231 Oct 06 j 17:27	15°♁	
retrograde	-237 Sep 11 j 03:51	24°♁35'54		retrograde	-231 Dec 01 j 09:38	17°♁39'44	
opposition	-237 Nov 17 j 01:07	21°♁05'31	-1°-57'-52		-230 Jan 28 j 11:10	15°♁	
min. Earth dist.	-237 Nov 16 j 20:10	21°♁06'32	7.95265 AU	opposition	-230 Feb 06 j 12:48	14°♁17'10	1°51'11
direct	-236 Jan 22 j 10:06	17°♁36'18		min. Earth dist.	-230 Feb 06 j 07:19	14°♁18'15	8.44084 AU
evening set	-236 May 06 j 02:17	25°♁54'49		direct	-230 Apr 17 j 00:11	10°♁49'19	
					-230 Jun 29 j 16:47	15°♁	

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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.

evening set	-230 Aug 01 j 03:32	18°♄40'20			-224 Oct 12 j 01:28	0°♄	
conjunction	-230 Aug 18 j 16:26	20°♄49'48	1°41'31	conjunction	-224 Oct 28 j 08:22	1°♄53'44	2°04'07
minimum elong	-230 Aug 18 j 16:22	20°♄49'47	1°41'31	minimum elong	-224 Oct 28 j 08:24	1°♄53'44	2°04'07
max. Earth dist.	-230 Aug 18 j 22:06	20°♄51'34	10.50653 AU	max. Earth dist.	-224 Oct 28 j 04:22	1°♄52'34	11.10669 AU
morning rise	-230 Sep 05 j 00:33	22°♄57'47		morning rise	-224 Nov 13 j 19:57	3°♄48'52	
	-230 Nov 23 j 12:50	0°♄		retrograde	-223 Feb 21 j 10:30	10°♄42'45	
retrograde	-230 Dec 14 j 01:40	0°♄22'51		opposition	-223 May 02 j 12:43	7°♄26'23	2°22'57
	-229 Jan 03 j 20:08	30°♄♂		min. Earth dist.	-223 May 02 j 16:46	7°♄25'39	9.12585 AU
opposition	-229 Feb 19 j 14:09	27°♄01'49	2°17'14	direct	-223 Jul 12 j 22:43	4°♄07'08	
min. Earth dist.	-229 Feb 19 j 09:12	27°♄02'47	8.57275 AU	evening set	-223 Oct 23 j 00:32	11°♄08'19	
direct	-229 Apr 30 j 15:01	23°♄35'14					
	-229 Aug 03 j 09:52	0°♄		conjunction	-223 Nov 08 j 13:34	13°♄03'33	1°49'10
evening set	-229 Aug 14 j 09:49	1°♄17'38		minimum elong	-223 Nov 08 j 13:36	13°♄03'34	1°49'10
				max. Earth dist.	-223 Nov 08 j 07:42	13°♄01'51	11.13565 AU
conjunction	-229 Aug 31 j 17:27	3°♄23'52	2°00'00	morning rise	-223 Nov 25 j 00:55	14°♄58'22	
minimum elong	-229 Aug 31 j 17:24	3°♄23'51	2°00'00		-223 Nov 25 j 06:37	15°♄	
max. Earth dist.	-229 Aug 31 j 22:01	3°♄25'16	10.63738 AU	retrograde	-222 Mar 05 j 00:04	21°♄52'22	
morning rise	-229 Sep 17 j 20:10	5°♄28'36		opposition	-222 May 14 j 11:15	18°♄35'48	2°02'06
retrograde	-229 Dec 26 j 11:33	12°♄45'13		min. Earth dist.	-222 May 14 j 17:24	18°♄34'41	9.14136 AU
opposition	-228 Mar 03 j 09:17	9°♄25'35	2°36'02	direct	-222 Jul 24 j 17:32	15°♄17'14	
min. Earth dist.	-228 Mar 03 j 05:14	9°♄26'22	8.70182 AU	evening set	-222 Nov 03 j 04:32	22°♄15'35	
direct	-228 May 12 j 20:41	6°♄00'22					
evening set	-228 Aug 26 j 05:20	13°♄34'10		conjunction	-222 Nov 19 j 17:09	24°♄10'44	1°30'09
				minimum elong	-222 Nov 19 j 17:11	24°♄10'44	1°30'09
conjunction	-228 Sep 12 j 08:02	15°♄37'26	2°12'31	max. Earth dist.	-222 Nov 19 j 09:01	24°♄08'21	11.13842 AU
minimum elong	-228 Sep 12 j 08:00	15°♄37'25	2°12'31	morning rise	-222 Dec 06 j 05:10	26°♄05'43	
max. Earth dist.	-228 Sep 12 j 11:36	15°♄38'30	10.76237 AU		-221 Jan 12 j 17:38	0°♄	
morning rise	-228 Sep 29 j 05:51	17°♄39'16		retrograde	-221 Mar 16 j 16:25	3°♄01'27	
retrograde	-227 Jan 06 j 14:00	24°♄48'32			-221 May 22 j 20:18	30°♄♄	
opposition	-227 Mar 15 j 22:46	21°♄30'07	2°47'20	opposition	-221 May 26 j 09:47	29°♄44'23	1°36'42
min. Earth dist.	-227 Mar 15 j 20:35	21°♄30'32	8.82220 AU	min. Earth dist.	-221 May 26 j 17:12	29°♄43'01	9.13076 AU
direct	-227 May 25 j 18:53	18°♄06'16		direct	-221 Aug 05 j 11:46	26°♄26'13	
evening set	-227 Sep 07 j 14:46	25°♄31'50			-221 Oct 13 j 10:53	0°♄	
				evening set	-221 Nov 14 j 07:48	3°♄23'12	
conjunction	-227 Sep 24 j 13:00	27°♄32'29	2°18'58				
minimum elong	-227 Sep 24 j 13:00	27°♄32'29	2°18'57	conjunction	-221 Nov 30 j 20:48	5°♄18'44	1°07'42
max. Earth dist.	-227 Sep 24 j 14:31	27°♄32'56	10.87611 AU	minimum elong	-221 Nov 30 j 20:50	5°♄18'44	1°07'41
morning rise	-227 Oct 11 j 06:49	29°♄31'52		max. Earth dist.	-221 Nov 30 j 12:03	5°♄16'10	11.11542 AU
	-227 Oct 15 j 07:28	0°♄		morning rise	-221 Dec 17 j 09:59	7°♄14'22	
retrograde	-226 Jan 18 j 11:45	6°♄35'06		retrograde	-220 Mar 27 j 11:14	14°♄13'25	
opposition	-226 Mar 28 j 07:34	3°♄17'39	2°51'16	opposition	-220 Jun 06 j 09:35	10°♄55'31	1°07'32
min. Earth dist.	-226 Mar 28 j 07:29	3°♄17'40	8.92885 AU	min. Earth dist.	-220 Jun 06 j 17:07	10°♄54'08	9.09477 AU
	-226 May 28 j 10:21	30°♄♄		direct	-220 Aug 16 j 04:21	7°♄37'32	
direct	-226 Jun 07 j 10:53	29°♄55'08		evening set	-220 Nov 24 j 12:10	14°♄34'38	
	-226 Jun 17 j 10:44	0°♄					
evening set	-226 Sep 19 j 15:00	7°♄13'03		conjunction	-220 Dec 11 j 02:03	16°♄30'58	0°42'31
				minimum elong	-220 Dec 11 j 02:05	16°♄30'58	0°42'31
conjunction	-226 Oct 06 j 09:32	9°♄11'34	2°19'29	max. Earth dist.	-220 Dec 10 j 17:30	16°♄28'27	11.06766 AU
minimum elong	-226 Oct 06 j 09:32	9°♄11'34	2°19'29	morning rise	-220 Dec 27 j 16:45	18°♄27'37	
max. Earth dist.	-226 Oct 06 j 08:28	9°♄11'15	10.97400 AU	retrograde	-219 Apr 08 j 12:02	25°♄31'37	
morning rise	-226 Oct 23 j 00:26	11°♄09'01		opposition	-219 Jun 18 j 11:49	22°♄12'38	0°35'29
retrograde	-225 Jan 30 j 04:19	18°♄07'37		min. Earth dist.	-219 Jun 18 j 19:12	22°♄11'16	9.03492 AU
opposition	-225 Apr 09 j 12:11	14°♄50'48	2°48'10	direct	-219 Aug 27 j 21:46	18°♄54'34	
min. Earth dist.	-225 Apr 09 j 13:36	14°♄50'32	9.01742 AU	evening set	-219 Dec 05 j 19:38	25°♄53'21	
direct	-225 Jun 19 j 20:07	11°♄29'32					
evening set	-225 Oct 01 j 07:38	18°♄40'41		conjunction	-219 Dec 22 j 10:40	27°♄50'52	0°15'26
				minimum elong	-219 Dec 22 j 10:40	27°♄50'52	0°15'27
conjunction	-225 Oct 17 j 23:29	20°♄37'34	2°14'23	behind sun begin	-219 Dec 22 j 08:25	27°♄50'12	
minimum elong	-225 Oct 17 j 23:30	20°♄37'35	2°14'23	behind sun end	-219 Dec 22 j 12:56	27°♄51'32	
max. Earth dist.	-225 Oct 17 j 20:39	20°♄36'44	11.05203 AU	max. Earth dist.	-219 Dec 22 j 01:24	27°♄48'08	10.99705 AU
morning rise	-225 Nov 03 j 12:20	22°♄33'36		morning rise	-218 Jan 08 j 03:29	29°♄48'58	
retrograde	-224 Feb 10 j 19:17	29°♄29'03			-218 Jan 09 j 17:35	0°♄	
opposition	-224 Apr 20 j 13:22	26°♄12'35	2°38'32	retrograde	-218 Apr 20 j 17:44	6°♄59'22	
min. Earth dist.	-224 Apr 20 j 15:52	26°♄12'08	9.08408 AU	opposition	-218 Jun 30 j 17:25	3°♄39'07	0°01'33
direct	-224 Jul 01 j 00:38	22°♄52'24		min. Earth dist.	-218 Jul 01 j 01:19	3°♄37'39	8.95359 AU
evening set	-224 Oct 11 j 18:14	29°♄57'56		desc. node	-218 Jul 17 j 16:36	2°♄25'16	

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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.

direct	-218 Sep 08 j 15:11	0°☾20'41		direct	-212 Nov 20 j 18:06	14°♃57'36	
evening set	-218 Dec 17 j 07:47	7°☾22'49		evening set	-211 Mar 02 j 00:25	22°♃47'32	
conjunction	-217 Jan 03 j 00:19	9°☾21'52	0°-12'-43	conjunction	-211 Mar 19 j 10:29	25°♃01'20	-2°-16'-59
minimum elong	-217 Jan 03 j 00:19	9°☾21'52	0°12'44	minimum elong	-211 Mar 19 j 10:28	25°♃01'19	2°16'59
behind sun begin	-217 Jan 02 j 19:49	9°☾20'32		max. Earth dist.	-211 Mar 19 j 09:25	25°♃00'59	10.17696 AU
behind sun end	-217 Jan 03 j 04:48	9°☾23'11		morning rise	-211 Apr 06 j 01:21	27°♃16'41	
max. Earth dist.	-217 Jan 02 j 14:33	9°☾18'57	10.90623 AU		-211 Apr 28 j 12:08	0°♃	
morning rise	-217 Jan 19 j 19:40	11°☾21'45		retrograde	-211 Jul 22 j 11:04	5°♃34'36	
retrograde	-217 May 03 j 04:27	18°☾40'03		opposition	-211 Sep 28 j 23:12	2°♃04'42	-2°-52'-37
opposition	-217 Jul 13 j 03:20	15°☾18'21	0°-33'-7	min. Earth dist.	-211 Sep 28 j 22:55	2°♃04'45	8.12744 AU
min. Earth dist.	-217 Jul 13 j 11:21	15°☾16'50	8.85370 AU		-211 Oct 26 j 10:49	30°♃	
direct	-217 Sep 20 j 13:32	11°☾59'19		direct	-211 Dec 04 j 10:20	28°♃39'15	
evening set	-217 Dec 29 j 02:21	19°☾06'26			-210 Jan 11 j 15:46	0°♃	
				evening set	-210 Mar 16 j 09:24	6°♃38'31	
conjunction	-216 Jan 14 j 20:51	21°☾07'21	0°-40'-48	conjunction	-210 Apr 02 j 23:58	8°♃55'03	-2°-18'-4
minimum elong	-216 Jan 14 j 20:50	21°☾07'21	0°40'50	minimum elong	-210 Apr 02 j 23:59	8°♃55'04	2°18'05
max. Earth dist.	-216 Jan 14 j 11:55	21°☾04'39	10.79838 AU	max. Earth dist.	-210 Apr 03 j 01:52	8°♃55'40	10.08026 AU
morning rise	-216 Jan 31 j 18:46	23°☾09'19		morning rise	-210 Apr 20 j 18:46	11°♃13'00	
	-216 Apr 17 j 14:35	0°♃		retrograde	-210 Aug 06 j 04:11	19°♃37'10	
retrograde	-216 May 15 j 00:32	0°♃36'48		opposition	-210 Oct 13 j 03:50	16°♃06'43	-2°-49'-9
	-216 Jun 11 j 17:50	30°♃		min. Earth dist.	-210 Oct 13 j 01:18	16°♃07'14	8.04242 AU
opposition	-216 Jul 24 j 18:24	27°☾13'34	-1°-7'-16	direct	-210 Dec 18 j 09:46	12°♃40'07	
min. Earth dist.	-216 Jul 25 j 01:30	27°☾12'13	8.73893 AU	evening set	-209 Mar 31 j 04:08	20°♃47'33	
direct	-216 Oct 01 j 16:18	23°☾53'46					
	-216 Dec 30 j 16:35	0°♃		conjunction	-209 Apr 17 j 23:14	23°♃06'32	-2°-10'-55
evening set	-215 Jan 09 j 05:02	1°♃07'22		minimum elong	-209 Apr 17 j 23:17	23°♃06'33	2°10'56
conjunction	-215 Jan 26 j 01:52	3°♃10'27	-1°-7'-45	max. Earth dist.	-209 Apr 18 j 04:01	23°♃08'06	10.00809 AU
minimum elong	-215 Jan 26 j 01:50	3°♃10'27	1°07'47	morning rise	-209 May 05 j 21:48	25°♃26'40	
max. Earth dist.	-215 Jan 25 j 18:34	3°♃08'13	10.67763 AU		-209 Jun 13 j 12:34	0°♃	
morning rise	-215 Feb 12 j 02:33	5°♃14'48		retrograde	-209 Aug 21 j 01:11	3°♃54'08	
retrograde	-215 May 28 j 05:17	12°♃52'29		opposition	-209 Oct 27 j 12:18	0°♃23'31	-2°-35'-14
opposition	-215 Aug 06 j 15:36	9°♃27'38	-1°-39'-20	min. Earth dist.	-209 Oct 27 j 07:36	0°♃24'30	7.98440 AU
min. Earth dist.	-215 Aug 06 j 20:58	9°♃26'36	8.61386 AU		-209 Nov 01 j 06:11	30°♃	
direct	-215 Oct 13 j 23:25	6°♃06'56		direct	-208 Jan 01 j 15:29	26°♃55'56	
evening set	-214 Jan 21 j 17:15	13°♃28'23			-208 Feb 29 j 14:36	0°♃	
	-214 Feb 03 j 03:23	15°♃		evening set	-208 Apr 14 j 06:17	5°♃09'38	
conjunction	-214 Feb 07 j 16:42	15°♃33'54	-1°-32'-14	conjunction	-208 May 02 j 05:37	7°♃30'31	-1°-55'-36
minimum elong	-214 Feb 07 j 16:40	15°♃33'53	1°32'16	minimum elong	-208 May 02 j 05:41	7°♃30'32	1°55'36
max. Earth dist.	-214 Feb 07 j 10:23	15°♃31'57	10.54899 AU	max. Earth dist.	-208 May 02 j 12:54	7°♃32'55	9.96550 AU
morning rise	-214 Feb 24 j 20:32	17°♃40'50		morning rise	-208 May 20 j 07:25	9°♃52'13	
retrograde	-214 Jun 10 j 18:43	25°♃29'18			-208 Jul 03 j 11:08	15°♃	
opposition	-214 Aug 19 j 19:26	22°♃02'55	-2°-7'-42	retrograde	-208 Sep 03 j 22:36	18°♃19'38	
min. Earth dist.	-214 Aug 19 j 23:30	22°♃02'07	8.48378 AU		-208 Nov 07 j 19:09	15°♃	
direct	-214 Oct 26 j 13:48	18°♃41'08		opposition	-208 Nov 09 j 22:39	14°♃49'18	-2°-11'-24
evening set	-213 Feb 03 j 16:19	26°♃11'33		min. Earth dist.	-208 Nov 09 j 16:23	14°♃50'36	7.95749 AU
conjunction	-213 Feb 20 j 18:44	28°♃19'43	-1°-52'-52	direct	-207 Jan 15 j 03:33	11°♃20'51	
minimum elong	-213 Feb 20 j 18:41	28°♃19'43	1°52'53		-207 Mar 21 j 04:27	15°♃	
max. Earth dist.	-213 Feb 20 j 13:16	28°♃18'00	10.41823 AU	evening set	-207 Apr 29 j 13:32	19°♃38'34	
	-213 Mar 06 j 02:54	0°♃		conjunction	-207 May 17 j 16:15	22°♃00'34	-1°-32'-55
morning rise	-213 Mar 10 j 02:01	0°♃29'25		minimum elong	-207 May 17 j 16:19	22°♃00'35	1°32'56
retrograde	-213 Jun 24 j 17:06	8°♃28'38		max. Earth dist.	-207 May 18 j 01:05	22°♃03'29	9.95546 AU
opposition	-213 Sep 02 j 06:01	5°♃00'52	-2°-30'-31	morning rise	-207 Jun 04 j 20:16	24°♃23'00	
min. Earth dist.	-213 Sep 02 j 09:03	5°♃00'16	8.35482 AU		-207 Jul 24 j 04:36	0°♃	
direct	-213 Nov 08 j 11:13	1°♃37'53		retrograde	-207 Sep 18 j 16:56	2°♃46'58	
evening set	-212 Feb 17 j 02:40	9°♃18'00			-207 Nov 15 j 18:10	30°♃	
				opposition	-207 Nov 24 j 08:48	29°♃17'18	-1°-39'-9
conjunction	-212 Mar 05 j 08:36	11°♃28'57	-2°-8'-13	min. Earth dist.	-207 Nov 24 j 01:51	29°♃18'45	7.96356 AU
minimum elong	-212 Mar 05 j 08:34	11°♃28'56	2°08'14	direct	-206 Jan 29 j 19:52	25°♃48'13	
max. Earth dist.	-212 Mar 05 j 04:47	11°♃27'44	10.29191 AU		-206 Apr 10 j 09:41	0°♃	
morning rise	-212 Mar 22 j 19:35	13°♃41'30		evening set	-206 May 14 j 22:26	4°♃07'20	
retrograde	-212 Jul 07 j 22:50	21°♃50'48					
opposition	-212 Sep 14 j 23:32	18°♃21'50	-2°-46'-2	conjunction	-206 Jun 02 j 03:12	6°♃29'31	-1°-4'-25
min. Earth dist.	-212 Sep 15 j 01:16	18°♃21'29	8.23376 AU	minimum elong	-206 Jun 02 j 03:15	6°♃29'32	1°04'25

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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.

max. Earth dist.	-206 Jun 02 j 12:44	6°II32'39	9.97844 AU	minimum elong	-200 Aug 25 j 09:37	28°Ω07'43	1°52'29
morning rise	-206 Jun 20 j 07:59	8°II51'42		max. Earth dist.	-200 Aug 25 j 13:58	28°Ω09'04	10.57603 AU
retrograde	-206 Oct 03 j 05:37	17°II09'18			-200 Sep 09 j 16:26	0°η	
opposition	-206 Dec 08 j 16:55	13°II40'38	-1°00'-49	morning rise	-200 Sep 11 j 14:45	0°η13'59	
min. Earth dist.	-206 Dec 08 j 09:41	13°II42'08	8.00191 AU	retrograde	-200 Dec 20 j 11:16	7°η34'40	
direct	-205 Feb 13 j 14:15	10°II11'10		opposition	-199 Feb 26 j 03:38	4°η14'30	2°28'37
evening set	-205 May 30 j 05:22	18°II29'03		min. Earth dist.	-199 Feb 26 j 01:05	4°η14'59	8.63926 AU
				direct	-199 May 07 j 09:10	0°η48'35	
conjunction	-205 Jun 17 j 10:29	20°II50'25	0°-32'-9	evening set	-199 Aug 21 j 00:33	8°η26'44	
minimum elong	-205 Jun 17 j 10:30	20°II50'26	0°32'09				
max. Earth dist.	-205 Jun 17 j 20:07	20°II53'33	10.03225 AU	conjunction	-199 Sep 07 j 05:21	10°η31'25	2°07'43
morning rise	-205 Jul 05 j 14:19	23°II11'20		minimum elong	-199 Sep 07 j 05:19	10°η31'24	2°07'43
	-205 Sep 09 j 02:13	0°Ω		max. Earth dist.	-199 Sep 07 j 07:17	10°η32'00	10.69949 AU
retrograde	-205 Oct 17 j 10:05	1°Ω20'26		morning rise	-199 Sep 24 j 05:26	12°η34'39	
	-205 Nov 25 j 04:52	30°RII		retrograde	-198 Jan 01 j 15:38	19°η47'31	
opposition	-205 Dec 22 j 21:09	27°II53'01	0°-19'-16	opposition	-198 Mar 10 j 20:07	16°η28'27	2°43'18
min. Earth dist.	-205 Dec 22 j 13:55	27°II54'30	8.06906 AU	min. Earth dist.	-198 Mar 10 j 18:32	16°η28'45	8.75955 AU
direct	-204 Feb 28 j 07:02	24°II23'27		direct	-198 May 20 j 13:08	13°η03'43	
	-204 May 22 j 16:16	0°Ω		evening set	-198 Sep 02 j 14:46	20°η33'29	
evening set	-204 Jun 13 j 07:32	2°Ω37'50					
asc. node	-204 Jun 13 j 03:25	2°Ω36'32		conjunction	-198 Sep 19 j 14:55	22°η35'24	2°16'53
				minimum elong	-198 Sep 19 j 14:54	22°η35'23	2°16'53
conjunction	-204 Jul 01 j 11:17	4°Ω57'29	0°01'41	max. Earth dist.	-198 Sep 19 j 15:29	22°η35'34	10.81451 AU
minimum elong	-204 Jul 01 j 11:17	4°Ω57'29	0°01'41	morning rise	-198 Oct 06 j 10:39	24°η35'59	
behind sun begin	-204 Jul 01 j 03:56	4°Ω55'08			-198 Nov 29 j 14:01	0°Ω	
behind sun end	-204 Jul 01 j 18:38	4°Ω59'49		retrograde	-197 Jan 13 j 16:20	1°Ω42'18	
max. Earth dist.	-204 Jul 01 j 20:13	5°Ω00'20	10.11207 AU		-197 Mar 01 j 06:22	30°Rη	
morning rise	-204 Jul 19 j 12:32	7°Ω16'15		opposition	-197 Mar 23 j 07:14	28°η24'05	2°50'31
retrograde	-204 Oct 30 j 07:37	15°Ω15'38		min. Earth dist.	-197 Mar 23 j 06:28	28°η24'13	8.86879 AU
opposition	-203 Jan 04 j 20:07	11°Ω49'38	0°22'37	direct	-197 Jun 02 j 09:04	25°η00'34	
min. Earth dist.	-203 Jan 04 j 13:07	11°Ω51'04	8.15942 AU		-197 Aug 24 j 14:24	0°Ω	
direct	-203 Mar 13 j 19:46	8°Ω20'18		evening set	-197 Sep 14 j 19:08	2°Ω22'22	
evening set	-203 Jun 28 j 02:26	16°Ω29'29					
				conjunction	-197 Oct 01 j 15:28	4°Ω21'59	2°20'00
conjunction	-203 Jul 16 j 03:15	18°Ω46'42	0°34'43	minimum elong	-197 Oct 01 j 15:28	4°Ω21'59	2°20'00
minimum elong	-203 Jul 16 j 03:14	18°Ω46'41	0°34'43	max. Earth dist.	-197 Oct 01 j 15:13	4°Ω21'55	10.91626 AU
max. Earth dist.	-203 Jul 16 j 11:18	18°Ω49'16	10.21187 AU	morning rise	-197 Oct 18 j 07:39	6°Ω20'25	
morning rise	-203 Aug 03 j 00:26	21°Ω02'43		retrograde	-196 Jan 25 j 11:47	13°Ω21'28	
retrograde	-203 Nov 12 j 21:19	28°Ω51'57		opposition	-196 Apr 03 j 13:50	10°Ω03'54	2°50'29
opposition	-202 Jan 18 j 13:23	25°Ω27'30	1°02'13	min. Earth dist.	-196 Apr 03 j 14:26	10°Ω03'47	8.96252 AU
min. Earth dist.	-202 Jan 18 j 06:40	25°Ω28'51	8.26716 AU	direct	-196 Jun 13 j 20:15	6°Ω41'34	
direct	-202 Mar 28 j 03:18	21°Ω58'45		evening set	-196 Sep 25 j 15:19	13°Ω56'14	
evening set	-202 Jul 12 j 12:07	0°Ω101'20					
	-202 Jul 12 j 07:49	0°Ω		conjunction	-196 Oct 12 j 08:30	15°Ω54'00	2°17'20
conjunction	-202 Jul 30 j 08:42	2°Ω15'35	1°05'09	minimum elong	-196 Oct 12 j 08:31	15°Ω54'00	2°17'20
minimum elong	-202 Jul 30 j 08:39	2°Ω15'34	1°05'09	max. Earth dist.	-196 Oct 12 j 06:47	15°Ω53'29	11.00078 AU
max. Earth dist.	-202 Jul 30 j 16:11	2°Ω17'57	10.32618 AU	morning rise	-196 Oct 28 j 22:08	17°Ω50'47	
morning rise	-202 Aug 17 j 00:44	4°Ω28'26		retrograde	-195 Feb 05 j 03:36	24°Ω48'02	
retrograde	-202 Nov 26 j 02:16	12°Ω07'37		opposition	-195 Apr 15 j 16:49	21°Ω30'54	2°43'39
opposition	-201 Feb 01 j 00:31	8°Ω44'42	1°37'21	min. Earth dist.	-195 Apr 15 j 19:29	21°Ω30'24	9.03733 AU
min. Earth dist.	-201 Jan 31 j 18:43	8°Ω45'51	8.38698 AU	direct	-195 Jun 26 j 02:39	18°Ω09'39	
direct	-201 Apr 11 j 04:42	5°Ω16'44		evening set	-195 Oct 07 j 04:43	25°Ω18'11	
evening set	-201 Jul 26 j 11:24	13°Ω11'41					
	-201 Aug 10 j 02:01	15°Ω		conjunction	-195 Oct 23 j 19:32	27°Ω14'37	2°09'16
conjunction	-201 Aug 13 j 02:55	15°Ω22'42	1°31'25	minimum elong	-195 Oct 23 j 19:34	27°Ω14'37	2°09'16
minimum elong	-201 Aug 13 j 02:51	15°Ω22'41	1°31'25	max. Earth dist.	-195 Oct 23 j 15:30	27°Ω13'25	11.06522 AU
max. Earth dist.	-201 Aug 13 j 09:13	15°Ω24'40	10.44957 AU	morning rise	-195 Nov 09 j 07:45	29°Ω10'17	
morning rise	-201 Aug 30 j 13:24	17°Ω32'13			-195 Nov 16 j 14:30	0°η	
retrograde	-201 Dec 08 j 22:58	25°Ω01'46		retrograde	-194 Feb 16 j 17:39	6°η05'15	
opposition	-200 Feb 14 j 05:11	21°Ω40'18	2°06'29	opposition	-194 Apr 27 j 17:16	2°η48'19	2°30'34
min. Earth dist.	-200 Feb 14 j 00:56	21°Ω41'08	8.51310 AU	min. Earth dist.	-194 Apr 27 j 21:08	2°η47'36	9.09074 AU
direct	-200 Apr 23 j 22:27	18°Ω13'18		direct	-194 Jun 12 j 00:12	30°RΩ	
evening set	-200 Aug 07 j 23:34	25°Ω59'58			-194 Jul 08 j 03:41	29°Ω28'04	
				evening set	-194 Aug 03 j 00:39	0°η	
					-194 Oct 18 j 12:47	6°η31'37	
conjunction	-200 Aug 25 j 09:40	28°Ω07'44	1°52'29	conjunction	-194 Nov 04 j 02:14	8°η27'13	1°56'17

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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.

minimum elong	-194 Nov 04 j 02:16	8°♄27'14	1°56'17	evening set	-188 Dec 23 j 07:17	14°♄11'59	
max. Earth dist.	-194 Nov 03 j 21:06	8°♄25'42	11.10739 AU				
morning rise	-194 Nov 20 j 13:52	10°♄22'19		conjunction	-187 Jan 09 j 00:50	16°♄11'50	0°-28'-31
	-193 Jan 05 j 13:10	15°♄		minimum elong	-187 Jan 09 j 00:48	16°♄11'50	0°28'32
retrograde	-193 Feb 28 j 07:18	17°♄16'33		max. Earth dist.	-187 Jan 08 j 17:37	16°♄09'41	10.86585 AU
	-193 Apr 25 j 17:37	15°♄		morning rise	-187 Jan 25 j 21:19	18°♄12'38	
opposition	-193 May 09 j 16:01	13°♄59'33	2°11'55	retrograde	-187 May 09 j 19:15	25°♄35'11	
min. Earth dist.	-193 May 09 j 20:17	13°♄58'46	9.12080 AU	opposition	-187 Jul 19 j 14:04	22°♄13'13	0°-52'-21
direct	-193 Jul 20 j 01:28	10°♄40'11		min. Earth dist.	-187 Jul 19 j 19:44	22°♄12'09	8.81239 AU
	-193 Oct 05 j 04:02	15°♄		direct	-187 Sep 26 j 16:35	18°♄54'26	
evening set	-193 Oct 29 j 17:36	17°♄40'05		evening set	-186 Jan 04 j 05:58	26°♄04'10	
conjunction	-193 Nov 15 j 06:32	19°♄35'21	1°38'58	conjunction	-186 Jan 21 j 01:27	28°♄05'58	0°-56'-4
minimum elong	-193 Nov 15 j 06:34	19°♄35'22	1°38'57	minimum elong	-186 Jan 21 j 01:26	28°♄05'58	0°56'05
max. Earth dist.	-193 Nov 15 j 01:10	19°♄33'47	11.12567 AU	max. Earth dist.	-186 Jan 20 j 17:56	28°♄03'41	10.75638 AU
morning rise	-193 Dec 01 j 18:12	21°♄30'20			-186 Feb 05 j 18:46	0°≈	
retrograde	-192 Mar 11 j 00:03	28°♄25'25		morning rise	-186 Feb 07 j 00:49	0°≈08'57	
opposition	-192 May 20 j 14:14	25°♄08'09	1°48'22	retrograde	-186 May 22 j 18:18	7°≈40'56	
min. Earth dist.	-192 May 20 j 19:06	25°♄07'15	9.12645 AU	opposition	-186 Aug 01 j 08:00	4°≈17'32	-1°-25'-26
direct	-192 Jul 30 j 19:37	21°♄49'28		min. Earth dist.	-186 Aug 01 j 13:45	4°≈16'26	8.69688 AU
evening set	-192 Nov 08 j 21:01	28°♄47'08		direct	-186 Oct 08 j 20:59	0°≈57'57	
	-192 Nov 19 j 08:34	0°♄		evening set	-185 Jan 16 j 13:18	8°≈14'41	
conjunction	-192 Nov 25 j 09:54	0°♄42'32	1°17'55	conjunction	-185 Feb 02 j 11:15	10°≈18'43	-1°-21'-44
minimum elong	-192 Nov 25 j 09:56	0°♄42'33	1°17'54	minimum elong	-185 Feb 02 j 11:12	10°≈18'42	1°21'45
max. Earth dist.	-192 Nov 25 j 03:24	0°♄40'38	11.11944 AU	max. Earth dist.	-185 Feb 02 j 04:34	10°≈16'40	10.63552 AU
morning rise	-192 Dec 11 j 22:24	2°♄37'54		morning rise	-185 Feb 19 j 13:34	12°≈24'06	
retrograde	-191 Mar 22 j 17:00	9°♄35'23			-185 Mar 14 j 01:54	15°≈	
opposition	-191 Jun 01 j 13:26	6°♄17'38	1°20'43	retrograde	-185 Jun 05 j 01:36	20°≈06'20	
min. Earth dist.	-191 Jun 01 j 19:31	6°♄16'31	9.10761 AU	opposition	-185 Aug 14 j 08:05	16°≈41'24	-1°-55'-31
direct	-191 Aug 11 j 10:21	2°♄59'25		min. Earth dist.	-185 Aug 14 j 13:09	16°≈40'25	8.57226 AU
evening set	-191 Nov 20 j 00:35	9°♄56'22			-185 Sep 06 j 06:23	15°≈	
				direct	-185 Oct 21 j 09:07	13°≈20'49	
conjunction	-191 Dec 06 j 13:55	11°♄52'18	0°53'49		-185 Dec 04 j 00:29	15°≈	
minimum elong	-191 Dec 06 j 13:56	11°♄52'18	0°53'49	evening set	-184 Jan 29 j 06:28	20°≈45'46	
max. Earth dist.	-191 Dec 06 j 06:07	11°♄50'00	11.08898 AU	conjunction	-184 Feb 15 j 07:19	22°≈52'18	-1°-44'-10
morning rise	-191 Dec 23 j 03:59	13°♄48'28		minimum elong	-184 Feb 15 j 07:16	22°≈52'17	1°44'11
retrograde	-190 Apr 03 j 14:24	20°♄50'01		max. Earth dist.	-184 Feb 15 j 02:06	22°≈50'40	10.50765 AU
opposition	-190 Jun 13 j 14:25	17°♄31'30	0°49'48	morning rise	-184 Mar 03 j 12:44	25°≈00'18	
min. Earth dist.	-190 Jun 13 j 21:18	17°♄30'14	9.06495 AU		-184 Apr 18 j 11:54	0°✠	
direct	-190 Aug 23 j 04:11	14°♄13'30		retrograde	-184 Jun 17 j 19:17	2°✠53'11	
evening set	-190 Dec 01 j 06:21	21°♄11'17			-184 Aug 19 j 12:12	30°≈	
conjunction	-190 Dec 17 j 20:45	23°♄08'11	0°27'28	opposition	-184 Aug 26 j 14:46	29°≈26'45	-2°-20'-55
minimum elong	-190 Dec 17 j 20:46	23°♄08'11	0°27'29	min. Earth dist.	-184 Aug 26 j 18:25	29°≈26'02	8.44335 AU
max. Earth dist.	-190 Dec 17 j 12:54	23°♄05'52	11.03525 AU	direct	-184 Nov 02 j 02:53	26°≈05'02	
morning rise	-189 Jan 03 j 12:41	25°♄05'33			-183 Jan 09 j 17:20	0°✠	
retrograde	-189 Feb 21 j 07:03	0°♄		evening set	-183 Feb 10 j 10:41	3°✠39'12	
	-189 Apr 15 j 17:03	2°♄12'40		conjunction	-183 Feb 27 j 14:52	5°✠48'27	-2°-1'-59
	-189 Jun 10 j 09:20	30°≈		minimum elong	-183 Feb 27 j 14:50	5°✠48'26	2°02'00
opposition	-189 Jun 25 j 17:58	28°♄53'11	0°16'35	max. Earth dist.	-183 Feb 27 j 11:08	5°✠47'16	10.37847 AU
min. Earth dist.	-189 Jun 26 j 00:32	28°♄51'58	8.99990 AU	morning rise	-183 Mar 16 j 23:45	7°✠59'14	
direct	-189 Sep 03 j 21:40	25°♄35'10		retrograde	-183 Jul 01 j 21:19	16°✠02'32	
	-189 Nov 19 j 07:20	0°♄		opposition	-183 Sep 09 j 04:10	12°✠34'45	-2°-39'-50
evening set	-189 Dec 12 j 16:01	2°♄35'23		min. Earth dist.	-183 Sep 09 j 06:10	12°✠34'21	8.31668 AU
desc. node	-189 Dec 25 j 02:40	4°♄03'27		direct	-183 Nov 15 j 04:07	9°✠11'45	
conjunction	-189 Dec 29 j 07:55	4°♄33'36	0°00'-19	evening set	-182 Feb 24 j 02:23	16°✠55'41	
minimum elong	-189 Dec 29 j 07:55	4°♄33'36	0°00'19	conjunction	-182 Mar 13 j 10:21	19°✠07'45	-2°-13'-49
behind sun begin	-189 Dec 29 j 00:57	4°♄31'33		minimum elong	-182 Mar 13 j 10:19	19°✠07'45	2°13'50
behind sun end	-189 Dec 29 j 14:52	4°♄35'38		max. Earth dist.	-182 Mar 13 j 07:50	19°✠06'57	10.25534 AU
max. Earth dist.	-189 Dec 29 j 00:45	4°♄31'29	10.95997 AU	morning rise	-182 Mar 30 j 23:05	21°✠21'23	
morning rise	-188 Jan 15 j 01:55	6°♄32'31		retrograde	-182 Jul 16 j 06:11	29°✠34'03	
retrograde	-188 Apr 27 j 02:06	13°♄46'42		opposition	-182 Sep 23 j 00:03	26°✠05'05	-2°-50'-36
opposition	-188 Jul 07 j 01:34	10°♄26'02	0°-17'-53	min. Earth dist.	-182 Sep 23 j 00:41	26°✠04'58	8.19983 AU
min. Earth dist.	-188 Jul 07 j 07:27	10°♄24'56	8.91467 AU	direct	-182 Nov 28 j 14:29	22°✠40'43	
direct	-188 Sep 14 j 17:29	7°♄07'46					

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Attention, astronomical year style is used: The year -181 in astronomical counting style is the year 182 BCE in historical counting style.

	-181 Mar 05 j 16:14	0°♃		minimum elong	-175 Jun 24 j 20:00	28°♁35'17	0°14'27
evening set	-181 Mar 10 j 05:21	0°♃34'18		behind sun begin	-175 Jun 24 j 16:58	28°♁34'18	
				behind sun end	-175 Jun 24 j 23:03	28°♁36'16	
conjunction	-181 Mar 27 j 17:28	2°♃49'11	-2°-18'-30	max. Earth dist.	-175 Jun 25 j 05:29	28°♁38'21	10.06166 AU
minimum elong	-181 Mar 27 j 17:28	2°♃49'11	2°18'30		-175 Jul 05 j 17:50	0°♁	
max. Earth dist.	-181 Mar 27 j 16:28	2°♃48'52	10.14591 AU	morning rise	-175 Jul 12 j 22:37	0°♁55'14	
morning rise	-181 Apr 14 j 10:14	5°♃05'33		retrograde	-175 Oct 24 j 06:07	8°♁59'32	
retrograde	-181 Jul 30 j 20:33	13°♃25'40		asc. node	-175 Dec 03 j 17:59	7°♁32'14	
opposition	-181 Oct 07 j 01:32	9°♃55'49	-2°-51'-52	opposition	-175 Dec 29 j 16:43	5°♁32'19	0°02'53
min. Earth dist.	-181 Oct 07 j 00:59	9°♃55'56	8.10019 AU	min. Earth dist.	-175 Dec 29 j 09:47	5°♁33'45	8.10272 AU
direct	-181 Dec 12 j 09:15	6°♃30'04		direct	-174 Mar 07 j 08:54	2°♁02'17	
evening set	-180 Mar 23 j 18:31	14°♃32'28		evening set	-174 Jun 21 j 13:38	10°♁14'22	
conjunction	-180 Apr 10 j 11:09	16°♃49'59	-2°-15'-12	conjunction	-174 Jul 09 j 16:08	12°♁32'57	0°19'15
minimum elong	-180 Apr 10 j 11:11	16°♃49'59	2°15'12	minimum elong	-174 Jul 09 j 16:07	12°♁32'57	0°19'15
max. Earth dist.	-180 Apr 10 j 12:18	16°♃50'21	10.05730 AU	max. Earth dist.	-174 Jul 10 j 01:02	12°♁35'48	10.15019 AU
morning rise	-180 Apr 28 j 07:55	19°♃08'48		morning rise	-174 Jul 27 j 15:23	14°♁50'28	
retrograde	-180 Aug 13 j 14:49	27°♃33'44		retrograde	-174 Nov 06 j 23:03	22°♁44'50	
opposition	-180 Oct 20 j 07:24	24°♃03'21	-2°-42'-50	opposition	-173 Jan 12 j 12:49	19°♁19'06	0°43'51
min. Earth dist.	-180 Oct 20 j 05:25	24°♃03'45	8.02427 AU	min. Earth dist.	-173 Jan 12 j 06:29	19°♁20'24	8.20189 AU
direct	-180 Dec 25 j 11:52	20°♃36'16		direct	-173 Mar 21 j 19:43	15°♁49'29	
evening set	-179 Apr 07 j 16:12	28°♃46'01		evening set	-173 Jul 06 j 03:36	23°♁55'35	
	-179 Apr 17 j 04:35	0°♃		conjunction	-173 Jul 24 j 02:18	26°♁11'24	0°51'07
conjunction	-179 Apr 25 j 13:23	1°♃05'46	-2°-3'-40	minimum elong	-173 Jul 24 j 02:16	26°♁11'24	0°51'07
minimum elong	-179 Apr 25 j 13:26	1°♃05'47	2°03'40	max. Earth dist.	-173 Jul 24 j 09:58	26°♁13'50	10.25854 AU
max. Earth dist.	-179 Apr 25 j 16:55	1°♃06'55	9.99531 AU	morning rise	-173 Aug 10 j 21:03	28°♁25'56	
morning rise	-179 May 13 j 13:47	3°♃26'32			-173 Aug 23 j 18:18	0°♁	
retrograde	-179 Aug 28 j 10:06	11°♃53'09		retrograde	-173 Nov 20 j 06:32	6°♁10'06	
opposition	-179 Nov 03 j 15:58	8°♃22'38	-2°-23'-36	opposition	-172 Jan 26 j 02:45	2°♁45'57	1°21'20
min. Earth dist.	-179 Nov 03 j 12:24	8°♃23'22	7.97694 AU	min. Earth dist.	-172 Jan 25 j 20:47	2°♁47'09	8.31793 AU
direct	-178 Jan 08 j 21:42	4°♃54'25			-172 Mar 06 j 02:14	30°♁	
evening set	-178 Apr 22 j 20:14	13°♃09'29		direct	-172 Apr 04 j 01:01	29°♁17'04	
	-178 May 06 j 23:36	15°♃			-172 May 02 j 20:54	0°♁	
conjunction	-178 May 10 j 21:23	15°♃30'49	-1°-44'-21	evening set	-172 Jul 19 j 07:47	7°♁15'56	
minimum elong	-178 May 10 j 21:26	15°♃30'50	1°44'21	conjunction	-172 Aug 06 j 01:45	9°♁28'36	1°19'31
max. Earth dist.	-178 May 11 j 03:18	15°♃32'46	9.96389 AU	minimum elong	-172 Aug 06 j 01:42	9°♁28'35	1°19'31
morning rise	-178 May 29 j 00:29	17°♃52'48		max. Earth dist.	-172 Aug 06 j 08:12	9°♁30'37	10.38030 AU
retrograde	-178 Sep 12 j 03:50	26°♃17'49		morning rise	-172 Aug 23 j 15:12	11°♁39'49	
opposition	-178 Nov 18 j 01:17	22°♃47'35	-1°-55'-10		-172 Sep 21 j 12:35	15°♁	
min. Earth dist.	-178 Nov 17 j 19:59	22°♃48'41	7.96127 AU	retrograde	-172 Dec 02 j 06:26	19°♁14'02	
direct	-177 Jan 23 j 11:44	19°♃18'28		opposition	-171 Feb 07 j 10:07	15°♁51'28	1°53'27
evening set	-177 May 08 j 03:30	27°♃36'26		min. Earth dist.	-171 Feb 07 j 04:31	15°♁52'34	8.44416 AU
conjunction	-177 May 26 j 07:31	29°♃58'32	-1°-18'-26		-171 Feb 18 j 08:28	15°♁	
minimum elong	-177 May 26 j 07:35	29°♃58'33	1°18'26	direct	-171 Apr 17 j 22:23	12°♁23'37	
	-177 May 26 j 12:00	0°♁			-171 Jun 13 j 22:43	15°♁	
max. Earth dist.	-177 May 26 j 15:32	0°♁01'09	9.96505 AU	evening set	-171 Aug 02 j 01:07	20°♁14'24	
morning rise	-177 Jun 13 j 12:04	2°♁20'49		conjunction	-171 Aug 19 j 13:52	22°♁23'48	1°43'08
retrograde	-177 Sep 26 j 18:16	10°♁41'12		minimum elong	-171 Aug 19 j 13:49	22°♁23'47	1°43'08
opposition	-177 Dec 02 j 09:43	7°♁11'38	-1°-19'-29	max. Earth dist.	-171 Aug 19 j 19:29	22°♁25'32	10.50874 AU
min. Earth dist.	-177 Dec 02 j 03:02	7°♁13'01	7.97826 AU	morning rise	-171 Sep 05 j 21:41	24°♁31'39	
direct	-176 Feb 07 j 03:38	3°♁41'54			-171 Oct 28 j 12:55	0°♁	
evening set	-176 May 22 j 10:45	12°♁00'12		retrograde	-171 Dec 14 j 23:32	1°♁56'35	
conjunction	-176 Jun 09 j 16:06	14°♁22'05	0°-47'-44		-170 Feb 01 j 21:34	30°♁	
minimum elong	-176 Jun 09 j 16:08	14°♁22'06	0°47'44	opposition	-170 Feb 20 j 11:20	28°♁35'32	2°18'57
max. Earth dist.	-176 Jun 10 j 01:22	14°♁25'07	9.99851 AU	min. Earth dist.	-170 Feb 20 j 06:26	28°♁36'30	8.57388 AU
morning rise	-176 Jun 27 j 20:33	16°♁43'41		direct	-170 May 01 j 11:38	25°♁08'56	
retrograde	-176 Oct 10 j 03:30	24°♁56'57			-170 Jul 21 j 06:24	0°♁	
opposition	-176 Dec 15 j 15:22	21°♁28'24	0°-39'-10	evening set	-170 Aug 15 j 07:10	2°♁51'14	
min. Earth dist.	-176 Dec 15 j 08:12	21°♁29'53	8.02654 AU	conjunction	-170 Sep 01 j 14:38	4°♁57'25	2°01'10
direct	-175 Feb 20 j 18:47	17°♁58'21		minimum elong	-170 Sep 01 j 14:35	4°♁57'25	2°01'10
evening set	-175 Jun 06 j 15:10	26°♁14'36		max. Earth dist.	-170 Sep 01 j 19:25	4°♁58'53	10.63737 AU
conjunction	-175 Jun 24 j 19:59	28°♁35'17	0°-14'-27	morning rise	-170 Sep 18 j 17:01	7°♁02'06	
				retrograde	-170 Dec 27 j 08:21	14°♁18'44	

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Attention, astronomical year style is used: The year -169 in astronomical counting style is the year 170 BCE in historical counting style.

opposition	-169 Mar 05 j 06:36	10°♄59'04	2°37'11	direct	-163 Jul 25 j 17:08	16°♃54'31	
min. Earth dist.	-169 Mar 05 j 03:17	10°♄59'43	8.70078 AU	evening set	-163 Nov 04 j 02:59	23°♃53'12	
direct	-169 May 14 j 17:57	7°♄33'48					
evening set	-169 Aug 28 j 02:32	15°♄07'38		conjunction	-163 Nov 20 j 15:44	25°♃48'29	1°28'01
				minimum elong	-163 Nov 20 j 15:46	25°♃48'30	1°28'01
conjunction	-169 Sep 14 j 05:00	17°♄10'52	2°13'12	max. Earth dist.	-163 Nov 20 j 08:07	25°♃46'15	11.13082 AU
minimum elong	-169 Sep 14 j 04:58	17°♄10'52	2°13'12	morning rise	-163 Dec 07 j 03:52	27°♃43'37	
max. Earth dist.	-169 Sep 14 j 08:00	17°♄11'46	10.76024 AU		-163 Dec 27 j 20:11	0°♂	
morning rise	-169 Oct 01 j 02:39	19°♄12'42		retrograde	-162 Mar 17 j 15:50	4°♂39'56	
retrograde	-168 Jan 08 j 11:32	26°♄22'08		opposition	-162 May 27 j 09:47	1°♂22'45	1°33'55
opposition	-168 Mar 16 j 20:14	23°♄03'40	2°47'53	min. Earth dist.	-162 May 27 j 16:19	1°♂21'33	9.12308 AU
min. Earth dist.	-168 Mar 16 j 18:57	23°♄03'55	8.81916 AU		-162 Jun 15 j 20:07	30°♃	
direct	-168 May 26 j 16:35	19°♄39'46		direct	-162 Aug 06 j 11:02	28°♃04'37	
evening set	-168 Sep 08 j 11:56	27°♄05'29			-162 Sep 25 j 02:05	0°♂	
				evening set	-162 Nov 15 j 06:38	5°♂01'56	
conjunction	-168 Sep 25 j 09:58	29°♄06'09	2°19'08				
minimum elong	-168 Sep 25 j 09:57	29°♄06'09	2°19'08	conjunction	-162 Dec 01 j 19:50	6°♂57'36	1°05'15
max. Earth dist.	-168 Sep 25 j 10:23	29°♄06'17	10.87207 AU	minimum elong	-162 Dec 01 j 19:53	6°♂57'37	1°05'15
	-168 Oct 02 j 22:09	0°♂		max. Earth dist.	-162 Dec 01 j 12:06	6°♂55'20	11.10773 AU
morning rise	-168 Oct 12 j 03:48	1°♂05'35		morning rise	-162 Dec 18 j 09:04	8°♂53'22	
retrograde	-167 Jan 19 j 08:06	8°♂09'06		retrograde	-161 Mar 29 j 13:18	15°♂53'04	
opposition	-167 Mar 29 j 05:12	4°♂51'34	2°51'11	opposition	-161 Jun 08 j 10:06	12°♂35'06	1°04'24
min. Earth dist.	-167 Mar 29 j 05:19	4°♂51'32	8.92397 AU	min. Earth dist.	-161 Jun 08 j 16:55	12°♂33'51	9.08705 AU
direct	-167 Jun 08 j 08:08	1°♂29'00		direct	-161 Aug 18 j 04:28	9°♂17'08	
evening set	-167 Sep 20 j 12:16	8°♂47'10		evening set	-161 Nov 26 j 11:40	16°♂14'37	
conjunction	-167 Oct 07 j 06:45	10°♂45'44	2°19'09	conjunction	-161 Dec 13 j 01:37	18°♂11'06	0°39'51
minimum elong	-167 Oct 07 j 06:45	10°♂45'44	2°19'09	minimum elong	-161 Dec 13 j 01:39	18°♂11'06	0°39'50
max. Earth dist.	-167 Oct 07 j 05:30	10°♂45'22	10.96829 AU	max. Earth dist.	-161 Dec 12 j 17:04	18°♂08'35	11.06001 AU
morning rise	-167 Oct 23 j 21:37	12°♂43'15		morning rise	-161 Dec 29 j 16:31	20°♂07'55	
retrograde	-166 Jan 31 j 02:11	19°♂42'17		retrograde	-160 Apr 09 j 13:11	27°♂12'31	
opposition	-166 Apr 10 j 10:11	16°♂25'22	2°47'28	opposition	-160 Jun 19 j 12:46	23°♂53'31	0°32'07
min. Earth dist.	-166 Apr 10 j 11:00	16°♂25'13	9.01098 AU	min. Earth dist.	-160 Jun 19 j 20:20	23°♂52'07	9.02736 AU
direct	-166 Jun 20 j 19:03	13°♂04'05		direct	-160 Aug 28 j 20:25	20°♂35'28	
evening set	-166 Oct 02 j 05:04	20°♂15'31		evening set	-160 Dec 06 j 19:43	27°♂34'42	
conjunction	-166 Oct 18 j 21:01	22°♂12'31	2°13'33	conjunction	-160 Dec 23 j 10:47	29°♂32'20	0°12'38
minimum elong	-166 Oct 18 j 21:02	22°♂12'31	2°13'33	minimum elong	-160 Dec 23 j 10:47	29°♂32'20	0°12'38
max. Earth dist.	-166 Oct 18 j 19:01	22°♂11'55	11.04507 AU	behind sun begin	-160 Dec 23 j 06:15	29°♂31'00	
morning rise	-166 Nov 04 j 09:46	24°♂08'37		behind sun end	-160 Dec 23 j 15:20	29°♂33'40	
	-165 Jan 06 j 13:52	0°♃		max. Earth dist.	-160 Dec 23 j 01:11	29°♂29'30	10.98969 AU
retrograde	-165 Feb 11 j 19:04	1°♃04'34			-160 Dec 27 j 07:59	0°♂	
	-165 Mar 20 j 20:08	30°♃		morning rise	-159 Jan 09 j 03:52	1°♂30'36	
opposition	-165 Apr 22 j 11:59	27°♂48'02	2°37'14	retrograde	-159 Apr 21 j 18:10	8°♂41'39	
min. Earth dist.	-165 Apr 22 j 14:16	27°♂47'36	9.07672 AU	desc. node	-159 Jun 10 j 15:25	6°♂52'09	
direct	-165 Jul 02 j 22:09	24°♂27'50		opposition	-159 Jul 01 j 18:55	5°♂21'22	0°-1'-55
	-165 Sep 29 j 17:15	0°♃		min. Earth dist.	-159 Jul 02 j 02:59	5°♂19'52	8.94643 AU
evening set	-165 Oct 13 j 15:58	1°♃33'38		direct	-159 Sep 09 j 16:11	2°♂02'57	
				evening set	-159 Dec 18 j 08:18	9°♂05'32	
conjunction	-165 Oct 30 j 06:06	3°♃29'33	2°02'48				
minimum elong	-165 Oct 30 j 06:08	3°♃29'34	2°02'48	conjunction	-158 Jan 04 j 01:01	11°♂04'42	0°-15'-34
max. Earth dist.	-165 Oct 30 j 02:17	3°♃28'26	11.09917 AU	minimum elong	-158 Jan 04 j 01:00	11°♂04'42	0°15'35
morning rise	-165 Nov 15 j 17:47	5°♃24'50		behind sun begin	-158 Jan 03 j 22:58	11°♂04'06	
retrograde	-164 Feb 23 j 08:40	12°♃19'13		behind sun end	-158 Jan 04 j 03:03	11°♂05'18	
opposition	-164 May 03 j 11:49	9°♃02'46	2°21'06	max. Earth dist.	-158 Jan 03 j 16:00	11°♂02'01	10.89937 AU
min. Earth dist.	-164 May 03 j 16:16	9°♃01'57	9.11826 AU	morning rise	-158 Jan 20 j 20:29	13°♂04'44	
direct	-164 Jul 13 j 20:23	5°♃43'28		retrograde	-158 May 04 j 07:19	20°♂23'41	
evening set	-164 Oct 23 j 22:42	12°♃44'59		opposition	-158 Jul 14 j 05:14	17°♂01'56	0°-36'-35
				min. Earth dist.	-158 Jul 14 j 12:35	17°♂00'33	8.84721 AU
conjunction	-164 Nov 09 j 11:41	14°♃40'19	1°47'26	direct	-158 Sep 21 j 15:06	13°♂42'56	
minimum elong	-164 Nov 09 j 11:43	14°♃40'20	1°47'25	evening set	-158 Dec 30 j 03:30	20°♂50'27	
max. Earth dist.	-164 Nov 09 j 05:21	14°♃38'28	11.12808 AU				
	-164 Nov 12 j 06:57	15°♃		conjunction	-157 Jan 15 j 22:14	22°♂51'30	0°-43'-33
morning rise	-164 Nov 25 j 23:16	16°♃35'16		minimum elong	-157 Jan 15 j 22:12	22°♂51'29	0°43'35
retrograde	-163 Mar 05 j 23:24	23°♃29'47		max. Earth dist.	-157 Jan 15 j 14:25	22°♂49'08	10.79226 AU
opposition	-163 May 15 j 10:44	20°♃13'08	1°59'45	morning rise	-157 Feb 01 j 20:13	24°♂53'36	
min. Earth dist.	-163 May 15 j 16:54	20°♃12'00	9.13376 AU		-157 Mar 23 j 05:23	0°♂	

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Attention, astronomical year style is used: The year -157 in astronomical counting style is the year 158 BCE in historical counting style.

retrograde	-157 May 17 j 03:18	2°♁21'39		min. Earth dist.	-151 Oct 14 j 02:39	17°♃53'24	8.04543 AU
	-157 Jul 13 j 02:41	30°♁		direct	-151 Dec 19 j 10:24	14°♃26'08	
opposition	-157 Jul 26 j 20:32	28°♁58'21	-1°-10'-31	evening set	-150 Apr 01 j 06:38	22°♃33'17	
min. Earth dist.	-157 Jul 27 j 02:38	28°♁57'12	8.73335 AU				
direct	-157 Oct 03 j 17:15	25°♁38'35		conjunction	-150 Apr 19 j 01:53	24°♃52'13	-2°-9'-53
	-157 Dec 16 j 23:05	0°♁		minimum elong	-150 Apr 19 j 01:56	24°♃52'14	2°09'54
evening set	-156 Jan 11 j 06:47	2°♁52'35		max. Earth dist.	-150 Apr 19 j 06:23	24°♃53'42	10.01167 AU
				morning rise	-150 May 07 j 00:36	27°♃12'19	
conjunction	-156 Jan 28 j 03:43	4°♁55'46	-1°-10'-16		-150 May 29 j 17:06	0°♁	
minimum elong	-156 Jan 28 j 03:41	4°♁55'45	1°10'17	retrograde	-150 Aug 22 j 04:06	5°♁39'10	
max. Earth dist.	-156 Jan 27 j 20:37	4°♁53'36	10.67253 AU	opposition	-150 Oct 28 j 13:38	2°♁08'32	-2°-33'-31
morning rise	-156 Feb 14 j 04:32	7°♁00'12		min. Earth dist.	-150 Oct 28 j 09:11	2°♁09'28	7.98842 AU
retrograde	-156 May 29 j 08:26	14°♁38'22			-150 Nov 25 j 12:16	30°♁	
opposition	-156 Aug 07 j 18:02	11°♁13'29	-1°-42'-15	direct	-149 Jan 02 j 17:09	28°♃40'51	
min. Earth dist.	-156 Aug 07 j 23:01	11°♁12'31	8.60942 AU		-149 Feb 09 j 11:59	0°♁	
direct	-156 Oct 15 j 01:12	7°♁52'46		evening set	-149 Apr 16 j 08:33	6°♁54'15	
	-155 Jan 20 j 19:24	15°♁					
evening set	-155 Jan 22 j 19:26	15°♁14'32		conjunction	-149 May 04 j 07:55	9°♁15'03	-1°-53'-56
				minimum elong	-149 May 04 j 07:59	9°♁15'04	1°53'57
conjunction	-155 Feb 08 j 18:53	17°♁20'08	-1°-34'-23	max. Earth dist.	-149 May 04 j 14:16	9°♁17'08	9.96993 AU
minimum elong	-155 Feb 08 j 18:50	17°♁20'07	1°34'24	morning rise	-149 May 22 j 09:53	11°♁36'41	
max. Earth dist.	-155 Feb 08 j 12:17	17°♁18'05	10.54523 AU		-149 Jun 19 j 04:03	15°♁	
morning rise	-155 Feb 25 j 22:56	19°♁27'10		retrograde	-149 Sep 05 j 23:36	20°♁03'21	
retrograde	-155 Jun 11 j 22:38	27°♁15'58		opposition	-149 Nov 11 j 23:29	16°♁33'03	-2°-8'-58
opposition	-155 Aug 20 j 22:06	23°♁49'33	-2°-10'-4	min. Earth dist.	-149 Nov 11 j 17:59	16°♁34'11	7.96220 AU
min. Earth dist.	-155 Aug 21 j 02:23	23°♁48'43	8.48080 AU		-149 Dec 01 j 08:00	15°♁	
direct	-155 Oct 27 j 15:02	20°♁27'44		direct	-148 Jan 17 j 05:47	13°♁04'31	
evening set	-154 Feb 04 j 18:47	27°♁58'24			-148 Mar 03 j 08:35	15°♁	
				evening set	-148 Apr 30 j 15:16	21°♁21'52	
conjunction	-154 Feb 21 j 21:19	0°♁06'36	-1°-54'-31				
minimum elong	-154 Feb 21 j 21:16	0°♁06'35	1°54'32	conjunction	-148 May 18 j 18:00	23°♁43'46	-1°-30'-46
	-154 Feb 21 j 00:19	0°♁		minimum elong	-148 May 18 j 18:04	23°♁43'47	1°30'46
max. Earth dist.	-154 Feb 21 j 16:02	0°♁04'57	10.41604 AU	max. Earth dist.	-148 May 19 j 01:44	23°♁46'19	9.96049 AU
morning rise	-154 Mar 11 j 04:49	2°♁16'23		morning rise	-148 Jun 05 j 22:09	26°♁06'06	
retrograde	-154 Jun 25 j 19:23	10°♁15'45			-148 Jul 08 j 06:34	0°♁	
opposition	-154 Sep 03 j 08:41	6°♁47'57	-2°-32'-13	retrograde	-148 Sep 19 j 16:17	4°♁29'20	
min. Earth dist.	-154 Sep 03 j 11:53	6°♁47'19	8.35349 AU	opposition	-148 Nov 25 j 09:07	0°♁59'43	-1°-36'-11
direct	-154 Nov 09 j 14:04	3°♁24'54		min. Earth dist.	-148 Nov 25 j 02:52	1°♁01'01	7.96878 AU
evening set	-153 Feb 18 j 05:22	11°♁05'09			-148 Dec 07 j 12:20	30°♁	
				direct	-147 Jan 30 j 21:50	27°♁30'35	
conjunction	-153 Mar 07 j 11:33	13°♁16'09	-2°-9'-16		-147 Mar 25 j 00:45	0°♁	
minimum elong	-153 Mar 07 j 11:31	13°♁16'08	2°09'17	evening set	-147 May 15 j 23:38	5°♁49'18	
max. Earth dist.	-153 Mar 07 j 08:36	13°♁15'12	10.29133 AU				
morning rise	-153 Mar 24 j 22:38	15°♁28'43		conjunction	-147 Jun 03 j 04:26	8°♁11'24	-1°-1'-55
retrograde	-153 Jul 10 j 00:15	23°♁38'00		minimum elong	-147 Jun 03 j 04:29	8°♁11'25	1°01'55
opposition	-153 Sep 17 j 01:58	20°♁08'59	-2°-46'-55	max. Earth dist.	-147 Jun 03 j 13:14	8°♁14'17	9.98388 AU
min. Earth dist.	-153 Sep 17 j 03:21	20°♁08'42	8.23401 AU	morning rise	-147 Jun 21 j 09:17	10°♁33'27	
direct	-153 Nov 22 j 21:47	16°♁44'42		retrograde	-147 Oct 04 j 04:06	18°♁50'21	
evening set	-152 Mar 03 j 03:12	24°♁34'37		opposition	-147 Dec 09 j 16:44	15°♁21'46	0°-57'-33
				min. Earth dist.	-147 Dec 09 j 09:38	15°♁23'14	8.00748 AU
conjunction	-152 Mar 20 j 13:30	26°♁48'26	-2°-17'-21	direct	-146 Feb 14 j 15:01	11°♁52'17	
minimum elong	-152 Mar 20 j 13:29	26°♁48'25	2°17'21	evening set	-146 May 31 j 06:14	20°♁09'48	
max. Earth dist.	-152 Mar 20 j 13:27	26°♁48'25	10.17790 AU				
morning rise	-152 Apr 07 j 04:24	29°♁03'46		conjunction	-146 Jun 18 j 11:21	22°♁31'03	0°-29'-28
	-152 Apr 14 j 16:38	0°♁		minimum elong	-146 Jun 18 j 11:23	22°♁31'04	0°29'28
retrograde	-152 Jul 23 j 12:55	7°♁21'28		max. Earth dist.	-146 Jun 18 j 20:52	22°♁34'09	10.03806 AU
opposition	-152 Sep 30 j 01:20	3°♁51'30	-2°-52'-37	morning rise	-146 Jul 06 j 15:06	24°♁51'49	
min. Earth dist.	-152 Sep 30 j 00:19	3°♁51'43	8.12916 AU		-146 Aug 20 j 15:56	0°♁	
direct	-152 Dec 05 j 12:31	0°♁26'01		retrograde	-146 Oct 18 j 09:24	3°♁00'17	
evening set	-151 Mar 17 j 12:06	8°♁25'06			-146 Dec 18 j 08:39	30°♁	
				opposition	-146 Dec 23 j 20:30	29°♁32'56	0°-15'-53
conjunction	-151 Apr 04 j 02:51	10°♁41'38	-2°-17'-44	min. Earth dist.	-146 Dec 23 j 12:51	29°♁34'30	8.07514 AU
minimum elong	-151 Apr 04 j 02:52	10°♁41'38	2°17'44	direct	-145 Mar 01 j 07:07	26°♁03'24	
max. Earth dist.	-151 Apr 04 j 05:15	10°♁42'25	10.08262 AU		-145 May 09 j 12:42	0°♁	
morning rise	-151 Apr 21 j 21:44	12°♁59'33		asc. node	-145 May 15 j 20:56	0°♁40'19	
retrograde	-151 Aug 07 j 07:16	21°♁23'18		evening set	-145 Jun 15 j 07:55	4°♁17'22	
opposition	-151 Oct 14 j 05:38	17°♁52'48	-2°-48'-16				

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Attention, astronomical year style is used: The year -145 in astronomical counting style is the year 146 BCE in historical counting style.

conjunction	-145 Jul 03 j 11:37	6°♄36'53	0°04'23	conjunction	-139 Sep 20 j 12:42	24°♃10'24	2°17'16
minimum elong	-145 Jul 03 j 11:37	6°♄36'53	0°04'24	minimum elong	-139 Sep 20 j 12:41	24°♃10'23	2°17'15
behind sun begin	-145 Jul 03 j 04:24	6°♄34'35		max. Earth dist.	-139 Sep 20 j 13:35	24°♃10'39	10.81375 AU
behind sun end	-145 Jul 03 j 18:49	6°♄39'11		morning rise	-139 Oct 07 j 08:11	26°♃10'58	
max. Earth dist.	-145 Jul 03 j 21:07	6°♄39'55	10.11856 AU		-139 Nov 11 j 15:03	0°♄	
morning rise	-145 Jul 21 j 12:35	8°♄55'29		retrograde	-138 Jan 14 j 14:52	3°♄17'31	
retrograde	-145 Nov 01 j 06:40	16°♄54'13		opposition	-138 Mar 24 j 05:32	29°♃59'21	2°50'40
opposition	-144 Jan 06 j 19:08	13°♄28'17	0°25'53	min. Earth dist.	-138 Mar 24 j 05:09	29°♃59'25	8.86687 AU
min. Earth dist.	-144 Jan 06 j 11:38	13°♄29'48	8.16629 AU		-138 Mar 24 j 02:05	30°♃♄	
direct	-144 Mar 14 j 19:40	9°♄58'59		direct	-138 Jun 03 j 05:36	26°♃35'56	
evening set	-144 Jun 29 j 02:09	18°♄07'39			-138 Aug 09 j 14:04	0°♄	
				evening set	-138 Sep 15 j 17:03	3°♄57'54	
conjunction	-144 Jul 17 j 02:50	20°♄24'41	0°37'15	conjunction	-138 Oct 02 j 13:16	5°♄57'32	2°19'52
minimum elong	-144 Jul 17 j 02:48	20°♄24'40	0°37'15	minimum elong	-138 Oct 02 j 13:16	5°♄57'32	2°19'51
max. Earth dist.	-144 Jul 17 j 11:33	20°♄27'28	10.21897 AU	max. Earth dist.	-138 Oct 02 j 12:42	5°♄57'22	10.91321 AU
morning rise	-144 Aug 03 j 23:39	22°♄40'31		morning rise	-138 Oct 19 j 05:19	7°♄56'01	
	-144 Oct 21 j 21:32	0°♄		retrograde	-137 Jan 26 j 10:20	14°♄57'27	
retrograde	-144 Nov 13 j 19:38	0°♄29'07		opposition	-137 Apr 05 j 12:33	11°♄39'55	2°50'00
	-144 Dec 06 j 21:09	30°♃♄		min. Earth dist.	-137 Apr 05 j 14:06	11°♄39'38	8.95841 AU
opposition	-143 Jan 19 j 12:00	27°♄04'44	1°05'11	direct	-137 Jun 15 j 18:45	8°♄17'37	
min. Earth dist.	-143 Jan 19 j 05:33	27°♄06'02	8.27423 AU	evening set	-137 Sep 27 j 13:25	15°♄32'33	
direct	-143 Mar 29 j 02:33	23°♄36'00					
	-143 Jun 29 j 22:20	0°♄		conjunction	-137 Oct 14 j 06:28	17°♄30'23	2°16'40
evening set	-143 Jul 13 j 11:20	1°♄38'07		minimum elong	-137 Oct 14 j 06:29	17°♄30'24	2°16'40
				max. Earth dist.	-137 Oct 14 j 03:39	17°♄29'33	10.99562 AU
conjunction	-143 Jul 31 j 07:39	3°♄52'11	1°07'23	morning rise	-137 Oct 30 j 20:13	19°♄27'16	
minimum elong	-143 Jul 31 j 07:36	3°♄52'10	1°07'23	retrograde	-136 Feb 07 j 02:22	26°♄24'59	
max. Earth dist.	-143 Jul 31 j 14:57	3°♄54'29	10.33289 AU	opposition	-136 Apr 16 j 15:49	23°♄07'50	2°42'34
morning rise	-143 Aug 17 j 23:21	6°♄04'51		min. Earth dist.	-136 Apr 16 j 18:53	23°♄07'16	9.03116 AU
retrograde	-143 Nov 27 j 00:37	13°♄43'32		direct	-136 Jun 27 j 01:11	19°♄46'36	
opposition	-142 Feb 01 j 22:46	10°♄20'42	1°39'53	evening set	-136 Oct 08 j 03:02	26°♄55'29	
min. Earth dist.	-142 Feb 01 j 17:55	10°♄21'40	8.39320 AU				
direct	-142 Apr 12 j 02:50	6°♄52'46		conjunction	-136 Oct 24 j 17:53	28°♄52'01	2°08'07
evening set	-142 Jul 27 j 10:09	14°♄47'23		minimum elong	-136 Oct 24 j 17:54	28°♄52'02	2°08'07
	-142 Jul 29 j 03:27	15°♄		max. Earth dist.	-136 Oct 24 j 13:35	28°♄50'45	11.05807 AU
conjunction	-142 Aug 14 j 01:16	16°♄58'15	1°33'16		-136 Nov 03 j 09:24	0°♄	
minimum elong	-142 Aug 14 j 01:13	16°♄58'14	1°33'16	morning rise	-136 Nov 10 j 06:11	0°♄47'50	
max. Earth dist.	-142 Aug 14 j 06:29	16°♄59'52	10.45498 AU	retrograde	-135 Feb 17 j 16:26	7°♄43'21	
morning rise	-142 Aug 31 j 11:32	19°♄07'37		opposition	-135 Apr 28 j 16:40	4°♄26'20	2°28'54
retrograde	-142 Dec 09 j 20:43	26°♄36'51		min. Earth dist.	-135 Apr 28 j 20:09	4°♄25'41	9.08257 AU
opposition	-141 Feb 15 j 03:18	23°♄15'28	2°08'29	direct	-135 Jul 09 j 03:10	1°♄06'05	
min. Earth dist.	-141 Feb 14 j 23:50	23°♄16'09	8.51774 AU	evening set	-135 Oct 19 j 11:25	8°♄10'02	
direct	-141 Apr 25 j 20:45	19°♄48'32					
evening set	-141 Aug 09 j 21:46	27°♄35'00		conjunction	-135 Nov 05 j 01:01	10°♄05'46	1°54'40
				minimum elong	-135 Nov 05 j 01:04	10°♄05'47	1°54'40
conjunction	-141 Aug 27 j 07:30	29°♄42'39	1°53'53	max. Earth dist.	-135 Nov 04 j 20:29	10°♄04'27	11.09835 AU
minimum elong	-141 Aug 27 j 07:27	29°♄42'38	1°53'53	morning rise	-135 Nov 21 j 12:38	12°♄01'00	
max. Earth dist.	-141 Aug 27 j 10:38	29°♄43'36	10.57963 AU		-135 Dec 19 j 03:47	15°♄	
	-141 Aug 29 j 15:55	0°♄		retrograde	-134 Mar 01 j 09:00	18°♄55'54	
morning rise	-141 Sep 13 j 12:26	1°♄48'48		opposition	-134 May 10 j 16:04	15°♄38'48	2°09'42
retrograde	-141 Dec 22 j 07:49	9°♄09'23		min. Earth dist.	-134 May 10 j 20:05	15°♄38'04	9.11089 AU
opposition	-140 Feb 28 j 01:37	5°♄49'18	2°30'01		-134 May 19 j 12:30	15°♄	
min. Earth dist.	-140 Feb 27 j 23:06	5°♄49'47	8.64191 AU	direct	-134 Jul 21 j 01:02	12°♄19'23	
direct	-140 May 08 j 08:40	2°♄23'28			-134 Sep 18 j 08:52	15°♄	
evening set	-140 Aug 21 j 22:28	10°♄01'33		evening set	-134 Oct 30 j 16:42	19°♄19'42	
conjunction	-140 Sep 08 j 03:06	12°♄06'10	2°08'37	conjunction	-134 Nov 16 j 05:43	21°♄15'09	1°36'56
minimum elong	-140 Sep 08 j 03:04	12°♄06'09	2°08'37	minimum elong	-134 Nov 16 j 05:46	21°♄15'10	1°36'55
max. Earth dist.	-140 Sep 08 j 04:40	12°♄06'38	10.70101 AU	max. Earth dist.	-134 Nov 16 j 00:20	21°♄13'34	11.11508 AU
morning rise	-140 Sep 25 j 02:59	14°♄09'20		morning rise	-134 Dec 02 j 17:31	23°♄10'19	
retrograde	-139 Jan 02 j 14:14	21°♄22'19			-133 Mar 01 j 20:43	0°♄	
opposition	-139 Mar 11 j 18:03	18°♄03'17	2°44'06	retrograde	-133 Mar 12 j 23:59	0°♄06'05	
min. Earth dist.	-139 Mar 11 j 16:15	18°♄03'38	8.75995 AU		-133 Mar 24 j 04:57	30°♃♄	
direct	-139 May 21 j 11:29	14°♄38'40		opposition	-133 May 22 j 14:55	26°♄48'41	1°45'41
evening set	-139 Sep 03 j 12:36	22°♄08'29		min. Earth dist.	-133 May 22 j 20:20	26°♄47'42	9.11521 AU
				direct	-133 Aug 01 j 17:58	23°♄29'55	

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Attention, astronomical year style is used: The year -133 in astronomical counting style is the year 134 BCE in historical counting style.

	-133 Nov 06 j 18:00	0°♄		direct	-127 Oct 10 j 01:36	2°♁47'35	
evening set	-133 Nov 10 j 20:36	0°♄28'05		evening set	-126 Jan 17 j 16:59	10°♁04'58	
conjunction	-133 Nov 27 j 09:32	2°♄23'39	1°15'31	conjunction	-126 Feb 03 j 15:12	12°♁09'11	-1°-24'-12
minimum elong	-133 Nov 27 j 09:34	2°♄23'40	1°15'31	minimum elong	-126 Feb 03 j 15:10	12°♁09'11	1°24'13
max. Earth dist.	-133 Nov 27 j 02:22	2°♄21'33	11.10770 AU	max. Earth dist.	-126 Feb 03 j 09:59	12°♁07'35	10.62513 AU
morning rise	-133 Dec 13 j 22:21	4°♄19'13		morning rise	-126 Feb 20 j 17:37	14°♁14'46	
retrograde	-132 Mar 23 j 18:08	11°♄17'29		retrograde	-126 Feb 27 j 01:09	15°♁	
opposition	-132 Jun 02 j 14:39	7°♄59'33	1°17'38	retrograde	-126 Jun 06 j 07:50	21°♁57'47	
min. Earth dist.	-132 Jun 02 j 21:04	7°♄58'22	9.09537 AU	opposition	-126 Aug 15 j 12:52	18°♁32'42	-1°-58'-20
direct	-132 Aug 12 j 11:51	4°♄41'12		min. Earth dist.	-126 Aug 15 j 16:41	18°♁31'58	8.56311 AU
evening set	-132 Nov 21 j 00:42	11°♄38'42		direct	-126 Oct 22 j 12:55	15°♁12'03	
				evening set	-125 Jan 30 j 11:06	22°♁37'34	
conjunction	-132 Dec 07 j 14:13	13°♄34'50	0°51'09	conjunction	-125 Feb 16 j 12:09	24°♁44'15	-1°-46'-11
minimum elong	-132 Dec 07 j 14:14	13°♄34'51	0°51'09	minimum elong	-125 Feb 16 j 12:06	24°♁44'14	1°46'12
max. Earth dist.	-132 Dec 07 j 06:44	13°♄32'38	11.07636 AU	max. Earth dist.	-125 Feb 16 j 07:54	24°♁42'56	10.49974 AU
morning rise	-132 Dec 24 j 04:28	15°♄31'13		morning rise	-125 Mar 05 j 17:41	26°♁52'24	
retrograde	-131 Apr 04 j 16:09	22°♄33'35		retrograde	-125 Apr 01 j 17:58	0°♁	
opposition	-131 Jun 14 j 16:10	19°♄14'52	0°46'25	retrograde	-125 Jun 20 j 01:33	4°♁45'51	
min. Earth dist.	-131 Jun 14 j 22:27	19°♄13'42	9.05199 AU	opposition	-125 Aug 28 j 19:48	1°♁19'19	-2°-23'-4
direct	-131 Aug 24 j 04:56	15°♄56'45		min. Earth dist.	-125 Aug 28 j 22:27	1°♁18'48	8.43701 AU
evening set	-131 Dec 02 j 07:03	22°♄55'06			-125 Sep 15 j 03:34	30°♁	
conjunction	-131 Dec 18 j 21:42	24°♄52'12	0°24'36	direct	-125 Nov 04 j 06:39	27°♁57'32	
minimum elong	-131 Dec 18 j 21:43	24°♄52'12	0°24'37		-125 Dec 22 j 15:02	0°♁	
max. Earth dist.	-131 Dec 18 j 14:50	24°♄50'10	11.02205 AU	evening set	-124 Feb 12 j 15:59	5°♁32'09	
morning rise	-130 Jan 04 j 13:43	26°♄49'47		conjunction	-124 Feb 29 j 20:15	7°♁41'30	-2°-3'-25
retrograde	-130 Feb 02 j 18:53	0°♁		minimum elong	-124 Feb 29 j 20:13	7°♁41'29	2°03'25
opposition	-130 Apr 16 j 19:52	3°♁57'47		max. Earth dist.	-124 Feb 29 j 16:36	7°♁40'21	10.37353 AU
min. Earth dist.	-130 Jun 26 j 20:27	0°♁38'04	0°13'00	morning rise	-124 Mar 18 j 05:22	9°♁52'24	
	-130 Jun 27 j 02:09	0°♁37'00	8.98660 AU	retrograde	-124 Jul 03 j 03:11	17°♁56'01	
direct	-130 Jul 05 j 11:21	30°♁		opposition	-124 Sep 10 j 09:29	14°♁28'11	-2°-41'-11
	-130 Sep 04 j 23:19	27°♄19'56		min. Earth dist.	-124 Sep 10 j 11:14	14°♁27'50	8.31321 AU
	-130 Nov 02 j 00:10	0°♁		direct	-124 Nov 16 j 08:51	11°♁05'08	
desc. node	-130 Nov 16 j 14:20	1°♁22'04		evening set	-123 Feb 25 j 08:02	18°♁49'23	
evening set	-130 Dec 13 j 17:26	4°♁20'45					
conjunction	-130 Dec 30 j 09:28	6°♁19'10	0°-3'-20	conjunction	-123 Mar 14 j 16:06	21°♁01'32	-2°-14'-32
minimum elong	-130 Dec 30 j 09:28	6°♁19'10	0°03'21	minimum elong	-123 Mar 14 j 16:05	21°♁01'31	2°14'33
behind sun begin	-130 Dec 30 j 02:31	6°♁17'07		max. Earth dist.	-123 Mar 14 j 13:23	21°♁00'40	10.25319 AU
behind sun end	-130 Dec 30 j 16:25	6°♁21'13		morning rise	-123 Apr 01 j 05:08	23°♁15'15	
max. Earth dist.	-130 Dec 30 j 02:23	6°♁17'05	10.94666 AU		-123 Jun 05 j 22:34	0°♁	
morning rise	-129 Jan 16 j 03:42	8°♁18'19		retrograde	-123 Jul 17 j 12:09	1°♁28'01	
retrograde	-129 Apr 29 j 06:43	15°♁33'22			-123 Aug 28 j 11:49	30°♁	
opposition	-129 Jul 09 j 04:41	12°♁12'30	0°-21'-31	opposition	-123 Sep 24 j 05:29	27°♁59'04	-2°-51'-1
min. Earth dist.	-129 Jul 09 j 10:29	12°♁11'25	8.90148 AU	min. Earth dist.	-123 Sep 24 j 06:22	27°♁58'53	8.19898 AU
direct	-129 Sep 16 j 19:11	8°♁54'06		direct	-123 Nov 29 j 19:23	24°♁34'40	
evening set	-129 Dec 25 j 09:32	15°♁58'58			-122 Feb 19 j 04:30	0°♁	
				evening set	-122 Mar 11 j 11:18	2°♁28'26	
conjunction	-128 Jan 11 j 03:08	17°♁59'01	0°-31'-27	conjunction	-122 Mar 28 j 23:40	4°♁43'22	-2°-18'-26
minimum elong	-128 Jan 11 j 03:07	17°♁59'00	0°31'29	minimum elong	-122 Mar 28 j 23:41	4°♁43'22	2°18'26
max. Earth dist.	-128 Jan 10 j 19:38	17°♁56'45	10.85291 AU	max. Earth dist.	-122 Mar 28 j 22:52	4°♁43'07	10.14631 AU
morning rise	-128 Jan 27 j 23:56	20°♁00'03		morning rise	-122 Apr 15 j 16:42	6°♁59'48	
retrograde	-128 May 10 j 22:06	27°♁23'27		retrograde	-122 Aug 01 j 02:20	15°♁19'46	
opposition	-128 Jul 20 j 17:45	24°♁01'18	0°-55'-53	opposition	-122 Oct 08 j 06:47	11°♁49'59	-2°-51'-16
min. Earth dist.	-128 Jul 20 j 23:37	24°♁00'11	8.79985 AU	min. Earth dist.	-122 Oct 08 j 06:21	11°♁50'05	8.10177 AU
direct	-128 Sep 27 j 18:49	20°♁42'22		direct	-122 Dec 13 j 14:41	8°♁24'15	
evening set	-127 Jan 05 j 08:56	27°♁52'49		evening set	-121 Mar 26 j 00:36	16°♁26'42	
conjunction	-127 Jan 22 j 04:36	29°♁54'49	0°-58'-50	conjunction	-121 Apr 12 j 17:35	18°♁44'14	-2°-14'-20
minimum elong	-127 Jan 22 j 04:34	29°♁54'48	0°58'52	minimum elong	-121 Apr 12 j 17:37	18°♁44'14	2°14'20
max. Earth dist.	-127 Jan 21 j 21:43	29°♁52'43	10.74437 AU	max. Earth dist.	-121 Apr 12 j 19:23	18°♁44'49	10.06002 AU
	-127 Jan 22 j 21:39	0°♁		morning rise	-121 Apr 30 j 14:31	21°♁03'04	
morning rise	-127 Feb 08 j 04:09	1°♁57'59		retrograde	-121 Aug 15 j 19:49	29°♁27'37	
retrograde	-127 May 23 j 22:14	9°♁30'52		opposition	-121 Oct 22 j 12:24	25°♁57'20	-2°-41'-16
opposition	-127 Aug 02 j 12:18	6°♁07'16	-1°-28'-42	min. Earth dist.	-121 Oct 22 j 10:02	25°♁57'49	8.02805 AU
min. Earth dist.	-127 Aug 02 j 17:34	6°♁06'16	8.68564 AU				

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Attention, astronomical year style is used: The year -121 in astronomical counting style is the year 122 BCE in historical counting style.

direct	-121 Dec 27 j 18:15	22°♃30'20		direct	-114 Mar 22 j 23:31	17°♄35'29	
	-120 Apr 03 j 16:49	0°♃		evening set	-114 Jul 07 j 06:12	25°♄40'58	
evening set	-120 Apr 08 j 22:10	0°♃39'55					
				conjunction	-114 Jul 25 j 04:37	27°♄56'32	0°53'47
conjunction	-120 Apr 26 j 19:40	2°♃59'40	-2°-2'-3	minimum elong	-114 Jul 25 j 04:35	27°♄56'32	0°53'47
minimum elong	-120 Apr 26 j 19:43	2°♃59'41	2°02'03	max. Earth dist.	-114 Jul 25 j 11:41	27°♄58'47	10.26777 AU
max. Earth dist.	-120 Apr 27 j 00:08	3°♃01'08	10.00015 AU		-114 Aug 10 j 12:14	0°♄	
morning rise	-120 May 14 j 20:08	5°♃20'23		morning rise	-114 Aug 11 j 23:02	0°♄10'49	
retrograde	-120 Aug 29 j 14:15	13°♃46'27		retrograde	-114 Nov 21 j 07:14	7°♄54'15	
opposition	-120 Nov 04 j 20:37	10°♃16'03	-2°-21'-9	opposition	-113 Jan 27 j 03:53	4°♄30'10	1°24'24
min. Earth dist.	-120 Nov 04 j 16:22	10°♃16'55	7.98275 AU	min. Earth dist.	-113 Jan 26 j 21:43	4°♄31'24	8.32661 AU
direct	-119 Jan 10 j 02:58	6°♃47'56		direct	-113 Apr 06 j 03:00	1°♄01'20	
	-119 Apr 23 j 17:45	15°♃		evening set	-113 Jul 21 j 09:31	8°♄59'35	
evening set	-119 Apr 24 j 01:59	15°♃02'39					
				conjunction	-113 Aug 08 j 03:14	11°♄12'02	1°21'47
conjunction	-119 May 12 j 03:23	17°♃23'57	-1°-42'-6	minimum elong	-113 Aug 08 j 03:11	11°♄12'01	1°21'47
minimum elong	-119 May 12 j 03:27	17°♃23'58	1°42'06	max. Earth dist.	-113 Aug 08 j 09:51	11°♄14'07	10.38825 AU
max. Earth dist.	-119 May 12 j 10:03	17°♃26'08	9.97066 AU	morning rise	-113 Aug 25 j 16:14	13°♄23'01	
morning rise	-119 May 30 j 06:31	19°♃45'49			-113 Sep 08 j 03:47	15°♄	
retrograde	-119 Sep 13 j 08:11	28°♃10'06		retrograde	-113 Dec 04 j 07:30	20°♄56'38	
opposition	-119 Nov 19 j 05:28	24°♃40'01	-1°-52'-1	opposition	-112 Feb 09 j 10:48	17°♄34'05	1°55'57
min. Earth dist.	-119 Nov 18 j 23:45	24°♃41'12	7.96883 AU	min. Earth dist.	-112 Feb 09 j 05:17	17°♄35'11	8.45136 AU
direct	-118 Jan 24 j 15:37	21°♃10'59			-112 Mar 17 j 02:57	15°♄♄	
evening set	-118 May 09 j 08:57	29°♃28'29		direct	-112 Apr 18 j 23:07	14°♄06'15	
	-118 May 13 j 10:41	0°♄			-112 May 21 j 15:59	15°♄	
				evening set	-112 Aug 03 j 02:06	21°♄56'31	
conjunction	-118 May 27 j 13:04	1°♄50'29	-1°-15'-43				
minimum elong	-118 May 27 j 13:07	1°♄50'30	1°15'44	conjunction	-112 Aug 20 j 14:37	24°♄05'43	1°44'55
max. Earth dist.	-118 May 27 j 21:12	1°♄53'09	9.97339 AU	minimum elong	-112 Aug 20 j 14:33	24°♄05'42	1°44'55
morning rise	-118 Jun 14 j 17:35	4°♄12'37		max. Earth dist.	-112 Aug 20 j 20:20	24°♄07'30	10.51498 AU
retrograde	-118 Sep 27 j 22:51	12°♄32'07		morning rise	-112 Sep 06 j 22:00	26°♄13'24	
opposition	-118 Dec 03 j 13:24	9°♄02'44	-1°-15'-53		-112 Oct 10 j 14:24	0°♄♄	
min. Earth dist.	-118 Dec 03 j 06:59	9°♄04'03	7.98713 AU	retrograde	-112 Dec 15 j 23:07	3°♄37'52	
direct	-117 Feb 08 j 06:49	5°♄33'04		opposition	-111 Feb 21 j 11:39	0°♄16'50	2°20'50
evening set	-117 May 24 j 15:40	13°♄50'49		min. Earth dist.	-111 Feb 21 j 07:34	0°♄17'38	8.57920 AU
					-111 Feb 25 j 01:49	30°♄♄	
conjunction	-117 Jun 11 j 20:53	16°♄12'32	0°-44'-45	direct	-111 May 02 j 12:44	26°♄50'12	
minimum elong	-117 Jun 11 j 20:55	16°♄12'33	0°44'45		-111 Jul 05 j 08:42	0°♄	
max. Earth dist.	-117 Jun 12 j 05:37	16°♄15'23	10.00791 AU	evening set	-111 Aug 16 j 07:40	4°♄32'07	
morning rise	-117 Jun 30 j 01:14	18°♄33'57					
retrograde	-117 Oct 12 j 07:38	26°♄46'16		conjunction	-111 Sep 02 j 14:47	6°♄38'08	2°02'26
opposition	-117 Dec 17 j 18:30	23°♄17'54	0°-35'-21	minimum elong	-111 Sep 02 j 14:44	6°♄38'08	2°02'25
min. Earth dist.	-117 Dec 17 j 12:02	23°♄19'14	8.03628 AU	max. Earth dist.	-111 Sep 02 j 18:50	6°♄39'23	10.64156 AU
direct	-116 Feb 22 j 22:48	19°♄47'54		morning rise	-111 Sep 19 j 16:53	8°♄42'40	
evening set	-116 Jun 07 j 19:20	28°♄03'33		retrograde	-111 Dec 28 j 08:09	15°♄59'00	
	-116 Jun 22 j 21:47	0°♄		opposition	-110 Mar 06 j 06:42	12°♄39'20	2°38'23
				min. Earth dist.	-110 Mar 06 j 04:27	12°♄39'46	8.70396 AU
conjunction	-116 Jun 25 j 23:54	0°♄24'00	0°-11'-23	direct	-110 May 15 j 18:16	9°♄14'01	
minimum elong	-116 Jun 25 j 23:55	0°♄24'01	0°11'24	evening set	-110 Aug 29 j 02:34	16°♄47'35	
behind sun begin	-116 Jun 25 j 18:39	0°♄22'19					
behind sun end	-116 Jun 26 j 05:10	0°♄25'42		conjunction	-110 Sep 15 j 04:40	18°♄50'43	2°13'54
max. Earth dist.	-116 Jun 26 j 08:24	0°♄26'45	10.07164 AU	minimum elong	-110 Sep 15 j 04:38	18°♄50'43	2°13'54
morning rise	-116 Jul 14 j 02:24	2°♄43'46		max. Earth dist.	-110 Sep 15 j 06:19	18°♄51'13	10.76223 AU
retrograde	-116 Oct 25 j 07:49	10°♄47'07		morning rise	-110 Oct 02 j 02:12	20°♄52'28	
asc. node	-116 Oct 31 j 17:15	10°♄44'49		retrograde	-109 Jan 09 j 10:02	28°♄01'46	
opposition	-116 Dec 30 j 19:09	7°♄20'04	0°06'38	opposition	-109 Mar 18 j 20:16	24°♄43'15	2°48'23
min. Earth dist.	-116 Dec 30 j 12:56	7°♄21'20	8.11278 AU	min. Earth dist.	-109 Mar 18 j 19:14	24°♄43'27	8.82008 AU
direct	-115 Mar 08 j 13:35	3°♄50'05		direct	-109 May 28 j 16:52	21°♄19'19	
evening set	-115 Jun 22 j 17:01	12°♄01'32		evening set	-109 Sep 10 j 11:27	28°♄44'52	
					-109 Sep 21 j 01:13	0°♄	
conjunction	-115 Jul 10 j 19:14	14°♄19'52	0°22'11				
minimum elong	-115 Jul 10 j 19:13	14°♄19'52	0°22'12	conjunction	-109 Sep 27 j 09:19	0°♄45'30	2°19'16
max. Earth dist.	-115 Jul 11 j 03:02	14°♄22'22	10.16014 AU	minimum elong	-109 Sep 27 j 09:19	0°♄45'29	2°19'16
morning rise	-115 Jul 28 j 18:18	16°♄37'10		max. Earth dist.	-109 Sep 27 j 09:18	0°♄45'29	10.87180 AU
retrograde	-115 Nov 07 j 23:06	24°♄30'40		morning rise	-109 Oct 14 j 03:04	2°♄44'54	
opposition	-114 Jan 13 j 14:33	21°♄05'04	0°47'21	retrograde	-108 Jan 21 j 07:44	9°♄48'30	
min. Earth dist.	-114 Jan 13 j 08:28	21°♄06'18	8.21158 AU	opposition	-108 Mar 30 j 05:10	6°♄30'52	2°51'01

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Attention, astronomical year style is used: The year -108 in astronomical counting style is the year 109 BCE in historical counting style.

min. Earth dist.	-108 Mar 30 j 04:57	6°♁30'55	8.92253 AU	min. Earth dist.	-102 Jun 09 j 19:38	14°♁18'06	9.07753 AU
direct	-108 Jun 09 j 09:43	3°♁08'17		direct	-102 Aug 19 j 04:12	11°♁01'28	
evening set	-108 Sep 21 j 11:37	10°♁26'25		evening set	-102 Nov 27 j 12:58	17°♁59'28	
conjunction	-108 Oct 08 j 06:07	12°♁25'01	2°18'43	conjunction	-102 Dec 14 j 02:59	19°♁56'06	0°36'58
minimum elong	-108 Oct 08 j 06:08	12°♁25'01	2°18'43	minimum elong	-102 Dec 14 j 03:00	19°♁56'06	0°36'58
max. Earth dist.	-108 Oct 08 j 05:15	12°♁24'45	10.96572 AU	max. Earth dist.	-102 Dec 13 j 17:52	19°♁53'25	11.05018 AU
morning rise	-108 Oct 24 j 20:51	14°♁22'32		morning rise	-102 Dec 30 j 18:11	21°♁53'08	
retrograde	-107 Feb 01 j 03:05	21°♁21'46		retrograde	-101 Apr 11 j 15:45	28°♁58'33	
opposition	-107 Apr 11 j 10:16	18°♁04'48	2°46'38	opposition	-101 Jun 21 j 15:47	25°♁39'30	0°28'29
min. Earth dist.	-107 Apr 11 j 11:13	18°♁04'38	9.00729 AU	min. Earth dist.	-101 Jun 21 j 23:44	25°♁38'02	9.01718 AU
direct	-107 Jun 21 j 18:05	14°♁43'30		direct	-101 Aug 30 j 22:52	22°♁21'26	
evening set	-107 Oct 03 j 04:30	21°♁55'02		evening set	-101 Dec 08 j 21:39	29°♁21'18	
conjunction	-107 Oct 19 j 20:25	23°♁52'05	2°12'35	conjunction	-101 Dec 14 j 09:57	0°♁	
minimum elong	-107 Oct 19 j 20:26	23°♁52'05	2°12'35	conjunction	-101 Dec 25 j 12:55	1°♁19'08	0°09'37
max. Earth dist.	-107 Oct 19 j 18:18	23°♁51'28	11.04040 AU	minimum elong	-101 Dec 25 j 12:56	1°♁19'09	0°09'37
morning rise	-107 Nov 05 j 09:08	25°♁48'16		behind sun begin	-101 Dec 25 j 07:07	1°♁17'26	
	-107 Dec 15 j 19:32	0°♁		behind sun end	-101 Dec 25 j 18:44	1°♁20'51	
retrograde	-106 Feb 12 j 18:36	2°♁44'34		max. Earth dist.	-101 Dec 25 j 03:41	1°♁16'25	10.97927 AU
	-106 Apr 16 j 06:28	30°♁		morning rise	-100 Jan 11 j 06:14	3°♁17'36	
opposition	-106 Apr 23 j 12:34	29°♁27'58	2°35'46	retrograde	-100 Apr 22 j 22:47	10°♁29'33	
min. Earth dist.	-106 Apr 23 j 15:32	29°♁27'25	9.07118 AU	desc. node	-100 May 01 j 22:26	10°♁25'38	
direct	-106 Jul 03 j 21:26	26°♁07'45		opposition	-100 Jul 02 j 22:30	7°♁09'12	0°-5'-40
	-106 Sep 14 j 12:54	0°♁		min. Earth dist.	-100 Jul 03 j 06:08	7°♁07'47	8.93580 AU
evening set	-106 Oct 14 j 15:31	3°♁13'47		direct	-100 Sep 10 j 19:21	3°♁50'48	
conjunction	-106 Oct 31 j 05:34	5°♁09'47	2°01'20	evening set	-100 Dec 19 j 11:00	10°♁54'03	
minimum elong	-106 Oct 31 j 05:36	5°♁09'47	2°01'20	conjunction	-99 Jan 05 j 03:58	12°♁53'25	0°-18'-37
max. Earth dist.	-106 Oct 31 j 01:01	5°♁08'27	11.09295 AU	minimum elong	-99 Jan 05 j 03:57	12°♁53'25	0°18'38
morning rise	-106 Nov 16 j 17:26	7°♁05'10		max. Earth dist.	-99 Jan 04 j 19:54	12°♁51'01	10.88859 AU
retrograde	-105 Feb 24 j 09:28	14°♁00'02		morning rise	-99 Jan 21 j 23:32	14°♁53'40	
opposition	-105 May 05 j 12:47	10°♁43'31	2°19'03	retrograde	-99 May 05 j 12:03	22°♁13'33	
min. Earth dist.	-105 May 05 j 17:28	10°♁42'39	9.11147 AU	opposition	-99 Jul 15 j 09:31	18°♁51'43	0°-40'-18
direct	-105 Jul 15 j 21:27	7°♁24'12		min. Earth dist.	-99 Jul 15 j 15:59	18°♁50'30	8.83646 AU
evening set	-105 Oct 25 j 22:29	14°♁25'59		direct	-99 Sep 22 j 17:47	15°♁32'44	
	-105 Oct 30 j 20:33	15°♁		evening set	-99 Dec 31 j 07:04	22°♁40'57	
conjunction	-105 Nov 11 j 11:34	16°♁21'27	1°45'30	conjunction	-98 Jan 17 j 01:56	24°♁42'11	0°-46'-30
minimum elong	-105 Nov 11 j 11:36	16°♁21'28	1°45'29	minimum elong	-98 Jan 17 j 01:54	24°♁42'11	0°46'32
max. Earth dist.	-105 Nov 11 j 05:18	16°♁19'37	11.12088 AU	max. Earth dist.	-98 Jan 16 j 18:25	24°♁39'55	10.78162 AU
morning rise	-105 Nov 27 j 23:18	18°♁16'32		morning rise	-98 Feb 03 j 00:06	26°♁44'29	
retrograde	-104 Mar 07 j 00:01	25°♁11'35			-98 Mar 04 j 05:55	0°♁	
opposition	-104 May 16 j 11:56	21°♁54'50	1°57'10	retrograde	-98 May 18 j 10:00	4°♁13'28	
min. Earth dist.	-104 May 16 j 17:29	21°♁53'49	9.12608 AU	opposition	-98 Jul 28 j 01:34	0°♁50'06	-1°-14'-2
direct	-104 Jul 26 j 17:48	18°♁36'13		min. Earth dist.	-98 Jul 28 j 07:17	0°♁49'01	8.72301 AU
evening set	-104 Nov 05 j 03:07	25°♁35'15			-98 Aug 08 j 03:54	30°♁	
conjunction	-104 Nov 21 j 16:04	27°♁30'39	1°25'42	direct	-98 Oct 04 j 20:59	27°♁30'18	
minimum elong	-104 Nov 21 j 16:06	27°♁30'40	1°25'42		-98 Nov 28 j 16:38	0°♁	
max. Earth dist.	-104 Nov 21 j 09:20	27°♁28'41	11.12271 AU	evening set	-97 Jan 12 j 11:15	4°♁44'59	
morning rise	-104 Dec 08 j 04:15	29°♁25'56		conjunction	-97 Jan 29 j 08:15	6°♁48'22	-1°-12'-58
	-104 Dec 13 j 04:02	0°♁		minimum elong	-97 Jan 29 j 08:13	6°♁48'21	1°13'00
retrograde	-103 Mar 18 j 18:48	6°♁22'53		max. Earth dist.	-97 Jan 29 j 00:46	6°♁46'04	10.66258 AU
opposition	-103 May 28 j 11:32	3°♁05'38	1°30'53	morning rise	-97 Feb 15 j 09:24	8°♁53'01	
min. Earth dist.	-103 May 28 j 17:32	3°♁04'32	9.11443 AU		-97 Apr 18 j 00:38	15°♁	
	-103 Jul 22 j 07:32	30°♁		retrograde	-97 May 31 j 15:15	16°♁32'00	
direct	-103 Aug 07 j 12:30	29°♁47'30			-97 Jul 15 j 01:08	15°♁	
	-103 Aug 23 j 12:40	0°♁		opposition	-97 Aug 09 j 23:38	13°♁07'03	-1°-45'-23
evening set	-103 Nov 16 j 07:16	6°♁45'13		min. Earth dist.	-97 Aug 10 j 04:54	13°♁06'02	8.60002 AU
conjunction	-103 Dec 02 j 20:34	8°♁41'03	1°02'37	direct	-97 Oct 17 j 04:49	9°♁46'16	
minimum elong	-103 Dec 02 j 20:36	8°♁41'04	1°02'36		-96 Jan 06 j 18:19	15°♁	
max. Earth dist.	-103 Dec 02 j 12:51	8°♁38'47	11.09866 AU	evening set	-96 Jan 25 j 00:40	17°♁08'44	
morning rise	-103 Dec 19 j 09:57	10°♁37'00		conjunction	-96 Feb 11 j 00:16	19°♁14'29	-1°-36'-42
retrograde	-102 Mar 30 j 15:45	17°♁37'25		minimum elong	-96 Feb 11 j 00:13	19°♁14'28	1°36'43
opposition	-102 Jun 09 j 12:34	14°♁19'24	1°01'01	max. Earth dist.	-96 Feb 10 j 17:58	19°♁12'31	10.53644 AU

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Attention, astronomical year style is used: The year -96 in astronomical counting style is the year 97 BCE in historical counting style.

morning rise	-96 Feb 28 j 04:33	21° \approx 21'41		min. Earth dist.	-90 Nov 12 j 23:42	18° $\text{R}29'25$	7.96723 AU
retrograde	-96 Jun 13 j 03:58	29° \approx 11'12			-89 Jan 16 j 06:31	15° $\text{R}8$	
opposition	-96 Aug 22 j 04:08	25° \approx 44'43	-2°-12'-38	direct	-89 Jan 18 j 12:08	14° $\text{R}59'43$	
min. Earth dist.	-96 Aug 22 j 08:25	25° \approx 43'53	8.47283 AU		-89 Jan 20 j 17:48	15° R	
direct	-96 Oct 28 j 20:53	22° \approx 22'49		evening set	-89 May 02 j 21:50	23° $\text{R}16'37$	
evening set	-95 Feb 06 j 00:41	29° \approx 54'04					
	-95 Feb 06 j 19:55	0° K		conjunction	-89 May 21 j 00:44	25° $\text{R}38'27$	-1°-28'-11
				minimum elong	-89 May 21 j 00:48	25° $\text{R}38'28$	1°28'11
conjunction	-95 Feb 23 j 03:30	2° $\text{K}02'27$	-1°-56'-17	max. Earth dist.	-89 May 21 j 08:22	25° $\text{R}40'58$	9.96641 AU
minimum elong	-95 Feb 23 j 03:27	2° $\text{K}02'26$	1°56'18	morning rise	-89 Jun 08 j 04:58	28° $\text{R}00'40$	
max. Earth dist.	-95 Feb 22 j 23:20	2° $\text{K}01'08$	10.40888 AU		-89 Jun 24 j 01:52	0° II	
morning rise	-95 Mar 12 j 11:07	4° $\text{K}12'21$		retrograde	-89 Sep 21 j 20:41	6° $\text{II}23'00$	
retrograde	-95 Jun 27 j 01:27	12° $\text{K}12'19$		opposition	-89 Nov 27 j 13:54	2° $\text{II}53'25$	-1°-32'-41
opposition	-95 Sep 04 j 15:05	8° $\text{K}44'24$	-2°-34'-1	min. Earth dist.	-89 Nov 27 j 07:27	2° $\text{II}54'45$	7.97540 AU
min. Earth dist.	-95 Sep 04 j 17:35	8° $\text{K}43'54$	8.34740 AU		-88 Jan 07 j 18:18	30° $\text{R}8$	
direct	-95 Nov 10 j 20:56	5° $\text{K}21'17$		direct	-88 Feb 02 j 03:44	29° $\text{R}24'14$	
evening set	-94 Feb 19 j 11:53	13° $\text{K}01'57$		evening set	-88 Feb 27 j 11:05	0° II	
					-88 May 17 j 05:30	7° $\text{II}42'24$	
conjunction	-94 Mar 08 j 18:23	15° $\text{K}13'05$	-2°-10'-22				
minimum elong	-94 Mar 08 j 18:21	15° $\text{K}13'05$	2°10'23	conjunction	-88 Jun 04 j 10:24	10° $\text{II}04'22$	0°-58'-58
max. Earth dist.	-94 Mar 08 j 16:36	15° $\text{K}12'31$	10.28619 AU	minimum elong	-88 Jun 04 j 10:27	10° $\text{II}04'23$	0°58'57
morning rise	-94 Mar 26 j 05:35	17° $\text{K}25'46$		max. Earth dist.	-88 Jun 04 j 19:37	10° $\text{II}07'23$	9.99121 AU
retrograde	-94 Jul 11 j 08:17	25° $\text{K}35'23$		morning rise	-88 Jun 22 j 15:10	12° $\text{II}26'16$	
opposition	-94 Sep 18 j 08:30	22° $\text{K}06'16$	-2°-47'-48	retrograde	-88 Oct 05 j 08:05	20° $\text{II}42'16$	
min. Earth dist.	-94 Sep 18 j 08:54	22° $\text{K}06'11$	8.23008 AU	opposition	-88 Dec 10 j 20:50	17° $\text{II}13'43$	0°-53'-43
direct	-94 Nov 24 j 03:08	18° $\text{K}41'54$		min. Earth dist.	-88 Dec 10 j 13:14	17° $\text{II}15'18$	8.01532 AU
evening set	-93 Mar 05 j 10:19	26° $\text{K}32'05$		direct	-87 Feb 15 j 20:29	13° $\text{II}44'15$	
				evening set	-87 Jun 01 j 11:32	22° $\text{II}01'12$	
conjunction	-93 Mar 22 j 20:51	28° $\text{K}46'00$	-2°-17'-40				
minimum elong	-93 Mar 22 j 20:50	28° $\text{K}46'00$	2°17'40	conjunction	-87 Jun 19 j 16:41	24° $\text{II}22'17$	0°-26'-20
max. Earth dist.	-93 Mar 22 j 21:13	28° $\text{K}46'07$	10.17503 AU	minimum elong	-87 Jun 19 j 16:43	24° $\text{II}22'18$	0°26'20
	-93 Apr 01 j 10:53	0° V		max. Earth dist.	-87 Jun 20 j 02:49	24° $\text{II}25'34$	10.04646 AU
morning rise	-93 Apr 09 j 11:55	1° $\text{V}01'25$		morning rise	-87 Jul 07 j 20:11	26° $\text{II}42'51$	
retrograde	-93 Jul 25 j 21:12	9° $\text{V}19'08$			-87 Aug 04 j 01:53	0° E	
opposition	-93 Oct 02 j 07:48	5° $\text{V}49'06$	-2°-52'-30	retrograde	-87 Oct 19 j 12:37	4° $\text{E}50'24$	
min. Earth dist.	-93 Oct 02 j 06:16	5° $\text{V}49'25$	8.12753 AU	opposition	-87 Dec 24 j 23:57	1° $\text{E}23'10$	0°-11'-58
direct	-93 Dec 07 j 18:03	2° $\text{V}23'30$		min. Earth dist.	-87 Dec 24 j 16:02	1° $\text{E}24'48$	8.08396 AU
evening set	-92 Mar 18 j 19:26	10° $\text{V}22'42$			-86 Jan 11 j 08:03	30° $\text{R}II$	
				direct	-86 Mar 02 j 11:43	27° $\text{II}53'41$	
conjunction	-92 Apr 05 j 10:20	12° $\text{V}39'16$	-2°-17'-13	asc. node	-86 Apr 11 j 23:55	29° $\text{II}20'17$	
minimum elong	-92 Apr 05 j 10:21	12° $\text{V}39'17$	2°17'14		-86 Apr 20 j 20:41	0° E	
max. Earth dist.	-92 Apr 05 j 12:29	12° $\text{V}39'58$	10.08217 AU	evening set	-86 Jun 16 j 12:37	6° $\text{E}07'05$	
morning rise	-92 Apr 23 j 05:27	14° $\text{V}57'14$					
retrograde	-92 Aug 08 j 14:27	23° $\text{V}20'42$		conjunction	-86 Jul 04 j 16:10	8° $\text{E}26'22$	0°07'28
opposition	-92 Oct 15 j 12:00	19° $\text{V}50'09$	-2°-47'-7	minimum elong	-86 Jul 04 j 16:10	8° $\text{E}26'22$	0°07'29
min. Earth dist.	-92 Oct 15 j 09:07	19° $\text{V}50'44$	8.04620 AU	behind sun begin	-86 Jul 04 j 09:30	8° $\text{E}24'15$	
direct	-92 Dec 20 j 17:29	16° $\text{V}23'22$		behind sun end	-86 Jul 04 j 22:49	8° $\text{E}28'30$	
evening set	-91 Apr 02 j 13:51	24° $\text{V}30'25$		max. Earth dist.	-86 Jul 05 j 02:10	8° $\text{E}29'35$	10.12792 AU
				morning rise	-86 Jul 22 j 16:46	10° $\text{E}44'44$	
conjunction	-91 Apr 20 j 09:16	26° $\text{V}49'22$	-2°-8'-35	retrograde	-86 Nov 02 j 09:39	18° $\text{E}42'36$	
minimum elong	-91 Apr 20 j 09:19	26° $\text{V}49'23$	2°08'35	opposition	-85 Jan 07 j 22:09	15° $\text{E}16'48$	0°29'37
max. Earth dist.	-91 Apr 20 j 13:14	26° $\text{V}50'40$	10.01364 AU	min. Earth dist.	-85 Jan 07 j 14:49	15° $\text{E}18'18$	8.17616 AU
morning rise	-91 May 08 j 08:17	29° $\text{V}09'27$		direct	-85 Mar 16 j 22:40	11° $\text{E}47'34$	
	-91 May 14 j 23:27	0° R		evening set	-85 Jul 01 j 06:01	19° $\text{E}55'33$	
retrograde	-91 Aug 23 j 09:32	7° $\text{R}35'44$					
opposition	-91 Oct 29 j 19:38	4° $\text{R}05'06$	-2°-31'-25	conjunction	-85 Jul 19 j 06:21	22° $\text{E}12'21$	0°40'07
min. Earth dist.	-91 Oct 29 j 15:37	4° $\text{R}05'56$	7.99147 AU	minimum elong	-85 Jul 19 j 06:19	22° $\text{E}12'20$	0°40'08
direct	-90 Jan 04 j 00:09	0° $\text{R}37'18$		max. Earth dist.	-85 Jul 19 j 15:03	22° $\text{E}15'07$	10.22933 AU
evening set	-90 Apr 17 j 15:35	8° $\text{R}50'24$		morning rise	-85 Aug 06 j 02:47	24° $\text{E}27'54$	
					-85 Sep 26 j 04:07	0° Q	
conjunction	-90 May 05 j 15:10	11° $\text{R}11'10$	-1°-51'-56	retrograde	-85 Nov 15 j 22:17	2° $\text{Q}15'38$	
minimum elong	-90 May 05 j 15:13	11° $\text{R}11'12$	1°51'56		-84 Jan 07 j 03:04	30° $\text{R}E$	
max. Earth dist.	-90 May 05 j 20:59	11° $\text{R}13'05$	9.97407 AU	opposition	-84 Jan 21 j 14:25	28° $\text{E}51'22$	1°08'32
morning rise	-90 May 23 j 17:20	13° $\text{R}32'45$		min. Earth dist.	-84 Jan 21 j 08:41	28° $\text{E}52'31$	8.28496 AU
	-90 Jun 04 j 05:27	15° R		direct	-84 Mar 30 j 05:07	25° $\text{E}22'41$	
retrograde	-90 Sep 07 j 04:18	21° $\text{R}58'38$			-84 Jun 15 j 08:06	0° Q	
opposition	-90 Nov 13 j 04:52	18° $\text{R}28'20$	-2°-6'-3	evening set	-84 Jul 14 j 14:19	3° $\text{Q}24'04$	

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Attention, astronomical year style is used: The year -84 in astronomical counting style is the year 85 BCE in historical counting style.

conjunction	-84 Aug 01 j 10:10	5°♄37'53	1°09'54	conjunction	-78 Oct 15 j 06:39	19°♃12'27	2°15'53
minimum elong	-84 Aug 01 j 10:07	5°♄37'52	1°09'54	minimum elong	-78 Oct 15 j 06:40	19°♃12'27	2°15'54
max. Earth dist.	-84 Aug 01 j 16:30	5°♄39'53	10.34359 AU	max. Earth dist.	-78 Oct 15 j 03:08	19°♃11'25	10.99234 AU
morning rise	-84 Aug 19 j 01:35	7°♄50'17		morning rise	-78 Oct 31 j 20:25	21°♃09'23	
	-84 Nov 05 j 09:12	15°♄		retrograde	-77 Feb 08 j 02:42	28°♃07'30	
retrograde	-84 Nov 28 j 01:18	15°♄28'08		opposition	-77 Apr 18 j 17:01	24°♃50'19	2°41'17
	-84 Dec 20 j 20:57	15°♄♁		min. Earth dist.	-77 Apr 18 j 19:53	24°♃49'47	9.02643 AU
opposition	-83 Feb 03 j 00:26	12°♄05'26	1°42'42	direct	-77 Jun 29 j 02:42	21°♃29'07	
min. Earth dist.	-83 Feb 02 j 20:13	12°♄06'17	8.40366 AU	evening set	-77 Oct 10 j 03:22	28°♃38'14	
direct	-83 Apr 13 j 05:53	8°♄37'35			-77 Oct 21 j 19:55	0°♄	
	-83 Jul 15 j 17:14	15°♄		conjunction	-77 Oct 26 j 18:21	0°♄34'52	2°06'47
evening set	-83 Jul 28 j 12:15	16°♄31'34		minimum elong	-77 Oct 26 j 18:22	0°♄34'52	2°06'47
				max. Earth dist.	-77 Oct 26 j 14:25	0°♄33'42	11.05195 AU
conjunction	-83 Aug 15 j 02:57	18°♄42'11	1°35'19	morning rise	-77 Nov 12 j 06:38	2°♄30'46	
minimum elong	-83 Aug 15 j 02:54	18°♄42'10	1°35'18	retrograde	-76 Feb 19 j 19:44	9°♄26'49	
max. Earth dist.	-83 Aug 15 j 07:00	18°♄43'26	10.46473 AU	opposition	-76 Apr 29 j 18:17	6°♄09'44	2°27'01
morning rise	-83 Sep 01 j 12:57	20°♄51'19		min. Earth dist.	-76 Apr 29 j 21:46	6°♄09'06	9.07502 AU
retrograde	-83 Dec 10 j 19:53	28°♄19'56		direct	-76 Jul 10 j 04:52	2°♄49'29	
opposition	-82 Feb 16 j 04:25	24°♄58'41	2°10'39	evening set	-76 Oct 20 j 12:09	9°♄53'46	
min. Earth dist.	-82 Feb 16 j 01:02	24°♄59'21	8.52667 AU				
direct	-82 Apr 27 j 00:16	21°♄31'51		conjunction	-76 Nov 06 j 01:51	11°♄49'39	1°52'51
evening set	-82 Aug 10 j 23:03	29°♄17'49		minimum elong	-76 Nov 06 j 01:53	11°♄49'40	1°52'51
	-82 Aug 16 j 18:27	0°♄		max. Earth dist.	-76 Nov 05 j 21:08	11°♄48'16	11.08951 AU
				morning rise	-76 Nov 22 j 13:31	13°♄45'02	
conjunction	-82 Aug 28 j 08:30	1°♄25'15	1°55'23		-76 Dec 03 j 15:32	15°♄	
minimum elong	-82 Aug 28 j 08:27	1°♄25'14	1°55'23	retrograde	-75 Mar 02 j 10:28	20°♄40'32	
max. Earth dist.	-82 Aug 28 j 11:14	1°♄26'06	10.58745 AU	opposition	-75 May 11 j 18:17	17°♄23'21	2°07'14
morning rise	-82 Sep 14 j 13:04	3°♄31'13		min. Earth dist.	-75 May 11 j 23:02	17°♄22'28	9.10080 AU
retrograde	-82 Dec 23 j 09:09	10°♄51'27			-75 Jun 17 j 01:22	15°♄♁	
opposition	-81 Mar 01 j 02:24	7°♄31'27	2°31'31	direct	-75 Jul 22 j 00:41	14°♄03'52	
min. Earth dist.	-81 Feb 28 j 23:45	7°♄31'58	8.64856 AU		-75 Aug 25 j 10:17	15°♄	
direct	-81 May 10 j 09:26	4°♄05'46		evening set	-75 Oct 31 j 17:56	21°♄04'39	
evening set	-81 Aug 23 j 23:09	11°♄43'28					
				conjunction	-75 Nov 17 j 06:56	23°♄00'15	1°34'40
conjunction	-81 Sep 10 j 03:36	13°♄47'58	2°09'33	minimum elong	-75 Nov 17 j 06:58	23°♄00'15	1°34'40
minimum elong	-81 Sep 10 j 03:34	13°♄47'57	2°09'33	max. Earth dist.	-75 Nov 17 j 00:36	22°♄58'23	11.10392 AU
max. Earth dist.	-81 Sep 10 j 05:23	13°♄48'31	10.70634 AU	morning rise	-75 Dec 03 j 18:59	24°♄55'36	
morning rise	-81 Sep 27 j 03:07	15°♄51'00			-74 Jan 24 j 10:57	0°♄♁	
retrograde	-80 Jan 04 j 14:53	23°♄03'49		retrograde	-74 Mar 14 j 02:34	1°♄52'08	
opposition	-80 Mar 12 j 18:41	19°♄44'53	2°44'53		-74 May 03 j 16:35	30°♄♁	
min. Earth dist.	-80 Mar 12 j 17:26	19°♄45'07	8.76394 AU	opposition	-74 May 23 j 17:53	28°♄34'35	1°42'43
direct	-80 May 22 j 11:15	16°♄20'22		min. Earth dist.	-74 May 23 j 23:51	28°♄33'29	9.10303 AU
evening set	-80 Sep 04 j 13:01	23°♄50'00		direct	-74 Aug 02 j 20:52	25°♄15'42	
					-74 Oct 22 j 14:32	0°♄♁	
conjunction	-80 Sep 21 j 12:54	25°♄51'51	2°17'37	evening set	-74 Nov 11 j 22:14	2°♄14'25	
minimum elong	-80 Sep 21 j 12:53	25°♄51'51	2°17'37				
max. Earth dist.	-80 Sep 21 j 13:18	25°♄51'58	10.81626 AU	conjunction	-74 Nov 28 j 11:19	4°♄10'11	1°12'53
morning rise	-80 Oct 08 j 08:09	27°♄52'23		minimum elong	-74 Nov 28 j 11:22	4°♄10'12	1°12'52
	-80 Oct 27 j 01:13	0°♄		max. Earth dist.	-74 Nov 28 j 04:06	4°♄08'04	11.09464 AU
retrograde	-79 Jan 15 j 15:04	4°♄58'56		morning rise	-74 Dec 15 j 00:23	6°♄05'58	
opposition	-79 Mar 25 j 06:12	1°♄40'52	2°50'45	retrograde	-73 Mar 25 j 21:41	13°♄05'06	
min. Earth dist.	-79 Mar 25 j 06:58	1°♄40'43	8.86798 AU	opposition	-73 Jun 04 j 18:10	9°♄46'58	1°14'14
	-79 Apr 17 j 12:57	30°♄♁		min. Earth dist.	-73 Jun 05 j 00:12	9°♄45'51	9.08145 AU
direct	-79 Jun 04 j 06:42	28°♄17'31		direct	-73 Aug 14 j 14:48	6°♄28'30	
	-79 Jul 20 j 23:46	0°♄		evening set	-73 Nov 23 j 03:01	13°♄26'37	
evening set	-79 Sep 16 j 17:23	5°♄39'30					
				conjunction	-73 Dec 09 j 16:48	15°♄22'59	0°48'13
conjunction	-79 Oct 03 j 13:20	7°♄39'07	2°19'38	minimum elong	-73 Dec 09 j 16:50	15°♄22'59	0°48'13
minimum elong	-79 Oct 03 j 13:20	7°♄39'07	2°19'38	max. Earth dist.	-73 Dec 09 j 10:02	15°♄20'59	11.06172 AU
max. Earth dist.	-79 Oct 03 j 11:29	7°♄38'34	10.91281 AU	morning rise	-73 Dec 26 j 07:11	17°♄19'36	
morning rise	-79 Oct 20 j 05:22	9°♄37'36		retrograde	-72 Apr 05 j 21:04	24°♄22'55	
retrograde	-78 Jan 27 j 10:44	16°♄39'14		opposition	-72 Jun 15 j 20:19	21°♄03'58	0°42'42
opposition	-78 Apr 06 j 13:28	13°♄21'45	2°49'24	min. Earth dist.	-72 Jun 16 j 01:58	21°♄02'56	9.03671 AU
min. Earth dist.	-78 Apr 06 j 15:41	13°♄21'20	8.95658 AU	direct	-72 Aug 25 j 08:29	17°♄45'44	
direct	-78 Jun 16 j 19:01	9°♄59'31		evening set	-72 Dec 03 j 10:12	24°♄44'48	
evening set	-78 Sep 28 j 13:41	17°♄14'34					

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Attention, astronomical year style is used: The year -72 in astronomical counting style is the year 73 BCE in historical counting style.

conjunction	-72 Dec 20 j 01:01	26° \mathring{A} 42'08	0°21'28	direct	-66 Nov 05 j 14:23	29° \approx 59'04	
minimum elong	-72 Dec 20 j 01:01	26° \mathring{A} 42'09	0°21'28		-66 Nov 09 j 17:03	0° \mathring{K}	
max. Earth dist.	-72 Dec 19 j 18:14	26° \mathring{A} 40'08	11.00630 AU	evening set	-65 Feb 14 j 00:55	7° \mathring{K} 34'25	
morning rise	-71 Jan 05 j 17:14	28° \mathring{A} 39'58					
	-71 Jan 17 j 10:50	0° \mathring{Z}		conjunction	-65 Mar 03 j 05:22	9° \mathring{K} 43'57	-2°-4'-54
retrograde	-71 Apr 18 j 02:17	5° \mathring{Z} 49'00		minimum elong	-65 Mar 03 j 05:20	9° \mathring{K} 43'56	2°04'55
opposition	-71 Jun 28 j 01:32	2° \mathring{Z} 29'04	0°09'04	max. Earth dist.	-65 Mar 03 j 01:58	9° \mathring{K} 42'52	10.36539 AU
min. Earth dist.	-71 Jun 28 j 07:14	2° \mathring{Z} 28'01	8.97049 AU	morning rise	-65 Mar 20 j 14:50	11° \mathring{K} 55'03	
	-71 Aug 04 j 23:37	30° \mathring{R} \mathring{A}		retrograde	-65 Jul 05 j 13:41	19° \mathring{K} 59'13	
direct	-71 Sep 06 j 02:31	29° \mathring{A} 10'47		opposition	-65 Sep 12 j 18:39	16° \mathring{K} 31'20	-2°-42'-34
desc. node	-71 Oct 05 j 14:26	29° \mathring{A} 54'04		min. Earth dist.	-65 Sep 12 j 20:22	16° \mathring{K} 30'59	8.30691 AU
	-71 Oct 07 j 14:09	0° \mathring{Z}		direct	-65 Nov 18 j 16:51	13° \mathring{K} 08'12	
evening set	-71 Dec 14 j 21:26	6° \mathring{Z} 12'23		evening set	-64 Feb 27 j 17:30	20° \mathring{K} 52'58	
conjunction	-71 Dec 31 j 13:33	8° \mathring{Z} 11'02	0°-6'-33	conjunction	-64 Mar 16 j 01:51	23° \mathring{K} 05'15	-2°-15'-14
minimum elong	-71 Dec 31 j 13:32	8° \mathring{Z} 11'02	0°06'34	minimum elong	-64 Mar 16 j 01:50	23° \mathring{K} 05'15	2°15'15
behind sun begin	-71 Dec 31 j 06:58	8° \mathring{Z} 09'06		max. Earth dist.	-64 Mar 15 j 23:55	23° \mathring{K} 04'38	10.24857 AU
behind sun end	-71 Dec 31 j 20:07	8° \mathring{Z} 12'59		morning rise	-64 Apr 02 j 15:09	25° \mathring{K} 19'06	
max. Earth dist.	-71 Dec 31 j 06:00	8° \mathring{Z} 08'48	10.93041 AU		-64 May 13 j 16:24	0° \mathring{Y}	
morning rise	-70 Jan 17 j 08:08	10° \mathring{Z} 10'28		retrograde	-64 Jul 18 j 21:40	3° \mathring{Y} 32'09	
retrograde	-70 Apr 30 j 11:50	17° \mathring{Z} 26'37		opposition	-64 Sep 25 j 14:48	0° \mathring{Y} 03'12	-2°-51'-21
opposition	-70 Jul 10 j 10:40	14° \mathring{Z} 05'32	0°-25'-29	min. Earth dist.	-64 Sep 25 j 15:25	0° \mathring{Y} 03'04	8.19607 AU
min. Earth dist.	-70 Jul 10 j 16:46	14° \mathring{Z} 04'23	8.88518 AU		-64 Sep 26 j 06:39	30° \mathring{R} \mathring{K}	
direct	-70 Sep 17 j 23:16	10° \mathring{Z} 46'58		direct	-64 Dec 01 j 05:06	26° \mathring{K} 38'46	
evening set	-70 Dec 26 j 14:30	17° \mathring{Z} 52'42			-63 Feb 01 j 10:16	0° \mathring{Y}	
				evening set	-63 Mar 12 j 21:11	4° \mathring{Y} 32'52	
conjunction	-69 Jan 12 j 08:20	19° \mathring{Z} 53'00	0°-34'-39	conjunction	-63 Mar 30 j 09:58	6° \mathring{Y} 47'54	-2°-18'-15
minimum elong	-69 Jan 12 j 08:18	19° \mathring{Z} 53'00	0°34'40	minimum elong	-63 Mar 30 j 09:58	6° \mathring{Y} 47'54	2°18'16
max. Earth dist.	-69 Jan 12 j 01:12	19° \mathring{Z} 50'52	10.83673 AU	max. Earth dist.	-63 Mar 30 j 10:24	6° \mathring{Y} 48'03	10.14495 AU
morning rise	-69 Jan 29 j 05:25	21° \mathring{Z} 54'18		morning rise	-63 Apr 17 j 03:12	9° \mathring{Y} 04'24	
retrograde	-69 May 13 j 05:02	29° \mathring{Z} 18'52		retrograde	-63 Aug 02 j 11:17	17° \mathring{Y} 24'22	
opposition	-69 Jul 23 j 00:22	25° \mathring{Z} 56'29	0°-59'-45	opposition	-63 Oct 09 j 16:03	13° \mathring{Y} 54'37	-2°-50'-29
min. Earth dist.	-69 Jul 23 j 05:55	25° \mathring{Z} 55'26	8.78395 AU	min. Earth dist.	-63 Oct 09 j 14:53	13° \mathring{Y} 54'52	8.10199 AU
direct	-69 Sep 30 j 01:38	22° \mathring{Z} 37'23		direct	-63 Dec 15 j 00:54	10° \mathring{Y} 28'54	
evening set	-68 Jan 07 j 14:51	29° \mathring{Z} 48'45		evening set	-62 Mar 27 j 10:49	18° \mathring{Y} 31'27	
	-68 Jan 09 j 04:32	0° \approx					
conjunction	-68 Jan 24 j 10:51	1° \approx 51'01	-1°-1'-51	conjunction	-62 Apr 14 j 04:12	20° \mathring{Y} 49'04	-2°-13'-16
minimum elong	-68 Jan 24 j 10:48	1° \approx 51'00	1°01'53	minimum elong	-62 Apr 14 j 04:14	20° \mathring{Y} 49'05	2°13'16
max. Earth dist.	-68 Jan 24 j 05:11	1° \approx 49'17	10.72883 AU	max. Earth dist.	-62 Apr 14 j 07:07	20° \mathring{Y} 50'01	10.06168 AU
morning rise	-68 Feb 10 j 10:32	3° \approx 54'27		morning rise	-62 May 02 j 01:18	23° \mathring{Y} 07'55	
retrograde	-68 May 25 j 07:09	11° \approx 28'28			-62 Jul 06 j 09:21	0° \mathring{Z}	
opposition	-68 Aug 03 j 19:42	8° \approx 04'40	-1°-32'-14	retrograde	-62 Aug 17 j 04:49	1° \mathring{Z} 32'10	
min. Earth dist.	-68 Aug 03 j 23:52	8° \approx 03'53	8.67078 AU		-62 Sep 28 j 11:28	30° \mathring{R} \mathring{Y}	
direct	-68 Oct 11 j 07:25	4° \approx 44'52		opposition	-62 Oct 23 j 21:27	28° \mathring{Y} 01'58	-2°-39'-23
evening set	-67 Jan 18 j 23:56	12° \approx 03'10		min. Earth dist.	-62 Oct 23 j 18:18	28° \mathring{Y} 02'37	8.03114 AU
				direct	-62 Dec 29 j 03:01	24° \mathring{Y} 35'01	
conjunction	-67 Feb 04 j 22:22	14° \approx 07'38	-1°-26'-52		-61 Mar 20 j 02:11	0° \mathring{Z}	
minimum elong	-67 Feb 04 j 22:20	14° \approx 07'37	1°26'53	evening set	-61 Apr 11 j 08:30	2° \mathring{Z} 44'29	
max. Earth dist.	-67 Feb 04 j 18:02	14° \approx 06'18	10.61103 AU				
	-67 Feb 12 j 00:13	15° \approx		conjunction	-61 Apr 29 j 06:16	5° \mathring{Z} 04'15	-2°00'-9
morning rise	-67 Feb 22 j 00:59	16° \approx 13'27		minimum elong	-61 Apr 29 j 06:19	5° \mathring{Z} 04'16	2°00'09
retrograde	-67 Jun 07 j 17:05	23° \approx 57'34		max. Earth dist.	-61 Apr 29 j 11:20	5° \mathring{Z} 05'54	10.00460 AU
opposition	-67 Aug 16 j 21:03	20° \approx 32'19	-2°-1'-21	morning rise	-61 May 17 j 06:49	7° \mathring{Z} 24'56	
min. Earth dist.	-67 Aug 16 j 23:52	20° \approx 31'46	8.55021 AU		-61 Aug 01 j 13:46	15° \mathring{Z}	
direct	-67 Oct 23 j 19:29	17° \approx 11'35		retrograde	-61 Sep 01 j 00:17	15° \mathring{Z} 50'24	
evening set	-66 Jan 31 j 19:07	24° \approx 37'58			-61 Oct 01 j 12:54	15° \mathring{R} \mathring{Z}	
				opposition	-61 Nov 07 j 05:20	12° \mathring{Z} 20'07	-2°-18'-17
conjunction	-66 Feb 17 j 20:19	26° \approx 44'53	-1°-48'-20	min. Earth dist.	-61 Nov 07 j 00:41	12° \mathring{Z} 21'05	7.98847 AU
minimum elong	-66 Feb 17 j 20:16	26° \approx 44'52	1°48'21	direct	-60 Jan 12 j 10:40	8° \mathring{Z} 52'03	
max. Earth dist.	-66 Feb 17 j 16:20	26° \approx 43'38	10.48818 AU		-60 Apr 08 j 15:00	15° \mathring{Z}	
morning rise	-66 Mar 07 j 02:12	28° \approx 53'16		evening set	-60 Apr 25 j 12:05	17° \mathring{Z} 06'28	
	-66 Mar 16 j 07:34	0° \mathring{K}					
retrograde	-66 Jun 21 j 11:20	6° \mathring{K} 47'35		conjunction	-60 May 13 j 13:36	19° \mathring{Z} 27'42	-1°-39'-30
opposition	-66 Aug 30 j 04:36	3° \mathring{K} 20'57	-2°-25'-23	minimum elong	-60 May 13 j 13:40	19° \mathring{Z} 27'43	1°39'30
min. Earth dist.	-66 Aug 30 j 06:52	3° \mathring{K} 20'30	8.42714 AU	max. Earth dist.	-60 May 13 j 20:16	19° \mathring{Z} 29'53	9.97768 AU
	-66 Nov 01 j 11:23	30° \mathring{R} \approx		morning rise	-60 May 31 j 16:49	21° \mathring{Z} 49'30	

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Attention, astronomical year style is used: The year -60 in astronomical counting style is the year 61 BCE in historical counting style.

	-60 Aug 30 j 12:56	0°♄			-54 Aug 24 j 21:01	15°♄		
retrograde	-60 Sep 14 j 18:09	0°♄12'55		morning rise	-54 Aug 26 j 20:45	15°♄14'39		
	-60 Sep 29 j 21:27	30°♄		retrograde	-54 Dec 05 j 10:45	22°♄47'28		
opposition	-60 Nov 20 j 13:44	26°♄42'59	-1°-48'-23	opposition	-53 Feb 10 j 15:01	19°♄25'00	1°58'42	
min. Earth dist.	-60 Nov 20 j 08:15	26°♄44'07	7.97695 AU	min. Earth dist.	-53 Feb 10 j 10:18	19°♄25'57	8.46135 AU	
direct	-59 Jan 26 j 00:10	23°♄14'00		direct	-53 Apr 21 j 04:30	15°♄57'11		
	-59 Apr 28 j 17:17	0°♄		evening set	-53 Aug 05 j 06:33	23°♄46'44		
evening set	-59 May 10 j 18:37	1°♄31'02						
				conjunction	-53 Aug 22 j 18:35	25°♄55'41	1°46'53	
conjunction	-59 May 28 j 22:43	3°♄52'53	-1°-12'-36	minimum elong	-53 Aug 22 j 18:32	25°♄55'40	1°46'52	
minimum elong	-59 May 28 j 22:47	3°♄52'54	1°12'37	max. Earth dist.	-53 Aug 22 j 23:34	25°♄57'13	10.52404 AU	
max. Earth dist.	-59 May 29 j 06:11	3°♄55'20	9.98261 AU	morning rise	-53 Sep 09 j 01:35	28°♄03'06		
morning rise	-59 Jun 16 j 03:19	6°♄14'53			-53 Sep 25 j 15:41	0°♄		
retrograde	-59 Sep 29 j 06:55	14°♄33'20		retrograde	-53 Dec 18 j 02:34	5°♄26'56		
opposition	-59 Dec 04 j 21:02	11°♄04'08	-1°-11'-45	opposition	-52 Feb 23 j 15:22	2°♄05'57	2°22'51	
min. Earth dist.	-59 Dec 04 j 15:19	11°♄05'19	7.99721 AU	min. Earth dist.	-52 Feb 23 j 12:14	2°♄06'34	8.58741 AU	
direct	-58 Feb 09 j 16:13	7°♄34'31			-52 Mar 23 j 14:52	30°♄		
evening set	-58 May 26 j 00:46	15°♄51'41		direct	-52 May 03 j 16:36	28°♄39'19		
					-52 Jun 13 j 09:06	0°♄		
conjunction	-58 Jun 13 j 05:51	18°♄13'10	0°-41'-20	evening set	-52 Aug 17 j 11:22	6°♄20'38		
minimum elong	-58 Jun 13 j 05:53	18°♄13'11	0°41'20					
max. Earth dist.	-58 Jun 13 j 13:35	18°♄15'41	10.01876 AU	conjunction	-52 Sep 03 j 18:02	8°♄26'27	2°03'46	
morning rise	-58 Jul 01 j 10:08	20°♄34'22		minimum elong	-52 Sep 03 j 17:59	8°♄26'26	2°03'45	
retrograde	-58 Oct 13 j 13:15	28°♄45'32		max. Earth dist.	-52 Sep 03 j 20:46	8°♄27'17	10.64862 AU	
opposition	-58 Dec 19 j 01:23	25°♄17'23	0°-31'-1	morning rise	-52 Sep 20 j 19:53	10°♄30'48		
min. Earth dist.	-58 Dec 18 j 19:25	25°♄18'37	8.04771 AU	retrograde	-52 Dec 29 j 09:28	17°♄46'38		
direct	-57 Feb 24 j 08:10	21°♄47'28		opposition	-51 Mar 07 j 09:51	14°♄26'59	2°39'37	
	-57 Jun 09 j 20:01	0°♄		min. Earth dist.	-51 Mar 07 j 07:59	14°♄27'20	8.70997 AU	
evening set	-57 Jun 10 j 03:33	0°♄02'23		direct	-51 May 16 j 22:40	11°♄01'40		
				evening set	-51 Aug 30 j 05:33	18°♄34'47		
conjunction	-57 Jun 28 j 07:55	2°♄22'34	0°-7'-56					
minimum elong	-57 Jun 28 j 07:55	2°♄22'34	0°07'56	conjunction	-51 Sep 16 j 07:21	20°♄37'45	2°14'36	
behind sun begin	-57 Jun 28 j 01:22	2°♄20'29		minimum elong	-51 Sep 16 j 07:20	20°♄37'44	2°14'36	
behind sun end	-57 Jun 28 j 14:28	2°♄24'40		max. Earth dist.	-51 Sep 16 j 08:18	20°♄38'02	10.76697 AU	
max. Earth dist.	-57 Jun 28 j 15:42	2°♄25'04	10.08351 AU	morning rise	-51 Oct 03 j 04:39	22°♄39'22		
morning rise	-57 Jul 16 j 10:12	4°♄42'03		retrograde	-50 Jan 10 j 12:01	29°♄48'25		
asc. node	-57 Sep 25 j 06:01	11°♄46'45		opposition	-50 Mar 19 j 23:11	26°♄29'52	2°48'52	
retrograde	-57 Oct 27 j 12:21	12°♄44'18		min. Earth dist.	-50 Mar 19 j 21:54	26°♄30'07	8.82357 AU	
opposition	-56 Jan 02 j 01:17	9°♄17'24	0°10'53	direct	-50 May 29 j 21:31	23°♄05'57		
min. Earth dist.	-56 Jan 01 j 19:01	9°♄18'41	8.12492 AU		-50 Sep 07 j 02:42	0°♄		
direct	-56 Mar 09 j 21:01	5°♄47'32		evening set	-50 Sep 11 j 13:47	0°♄31'09		
evening set	-56 Jun 24 j 00:12	13°♄58'08						
				conjunction	-50 Sep 28 j 11:32	2°♄31'41	2°19'20	
conjunction	-56 Jul 12 j 02:12	16°♄16'12	0°25'30	minimum elong	-50 Sep 28 j 11:31	2°♄31'41	2°19'20	
minimum elong	-56 Jul 12 j 02:10	16°♄16'12	0°25'30	max. Earth dist.	-50 Sep 28 j 11:47	2°♄31'46	10.87398 AU	
max. Earth dist.	-56 Jul 12 j 09:50	16°♄18'38	10.17235 AU	morning rise	-50 Oct 15 j 05:00	4°♄31'00		
morning rise	-56 Jul 30 j 00:56	18°♄33'11		retrograde	-49 Jan 22 j 11:09	11°♄34'32		
retrograde	-56 Nov 09 j 04:28	26°♄25'39		opposition	-49 Apr 01 j 08:00	8°♄16'52	2°50'44	
opposition	-55 Jan 14 j 19:54	23°♄00'10	0°51'17	min. Earth dist.	-49 Apr 01 j 07:56	8°♄16'53	8.92340 AU	
min. Earth dist.	-55 Jan 14 j 13:30	23°♄01'28	8.22367 AU	direct	-49 Jun 11 j 11:43	4°♄54'19		
direct	-55 Mar 24 j 05:41	19°♄30'41		evening set	-49 Sep 23 j 13:40	12°♄12'15		
evening set	-55 Jul 08 j 12:32	27°♄35'19						
				conjunction	-49 Oct 10 j 08:04	14°♄10'49	2°18'10	
conjunction	-55 Jul 26 j 10:41	29°♄50'38	0°56'46	minimum elong	-49 Oct 10 j 08:05	14°♄10'49	2°18'10	
minimum elong	-55 Jul 26 j 10:38	29°♄50'37	0°56'46	max. Earth dist.	-49 Oct 10 j 07:04	14°♄10'31	10.96529 AU	
max. Earth dist.	-55 Jul 26 j 18:01	29°♄52'57	10.27954 AU	morning rise	-49 Oct 26 j 22:39	16°♄08'20		
	-55 Jul 27 j 16:15	0°♄		retrograde	-48 Feb 03 j 05:01	23°♄07'39		
morning rise	-55 Aug 13 j 04:35	2°♄04'36		opposition	-48 Apr 12 j 13:06	19°♄50'40	2°45'37	
retrograde	-55 Nov 22 j 11:41	9°♄47'04		min. Earth dist.	-48 Apr 12 j 14:56	19°♄50'19	9.00560 AU	
opposition	-54 Jan 28 j 08:33	6°♄23'06	1°27'48	direct	-48 Jun 22 j 20:16	16°♄29'21		
min. Earth dist.	-54 Jan 28 j 02:31	6°♄24'18	8.33792 AU	evening set	-48 Oct 04 j 06:28	23°♄40'54		
direct	-54 Apr 07 j 08:40	2°♄54'19						
evening set	-54 Jul 22 j 14:57	10°♄51'47		conjunction	-48 Oct 20 j 22:14	25°♄37'58	2°11'27	
				minimum elong	-48 Oct 20 j 22:15	25°♄37'59	2°11'27	
conjunction	-54 Aug 09 j 08:17	13°♄03'57	1°24'18	max. Earth dist.	-48 Oct 20 j 19:04	25°♄37'02	11.03750 AU	
minimum elong	-54 Aug 09 j 08:14	13°♄03'56	1°24'17	morning rise	-48 Nov 06 j 11:03	27°♄34'13		
max. Earth dist.	-54 Aug 09 j 14:59	13°♄06'03	10.39891 AU		-48 Nov 28 j 11:13	0°♄		

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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 Feb 13 j 21:10	4°♌30'47		behind sun begin	-42 Dec 26 j 10:45	3°♁10'09	
opposition	-47 Apr 24 j 15:34	1°♌14'09	2°34'04	behind sun end	-42 Dec 26 j 23:57	3°♁14'02	
min. Earth dist.	-47 Apr 24 j 19:08	1°♌13'29	9.06712 AU	max. Earth dist.	-42 Dec 26 j 09:00	3°♁09'38	10.96781 AU
	-47 May 11 j 18:46	30°♊♌		morning rise	-41 Jan 12 j 10:47	5°♁10'47	
direct	-47 Jul 05 j 00:32	27°♌53'56		desc. node	-41 Mar 20 j 22:59	11°♁23'59	
	-47 Aug 26 j 08:16	0°♌		retrograde	-41 Apr 25 j 05:11	12°♁23'42	
evening set	-47 Oct 15 j 17:27	5°♌00'07		opposition	-41 Jul 05 j 04:30	9°♁03'15	0°-9'-43
				min. Earth dist.	-41 Jul 05 j 11:20	9°♁01'59	8.92390 AU
conjunction	-47 Nov 01 j 07:29	6°♌56'11	1°59'40	direct	-41 Sep 12 j 23:50	5°♁44'51	
minimum elong	-47 Nov 01 j 07:31	6°♌56'12	1°59'39	evening set	-41 Dec 21 j 16:05	12°♁48'49	
max. Earth dist.	-47 Nov 01 j 02:35	6°♌54'45	11.08790 AU				
morning rise	-47 Nov 17 j 19:28	8°♌51'40		conjunction	-40 Jan 07 j 09:13	14°♁48'25	0°-21'-54
	-46 Jan 25 j 13:55	15°♌		minimum elong	-40 Jan 07 j 09:13	14°♁48'25	0°21'56
retrograde	-46 Feb 25 j 11:42	15°♌46'59		max. Earth dist.	-40 Jan 07 j 01:18	14°♁46'03	10.87630 AU
	-46 Mar 29 j 01:51	15°♌♌		morning rise	-40 Jan 24 j 04:59	16°♁48'52	
opposition	-46 May 06 j 16:07	12°♌30'24	2°16'44	retrograde	-40 May 06 j 20:27	24°♁09'48	
min. Earth dist.	-46 May 06 j 20:23	12°♌29'37	9.10548 AU	opposition	-40 Jul 16 j 16:19	20°♁47'53	0°-44'-18
direct	-46 Jul 17 j 00:14	9°♌11'06		min. Earth dist.	-40 Jul 16 j 22:35	20°♁46'42	8.82394 AU
	-46 Oct 16 j 04:37	15°♌		direct	-40 Sep 23 j 23:29	17°♁28'52	
evening set	-46 Oct 27 j 00:34	16°♌13'08		evening set	-39 Jan 01 j 13:08	24°♁37'51	
conjunction	-46 Nov 12 j 13:50	18°♌08'43	1°43'21	conjunction	-39 Jan 18 j 08:04	26°♁39'19	0°-49'-40
minimum elong	-46 Nov 12 j 13:52	18°♌08'43	1°43'20	minimum elong	-39 Jan 18 j 08:02	26°♁39'18	0°49'42
max. Earth dist.	-46 Nov 12 j 08:19	18°♌07'06	11.11419 AU	max. Earth dist.	-39 Jan 18 j 00:04	26°♁36'53	10.76899 AU
morning rise	-46 Nov 29 j 01:37	20°♌03'55		morning rise	-39 Feb 04 j 06:34	28°♁41'53	
retrograde	-45 Mar 09 j 05:06	26°♌59'32			-39 Feb 15 j 10:25	0°≈	
opposition	-45 May 18 j 15:37	23°♌42'43	1°54'18	retrograde	-39 May 19 j 18:39	6°≈11'54	
min. Earth dist.	-45 May 18 j 20:38	23°♌41'48	9.11868 AU	opposition	-39 Jul 29 j 09:17	2°≈48'26	-1°-17'-49
direct	-45 Jul 28 j 21:32	20°♌24'07		min. Earth dist.	-39 Jul 29 j 15:18	2°≈47'17	8.71043 AU
evening set	-45 Nov 07 j 05:35	27°♌23'25			-39 Sep 11 j 06:06	30°♊♁	
				direct	-39 Oct 06 j 02:07	29°♁28'34	
conjunction	-45 Nov 23 j 18:39	29°♌19'00	1°23'08		-39 Oct 30 j 15:58	0°≈	
minimum elong	-45 Nov 23 j 18:42	29°♌19'00	1°23'08	evening set	-38 Jan 13 j 18:13	6°≈44'05	
max. Earth dist.	-45 Nov 23 j 12:08	29°♌17'05	11.11475 AU				
	-45 Nov 29 j 14:35	0°♊♁		conjunction	-38 Jan 30 j 15:26	8°≈47'41	-1°-15'-51
morning rise	-45 Dec 10 j 06:59	1°♊14'26		minimum elong	-38 Jan 30 j 15:23	8°≈47'40	1°15'53
retrograde	-44 Mar 19 j 23:09	8°♊11'58		max. Earth dist.	-38 Jan 30 j 08:06	8°≈45'25	10.65017 AU
opposition	-44 May 29 j 15:43	4°♊54'40	1°27'33	morning rise	-38 Feb 16 j 16:53	10°≈52'34	
min. Earth dist.	-44 May 29 j 22:02	4°♊53'30	9.10581 AU		-38 Mar 26 j 03:12	15°≈	
direct	-44 Aug 08 j 14:22	1°♊36'32		retrograde	-38 Jun 01 j 23:04	18°≈32'36	
evening set	-44 Nov 17 j 10:14	8°♊34'40		opposition	-38 Aug 11 j 08:05	15°≈07'31	-1°-48'-43
				min. Earth dist.	-38 Aug 11 j 13:24	15°≈06'30	8.58795 AU
conjunction	-44 Dec 03 j 23:33	10°♊30'38	0°59'42		-38 Aug 12 j 23:06	15°♊≈	
minimum elong	-44 Dec 03 j 23:35	10°♊30'39	0°59'43	direct	-38 Oct 18 j 12:57	11°≈46'39	
max. Earth dist.	-44 Dec 03 j 15:09	10°♊28'10	11.08948 AU		-38 Dec 19 j 19:32	15°≈	
morning rise	-44 Dec 20 j 13:13	12°♊26'46		evening set	-37 Jan 26 j 08:44	19°≈09'57	
retrograde	-44 Mar 31 j 19:37	19°♊27'56					
opposition	-43 Jun 10 j 17:20	16°♊09'51	0°57'19	conjunction	-37 Feb 12 j 08:40	21°≈15'57	-1°-39'-8
min. Earth dist.	-43 Jun 11 j 00:54	16°♊08'27	9.06770 AU	minimum elong	-37 Feb 12 j 08:37	21°≈15'56	1°39'10
direct	-43 Aug 20 j 08:13	12°♊51'53		max. Earth dist.	-37 Feb 12 j 03:20	21°≈14'17	10.52472 AU
evening set	-43 Nov 28 j 16:26	19°♊50'25		morning rise	-37 Mar 01 j 13:08	23°≈23'22	
					-37 May 07 j 23:25	0°♋	
conjunction	-43 Dec 15 j 06:36	21°♊47'15	0°33'49	retrograde	-37 Jun 15 j 13:24	1°♋13'50	
minimum elong	-43 Dec 15 j 06:37	21°♊47'15	0°33'50		-37 Jul 24 j 17:07	30°♊≈	
max. Earth dist.	-43 Dec 14 j 21:35	21°♊44'35	11.03980 AU	opposition	-37 Aug 24 j 13:06	27°≈47'12	-2°-15'-19
morning rise	-43 Dec 31 j 22:03	23°♊44'28		min. Earth dist.	-37 Aug 24 j 16:44	27°≈46'30	8.46176 AU
	-42 Mar 11 j 09:45	0°♁		direct	-37 Oct 31 j 05:56	24°≈25'12	
retrograde	-42 Apr 12 j 21:50	0°♁50'46			-36 Jan 23 j 02:10	0°♋	
	-42 May 16 j 00:16	30°♊♁		evening set	-36 Feb 08 j 09:45	1°♋57'15	
opposition	-42 Jun 22 j 21:10	27°♊31'38	0°24'33				
min. Earth dist.	-42 Jun 23 j 04:50	27°♊30'13	9.00624 AU	conjunction	-36 Feb 25 j 12:52	4°♋05'51	-1°-58'-7
direct	-42 Sep 01 j 03:30	24°♊13'34		minimum elong	-36 Feb 25 j 12:49	4°♋05'50	1°58'08
	-42 Nov 29 j 06:33	0°♁		max. Earth dist.	-36 Feb 25 j 09:40	4°♋04'50	10.39841 AU
evening set	-42 Dec 10 j 01:47	1°♁14'03		morning rise	-36 Mar 13 j 20:38	6°♋15'58	
				retrograde	-36 Jun 28 j 13:16	14°♋16'44	
conjunction	-42 Dec 26 j 17:20	3°♁12'05	0°06'21	opposition	-36 Sep 06 j 00:40	10°♋48'40	-2°-35'-52
minimum elong	-42 Dec 26 j 17:21	3°♁12'06	0°06'21	min. Earth dist.	-36 Sep 06 j 02:14	10°♋48'21	8.33787 AU

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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.

direct	-36 Nov 12 j 04:41	7°♃25'27		conjunction	-29 Jun 06 j 21:11	12°♃08'48	0°-55'-32
evening set	-35 Feb 20 j 21:49	15°♃06'49		minimum elong	-29 Jun 06 j 21:14	12°♃08'49	0°55'32
				max. Earth dist.	-29 Jun 07 j 07:08	12°♃12'04	9.99745 AU
conjunction	-35 Mar 10 j 04:33	17°♃18'08	-2°-11'-27	morning rise	-29 Jun 25 j 01:47	14°♃30'33	
minimum elong	-35 Mar 10 j 04:31	17°♃18'08	2°11'28	retrograde	-29 Oct 07 j 16:31	22°♃45'41	
max. Earth dist.	-35 Mar 10 j 03:07	17°♃17'41	10.27758 AU	opposition	-29 Dec 13 j 05:29	19°♃17'13	0°-49'-17
morning rise	-35 Mar 27 j 16:02	19°♃31'01		min. Earth dist.	-29 Dec 12 j 21:37	19°♃18'51	8.02241 AU
retrograde	-35 Jul 12 j 19:53	27°♃41'12		direct	-28 Feb 18 j 05:39	15°♃47'45	
opposition	-35 Sep 19 j 18:32	24°♃11'57	-2°-48'-39	evening set	-28 Jun 02 j 21:35	24°♃04'11	
min. Earth dist.	-35 Sep 19 j 18:26	24°♃11'58	8.22262 AU				
direct	-35 Nov 25 j 12:14	20°♃47'28		conjunction	-28 Jun 21 j 02:39	26°♃25'07	0°-22'-44
evening set	-34 Mar 06 j 21:05	28°♃38'14		minimum elong	-28 Jun 21 j 02:40	26°♃25'07	0°22'44
	-34 Mar 17 j 13:26	0°♃		max. Earth dist.	-28 Jun 21 j 13:04	26°♃28'30	10.05446 AU
				morning rise	-28 Jul 09 j 05:56	28°♃45'29	
conjunction	-34 Mar 24 j 07:51	0°♃52'19	-2°-17'-54		-28 Jul 19 j 04:06	0°♃	
minimum elong	-34 Mar 24 j 07:51	0°♃52'19	2°17'54	retrograde	-28 Oct 20 j 21:03	6°♃52'08	
max. Earth dist.	-34 Mar 24 j 07:52	0°♃52'19	10.16875 AU	opposition	-28 Dec 26 j 08:01	3°♃25'01	0°-7'-28
morning rise	-34 Apr 10 j 23:18	3°♃07'54		min. Earth dist.	-28 Dec 26 j 00:25	3°♃26'34	8.09273 AU
retrograde	-34 Jul 27 j 08:01	11°♃25'52			-27 Feb 22 j 20:13	30°♃	
opposition	-34 Oct 03 j 18:02	7°♃55'45	-2°-52'-14	direct	-27 Mar 03 j 19:31	29°♃55'33	
min. Earth dist.	-34 Oct 03 j 16:40	7°♃56'02	8.12252 AU	asc. node	-27 Mar 03 j 20:43	29°♃55'33	
direct	-34 Dec 09 j 04:19	4°♃30'00			-27 Mar 12 j 20:26	0°♃	
evening set	-33 Mar 21 j 06:41	12°♃29'37		evening set	-27 Jun 17 j 22:02	8°♃08'24	
conjunction	-33 Apr 07 j 21:52	14°♃46'19	-2°-16'-33	conjunction	-27 Jul 06 j 01:18	10°♃27'29	0°11'01
minimum elong	-33 Apr 07 j 21:53	14°♃46'20	2°16'33	minimum elong	-27 Jul 06 j 01:17	10°♃27'29	0°11'01
max. Earth dist.	-33 Apr 07 j 23:38	14°♃46'54	10.07850 AU	behind sun begin	-27 Jul 05 j 19:51	10°♃25'46	
morning rise	-33 Apr 25 j 17:23	17°♃04'24		behind sun end	-27 Jul 06 j 06:43	10°♃29'13	
retrograde	-33 Aug 11 j 00:46	25°♃27'49		max. Earth dist.	-27 Jul 06 j 10:58	10°♃30'35	10.13746 AU
opposition	-33 Oct 17 j 22:17	21°♃57'13	-2°-45'-43	morning rise	-27 Jul 24 j 01:37	12°♃45'37	
min. Earth dist.	-33 Oct 17 j 19:44	21°♃57'44	8.04386 AU	retrograde	-27 Nov 03 j 17:43	20°♃42'33	
direct	-33 Dec 23 j 04:02	18°♃30'18		opposition	-26 Jan 09 j 05:37	17°♃16'55	0°33'55
evening set	-32 Apr 04 j 01:12	26°♃37'31		min. Earth dist.	-26 Jan 08 j 22:52	17°♃18'18	8.18648 AU
				direct	-26 Mar 18 j 07:02	13°♃47'45	
conjunction	-32 Apr 21 j 20:57	28°♃56'33	-2°-7'-1	evening set	-26 Jul 02 j 14:38	21°♃55'07	
minimum elong	-32 Apr 21 j 21:00	28°♃56'34	2°07'01				
max. Earth dist.	-32 Apr 22 j 01:02	28°♃57'53	10.01270 AU	conjunction	-26 Jul 20 j 14:29	24°♃11'37	0°43'26
	-32 Apr 29 j 23:07	0°♃		minimum elong	-26 Jul 20 j 14:27	24°♃11'37	0°43'26
morning rise	-32 May 09 j 20:16	1°♃16'43		max. Earth dist.	-26 Jul 20 j 22:34	24°♃14'12	10.24043 AU
retrograde	-32 Aug 24 j 19:42	9°♃42'40		morning rise	-26 Aug 07 j 10:36	26°♃26'54	
opposition	-32 Oct 31 j 05:43	6°♃11'59	-2°-28'-55		-26 Sep 06 j 20:19	0°♃	
min. Earth dist.	-32 Oct 31 j 01:41	6°♃12'49	7.99185 AU	retrograde	-26 Nov 17 j 03:33	4°♃13'41	
direct	-31 Jan 05 j 10:48	2°♃44'04		opposition	-25 Jan 22 j 21:15	0°♃49'35	1°12'22
evening set	-31 Apr 19 j 02:56	10°♃57'07		min. Earth dist.	-25 Jan 22 j 15:39	0°♃50'43	8.29688 AU
					-25 Feb 02 j 05:54	30°♃	
conjunction	-31 May 07 j 02:54	13°♃17'56	-1°-49'-33	direct	-25 Apr 01 j 14:20	27°♃20'59	
minimum elong	-31 May 07 j 02:57	13°♃17'57	1°49'34		-25 May 28 j 11:48	0°♃	
max. Earth dist.	-31 May 07 j 09:14	13°♃20'01	9.97583 AU	evening set	-25 Jul 16 j 21:50	5°♃21'36	
	-31 May 20 j 02:58	15°♃					
morning rise	-31 May 25 j 05:16	15°♃39'31		conjunction	-25 Aug 03 j 17:13	7°♃35'04	1°12'46
retrograde	-31 Sep 08 j 14:08	24°♃04'47		minimum elong	-25 Aug 03 j 17:10	7°♃35'04	1°12'46
opposition	-31 Nov 14 j 14:31	20°♃34'29	-2°-2'-40	max. Earth dist.	-25 Aug 03 j 23:05	7°♃36'55	10.35606 AU
min. Earth dist.	-31 Nov 14 j 08:54	20°♃35'39	7.97018 AU	morning rise	-25 Aug 21 j 08:16	9°♃47'10	
direct	-30 Jan 19 j 23:16	17°♃05'46			-25 Oct 08 j 14:30	15°♃	
evening set	-30 May 04 j 09:00	25°♃22'27		retrograde	-25 Nov 30 j 05:29	17°♃24'05	
					-24 Jan 23 j 19:52	15°♃	
conjunction	-30 May 22 j 12:12	27°♃44'15	-1°-25'-11	opposition	-24 Feb 05 j 06:26	14°♃01'30	1°45'53
minimum elong	-30 May 22 j 12:16	27°♃44'16	1°25'11	min. Earth dist.	-24 Feb 05 j 01:52	14°♃02'25	8.41647 AU
max. Earth dist.	-30 May 22 j 20:35	27°♃47'00	9.97058 AU	direct	-24 Apr 14 j 14:10	10°♃33'45	
	-30 Jun 08 j 20:32	0°♃			-24 Jun 29 j 14:53	15°♃	
morning rise	-30 Jun 09 j 16:27	0°♃06'24		evening set	-24 Jul 29 j 18:38	18°♃26'51	
retrograde	-30 Sep 23 j 05:34	8°♃27'56					
opposition	-30 Nov 28 j 23:04	4°♃58'23	-1°-28'-38	conjunction	-24 Aug 16 j 08:57	20°♃37'10	1°37'37
min. Earth dist.	-30 Nov 28 j 16:00	4°♃59'51	7.98057 AU	minimum elong	-24 Aug 16 j 08:54	20°♃37'09	1°37'37
direct	-29 Feb 03 j 14:11	1°♃29'10		max. Earth dist.	-24 Aug 16 j 13:03	20°♃38'26	10.47744 AU
evening set	-29 May 19 j 16:09	9°♃46'56		morning rise	-24 Sep 02 j 18:29	22°♃45'59	
					-24 Nov 26 j 03:38	0°♃	

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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.

retrograde	-24 Dec 12 j 01:18	0°♄13'46		direct	-17 Jul 12 j 07:20	4°♄39'03	
	-24 Dec 28 j 01:17	30°♄♂		evening set	-17 Oct 22 j 15:20	11°♄43'25	
opposition	-23 Feb 17 j 09:40	26°♄52'37	2°13'06				
min. Earth dist.	-23 Feb 17 j 06:00	26°♄53'20	8.53899 AU	conjunction	-17 Nov 08 j 04:57	13°♄39'23	1°50'49
direct	-23 Apr 28 j 05:53	23°♄25'56		minimum elong	-17 Nov 08 j 05:00	13°♄39'24	1°50'48
	-23 Aug 02 j 04:21	0°♄		max. Earth dist.	-17 Nov 07 j 23:09	13°♄37'41	11.08414 AU
evening set	-23 Aug 12 j 04:31	1°♄11'04			-17 Nov 19 j 16:15	15°♄	
				morning rise	-17 Nov 24 j 16:50	15°♄34'53	
conjunction	-23 Aug 29 j 13:36	3°♄18'15	1°57'04	retrograde	-16 Mar 03 j 14:38	22°♄30'49	
minimum elong	-23 Aug 29 j 13:33	3°♄18'14	1°57'03	opposition	-16 May 12 j 22:56	19°♄13'32	2°04'29
max. Earth dist.	-23 Aug 29 j 16:40	3°♄19'12	10.59905 AU	min. Earth dist.	-16 May 13 j 04:35	19°♄12'30	9.09383 AU
morning rise	-23 Sep 15 j 17:38	5°♄23'56		direct	-16 Jul 23 j 05:38	15°♄54'00	
retrograde	-23 Dec 24 j 13:12	12°♄43'28		evening set	-16 Nov 01 j 21:19	22°♄55'03	
opposition	-22 Mar 02 j 07:09	9°♄23'36	2°33'09				
min. Earth dist.	-22 Mar 02 j 04:54	9°♄24'02	8.65930 AU	conjunction	-16 Nov 18 j 10:23	24°♄50'47	1°32'10
direct	-22 May 11 j 14:18	5°♄58'03		minimum elong	-16 Nov 18 j 10:25	24°♄50'48	1°32'09
evening set	-22 Aug 25 j 03:47	13°♄35'04		max. Earth dist.	-16 Nov 18 j 03:24	24°♄48'44	11.09545 AU
				morning rise	-16 Dec 04 j 22:39	26°♄46'18	
conjunction	-22 Sep 11 j 07:50	15°♄39'20	2°10'34		-15 Jan 04 j 01:15	0°♄	
minimum elong	-22 Sep 11 j 07:48	15°♄39'19	2°10'33	retrograde	-15 Mar 15 j 07:17	3°♄43'26	
max. Earth dist.	-22 Sep 11 j 09:22	15°♄39'48	10.71598 AU	opposition	-15 May 24 j 23:01	0°♄25'45	1°39'26
morning rise	-22 Sep 28 j 06:56	17°♄42'10		min. Earth dist.	-15 May 25 j 04:59	0°♄24'39	9.09302 AU
retrograde	-21 Jan 05 j 18:34	24°♄54'29			-15 May 30 j 19:30	30°♄♂	
opposition	-21 Mar 14 j 23:08	21°♄35'41	2°45'41	direct	-15 Aug 04 j 01:22	27°♄06'47	
min. Earth dist.	-21 Mar 14 j 22:55	21°♄35'43	8.77249 AU		-15 Oct 04 j 13:23	0°♄	
direct	-21 May 24 j 16:17	18°♄11'17		evening set	-15 Nov 13 j 01:56	4°♄05'53	
evening set	-21 Sep 06 j 16:57	25°♄40'23					
				conjunction	-15 Nov 29 j 15:15	6°♄01'50	1°10'00
conjunction	-21 Sep 23 j 16:27	27°♄42'04	2°17'57	minimum elong	-15 Nov 29 j 15:18	6°♄01'51	1°09'59
minimum elong	-21 Sep 23 j 16:26	27°♄42'03	2°17'57	max. Earth dist.	-15 Nov 29 j 08:32	5°♄59'51	11.08325 AU
max. Earth dist.	-21 Sep 23 j 15:36	27°♄41'48	10.82345 AU	morning rise	-15 Dec 16 j 04:25	7°♄57'49	
morning rise	-21 Oct 10 j 11:32	29°♄42'26		retrograde	-14 Mar 27 j 03:33	14°♄57'45	
	-21 Oct 12 j 23:25	0°♄		opposition	-14 Jun 05 j 23:54	11°♄39'25	1°10'32
retrograde	-20 Jan 17 j 18:27	6°♄48'42		min. Earth dist.	-14 Jun 06 j 05:30	11°♄38'24	9.06868 AU
opposition	-20 Mar 26 j 10:20	3°♄30'43	2°50'45	direct	-14 Aug 15 j 19:56	8°♄20'52	
min. Earth dist.	-20 Mar 26 j 11:46	3°♄30'27	8.87384 AU	evening set	-14 Nov 24 j 07:26	15°♄19'32	
direct	-20 Jun 05 j 10:51	0°♄07'28					
evening set	-20 Sep 17 j 20:53	7°♄29'06		conjunction	-14 Dec 10 j 21:25	17°♄16'07	0°45'02
				minimum elong	-14 Dec 10 j 21:26	17°♄16'07	0°45'02
conjunction	-20 Oct 04 j 16:35	9°♄28'36	2°19'19	max. Earth dist.	-14 Dec 10 j 14:35	17°♄14'06	11.04774 AU
minimum elong	-20 Oct 04 j 16:35	9°♄28'37	2°19'20	morning rise	-14 Dec 27 j 11:59	19°♄12'58	
max. Earth dist.	-20 Oct 04 j 13:49	9°♄27'47	10.91714 AU	retrograde	-13 Apr 08 j 04:48	26°♄17'13	
morning rise	-20 Oct 21 j 08:32	11°♄27'01		opposition	-13 Jun 18 j 02:41	22°♄58'05	0°38'41
retrograde	-19 Jan 28 j 13:09	18°♄28'34		min. Earth dist.	-13 Jun 18 j 08:37	22°♄57'00	9.02157 AU
opposition	-19 Apr 07 j 17:24	15°♄11'06	2°48'37	direct	-13 Aug 27 j 13:16	19°♄39'42	
min. Earth dist.	-19 Apr 07 j 19:35	15°♄10'42	8.95935 AU	evening set	-13 Dec 05 j 15:27	26°♄39'30	
direct	-19 Jun 17 j 23:58	11°♄48'57					
evening set	-19 Sep 29 j 16:51	19°♄03'49		conjunction	-13 Dec 22 j 06:21	28°♄37'05	0°18'05
				minimum elong	-13 Dec 22 j 06:22	28°♄37'05	0°18'06
conjunction	-19 Oct 16 j 09:47	21°♄01'39	2°14'57	max. Earth dist.	-13 Dec 21 j 22:43	28°♄34'50	10.99019 AU
minimum elong	-19 Oct 16 j 09:48	21°♄01'39	2°14'58		-12 Jan 02 j 22:31	0°♄	
max. Earth dist.	-19 Oct 16 j 06:21	21°♄00'38	10.99351 AU	morning rise	-12 Jan 07 j 22:55	0°♄35'12	
morning rise	-19 Nov 01 j 23:24	22°♄58'34		retrograde	-12 Apr 19 j 08:44	7°♄45'19	
retrograde	-18 Feb 09 j 07:51	29°♄56'47		opposition	-12 Jun 29 j 08:45	4°♄25'11	0°04'52
opposition	-18 Apr 19 j 21:11	26°♄39'37	2°39'47	min. Earth dist.	-12 Jun 29 j 15:07	4°♄24'00	8.95346 AU
min. Earth dist.	-18 Apr 20 j 00:01	26°♄39'05	9.02593 AU	desc. node	-12 Aug 21 j 17:34	1°♄20'24	
direct	-18 Jun 30 j 06:59	23°♄18'29		direct	-12 Sep 07 j 07:55	1°♄06'43	
	-18 Oct 07 j 06:24	0°♄		evening set	-12 Dec 16 j 03:30	8°♄09'14	
evening set	-18 Oct 11 j 06:21	0°♄27'29					
				conjunction	-11 Jan 01 j 19:48	10°♄08'10	0°-10'00
conjunction	-18 Oct 27 j 21:20	2°♄24'10	2°05'17	minimum elong	-11 Jan 01 j 19:48	10°♄08'10	0°10'00
minimum elong	-18 Oct 27 j 21:22	2°♄24'10	2°05'17	behind sun begin	-11 Jan 01 j 14:06	10°♄06'29	
max. Earth dist.	-18 Oct 27 j 17:19	2°♄22'59	11.04982 AU	behind sun end	-11 Jan 02 j 01:29	10°♄09'51	
morning rise	-18 Nov 13 j 09:35	4°♄20'07		max. Earth dist.	-11 Jan 01 j 12:09	10°♄05'54	10.91266 AU
retrograde	-17 Feb 20 j 23:28	11°♄16'25		morning rise	-11 Jan 18 j 14:41	12°♄07'53	
opposition	-17 May 01 j 22:41	7°♄59'18	2°24'51	retrograde	-11 May 01 j 20:11	19°♄25'19	
min. Earth dist.	-17 May 02 j 02:57	7°♄58'31	9.07123 AU	opposition	-11 Jul 11 j 18:45	16°♄03'59	0°-29'-43

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Attention, astronomical year style is used: The year -11 in astronomical counting style is the year 12 BCE in historical counting style.

min. Earth dist.	-11 Jul 12 j 00:51	16°☾02'51	8.86683 AU		-5 Oct 29 j 08:00	30°☾☿	
direct	-11 Sep 19 j 07:13	12°☾45'14		direct	-5 Dec 03 j 18:10	28°☿53'04	
evening set	-11 Dec 27 j 21:35	19°☾52'00			-4 Jan 07 j 13:34	0°♃	
				evening set	-4 Mar 14 j 11:24	6°♃47'50	
conjunction	-10 Jan 13 j 15:45	21°☾52'38	0°-38'-3				
minimum elong	-10 Jan 13 j 15:43	21°☾52'37	0°38'04	conjunction	-4 Apr 01 j 00:36	9°♃03'06	-2°-17'-56
max. Earth dist.	-10 Jan 13 j 09:27	21°☾50'44	10.81793 AU	minimum elong	-4 Apr 01 j 00:37	9°♃03'07	2°17'57
morning rise	-10 Jan 30 j 13:02	23°☾54'15		max. Earth dist.	-4 Apr 01 j 02:18	9°♃03'39	10.13865 AU
	-10 Apr 03 j 19:02	0°♁		morning rise	-4 Apr 18 j 18:04	11°♃19'47	
retrograde	-10 May 14 j 15:33	1°♁20'11		retrograde	-4 Aug 04 j 02:18	19°♃40'05	
	-10 Jun 25 j 08:18	30°☾☿		opposition	-4 Oct 11 j 05:37	16°♃10'19	-2°-49'-27
opposition	-10 Jul 24 j 09:19	27°☾57'33	-1°-3'-50	min. Earth dist.	-4 Oct 11 j 03:25	16°♃10'46	8.09764 AU
min. Earth dist.	-10 Jul 24 j 14:08	27°☾56'38	8.76492 AU	direct	-4 Dec 16 j 13:09	12°♃44'33	
direct	-10 Oct 01 j 08:50	24°☾38'18		evening set	-3 Mar 29 j 01:39	20°♃47'32	
	-10 Dec 24 j 01:12	0°♁					
evening set	-9 Jan 08 j 23:11	1°♁50'49		conjunction	-3 Apr 15 j 19:25	23°♃05'18	-2°-11'-56
				minimum elong	-3 Apr 15 j 19:27	23°♃05'19	2°11'57
conjunction	-9 Jan 25 j 19:27	3°♁53'24	-1°-5'-2	max. Earth dist.	-3 Apr 15 j 22:55	23°♃06'26	10.05920 AU
minimum elong	-9 Jan 25 j 19:25	3°♁53'23	1°05'04	morning rise	-3 May 03 j 16:49	25°♃24'18	
max. Earth dist.	-9 Jan 25 j 14:18	3°♁51'50	10.70966 AU		-3 Jun 11 j 23:08	0°♄	
morning rise	-9 Feb 11 j 19:24	5°♁57'10		retrograde	-3 Aug 18 j 20:41	3°♄48'29	
retrograde	-9 May 27 j 18:17	13°♁32'37		opposition	-3 Oct 25 j 11:08	0°♄18'19	-2°-37'-7
opposition	-9 Aug 06 j 05:36	10°♁08'36	-1°-35'-59	min. Earth dist.	-3 Oct 25 j 07:31	0°♄19'03	8.03053 AU
min. Earth dist.	-9 Aug 06 j 09:09	10°♁07'55	8.65180 AU		-3 Oct 29 j 04:07	30°☾♃	
direct	-9 Oct 13 j 15:44	6°♁48'39		direct	-3 Dec 30 j 15:40	26°♃51'19	
evening set	-8 Jan 21 j 09:35	14°♁08'11		evening set	-2 Feb 28 j 12:58	0°♄	
	-8 Jan 28 j 11:33	15°♁			-2 Apr 12 j 23:49	5°♄01'01	
conjunction	-8 Feb 07 j 08:11	16°♁12'59	-1°-29'-40	conjunction	-2 Apr 30 j 21:51	7°♄20'50	-1°-57'-53
minimum elong	-8 Feb 07 j 08:08	16°♁12'58	1°29'42	minimum elong	-2 Apr 30 j 21:55	7°♄20'51	1°57'53
max. Earth dist.	-8 Feb 07 j 03:39	16°♁11'35	10.59240 AU	max. Earth dist.	-2 May 01 j 02:49	7°♄22'28	10.00587 AU
morning rise	-8 Feb 24 j 11:09	18°♁19'09		morning rise	-2 May 18 j 22:43	9°♄41'35	
retrograde	-8 Jun 09 j 05:52	26°♁04'40			-2 Jul 04 j 04:43	15°♄	
opposition	-8 Aug 18 j 08:03	22°♁39'15	-2°-4'-33	retrograde	-2 Sep 02 j 15:23	18°♄06'35	
min. Earth dist.	-8 Aug 18 j 10:46	22°♁38'44	8.53230 AU		-2 Nov 04 j 00:52	15°☾♄	
direct	-8 Oct 25 j 04:34	19°♁18'22		opposition	-2 Nov 08 j 18:51	14°♄36'24	-2°-14'-55
evening set	-7 Feb 02 j 06:03	26°♁46'01		min. Earth dist.	-2 Nov 08 j 14:20	14°♄37'21	7.99154 AU
				direct	-1 Jan 14 j 01:09	11°♄08'20	
conjunction	-7 Feb 19 j 07:28	28°♁53'14	-1°-50'-36		-1 Mar 22 j 03:41	15°♄	
minimum elong	-7 Feb 19 j 07:25	28°♁53'14	1°50'36	evening set	-1 Apr 28 j 03:24	19°♄22'41	
max. Earth dist.	-7 Feb 19 j 03:36	28°♁52'02	10.47126 AU				
	-7 Feb 28 j 05:11	0°☿		conjunction	-1 May 16 j 05:04	21°♄43'53	-1°-36'-26
morning rise	-7 Mar 08 j 13:46	1°☿01'59		minimum elong	-1 May 16 j 05:08	21°♄43'55	1°36'27
retrograde	-7 Jun 23 j 00:51	8°☿57'36		max. Earth dist.	-1 May 16 j 11:17	21°♄45'56	9.98261 AU
opposition	-7 Aug 31 j 16:37	5°☿30'50	-2°-27'-47	morning rise	-1 Jun 03 j 08:31	24°♄05'39	
min. Earth dist.	-7 Aug 31 j 18:51	5°☿30'24	8.41162 AU		-1 Jul 26 j 03:31	0°♅	
direct	-7 Nov 07 j 00:33	2°☿08'49		retrograde	-1 Sep 17 j 07:11	2°♅28'16	
evening set	-6 Feb 15 j 13:05	9°☿45'20			-1 Nov 10 j 14:17	30°☾♄	
				opposition	-1 Nov 23 j 02:57	28°♄58'30	-1°-44'-9
conjunction	-6 Mar 04 j 17:57	11°☿55'10	-2°-6'-26	min. Earth dist.	-1 Nov 22 j 21:47	28°♄59'34	7.98358 AU
minimum elong	-6 Mar 04 j 17:55	11°☿55'09	2°06'26	direct	00 Jan 28 j 14:56	25°♄29'32	
max. Earth dist.	-6 Mar 04 j 15:36	11°☿54'25	10.35147 AU		00 Apr 11 j 00:55	0°♅	
morning rise	-6 Mar 22 j 03:46	14°☿06'34		evening set	00 May 12 j 09:29	3°♅46'12	
retrograde	-6 Jul 07 j 02:25	22°☿11'47					
opposition	-6 Sep 14 j 07:24	18°☿43'46	-2°-43'-58	conjunction	00 May 30 j 13:41	6°♅07'56	-1°-8'-58
min. Earth dist.	-6 Sep 14 j 08:35	18°☿43'32	8.29493 AU	minimum elong	00 May 30 j 13:44	6°♅07'57	1°08'58
direct	-6 Nov 20 j 05:51	15°☿20'31		max. Earth dist.	00 May 30 j 20:46	6°♅10'15	9.99095 AU
evening set	-5 Mar 01 j 06:52	23°☿06'15		morning rise	00 Jun 17 j 18:22	8°♅29'47	
				retrograde	00 Sep 30 j 18:31	16°♅47'11	
conjunction	-5 Mar 18 j 15:40	25°☿18'48	-2°-15'-53	opposition	00 Dec 06 j 09:38	13°♅18'10	-1°-6'-57
minimum elong	-5 Mar 18 j 15:39	25°☿18'47	2°15'54	min. Earth dist.	00 Dec 06 j 03:59	13°♅19'21	8.00703 AU
max. Earth dist.	-5 Mar 18 j 15:15	25°☿18'40	10.23843 AU	direct	01 Feb 11 j 06:22	9°♅48'36	
morning rise	-5 Apr 05 j 05:13	27°☿32'52		evening set	01 May 27 j 15:08	18°♅05'08	
	-5 Apr 25 j 11:14	0°♃					
retrograde	-5 Jul 21 j 11:05	5°♃46'36		conjunction	01 Jun 14 j 20:12	20°♅26'26	0°-37'-23
opposition	-5 Sep 28 j 04:00	2°♃17'33	-2°-51'-35	minimum elong	01 Jun 14 j 20:14	20°♅26'27	0°37'23
min. Earth dist.	-5 Sep 28 j 03:37	2°♃17'38	8.18795 AU	max. Earth dist.	01 Jun 15 j 03:51	20°♅28'55	10.03001 AU

morning rise	01 Jul 03 j 00:23	22° Π 47'23		minimum elong	07 Sep 06 j 01:04	10° η 24'19	2°05'12
	01 Sep 12 j 19:45	0° \mathfrak{S}		max. Earth dist.	07 Sep 06 j 03:08	10° η 24'57	10.66014 AU
retrograde	01 Oct 15 j 00:25	0° \mathfrak{S} 57'20		morning rise	07 Sep 23 j 02:36	12° η 28'24	
	01 Nov 16 j 10:50	30° $\mathbb{R}\Pi$		retrograde	07 Dec 31 j 15:31	19° η 43'33	
opposition	01 Dec 20 j 13:10	27° Π 29'21	0°-26'-1	opposition	08 Mar 08 j 16:46	16° η 23'55	2°40'56
min. Earth dist.	01 Dec 20 j 06:51	27° Π 30'39	8.06008 AU	min. Earth dist.	08 Mar 08 j 14:44	16° η 24'19	8.72032 AU
direct	02 Feb 25 j 21:15	23° Π 59'31		direct	08 May 18 j 07:27	12° η 58'41	
	02 May 24 j 13:17	0° \mathfrak{S}		evening set	08 Aug 31 j 12:02	20° η 31'01	
evening set	02 Jun 11 j 17:04	2° \mathfrak{S} 13'36					
				conjunction	08 Sep 17 j 13:35	22° η 33'47	2°15'19
conjunction	02 Jun 29 j 21:16	4° \mathfrak{S} 33'31	0°-3'-57	minimum elong	08 Sep 17 j 13:34	22° η 33'47	2°15'19
minimum elong	02 Jun 29 j 21:18	4° \mathfrak{S} 33'31	0°03'57	max. Earth dist.	08 Sep 17 j 14:39	22° η 34'06	10.77595 AU
behind sun begin	02 Jun 29 j 14:02	4° \mathfrak{S} 31'12		morning rise	08 Oct 04 j 10:29	24° η 35'10	
behind sun end	02 Jun 30 j 04:33	4° \mathfrak{S} 35'51			08 Nov 27 j 10:34	0° \mathfrak{L}	
max. Earth dist.	02 Jun 30 j 05:26	4° \mathfrak{S} 36'08	10.09692 AU	retrograde	09 Jan 11 j 18:31	1° \mathfrak{L} 43'44	
morning rise	02 Jul 17 j 23:14	6° \mathfrak{S} 52'41			09 Feb 27 j 13:38	30° $\mathbb{R}\eta$	
asc. node	02 Aug 12 j 20:31	9° \mathfrak{S} 59'25		opposition	09 Mar 21 j 05:39	28° η 25'13	2°49'17
retrograde	02 Oct 28 j 23:23	14° \mathfrak{S} 53'38		min. Earth dist.	09 Mar 21 j 04:37	28° η 25'24	8.83110 AU
opposition	03 Jan 03 j 12:18	11° \mathfrak{S} 26'55	0°15'46	direct	09 May 31 j 03:39	25° η 01'22	
min. Earth dist.	03 Jan 03 j 05:33	11° \mathfrak{S} 28'18	8.13908 AU		09 Aug 22 j 03:23	0° \mathfrak{L}	
direct	03 Mar 12 j 09:26	7° \mathfrak{S} 57'08		evening set	09 Sep 12 j 19:33	2° \mathfrak{L} 25'57	
evening set	03 Jun 26 j 12:32	16° \mathfrak{S} 06'46					
				conjunction	09 Sep 29 j 17:03	4° \mathfrak{L} 26'21	2°19'21
conjunction	03 Jul 14 j 14:16	18° \mathfrak{S} 24'29	0°29'17	minimum elong	09 Sep 29 j 17:02	4° \mathfrak{L} 26'21	2°19'21
minimum elong	03 Jul 14 j 14:15	18° \mathfrak{S} 24'29	0°29'18	max. Earth dist.	09 Sep 29 j 17:10	4° \mathfrak{L} 26'23	10.87999 AU
max. Earth dist.	03 Jul 14 j 22:29	18° \mathfrak{S} 27'07	10.18710 AU	morning rise	09 Oct 16 j 10:12	6° \mathfrak{L} 25'32	
morning rise	03 Aug 01 j 12:29	20° \mathfrak{S} 41'07		retrograde	10 Jan 23 j 15:59	13° \mathfrak{L} 28'46	
retrograde	03 Nov 11 j 14:01	28° \mathfrak{S} 32'18		opposition	10 Apr 02 j 14:15	10° \mathfrak{L} 11'08	2°50'19
opposition	04 Jan 17 j 06:04	25° \mathfrak{S} 06'59	0°55'45	min. Earth dist.	10 Apr 02 j 15:07	10° \mathfrak{L} 10'59	8.92788 AU
min. Earth dist.	04 Jan 16 j 23:38	25° \mathfrak{S} 08'17	8.23876 AU	direct	10 Jun 12 j 17:48	6° \mathfrak{L} 48'38	
direct	04 Mar 25 j 17:23	21° \mathfrak{S} 37'36		evening set	10 Sep 24 j 18:53	14° \mathfrak{L} 06'10	
evening set	04 Jul 09 j 23:45	29° \mathfrak{S} 41'12					
	04 Jul 12 j 12:21	0° \mathfrak{L}		conjunction	10 Oct 11 j 13:01	16° \mathfrak{L} 04'38	2°17'30
conjunction	04 Jul 27 j 21:30	1° \mathfrak{L} 56'08	1°00'09	minimum elong	10 Oct 11 j 13:01	16° \mathfrak{L} 04'38	2°17'31
minimum elong	04 Jul 27 j 21:27	1° \mathfrak{L} 56'07	1°00'09	max. Earth dist.	10 Oct 11 j 10:58	16° \mathfrak{L} 04'02	10.96820 AU
max. Earth dist.	04 Jul 28 j 04:59	1° \mathfrak{L} 58'30	10.29474 AU	morning rise	10 Oct 28 j 03:33	18° \mathfrak{L} 02'06	
morning rise	04 Aug 14 j 14:51	4° \mathfrak{L} 09'43		retrograde	11 Feb 04 j 10:34	25° \mathfrak{L} 01'21	
retrograde	04 Nov 23 j 20:29	11° \mathfrak{L} 50'58		opposition	11 Apr 14 j 19:09	21° \mathfrak{L} 44'22	2°44'24
opposition	05 Jan 29 j 17:49	8° \mathfrak{L} 27'09	1°31'38	min. Earth dist.	11 Apr 14 j 21:49	21° \mathfrak{L} 43'52	9.00696 AU
min. Earth dist.	05 Jan 29 j 12:32	8° \mathfrak{L} 28'13	8.35304 AU	direct	11 Jun 25 j 02:33	18° \mathfrak{L} 23'05	
direct	05 Apr 08 j 18:49	4° \mathfrak{L} 58'27		evening set	11 Oct 06 j 11:19	25° \mathfrak{L} 34'25	
evening set	05 Jul 24 j 01:00	12° \mathfrak{L} 54'54					
	05 Aug 09 j 20:20	15° \mathfrak{L}		conjunction	11 Oct 23 j 02:57	27° \mathfrak{L} 31'29	2°10'09
conjunction	05 Aug 10 j 17:47	15° \mathfrak{L} 06'42	1°27'07	minimum elong	11 Oct 23 j 02:59	27° \mathfrak{L} 31'29	2°10'09
minimum elong	05 Aug 10 j 17:43	15° \mathfrak{L} 06'41	1°27'07	max. Earth dist.	11 Oct 22 j 22:55	27° \mathfrak{L} 30'18	11.03730 AU
max. Earth dist.	05 Aug 10 j 23:45	15° \mathfrak{L} 08'34	10.41362 AU	morning rise	11 Nov 08 j 15:50	29° \mathfrak{L} 27'44	
morning rise	05 Aug 28 j 05:45	17° \mathfrak{L} 17'01			11 Nov 13 j 08:23	0° \mathfrak{M}	
retrograde	05 Dec 06 j 18:40	24° \mathfrak{L} 48'44		retrograde	12 Feb 16 j 01:45	6° \mathfrak{M} 24'27	
opposition	06 Feb 11 j 23:32	21° \mathfrak{L} 26'25	2°01'46	opposition	12 Apr 25 j 21:33	3° \mathfrak{M} 07'47	2°32'07
min. Earth dist.	06 Feb 11 j 19:42	21° \mathfrak{L} 27'10	8.47560 AU	min. Earth dist.	12 Apr 26 j 01:06	3° \mathfrak{M} 07'08	9.06534 AU
direct	06 Apr 22 j 13:45	17° \mathfrak{L} 58'40			12 Jun 20 j 02:59	30° $\mathbb{R}\mathfrak{L}$	
evening set	06 Aug 06 j 15:18	25° \mathfrak{L} 47'14		direct	12 Jul 06 j 06:22	29° \mathfrak{L} 47'37	
					12 Jul 22 j 07:09	0° \mathfrak{M}	
conjunction	06 Aug 24 j 02:43	27° \mathfrak{L} 55'50	1°49'02	evening set	12 Oct 16 j 22:10	6° \mathfrak{M} 53'46	
minimum elong	06 Aug 24 j 02:40	27° \mathfrak{L} 55'49	1°49'01				
max. Earth dist.	06 Aug 24 j 06:28	27° \mathfrak{L} 56'59	10.53747 AU	conjunction	12 Nov 02 j 12:17	8° \mathfrak{M} 49'53	1°57'46
	06 Sep 09 j 23:39	0° \mathfrak{M}		minimum elong	12 Nov 02 j 12:19	8° \mathfrak{M} 49'54	1°57'46
morning rise	06 Sep 10 j 09:19	0° \mathfrak{M} 02'56		max. Earth dist.	12 Nov 02 j 07:40	8° \mathfrak{M} 48'32	11.08465 AU
retrograde	06 Dec 19 j 07:55	7° \mathfrak{M} 25'51		morning rise	12 Nov 19 j 00:14	10° \mathfrak{M} 45'26	
opposition	07 Feb 24 j 23:04	4° \mathfrak{M} 04'57	2°25'02		12 Dec 30 j 03:57	15° \mathfrak{M}	
min. Earth dist.	07 Feb 24 j 20:15	4° \mathfrak{M} 05'30	8.60005 AU	retrograde	13 Feb 26 j 18:40	17° \mathfrak{M} 41'08	
direct	07 May 06 j 02:18	0° \mathfrak{M} 38'23			13 Apr 29 j 20:04	15° $\mathfrak{R}\mathfrak{M}$	
evening set	07 Aug 19 j 18:52	8° \mathfrak{M} 18'48		opposition	13 May 07 j 22:19	14° \mathfrak{M} 24'29	2°14'06
				min. Earth dist.	13 May 08 j 02:17	14° \mathfrak{M} 23'45	9.10076 AU
conjunction	07 Sep 06 j 01:06	10° \mathfrak{M} 24'19	2°05'13	direct	13 Jul 18 j 06:57	11° \mathfrak{M} 05'14	
					13 Sep 29 j 03:47	15° \mathfrak{M}	
				evening set	13 Oct 28 j 05:25	18° \mathfrak{M} 07'24	

conjunction	13 Nov 13 j 18:46	20°♁03'05	1°40'56	conjunction	20 Jan 20 j 17:20	28°♁43'58	0°-53'-6
minimum elong	13 Nov 13 j 18:48	20°♁03'05	1°40'56	minimum elong	20 Jan 20 j 17:19	28°♁43'57	0°53'08
max. Earth dist.	13 Nov 13 j 13:28	20°♁01'31	11.10829 AU	max. Earth dist.	20 Jan 20 j 09:14	28°♁41'30	10.75418 AU
morning rise	13 Nov 30 j 06:36	21°♁58'24			20 Jan 31 j 04:01	0°≈	
retrograde	14 Mar 10 j 11:42	28°♁54'31		morning rise	20 Feb 06 j 16:10	0°≈46'48	
opposition	14 May 19 j 22:19	25°♁37'39	1°51'05	retrograde	20 May 21 j 04:45	8°≈18'03	
min. Earth dist.	14 May 20 j 03:37	25°♁36'40	9.11168 AU	opposition	20 Jul 30 j 20:11	4°≈54'27	-1°-21'-53
direct	14 Jul 30 j 01:42	22°♁19'04		min. Earth dist.	20 Jul 31 j 02:18	4°≈53'17	8.69554 AU
evening set	14 Nov 08 j 10:42	29°♁18'38		direct	20 Oct 07 j 12:26	1°≈34'30	
	14 Nov 14 j 09:49	0°♁		evening set	21 Jan 15 j 04:24	8°≈51'01	
conjunction	14 Nov 24 j 23:48	1°♁14'19	1°20'17	conjunction	21 Feb 01 j 01:55	10°≈54'53	-1°-18'-58
minimum elong	14 Nov 24 j 23:50	1°♁14'20	1°20'17	minimum elong	21 Feb 01 j 01:53	10°≈54'53	1°19'00
max. Earth dist.	14 Nov 24 j 16:37	1°♁12'13	11.10687 AU	max. Earth dist.	21 Jan 31 j 19:30	10°≈52'55	10.63530 AU
morning rise	14 Dec 11 j 12:24	3°♁09'55		morning rise	21 Feb 18 j 03:35	13°≈00'04	
retrograde	15 Mar 22 j 05:12	10°♁08'06			21 Mar 07 j 06:05	15°≈	
opposition	15 May 31 j 22:48	6°♁50'42	1°23'51	retrograde	21 Jun 03 j 12:14	20°≈41'20	
min. Earth dist.	15 Jun 01 j 05:45	6°♁49'26	9.09705 AU	opposition	21 Aug 12 j 19:52	17°≈16'06	-1°-52'-18
direct	15 Aug 10 j 20:41	3°♁32'32		min. Earth dist.	21 Aug 13 j 00:31	17°≈15'13	8.57338 AU
evening set	15 Nov 19 j 15:48	10°♁31'04			21 Sep 14 j 01:58	15°≈	
conjunction	15 Dec 06 j 05:13	12°♁27'13	0°56'30	direct	21 Oct 19 j 23:55	13°≈55'09	
minimum elong	15 Dec 06 j 05:14	12°♁27'13	0°56'30		21 Nov 24 j 01:32	15°≈	
max. Earth dist.	15 Dec 05 j 20:35	12°♁24'40	11.07988 AU	evening set	22 Jan 27 j 20:14	21°≈19'27	
morning rise	15 Dec 22 j 19:09	14°♁23'31		conjunction	22 Feb 13 j 20:31	23°≈25'43	-1°-41'-45
retrograde	16 Apr 02 j 03:37	21°♁25'27		minimum elong	22 Feb 13 j 20:28	23°≈25'42	1°41'46
opposition	16 Jun 12 j 00:50	18°♁07'15	0°53'15	max. Earth dist.	22 Feb 13 j 16:05	23°≈24'20	10.51049 AU
min. Earth dist.	16 Jun 12 j 08:18	18°♁05'53	9.05719 AU	morning rise	22 Mar 03 j 01:12	25°≈33'26	
direct	16 Aug 21 j 15:41	14°♁49'16			22 Apr 12 j 02:15	0°♁	
evening set	16 Nov 29 j 22:32	21°♁48'19		retrograde	22 Jun 17 j 04:07	3°♁25'02	
conjunction	16 Dec 16 j 12:57	23°♁45'21	0°30'22		22 Aug 25 j 16:43	30°≈	
minimum elong	16 Dec 16 j 12:58	23°♁45'21	0°30'22	opposition	22 Aug 26 j 01:36	29°≈58'16	-2°-18'-11
max. Earth dist.	16 Dec 16 j 04:36	23°♁42'53	11.02843 AU	min. Earth dist.	22 Aug 26 j 04:20	29°≈57'44	8.44822 AU
morning rise	17 Jan 02 j 04:32	25°♁42'47		direct	22 Nov 01 j 16:25	26°≈36'09	
	17 Feb 12 j 09:47	0°♁		evening set	23 Jan 04 j 04:59	0°♁	
retrograde	17 Apr 14 j 06:08	2°♁50'02			23 Feb 09 j 22:32	4°♁09'12	
	17 Jun 17 j 14:44	30°≈		conjunction	23 Feb 27 j 01:54	6°♁18'04	-2°00'-3
opposition	17 Jun 24 j 05:26	29°♁30'46	0°20'13	minimum elong	23 Feb 27 j 01:52	6°♁18'03	2°00'04
min. Earth dist.	17 Jun 24 j 12:25	29°♁29'28	8.99403 AU	max. Earth dist.	23 Feb 26 j 22:52	6°♁17'06	10.38558 AU
direct	17 Sep 02 j 10:14	26°♁12'41		morning rise	23 Mar 16 j 10:00	8°♁28'27	
	17 Nov 11 j 16:25	0°♁		retrograde	23 Jul 01 j 03:51	16°♁30'11	
evening set	17 Dec 11 j 08:42	3°♁13'49		opposition	23 Sep 08 j 13:56	13°♁02'00	-2°-37'-47
conjunction	17 Dec 28 j 00:28	5°♁12'06	0°02'46	min. Earth dist.	23 Sep 08 j 15:06	13°♁01'46	8.32606 AU
minimum elong	17 Dec 28 j 00:27	5°♁12'06	0°02'46	direct	23 Nov 14 j 16:49	9°♁38'40	
behind sun begin	17 Dec 27 j 17:29	5°♁10'03		evening set	24 Feb 23 j 11:38	17°♁20'57	
behind sun end	17 Dec 28 j 07:26	5°♁14'09		conjunction	24 Mar 11 j 18:37	19°♁32'31	-2°-12'-33
max. Earth dist.	17 Dec 27 j 16:23	5°♁09'43	10.95485 AU	minimum elong	24 Mar 11 j 18:35	19°♁32'30	2°12'33
morning rise	18 Jan 13 j 18:06	7°♁11'01		max. Earth dist.	24 Mar 11 j 16:58	19°♁31'59	10.26688 AU
desc. node	18 Feb 02 j 04:01	9°♁21'56		morning rise	24 Mar 29 j 06:31	21°♁45'39	
retrograde	18 Apr 26 j 15:59	14°♁25'01		retrograde	24 Jul 14 j 10:39	29°♁56'34	
opposition	18 Jul 06 j 13:37	11°♁04'28	0°-14'-8	opposition	24 Sep 21 j 08:27	26°♁27'13	-2°-49'-27
min. Earth dist.	18 Jul 06 j 20:14	11°♁03'14	8.91028 AU	min. Earth dist.	24 Sep 21 j 08:27	26°♁27'13	8.21326 AU
direct	18 Sep 14 j 07:33	7°♁46'01		direct	24 Nov 27 j 01:21	23°♁02'35	
evening set	18 Dec 23 j 00:07	14°♁50'47			25 Mar 01 j 06:28	0°≈	
conjunction	19 Jan 08 j 17:21	16°♁50'37	0°-25'-29	evening set	25 Mar 08 j 11:47	0°≈54'07	
minimum elong	19 Jan 08 j 17:21	16°♁50'37	0°25'31	conjunction	25 Mar 25 j 22:55	3°≈08'25	-2°-18'-2
max. Earth dist.	19 Jan 08 j 08:48	16°♁48'03	10.86216 AU	minimum elong	25 Mar 25 j 22:55	3°≈08'25	2°18'02
morning rise	19 Jan 25 j 13:28	18°♁51'22		max. Earth dist.	25 Mar 25 j 22:58	3°≈08'26	10.16084 AU
retrograde	19 May 09 j 07:16	26°♁13'25		morning rise	25 Apr 12 j 14:50	5°≈24'14	
opposition	19 Jul 19 j 02:14	22°♁51'24	0°-48'-39	retrograde	25 Jul 28 j 23:25	13°≈42'36	
min. Earth dist.	19 Jul 19 j 08:58	22°♁50'08	8.80938 AU	opposition	25 Oct 05 j 08:16	10°≈12'25	-2°-51'-47
direct	19 Sep 26 j 06:53	19°♁32'19		min. Earth dist.	25 Oct 05 j 07:05	10°≈12'40	8.11616 AU
evening set	20 Jan 03 j 22:13	26°♁42'15		direct	25 Dec 10 j 18:08	6°≈46'31	
				evening set	26 Mar 22 j 22:06	14°≈46'42	

conjunction	26 Apr 09 j 13:46	17°♃03'35	-2°-15'-40	behind sun begin	32 Jul 07 j 11:51	12°♄37'33	
minimum elong	26 Apr 09 j 13:47	17°♃03'36	2°15'40	behind sun end	32 Jul 07 j 16:40	12°♄39'05	
max. Earth dist.	26 Apr 09 j 16:04	17°♃04'21	10.07376 AU	max. Earth dist.	32 Jul 07 j 23:06	12°♄41'08	10.14880 AU
morning rise	26 Apr 27 j 09:39	19°♃21'50		morning rise	32 Jul 25 j 14:22	14°♄56'11	
retrograde	26 Aug 12 j 15:47	27°♃45'17		retrograde	32 Nov 05 j 03:01	22°♄52'01	
opposition	26 Oct 19 j 12:37	24°♃14'38	-2°-43'-59	opposition	33 Jan 10 j 16:41	19°♄26'33	0°38'39
min. Earth dist.	26 Oct 19 j 09:50	24°♃15'13	8.04075 AU	min. Earth dist.	33 Jan 10 j 10:08	19°♄27'53	8.19854 AU
direct	26 Dec 24 j 19:04	20°♃47'36		direct	33 Mar 19 j 20:53	15°♄57'27	
evening set	27 Apr 06 j 16:58	28°♃55'07		evening set	33 Jul 04 j 03:03	24°♄04'05	
	27 Apr 15 j 01:51	0°♄					
conjunction	27 Apr 24 j 13:12	1°♄14'16	-2°-5'-9	conjunction	33 Jul 22 j 02:29	26°♄20'16	0°47'03
minimum elong	27 Apr 24 j 13:15	1°♄14'17	2°05'09	minimum elong	33 Jul 22 j 02:27	26°♄20'15	0°47'04
max. Earth dist.	27 Apr 24 j 18:15	1°♄15'56	10.01127 AU	max. Earth dist.	33 Jul 22 j 10:08	26°♄22'41	10.25313 AU
morning rise	27 May 12 j 12:45	3°♄34'31		morning rise	33 Aug 08 j 22:12	28°♄35'13	
retrograde	27 Aug 27 j 09:59	12°♄00'10		retrograde	33 Aug 20 j 11:57	0°♄	
opposition	27 Nov 02 j 19:54	8°♄29'28	-2°-26'-1	retrograde	33 Nov 18 j 12:37	6°♄20'57	
min. Earth dist.	27 Nov 02 j 15:10	8°♄30'26	7.99207 AU	opposition	34 Jan 24 j 07:32	2°♄57'01	1°16'34
direct	28 Jan 08 j 02:21	5°♄01'27		min. Earth dist.	34 Jan 24 j 01:28	2°♄58'14	8.31026 AU
evening set	28 Apr 20 j 18:44	13°♄14'31		direct	34 Mar 09 j 10:16	30°♄	
	28 May 04 j 07:15	15°♄		direct	34 Apr 03 j 02:08	29°♄28'32	
				evening set	34 Apr 27 j 16:07	0°♄	
				evening set	34 Jul 18 j 09:07	7°♄28'15	
conjunction	28 May 08 j 19:06	15°♄35'23	-1°-46'-49	conjunction	34 Aug 05 j 04:04	9°♄41'23	1°15'54
minimum elong	28 May 08 j 19:10	15°♄35'24	1°46'50	minimum elong	34 Aug 05 j 04:01	9°♄41'22	1°15'54
max. Earth dist.	28 May 09 j 02:27	15°♄37'47	9.97771 AU	max. Earth dist.	34 Aug 05 j 10:20	9°♄43'21	10.37005 AU
morning rise	28 May 26 j 21:36	17°♄56'57		morning rise	34 Aug 22 j 18:33	11°♄53'06	
retrograde	28 Sep 10 j 03:45	26°♄21'36		retrograde	34 Sep 18 j 12:58	15°♄	
opposition	28 Nov 16 j 04:19	22°♄51'18	-1°-58'-46	retrograde	34 Dec 01 j 15:00	19°♄28'59	
min. Earth dist.	28 Nov 15 j 22:03	22°♄52'36	7.97359 AU	opposition	35 Feb 06 j 16:00	16°♄06'31	1°49'22
direct	29 Jan 21 j 13:32	19°♄22'32		min. Earth dist.	35 Feb 06 j 10:51	16°♄07'32	8.43096 AU
evening set	29 May 06 j 00:35	27°♄38'57		direct	35 Feb 20 j 21:24	15°♄	
conjunction	29 May 24 j 04:03	0°♄00'44	-1°-21'-45	direct	35 Apr 17 j 00:18	12°♄38'53	
minimum elong	29 May 24 j 04:07	0°♄00'45	1°21'46	evening set	35 Jun 09 j 22:28	15°♄	
	29 May 24 j 01:50	0°♄		evening set	35 Aug 01 j 04:36	20°♄30'57	
max. Earth dist.	29 May 24 j 13:02	0°♄03'40	9.97553 AU	conjunction	35 Aug 18 j 18:31	22°♄40'56	1°40'07
morning rise	29 Jun 11 j 08:20	2°♄22'47		minimum elong	35 Aug 18 j 18:28	22°♄40'55	1°40'07
retrograde	29 Sep 24 j 19:29	10°♄43'25		max. Earth dist.	35 Aug 18 j 23:20	22°♄42'25	10.49209 AU
opposition	29 Nov 30 j 12:20	7°♄13'56	-1°-24'-2	morning rise	35 Sep 05 j 03:26	24°♄49'23	
min. Earth dist.	29 Nov 30 j 05:06	7°♄15'26	7.98682 AU	retrograde	35 Oct 23 j 22:32	0°♄	
direct	30 Feb 05 j 03:12	3°♄44'39		retrograde	35 Dec 14 j 09:10	2°♄16'09	
evening set	30 May 21 j 07:17	12°♄01'59		opposition	36 Feb 05 j 17:18	30°♄	
conjunction	30 Jun 08 j 12:19	14°♄23'44	0°-51'-40	opposition	36 Feb 19 j 18:27	28°♄55'07	2°15'43
minimum elong	30 Jun 08 j 12:21	14°♄23'45	0°51'41	min. Earth dist.	36 Feb 19 j 15:02	28°♄55'48	8.55353 AU
max. Earth dist.	30 Jun 08 j 22:14	14°♄26'58	10.00498 AU	direct	36 Apr 29 j 15:30	25°♄28'32	
morning rise	30 Jun 26 j 16:49	16°♄45'18		evening set	36 Jul 16 j 05:11	0°♄	
retrograde	30 Oct 09 j 06:14	24°♄59'22		evening set	36 Aug 13 j 13:25	3°♄12'41	
opposition	30 Dec 14 j 18:06	21°♄31'01	0°-44'-18	conjunction	36 Aug 30 j 22:01	5°♄19'32	1°58'51
min. Earth dist.	30 Dec 14 j 10:39	21°♄32'33	8.03103 AU	minimum elong	36 Aug 30 j 21:59	5°♄19'31	1°58'50
direct	31 Feb 19 j 18:42	18°♄01'31		max. Earth dist.	36 Aug 31 j 00:57	5°♄20'25	10.61305 AU
evening set	31 Jun 05 j 11:53	26°♄17'22		morning rise	36 Sep 17 j 01:32	7°♄24'53	
conjunction	31 Jun 23 j 16:44	28°♄38'05	0°-18'-42	retrograde	36 Dec 25 j 20:20	14°♄43'33	
minimum elong	31 Jun 23 j 16:45	28°♄38'06	0°18'43	opposition	37 Mar 03 j 15:13	11°♄23'49	2°34'51
max. Earth dist.	31 Jun 24 j 02:34	28°♄41'16	10.06412 AU	min. Earth dist.	37 Mar 03 j 13:53	11°♄24'04	8.67264 AU
	31 Jul 04 j 05:52	0°♄		direct	37 May 12 j 23:33	7°♄58'22	
morning rise	31 Jul 11 j 19:50	0°♄58'13		evening set	37 Aug 26 j 11:40	15°♄34'31	
retrograde	31 Oct 23 j 09:07	9°♄03'45		conjunction	37 Sep 12 j 15:12	17°♄38'29	2°11'36
opposition	31 Dec 28 j 19:53	5°♄36'47	0°-2'-28	minimum elong	37 Sep 12 j 15:10	17°♄38'29	2°11'36
min. Earth dist.	31 Dec 28 j 12:55	5°♄38'13	8.10329 AU	max. Earth dist.	37 Sep 12 j 15:39	17°♄38'37	10.72827 AU
asc. node	32 Jan 20 j 06:00	3°♄51'29		morning rise	37 Sep 29 j 13:58	19°♄41'03	
direct	32 Mar 05 j 09:13	2°♄07'20		retrograde	38 Jan 07 j 01:00	26°♄52'41	
evening set	32 Jun 19 j 11:22	10°♄19'31		opposition	38 Mar 16 j 06:44	23°♄34'00	2°46'29
conjunction	32 Jul 07 j 14:17	12°♄38'19	0°14'57	min. Earth dist.	38 Mar 16 j 07:09	23°♄33'55	8.78375 AU
minimum elong	32 Jul 07 j 14:16	12°♄38'19	0°14'58	direct	38 May 26 j 00:06	20°♄09'43	

evening set	38 Sep 07 j 23:48	27° \mathring{M} 38'04		44 Sep 08 j 14:56	0° \mathring{A}	
				evening set	44 Nov 14 j 08:02	6° \mathring{A} 03'01
conjunction	38 Sep 24 j 22:55	29° \mathring{M} 39'32	2°18'15	conjunction	44 Nov 30 j 21:30	7° \mathring{A} 59'08 1°06'51
minimum elong	38 Sep 24 j 22:54	29° \mathring{M} 39'31	2°18'15	minimum elong	44 Nov 30 j 21:32	7° \mathring{A} 59'08 1°06'50
max. Earth dist.	38 Sep 24 j 21:09	29° \mathring{M} 39'00	10.83336 AU	max. Earth dist.	44 Nov 30 j 14:51	7° \mathring{A} 57'10 11.07330 AU
	38 Sep 27 j 19:03	0° \mathring{A}		morning rise	44 Dec 17 j 10:46	9° \mathring{A} 55'17
morning rise	38 Oct 11 j 17:48	1° \mathring{A} 39'43		retrograde	45 Mar 28 j 12:50	16° \mathring{A} 55'59
retrograde	39 Jan 18 j 23:36	8° \mathring{A} 45'32		opposition	45 Jun 07 j 08:06	13° \mathring{A} 37'31 1°06'30
opposition	39 Mar 28 j 17:28	5° \mathring{A} 27'37	2°50'39	min. Earth dist.	45 Jun 07 j 13:58	13° \mathring{A} 36'26 9.05716 AU
min. Earth dist.	39 Mar 28 j 18:47	5° \mathring{A} 27'22	8.88238 AU	direct	45 Aug 17 j 02:38	10° \mathring{A} 18'54
direct	39 Jun 07 j 19:18	2° \mathring{A} 04'30		evening set	45 Nov 25 j 14:08	17° \mathring{A} 18'03
evening set	39 Sep 20 j 03:02	9° \mathring{A} 25'32				
conjunction	39 Oct 06 j 22:37	11° \mathring{A} 24'54	2°18'54	conjunction	45 Dec 12 j 04:10	19° \mathring{A} 14'50 0°41'35
minimum elong	39 Oct 06 j 22:37	11° \mathring{A} 24'54	2°18'54	minimum elong	45 Dec 12 j 04:12	19° \mathring{A} 14'51 0°41'35
max. Earth dist.	39 Oct 06 j 19:51	11° \mathring{A} 24'05	10.92415 AU	max. Earth dist.	45 Dec 11 j 20:31	19° \mathring{A} 12'35 11.03487 AU
morning rise	39 Oct 23 j 14:19	13° \mathring{A} 23'11		morning rise	45 Dec 28 j 19:04	21° \mathring{A} 11'56
retrograde	40 Jan 30 j 20:42	20° \mathring{A} 24'29		retrograde	46 Apr 09 j 12:35	28° \mathring{A} 17'08
opposition	40 Apr 09 j 00:13	17° \mathring{A} 07'05	2°47'40	opposition	46 Jun 19 j 11:33	24° \mathring{A} 57'49 0°34'20
min. Earth dist.	40 Apr 09 j 02:23	17° \mathring{A} 06'41	8.96472 AU	min. Earth dist.	46 Jun 19 j 18:15	24° \mathring{A} 56'35 9.00738 AU
direct	40 Jun 19 j 07:36	13° \mathring{A} 45'04		direct	46 Aug 28 j 19:59	21° \mathring{A} 39'19
evening set	40 Sep 30 j 22:37	20° \mathring{A} 59'29		evening set	46 Dec 06 j 22:48	28° \mathring{A} 39'50
					46 Dec 18 j 07:11	0° \mathring{B}
conjunction	40 Oct 17 j 15:28	22° \mathring{A} 57'16	2°13'51	conjunction	46 Dec 23 j 13:52	0° \mathring{B} 37'40 0°14'27
minimum elong	40 Oct 17 j 15:29	22° \mathring{A} 57'16	2°13'52	minimum elong	46 Dec 23 j 13:52	0° \mathring{B} 37'40 0°14'28
max. Earth dist.	40 Oct 17 j 12:01	22° \mathring{A} 56'15	10.99722 AU	behind sun begin	46 Dec 23 j 10:35	0° \mathring{B} 36'42
morning rise	40 Nov 03 j 04:55	24° \mathring{A} 54'07		behind sun end	46 Dec 23 j 17:10	0° \mathring{B} 38'38
	40 Dec 24 j 12:57	0° \mathring{B}		max. Earth dist.	46 Dec 23 j 05:45	0° \mathring{B} 35'16 10.97483 AU
retrograde	41 Feb 10 j 13:56	1° \mathring{B} 52'17		morning rise	47 Jan 09 j 06:47	2° \mathring{B} 36'03
	41 Apr 01 j 11:31	30° \mathring{R} \mathring{A}		retrograde	47 Apr 21 j 18:44	9° \mathring{B} 47'17
opposition	41 Apr 21 j 04:06	28° \mathring{A} 35'09	2°38'03	opposition	47 Jul 01 j 18:13	6° \mathring{B} 26'57 0°00'22
min. Earth dist.	41 Apr 21 j 07:40	28° \mathring{A} 34'29	9.02788 AU	min. Earth dist.	47 Jul 02 j 00:52	6° \mathring{B} 25'43 8.93697 AU
direct	41 Jul 01 j 12:11	25° \mathring{A} 14'07		desc. node	47 Jul 05 j 17:33	6° \mathring{B} 09'14
	41 Sep 20 j 22:10	0° \mathring{B}		direct	47 Sep 09 j 17:17	3° \mathring{B} 08'21
evening set	41 Oct 12 j 11:56	2° \mathring{B} 22'53		evening set	47 Dec 18 j 11:42	10° \mathring{B} 11'44
conjunction	41 Oct 29 j 02:47	4° \mathring{B} 19'32	2°03'33	conjunction	48 Jan 04 j 04:18	12° \mathring{B} 10'58 0°-13'-41
minimum elong	41 Oct 29 j 02:49	4° \mathring{B} 19'33	2°03'33	minimum elong	48 Jan 04 j 04:17	12° \mathring{B} 10'58 0°13'41
max. Earth dist.	41 Oct 28 j 21:47	4° \mathring{B} 18'04	11.05008 AU	behind sun begin	48 Jan 04 j 00:23	12° \mathring{B} 09'49
morning rise	41 Nov 14 j 15:06	6° \mathring{B} 15'31		behind sun end	48 Jan 04 j 08:11	12° \mathring{B} 12'07
retrograde	42 Feb 22 j 05:28	13° \mathring{B} 12'00		max. Earth dist.	48 Jan 03 j 21:13	12° \mathring{B} 08'51 10.89517 AU
opposition	42 May 03 j 05:49	9° \mathring{B} 54'53	2°22'24	morning rise	48 Jan 20 j 23:22	14° \mathring{B} 10'59
min. Earth dist.	42 May 03 j 11:03	9° \mathring{B} 53'54	9.06974 AU	retrograde	48 May 03 j 07:26	21° \mathring{B} 29'42
direct	42 Jul 13 j 14:26	6° \mathring{B} 34'39		opposition	48 Jul 13 j 05:00	18° \mathring{B} 08'08 0°-34'-14
evening set	42 Oct 23 j 20:53	13° \mathring{B} 38'59		min. Earth dist.	48 Jul 13 j 10:32	18° \mathring{B} 07'06 8.84850 AU
	42 Nov 04 j 11:24	15° \mathring{B}		direct	48 Sep 20 j 15:49	14° \mathring{B} 49'15
conjunction	42 Nov 09 j 10:29	15° \mathring{B} 35'00	1°48'32	evening set	48 Dec 29 j 06:51	21° \mathring{B} 57'03
minimum elong	42 Nov 09 j 10:31	15° \mathring{B} 35'00	1°48'31			
max. Earth dist.	42 Nov 09 j 03:47	15° \mathring{B} 33'02	11.08098 AU	conjunction	49 Jan 15 j 01:16	23° \mathring{B} 57'59 0°-41'-39
morning rise	42 Nov 25 j 22:33	17° \mathring{B} 30'34		minimum elong	49 Jan 15 j 01:14	23° \mathring{B} 57'58 0°41'40
retrograde	43 Mar 05 j 21:11	24° \mathring{B} 26'52		max. Earth dist.	49 Jan 14 j 19:23	23° \mathring{B} 56'12 10.79886 AU
opposition	43 May 15 j 06:09	21° \mathring{B} 09'31	2°01'24	morning rise	49 Jan 31 j 22:46	25° \mathring{B} 59'55
min. Earth dist.	43 May 15 j 11:59	21° \mathring{B} 08'27	9.08888 AU		49 Mar 09 j 19:41	0° \mathring{C}
direct	43 Jul 25 j 12:39	17° \mathring{B} 50'00		retrograde	49 May 16 j 03:38	3° \mathring{C} 27'18
evening set	43 Nov 04 j 03:00	24° \mathring{B} 51'11		opposition	49 Jul 25 j 20:36	0° \mathring{C} 04'24 -1°-8'-10
				min. Earth dist.	49 Jul 26 j 00:56	0° \mathring{C} 03'35 8.74540 AU
conjunction	43 Nov 20 j 16:15	26° \mathring{B} 47'01	1°29'25		49 Jul 26 j 19:51	30° \mathring{R} \mathring{B}
minimum elong	43 Nov 20 j 16:17	26° \mathring{B} 47'02	1°29'24	direct	49 Oct 02 j 18:29	26° \mathring{B} 45'00
max. Earth dist.	43 Nov 20 j 09:27	26° \mathring{B} 45'01	11.08883 AU		49 Dec 05 j 01:22	0° \mathring{C}
morning rise	43 Dec 07 j 04:37	28° \mathring{B} 42'40		evening set	50 Jan 10 j 09:42	3° \mathring{C} 58'40
	43 Dec 18 j 14:57	0° \mathring{A}				
retrograde	44 Mar 16 j 15:06	5° \mathring{A} 40'23		conjunction	50 Jan 27 j 06:09	6° \mathring{C} 01'36 -1°-8'-23
opposition	44 May 26 j 06:35	2° \mathring{A} 22'34	1°35'50	minimum elong	50 Jan 27 j 06:07	6° \mathring{C} 01'35 1°08'25
min. Earth dist.	44 May 26 j 12:16	2° \mathring{A} 21'32	9.08464 AU	max. Earth dist.	50 Jan 27 j 00:38	5° \mathring{C} 59'55 10.68979 AU
	44 Jul 01 j 08:20	30° \mathring{R} \mathring{B}		morning rise	50 Feb 13 j 06:28	8° \mathring{C} 05'44
direct	44 Aug 05 j 08:50	29° \mathring{B} 03'36			50 Apr 29 j 21:37	15° \mathring{C}

retrograde	50 May 29 j 08:44	15° 42 '40		min. Earth dist.	56 Oct 27 j 00:21	2° 42 '56	8.02750 AU
	50 Jun 28 j 01:04	15° R ' 42			56 Dec 03 j 22:29	30° R ' 42	
opposition	50 Aug 07 j 17:57	12° 18 '25	-1°-39'-55	direct	57 Jan 01 j 08:59	29° 15 '08	
min. Earth dist.	50 Aug 07 j 21:38	12° 17 '43	8.63186 AU		57 Jan 29 j 15:15	0° 8	
direct	50 Oct 15 j 01:50	8° 58 '16		evening set	57 Apr 14 j 18:22	7° 25 '14	
	51 Jan 11 j 19:27	15° 58					
evening set	51 Jan 22 j 21:30	16° 19 '06		conjunction	57 May 02 j 16:45	9° 45 '11	-1°-55'-19
				minimum elong	57 May 02 j 16:49	9° 45 '12	1°55'19
conjunction	51 Feb 08 j 20:19	18° 24 '15	-1°-32'-35	max. Earth dist.	57 May 02 j 21:22	9° 46 '41	10.00486 AU
minimum elong	51 Feb 08 j 20:16	18° 24 '14	1°32'37	morning rise	57 May 20 j 18:02	12° 06 '02	
max. Earth dist.	51 Feb 08 j 15:28	18° 22 '45	10.57255 AU		57 Jun 13 j 08:25	15° 8	
morning rise	51 Feb 25 j 23:41	20° 30 '48		retrograde	57 Sep 04 j 07:57	20° 30 '40	
retrograde	51 Jun 11 j 20:10	28° 17 '48		opposition	57 Nov 10 j 11:30	17° 00 '35	-2°-11'-9
opposition	51 Aug 20 j 21:24	24° 52 '11	-2°-7'-51	min. Earth dist.	57 Nov 10 j 07:16	17° 01 '28	7.99239 AU
min. Earth dist.	51 Aug 21 j 00:23	24° 51 '37	8.51287 AU		57 Dec 06 j 09:09	15° R ' 8	
direct	51 Oct 27 j 16:04	21° 31 '06		direct	58 Jan 15 j 18:47	13° 32 '28	
evening set	52 Feb 04 j 19:18	29° 00 '08			58 Feb 24 j 16:51	15° 8	
	52 Feb 12 j 20:50	0° 8		evening set	58 Apr 29 j 22:11	21° 46 '56	
conjunction	52 Feb 21 j 21:05	1° 07 '42	-1°-52'-54	conjunction	58 May 18 j 00:11	24° 08 '11	-1°-33'-1
minimum elong	52 Feb 21 j 21:02	1° 07 '41	1°52'55	minimum elong	58 May 18 j 00:14	24° 08 '13	1°33'01
max. Earth dist.	52 Feb 21 j 17:55	1° 06 '43	10.45245 AU	max. Earth dist.	58 May 18 j 06:18	24° 10 '12	9.98541 AU
morning rise	52 Mar 10 j 03:43	3° 16 '48		morning rise	58 Jun 05 j 03:52	26° 29 '57	
retrograde	52 Jun 24 j 15:12	11° 13 '53			58 Jul 04 j 00:31	0° II	
opposition	52 Sep 02 j 07:02	7° 46 '55	-2°-30'-13	retrograde	58 Sep 18 j 23:26	4° II '51'54	
min. Earth dist.	52 Sep 02 j 08:50	7° 46 '34	8.39387 AU	opposition	58 Nov 24 j 19:27	1° II '22'15	-1°-39'-27
direct	52 Nov 08 j 14:52	4° 24 '44		min. Earth dist.	58 Nov 24 j 14:10	1° II '23'21	7.98816 AU
evening set	53 Feb 17 j 03:44	12° 02 '34			58 Dec 11 j 18:43	30° R ' 8	
				direct	59 Jan 30 j 08:09	27° 53 '18	
conjunction	53 Mar 06 j 09:04	14° 12 '46	-2°-7'-56		59 Mar 20 j 00:18	0° II	
minimum elong	53 Mar 06 j 09:02	14° 12 '45	2°07'57	evening set	59 May 15 j 04:03	6° II '09'46	
max. Earth dist.	53 Mar 06 j 08:09	14° 12 '28	10.33496 AU				
morning rise	53 Mar 23 j 19:11	16° 24 '30		conjunction	59 Jun 02 j 08:27	8° II '31'27	-1°-4'-56
retrograde	53 Jul 08 j 18:33	24° 30 '58		minimum elong	59 Jun 02 j 08:31	8° II '31'28	1°04'56
opposition	53 Sep 15 j 22:41	21° 02 '46	-2°-45'-20	max. Earth dist.	59 Jun 02 j 15:57	8° II '33'54	9.99738 AU
min. Earth dist.	53 Sep 15 j 22:46	21° 02 '45	8.28018 AU	morning rise	59 Jun 20 j 13:10	10° II '53'11	
direct	53 Nov 21 j 20:27	17° 39 '24		retrograde	59 Oct 03 j 10:56	19° II '09'41	
evening set	54 Mar 02 j 23:00	25° 26 '14		opposition	59 Dec 09 j 01:44	15° II '40'48	-1°-1'-40
				min. Earth dist.	59 Dec 08 j 19:29	15° II '42'06	8.01508 AU
conjunction	54 Mar 20 j 08:16	27° 39 '06	-2°-16'-27	direct	60 Feb 13 j 23:42	12° II '11'18	
minimum elong	54 Mar 20 j 08:15	27° 39 '06	2°16'28	evening set	60 May 29 j 09:16	20° II '27'22	
max. Earth dist.	54 Mar 20 j 09:03	27° 39 '21	10.22548 AU				
morning rise	54 Apr 06 j 22:07	29° 53 '29		conjunction	60 Jun 16 j 14:26	22° II '48'30	0°-33'-1
	54 Apr 07 j 18:54	0° Y		minimum elong	60 Jun 16 j 14:28	22° II '48'31	0°33'01
retrograde	54 Jul 23 j 05:36	8° Y '08'02		max. Earth dist.	60 Jun 16 j 22:50	22° II '51'14	10.03971 AU
opposition	54 Sep 29 j 19:52	4° Y '38'52	-2°-51'-40	morning rise	60 Jul 04 j 18:25	25° II '09'15	
min. Earth dist.	54 Sep 29 j 18:28	4° Y '39'09	8.17708 AU		60 Aug 15 j 19:23	0° 8	
direct	54 Dec 05 j 08:07	1° Y '14'14		retrograde	60 Oct 16 j 16:00	3° 8 '18'05	
evening set	55 Mar 17 j 04:38	9° Y '09'54			60 Dec 20 j 05:29	30° R ' II	
				opposition	60 Dec 22 j 04:38	29° II '50'17	0°-20'-30
conjunction	55 Apr 03 j 18:13	11° Y '25'25	-2°-17'-27	min. Earth dist.	60 Dec 21 j 21:42	29° II '51'42	8.07114 AU
minimum elong	55 Apr 03 j 18:14	11° Y '25'25	2°17'28	direct	61 Feb 27 j 14:16	26° II '20'31	
max. Earth dist.	55 Apr 03 j 20:21	11° Y '26'06	10.12974 AU		61 May 04 j 22:24	0° 8	
morning rise	55 Apr 21 j 12:04	13° Y '42'21		evening set	61 Jun 13 j 10:34	4° 8 '33'57	
retrograde	55 Aug 06 j 21:02	22° Y '03'04		asc. node	61 Jun 25 j 21:22	6° 8 '09'21	
opposition	55 Oct 13 j 22:01	18° Y '33'14	-2°-48'-12				
min. Earth dist.	55 Oct 13 j 19:23	18° Y '33'47	8.09072 AU	conjunction	61 Jul 01 j 14:39	6° 8 '53'36	0°00'31
direct	55 Dec 19 j 04:49	15° Y '07'21		minimum elong	61 Jul 01 j 14:40	6° 8 '53'36	0°00'32
evening set	56 Mar 30 j 19:36	23° Y '11'00		behind sun begin	61 Jul 01 j 07:20	6° 8 '51'16	
				behind sun end	61 Jul 01 j 21:59	6° 8 '55'57	
conjunction	56 Apr 17 j 13:43	25° Y '28'57	-2°-10'-23	max. Earth dist.	61 Jul 01 j 23:32	6° 8 '56'27	10.10929 AU
minimum elong	56 Apr 17 j 13:46	25° Y '28'58	2°10'23	morning rise	61 Jul 19 j 16:10	9° 8 '12'27	
max. Earth dist.	56 Apr 17 j 17:03	25° Y '30'02	10.05426 AU	retrograde	61 Oct 30 j 13:51	17° 8 '12'12	
morning rise	56 May 05 j 11:34	27° Y '48'07		opposition	62 Jan 05 j 03:08	13° 8 '45'41	0°21'08
	56 May 23 j 05:04	0° 8		min. Earth dist.	62 Jan 04 j 20:18	13° 8 '47'05	8.15248 AU
retrograde	56 Aug 20 j 14:28	6° 8 '12'21		direct	62 Mar 14 j 01:40	10° 8 '16'01	
opposition	56 Oct 27 j 03:49	2° 8 '42'13	-2°-34'-32	evening set	62 Jun 28 j 05:03	18° 8 '24'48	

conjunction	62 Jul 16 j 06:22	20°♄42'11	0°33'27	conjunction	68 Oct 01 j 01:51	6°♃29'33	2°19'17
minimum elong	62 Jul 16 j 06:20	20°♄42'11	0°33'27	minimum elong	68 Oct 01 j 01:50	6°♃29'33	2°19'17
max. Earth dist.	62 Jul 16 j 14:49	20°♄44'53	10.20141 AU	max. Earth dist.	68 Oct 01 j 01:03	6°♃29'19	10.88961 AU
morning rise	62 Aug 03 j 04:02	22°♄58'26		morning rise	68 Oct 17 j 18:46	8°♃28'32	
	62 Oct 14 j 11:33	0°♄		retrograde	69 Jan 25 j 00:28	15°♃31'16	
retrograde	62 Nov 13 j 03:55	0°♄48'24		opposition	69 Apr 03 j 23:44	12°♃13'40	2°49'45
	62 Dec 13 j 01:36	30°♃		min. Earth dist.	69 Apr 04 j 01:26	12°♃13'21	8.93620 AU
opposition	63 Jan 18 j 20:09	27°♄23'18	1°00'39	direct	69 Jun 14 j 04:06	8°♃51'13	
min. Earth dist.	63 Jan 18 j 14:14	27°♄24'30	8.25379 AU	evening set	69 Sep 26 j 03:13	16°♃08'05	
direct	63 Mar 28 j 07:54	23°♄54'01					
	63 Jun 26 j 11:07	0°♄		conjunction	69 Oct 12 j 21:03	18°♃06'25	2°16'41
evening set	63 Jul 12 j 15:03	1°♄56'39		minimum elong	69 Oct 12 j 21:04	18°♃06'25	2°16'42
				max. Earth dist.	69 Oct 12 j 18:01	18°♃05'31	10.97506 AU
conjunction	63 Jul 30 j 12:12	4°♄11'12	1°03'51	morning rise	69 Oct 29 j 11:31	20°♃03'45	
minimum elong	63 Jul 30 j 12:10	4°♄11'11	1°03'51	retrograde	70 Feb 05 j 17:29	27°♃02'42	
max. Earth dist.	63 Jul 30 j 19:11	4°♄13'25	10.31023 AU	opposition	70 Apr 16 j 04:17	23°♃45'41	2°42'58
morning rise	63 Aug 17 j 05:03	6°♄24'24		min. Earth dist.	70 Apr 16 j 06:58	23°♃45'11	9.01234 AU
retrograde	63 Nov 26 j 09:14	14°♄04'26		direct	70 Jun 26 j 11:42	20°♃24'28	
opposition	64 Feb 01 j 06:59	10°♄40'50	1°35'49	evening set	70 Oct 07 j 18:51	27°♃35'17	
min. Earth dist.	64 Feb 01 j 02:21	10°♄41'45	8.36889 AU				
direct	64 Apr 10 j 09:12	7°♄12'14		conjunction	70 Oct 24 j 10:27	29°♃32'16	2°08'39
	64 Jul 24 j 13:51	15°♄		minimum elong	70 Oct 24 j 10:29	29°♃32'16	2°08'39
evening set	64 Jul 25 j 15:00	15°♄07'40		max. Earth dist.	70 Oct 24 j 06:30	29°♃31'06	11.04114 AU
					70 Oct 28 j 08:29	0°♃	
conjunction	64 Aug 12 j 07:08	17°♄19'05	1°30'11	morning rise	70 Nov 09 j 23:16	1°♃28'28	
minimum elong	64 Aug 12 j 07:05	17°♄19'03	1°30'10	retrograde	71 Feb 17 j 10:44	8°♃25'06	
max. Earth dist.	64 Aug 12 j 12:07	17°♄20'38	10.42945 AU	opposition	71 Apr 28 j 06:23	5°♃08'23	2°29'53
morning rise	64 Aug 29 j 18:38	19°♄29'01		min. Earth dist.	71 Apr 28 j 09:39	5°♃07'47	9.06754 AU
retrograde	64 Dec 08 j 04:43	26°♄59'35		direct	71 Jul 08 j 16:16	1°♃48'16	
opposition	65 Feb 13 j 11:46	23°♄37'27	2°05'04	evening set	71 Oct 19 j 05:23	8°♃54'04	
min. Earth dist.	65 Feb 13 j 08:08	23°♄38'10	8.49134 AU				
direct	65 Apr 24 j 04:36	20°♄09'49		conjunction	71 Nov 04 j 19:33	10°♃50'12	1°55'39
evening set	65 Aug 08 j 03:58	27°♄57'21		minimum elong	71 Nov 04 j 19:35	10°♃50'12	1°55'39
	65 Aug 24 j 20:47	0°♃		max. Earth dist.	71 Nov 04 j 15:08	10°♃48'54	11.08530 AU
				morning rise	71 Nov 21 j 07:28	12°♃45'44	
conjunction	65 Aug 25 j 14:49	0°♃05'34	1°51'22		71 Dec 11 j 13:33	15°♃	
minimum elong	65 Aug 25 j 14:46	0°♃05'33	1°51'21	retrograde	72 Feb 29 j 03:30	19°♃41'30	
max. Earth dist.	65 Aug 25 j 18:05	0°♃06'34	10.55275 AU	opposition	72 May 09 j 07:07	16°♃24'50	2°11'11
morning rise	65 Sep 11 j 20:54	2°♃12'17		min. Earth dist.	72 May 09 j 11:31	16°♃24'01	9.09982 AU
retrograde	65 Dec 20 j 18:00	9°♃34'14			72 May 29 j 04:15	15°♃	
opposition	66 Feb 26 j 10:28	6°♃13'27	2°27'23	direct	72 Jul 19 j 14:16	13°♃05'37	
min. Earth dist.	66 Feb 26 j 07:20	6°♃14'03	8.61481 AU		72 Sep 07 j 05:43	15°♃	
direct	66 May 07 j 15:55	2°♃47'01		evening set	72 Oct 29 j 12:33	20°♃07'37	
evening set	66 Aug 21 j 06:10	10°♃26'24					
				conjunction	72 Nov 15 j 01:52	22°♃03'20	1°38'17
conjunction	66 Sep 07 j 11:58	12°♃31'36	2°06'44	minimum elong	72 Nov 15 j 01:54	22°♃03'21	1°38'16
minimum elong	66 Sep 07 j 11:56	12°♃31'35	2°06'44	max. Earth dist.	72 Nov 14 j 19:50	22°♃01'34	11.10596 AU
max. Earth dist.	66 Sep 07 j 14:19	12°♃32'18	10.67413 AU	morning rise	72 Dec 01 j 13:52	23°♃58'45	
morning rise	66 Sep 24 j 12:54	14°♃35'20			73 Feb 06 j 02:01	0°♃	
retrograde	67 Jan 02 j 02:03	21°♃49'38		retrograde	73 Mar 11 j 19:15	0°♃55'09	
opposition	67 Mar 11 j 03:25	18°♃30'05	2°42'16		73 Apr 15 j 06:59	30°♃	
min. Earth dist.	67 Mar 11 j 01:24	18°♃30'29	8.73346 AU	opposition	73 May 21 j 07:26	27°♃38'13	1°47'34
direct	67 May 20 j 17:54	15°♃04'58		min. Earth dist.	73 May 21 j 13:26	27°♃37'07	9.10798 AU
evening set	67 Sep 02 j 22:09	22°♃36'20		direct	73 Jul 31 j 10:00	24°♃19'38	
					73 Oct 29 j 00:04	0°♃	
conjunction	67 Sep 19 j 23:21	24°♃38'50	2°16'03	evening set	73 Nov 09 j 17:52	1°♃19'13	
minimum elong	67 Sep 19 j 23:19	24°♃38'50	2°16'02				
max. Earth dist.	67 Sep 20 j 00:30	24°♃39'11	10.78801 AU	conjunction	73 Nov 26 j 06:59	3°♃15'00	1°17'11
morning rise	67 Oct 06 j 19:47	26°♃39'58		minimum elong	73 Nov 26 j 07:02	3°♃15'00	1°17'10
	67 Nov 06 j 01:10	0°♃		max. Earth dist.	73 Nov 25 j 23:19	3°♃12'44	11.10205 AU
retrograde	68 Jan 14 j 03:06	3°♃47'49		morning rise	73 Dec 12 j 19:51	5°♃10'42	
opposition	68 Mar 22 j 15:39	0°♃29'22	2°49'39	retrograde	74 Mar 23 j 14:23	12°♃09'21	
min. Earth dist.	68 Mar 22 j 15:27	0°♃29'24	8.84205 AU	opposition	74 Jun 02 j 08:09	8°♃51'51	1°19'51
direct	68 Mar 29 j 02:49	30°♃		min. Earth dist.	74 Jun 02 j 15:07	8°♃50'34	9.09108 AU
	68 Jun 01 j 14:15	27°♃05'36		direct	74 Aug 12 j 05:55	5°♃33'40	
evening set	68 Aug 02 j 09:10	0°♃		evening set	74 Nov 20 j 23:14	12°♃32'20	
	68 Sep 14 j 04:45	4°♃29'23					

conjunction	74 Dec 07 j 12:52	14°♂28'36	0°53'04	conjunction	81 Feb 15 j 10:02	25°♁39'43	-1°-44'-23
minimum elong	74 Dec 07 j 12:54	14°♂28'37	0°53'03	minimum elong	81 Feb 15 j 09:59	25°♁39'42	1°44'24
max. Earth dist.	74 Dec 07 j 04:47	14°♂26'14	11.07287 AU	max. Earth dist.	81 Feb 15 j 05:34	25°♁38'19	10.49422 AU
morning rise	74 Dec 24 j 02:56	16°♂25'04		morning rise	81 Mar 04 j 15:03	27°♁47'45	
retrograde	75 Apr 04 j 12:42	23°♂27'35			81 Mar 23 j 06:33	0°♁	
opposition	75 Jun 14 j 10:24	20°♂09'15	0°48'53	retrograde	81 Jun 18 j 20:05	5°♁40'43	
min. Earth dist.	75 Jun 14 j 17:17	20°♂07'59	9.04903 AU	opposition	81 Aug 27 j 16:05	2°♁13'49	-2°-21'-4
direct	75 Aug 24 j 00:10	16°♂51'15		min. Earth dist.	81 Aug 27 j 18:36	2°♁13'19	8.43224 AU
evening set	75 Dec 02 j 06:30	23°♂50'38			81 Sep 27 j 17:23	30°♁	
				direct	81 Nov 03 j 05:18	28°♁51'35	
conjunction	75 Dec 18 j 21:06	25°♂47'48	0°26'41		81 Dec 08 j 22:49	0°♁	
minimum elong	75 Dec 18 j 21:07	25°♂47'49	0°26'42	evening set	82 Feb 11 j 13:14	6°♁25'53	
max. Earth dist.	75 Dec 18 j 13:02	25°♂45'25	11.01915 AU				
morning rise	76 Jan 04 j 12:49	27°♂45'25		conjunction	82 Feb 28 j 16:53	8°♁35'04	-2°-1'-58
	76 Jan 24 j 15:50	0°♁		minimum elong	82 Feb 28 j 16:50	8°♁35'03	2°01'59
retrograde	76 Apr 15 j 17:40	4°♁53'26		max. Earth dist.	82 Feb 28 j 13:21	8°♁33'57	10.37001 AU
opposition	76 Jun 25 j 15:36	1°♁34'03	0°15'39	morning rise	82 Mar 18 j 01:26	10°♁45'48	
min. Earth dist.	76 Jun 25 j 22:28	1°♁32'47	8.98358 AU	retrograde	82 Jul 02 j 20:50	18°♁48'46	
	76 Jul 17 j 17:12	30°♁		opposition	82 Sep 10 j 05:22	15°♁20'29	-2°-39'-40
direct	76 Sep 03 j 19:35	28°♂15'57		min. Earth dist.	82 Sep 10 j 06:52	15°♁20'11	8.31118 AU
	76 Oct 20 j 02:50	0°♁		direct	82 Nov 16 j 06:47	11°♁57'00	
evening set	76 Dec 12 j 17:23	5°♁17'35		evening set	83 Feb 25 j 03:40	19°♁40'31	
desc. node	76 Dec 14 j 22:19	5°♁33'05					
				conjunction	83 Mar 14 j 11:00	21°♁52'24	-2°-13'-33
conjunction	76 Dec 29 j 09:12	7°♁16'03	0°-1'-6	minimum elong	83 Mar 14 j 10:59	21°♁52'24	2°13'34
minimum elong	76 Dec 29 j 09:12	7°♁16'03	0°01'07	max. Earth dist.	83 Mar 14 j 09:22	21°♁51'53	10.25285 AU
behind sun begin	76 Dec 29 j 02:13	7°♁14'00		morning rise	83 Mar 31 j 23:21	24°♁05'52	
behind sun end	76 Dec 29 j 16:11	7°♁18'07			83 May 25 j 14:07	0°♁	
max. Earth dist.	76 Dec 29 j 00:27	7°♁13'28	10.94334 AU	retrograde	83 Jul 17 j 04:31	2°♁17'50	
morning rise	77 Jan 15 j 03:08	9°♁15'12			83 Sep 08 j 21:58	30°♁	
retrograde	77 Apr 28 j 03:06	16°♁30'09		opposition	83 Sep 24 j 00:42	28°♁48'24	-2°-50'-8
opposition	77 Jul 08 j 00:33	13°♁09'30	0°-18'-47	min. Earth dist.	83 Sep 24 j 00:52	28°♁48'22	8.20036 AU
min. Earth dist.	77 Jul 08 j 07:44	13°♁08'09	8.89773 AU	direct	83 Nov 29 j 16:31	25°♁23'38	
direct	77 Sep 15 j 15:44	9°♁50'59			84 Feb 11 j 20:55	0°♁	
evening set	77 Dec 24 j 09:45	16°♁56'30		evening set	84 Mar 10 j 04:58	3°♁16'17	
conjunction	78 Jan 10 j 03:08	18°♁56'34	0°-29'-14	conjunction	84 Mar 27 j 16:36	5°♁30'53	-2°-18'-1
minimum elong	78 Jan 10 j 03:07	18°♁56'33	0°29'15	minimum elong	84 Mar 27 j 16:37	5°♁30'53	2°18'01
max. Earth dist.	78 Jan 09 j 18:06	18°♁53'51	10.84872 AU	max. Earth dist.	84 Mar 27 j 17:26	5°♁31'09	10.14921 AU
morning rise	78 Jan 26 j 23:35	20°♁57'34		morning rise	84 Apr 14 j 08:55	7°♁46'59	
retrograde	78 May 10 j 18:16	28°♁20'45		retrograde	84 Jul 30 j 16:55	16°♁06'08	
opposition	78 Jul 20 j 13:52	24°♁58'37	0°-53'-10	opposition	84 Oct 07 j 01:10	12°♁35'52	-2°-51'-8
min. Earth dist.	78 Jul 20 j 21:00	24°♁57'16	8.79511 AU	min. Earth dist.	84 Oct 06 j 23:35	12°♁36'12	8.10605 AU
direct	78 Sep 27 j 17:45	21°♁39'26		direct	84 Dec 12 j 11:31	9°♁09'51	
evening set	79 Jan 05 j 08:53	28°♁50'19		evening set	85 Mar 24 j 16:18	17°♁10'55	
	79 Jan 15 j 00:27	0°♁					
				conjunction	85 Apr 11 j 08:33	19°♁28'06	-2°-14'-34
conjunction	79 Jan 22 j 04:18	0°♁52'18	0°-56'-40	minimum elong	85 Apr 11 j 08:35	19°♁28'06	2°14'35
minimum elong	79 Jan 22 j 04:16	0°♁52'18	0°56'41	max. Earth dist.	85 Apr 11 j 12:03	19°♁29'14	10.06523 AU
max. Earth dist.	79 Jan 21 j 20:40	0°♁49'59	10.73915 AU	morning rise	85 Apr 29 j 04:47	21°♁46'34	
morning rise	79 Feb 08 j 03:21	2°♁55'25			85 Jul 31 j 14:40	0°♁	
retrograde	79 May 23 j 18:40	10°♁27'58		retrograde	85 Aug 14 j 09:21	0°♁10'25	
opposition	79 Aug 02 j 08:37	7°♁04'13	-1°-26'-5		85 Aug 28 j 05:57	30°♁	
min. Earth dist.	79 Aug 02 j 14:23	7°♁03'07	8.67995 AU	opposition	85 Oct 21 j 05:51	26°♁39'43	-2°-41'-58
direct	79 Oct 10 j 00:16	3°♁44'12		min. Earth dist.	85 Oct 21 j 02:16	26°♁40'27	8.03397 AU
evening set	80 Jan 17 j 16:17	11°♁01'46		direct	85 Dec 26 j 12:37	23°♁12'34	
					86 Mar 28 j 20:06	0°♁	
conjunction	80 Feb 03 j 14:06	13°♁05'57	-1°-22'-9	evening set	86 Apr 08 j 12:03	1°♁20'43	
minimum elong	80 Feb 03 j 14:04	13°♁05'56	1°22'11				
max. Earth dist.	80 Feb 03 j 08:18	13°♁04'09	10.61923 AU	conjunction	86 Apr 26 j 08:47	3°♁40'05	-2°-2'-59
	80 Feb 19 j 02:09	15°♁		minimum elong	86 Apr 26 j 08:50	3°♁40'06	2°03'00
morning rise	80 Feb 20 j 15:57	15°♁11'25		max. Earth dist.	86 Apr 26 j 14:48	3°♁42'04	10.00628 AU
retrograde	80 Jun 05 j 03:32	22°♁54'04		morning rise	86 May 14 j 08:34	6°♁00'29	
opposition	80 Aug 14 j 09:18	19°♁28'42	-1°-55'-57	retrograde	86 Aug 29 j 04:07	14°♁26'06	
min. Earth dist.	80 Aug 14 j 13:17	19°♁27'55	8.55716 AU	opposition	86 Nov 04 j 13:13	10°♁55'23	-2°-22'-44
direct	80 Oct 21 j 11:06	16°♁07'39		min. Earth dist.	86 Nov 04 j 07:46	10°♁56'31	7.98893 AU
evening set	81 Jan 29 j 09:30	23°♁33'08		direct	87 Jan 09 j 19:11	7°♁27'16	

	87 Apr 18 j 06:42	15°♄		evening set	93 Jul 20 j 00:16	9°♄43'50	
evening set	87 Apr 23 j 14:09	15°♄40'38					
conjunction	87 May 11 j 14:52	18°♄01'37	-1°-43'-43	conjunction	93 Aug 06 j 18:46	11°♄56'37	1°19'18
minimum elong	87 May 11 j 14:56	18°♄01'38	1°43'44	minimum elong	93 Aug 06 j 18:42	11°♄56'36	1°19'17
max. Earth dist.	87 May 11 j 22:42	18°♄04'12	9.97652 AU	max. Earth dist.	93 Aug 07 j 01:50	11°♄58'50	10.38538 AU
morning rise	87 May 29 j 17:33	20°♄23'16		morning rise	93 Aug 24 j 08:34	14°♄07'56	
retrograde	87 Sep 12 j 22:31	28°♄47'30		retrograde	93 Aug 31 j 12:13	15°♄	
opposition	87 Nov 18 j 21:35	25°♄17'12	-1°-54'-24	retrograde	93 Dec 03 j 03:14	21°♄42'36	
min. Earth dist.	87 Nov 18 j 15:05	25°♄18'33	7.97428 AU	opposition	94 Feb 08 j 05:13	18°♄20'18	1°53'06
direct	88 Jan 24 j 06:10	21°♄48'18		min. Earth dist.	94 Feb 07 j 23:59	18°♄21'20	8.44707 AU
evening set	88 May 07 j 19:58	0°♄04'44		direct	94 Apr 06 j 18:27	15°♄♄	
	88 May 07 j 05:11	0°♄			94 Apr 18 j 14:59	14°♄52'47	
				evening set	94 Apr 30 j 11:16	15°♄	
conjunction	88 May 25 j 23:36	2°♄26'31	-1°-17'-56		94 Aug 02 j 18:20	22°♄43'42	
minimum elong	88 May 25 j 23:40	2°♄26'32	1°17'56	conjunction	94 Aug 20 j 07:39	24°♄53'16	1°42'48
max. Earth dist.	88 May 26 j 08:29	2°♄29'26	9.97816 AU	minimum elong	94 Aug 20 j 07:36	24°♄53'15	1°42'48
morning rise	88 Jun 13 j 04:00	4°♄48'33		max. Earth dist.	94 Aug 20 j 12:50	24°♄54'52	10.50878 AU
retrograde	88 Sep 26 j 13:51	13°♄08'25		morning rise	94 Sep 06 j 15:56	27°♄01'18	
opposition	88 Dec 02 j 05:14	9°♄38'58	-1°-18'-55		94 Oct 02 j 13:43	0°♄	
min. Earth dist.	88 Dec 01 j 22:18	9°♄40'24	7.99120 AU	retrograde	94 Dec 15 j 20:22	4°♄26'52	
direct	89 Feb 06 j 21:20	6°♄09'34		opposition	95 Feb 21 j 06:48	1°♄05'59	2°18'30
evening set	89 May 23 j 02:25	14°♄26'40		min. Earth dist.	95 Feb 21 j 03:55	1°♄06'33	8.57064 AU
					95 Mar 07 j 14:23	30°♄♄	
conjunction	89 Jun 10 j 07:25	16°♄48'18	0°-47'-23	direct	95 May 02 j 05:05	27°♄39'30	
minimum elong	89 Jun 10 j 07:27	16°♄48'18	0°47'23		95 Jun 25 j 12:18	0°♄	
max. Earth dist.	89 Jun 10 j 16:44	16°♄51'20	10.01113 AU	evening set	95 Aug 16 j 01:44	5°♄22'25	
morning rise	89 Jun 28 j 11:54	19°♄09'44					
retrograde	89 Oct 10 j 22:14	27°♄22'44		conjunction	95 Sep 02 j 09:43	7°♄28'52	2°00'45
opposition	89 Dec 16 j 10:22	23°♄54'29	0°-38'-48	minimum elong	95 Sep 02 j 09:40	7°♄28'51	2°00'44
min. Earth dist.	89 Dec 16 j 03:22	23°♄55'56	8.03872 AU	max. Earth dist.	95 Sep 02 j 11:55	7°♄29'33	10.63008 AU
direct	90 Feb 21 j 13:26	20°♄24'55		morning rise	95 Sep 19 j 12:47	9°♄33'50	
evening set	90 Jun 07 j 06:19	28°♄40'17		retrograde	95 Dec 28 j 06:18	16°♄51'22	
	90 Jun 17 j 15:10	0°♄		opposition	96 Mar 05 j 02:31	13°♄31'45	2°36'38
conjunction	90 Jun 25 j 10:57	1°♄00'47	0°-14'-15	min. Earth dist.	96 Mar 05 j 01:40	13°♄31'55	8.68938 AU
minimum elong	90 Jun 25 j 10:58	1°♄00'47	0°14'15	direct	96 May 14 j 11:41	10°♄06'26	
behind sun begin	90 Jun 25 j 07:44	0°♄59'45		evening set	96 Aug 27 j 22:37	17°♄41'25	
behind sun end	90 Jun 25 j 14:12	1°♄01'50					
max. Earth dist.	90 Jun 25 j 20:08	1°♄03'45	10.07330 AU	conjunction	96 Sep 14 j 01:37	19°♄45'03	2°12'40
morning rise	90 Jul 13 j 13:52	3°♄20'41		minimum elong	96 Sep 14 j 01:35	19°♄45'02	2°12'40
retrograde	90 Oct 24 j 23:06	11°♄25'03		max. Earth dist.	96 Sep 14 j 01:13	19°♄44'55	10.74424 AU
asc. node	90 Dec 02 j 23:00	10°♄04'06		morning rise	96 Oct 01 j 00:02	21°♄47'17	
opposition	90 Dec 30 j 11:29	7°♄58'12	0°03'02	retrograde	97 Jan 08 j 09:05	28°♄57'59	
min. Earth dist.	90 Dec 30 j 04:29	7°♄59'38	8.11377 AU	opposition	97 Mar 17 j 17:13	25°♄39'25	2°47'14
direct	91 Mar 08 j 03:19	4°♄28'45		min. Earth dist.	97 Mar 17 j 17:31	25°♄39'21	8.79876 AU
evening set	91 Jun 22 j 04:43	12°♄40'13		direct	97 May 27 j 12:48	22°♄15'17	
				evening set	97 Sep 09 j 09:30	29°♄42'36	
conjunction	91 Jul 10 j 07:20	14°♄58'44	0°19'17		97 Sep 11 j 20:39	0°♄	
minimum elong	91 Jul 10 j 07:19	14°♄58'43	0°19'18	conjunction	97 Sep 26 j 08:17	1°♄43'46	2°18'30
max. Earth dist.	91 Jul 10 j 16:01	15°♄01'30	10.16048 AU	minimum elong	97 Sep 26 j 08:16	1°♄43'46	2°18'30
morning rise	91 Jul 28 j 07:03	17°♄16'15		max. Earth dist.	97 Sep 26 j 06:31	1°♄43'14	10.84715 AU
retrograde	91 Nov 07 j 16:42	25°♄10'55		morning rise	97 Oct 13 j 02:47	3°♄43'41	
opposition	92 Jan 13 j 07:26	21°♄45'35	0°43'49	retrograde	98 Jan 20 j 09:21	10°♄48'49	
min. Earth dist.	92 Jan 13 j 00:23	21°♄47'01	8.21125 AU	opposition	98 Mar 30 j 03:22	7°♄31'00	2°50'26
direct	92 Mar 21 j 13:04	18°♄16'33		min. Earth dist.	98 Mar 30 j 04:32	7°♄30'47	8.89478 AU
evening set	92 Jul 05 j 19:21	26°♄22'18		direct	98 Jun 09 j 06:06	4°♄08'04	
				evening set	98 Sep 21 j 11:48	11°♄28'12	
conjunction	92 Jul 23 j 18:27	28°♄38'09	0°51'01				
minimum elong	92 Jul 23 j 18:24	28°♄38'09	0°51'02	conjunction	98 Oct 08 j 07:10	13°♄27'23	2°18'22
max. Earth dist.	92 Jul 24 j 02:34	28°♄40'44	10.26678 AU	minimum elong	98 Oct 08 j 07:11	13°♄27'23	2°18'23
	92 Aug 03 j 12:58	0°♄		max. Earth dist.	98 Oct 08 j 04:35	13°♄26'37	10.93501 AU
morning rise	92 Aug 10 j 13:36	0°♄52'44		morning rise	98 Oct 24 j 22:35	15°♄25'28	
retrograde	92 Nov 20 j 02:40	8°♄37'17		retrograde	99 Feb 01 j 05:17	22°♄26'17	
opposition	93 Jan 25 j 21:26	5°♄13'29	1°21'08	opposition	99 Apr 11 j 09:40	19°♄08'59	2°46'34
min. Earth dist.	93 Jan 25 j 14:51	5°♄14'48	8.32476 AU	min. Earth dist.	99 Apr 11 j 12:31	19°♄08'27	8.97391 AU
direct	93 Apr 04 j 17:04	1°♄45'07		direct	99 Jun 21 j 15:55	15°♄47'08	

evening set	99 Oct 03 j 06:47	23°♄00'54	
conjunction	99 Oct 19 j 23:25	24°♄58'33	2°12'36
minimum elong	99 Oct 19 j 23:27	24°♄58'33	2°12'37
max. Earth dist.	99 Oct 19 j 19:04	24°♄57'15	11.00465 AU
morning rise	99 Nov 05 j 12:49	26°♄55'19	
	99 Dec 03 j 20:12	0°♄	
retrograde	100 Feb 12 j 22:11	3°♄53'13	
opposition	100 Apr 22 j 13:19	0°♄36'11	2°36'07
min. Earth dist.	100 Apr 22 j 17:59	0°♄35'19	9.03345 AU
	100 Apr 30 j 17:16	30°♄	
direct	100 Jul 02 j 21:53	27°♄15'15	
	100 Sep 01 j 03:22	0°♄	
evening set	100 Oct 13 j 19:42	4°♄23'37	
conjunction	100 Oct 30 j 10:23	6°♄20'13	2°01'39
minimum elong	100 Oct 30 j 10:25	6°♄20'14	2°01'39
max. Earth dist.	100 Oct 30 j 04:12	6°♄18'24	11.05376 AU
morning rise	100 Nov 15 j 22:47	8°♄16'10	