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

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 05:52	13°♓33'19	8.22688 AU
direct	-389 Nov 17 j 23:57	10°♓09'27	
evening set	-388 Feb 27 j 05:15	17°♓59'54	
conjunction	-388 Mar 15 j 15:04	20°♓13'48	-2°15'38
minimum elong	-388 Mar 15 j 15:03	20°♓13'48	2°15'39
max. Earth dist.	-388 Mar 15 j 14:57	20°♓13'46	10.16949 AU
morning rise	-388 Apr 02 j 05:32	22°♓29'15	
	-388 Jun 18 j 10:31	0°♈	
retrograde	-388 Jul 18 j 17:52	0°♈48'07	
	-388 Aug 18 j 03:32	30°℞♓	
opposition	-388 Sep 25 j 05:27	27°♓18'16	-2°52'10
min. Earth dist.	-388 Sep 25 j 04:09	27°♓18'32	8.11950 AU
direct	-388 Nov 30 j 14:54	23°♓52'59	
	-387 Feb 25 j 11:59	0°♈	
evening set	-387 Mar 12 j 14:44	1°♈52'51	
conjunction	-387 Mar 30 j 04:50	4°♈09'28	-2°18'36
minimum elong	-387 Mar 30 j 04:51	4°♈09'28	2°18'36
max. Earth dist.	-387 Mar 30 j 07:23	4°♈10'18	10.07201 AU
morning rise	-387 Apr 16 j 23:17	6°♈27'32	
retrograde	-387 Aug 02 j 13:07	14°♈52'54	
opposition	-387 Oct 09 j 11:29	11°♈22'27	-2°51'01
min. Earth dist.	-387 Oct 09 j 08:07	11°♈23'09	8.03410 AU
direct	-387 Dec 14 j 15:18	7°♈56'01	
evening set	-386 Mar 27 j 10:16	16°♈04'05	
conjunction	-386 Apr 14 j 04:49	18°♈23'07	-2°13'17
minimum elong	-386 Apr 14 j 04:51	18°♈23'08	2°13'16
max. Earth dist.	-386 Apr 14 j 09:36	18°♈24'41	9.99976 AU
morning rise	-386 May 02 j 03:08	20°♈43'22	
retrograde	-386 Aug 17 j 10:37	29°♈12'05	
opposition	-386 Oct 23 j 21:03	25°♈41'28	-2°39'18
min. Earth dist.	-386 Oct 23 j 16:18	25°♈42'27	7.97629 AU
direct	-386 Dec 28 j 23:07	22°♈13'58	
	-385 Apr 07 j 21:07	0°♉	
evening set	-385 Apr 11 j 13:28	0°♉28'21	
conjunction	-385 Apr 29 j 12:14	2°♉49'15	-1°59'37
minimum elong	-385 Apr 29 j 12:17	2°♉49'16	1°59'37
max. Earth dist.	-385 Apr 29 j 19:06	2°♉51'31	9.95750 AU
morning rise	-385 May 17 j 13:53	5°♉11'04	
retrograde	-385 Sep 01 j 07:48	13°♉39'40	
opposition	-385 Nov 07 j 08:26	10°♉09'16	-2°17'22
min. Earth dist.	-385 Nov 07 j 02:27	10°♉10'31	7.94982 AU
direct	-384 Jan 12 j 12:39	6°♉40'52	
evening set	-384 Apr 25 j 21:12	14°♉59'05	
	-384 Apr 26 j 00:03	15°♉	
conjunction	-384 May 13 j 23:29	17°♉21'08	-1°38'20
minimum elong	-384 May 13 j 23:32	17°♉21'09	1°38'20
max. Earth dist.	-384 May 14 j 08:14	17°♉24'01	9.94776 AU
morning rise	-384 Jun 01 j 03:25	19°♉43'39	
retrograde	-384 Sep 15 j 02:09	28°♉08'45	
opposition	-384 Nov 20 j 19:26	24°♉38'56	-1°46'38
min. Earth dist.	-384 Nov 20 j 12:18	24°♉40'25	7.95594 AU
direct	-383 Jan 26 j 05:56	21°♉09'50	
evening set	-383 May 11 j 06:29	29°♉29'19	
	-383 May 15 j 05:39	0°♊	
conjunction	-383 May 29 j 11:05	1°♊51'35	-1°10'52
minimum elong	-383 May 29 j 11:08	1°♊51'36	1°10'51
max. Earth dist.	-383 May 29 j 20:56	1°♊54'49	9.97031 AU
morning rise	-383 Jun 16 j 15:54	4°♊13'53	
retrograde	-383 Sep 29 j 15:25	12°♊32'36	
opposition	-383 Dec 05 j 03:57	9°♊03'43	-1°09'19
min. Earth dist.	-383 Dec 04 j 20:07	9°♊05'20	7.99313 AU
direct	-382 Feb 10 j 00:26	5°♊34'12	
evening set	-382 May 26 j 14:07	13°♊52'35	
conjunction	-382 Jun 13 j 19:27	16°♊14'09	-0°39'11
minimum elong	-382 Jun 13 j 19:29	16°♊14'09	0°39'10
max. Earth dist.	-382 Jun 14 j 05:46	16°♊17'30	10.02241 AU
morning rise	-382 Jul 01 j 23:29	18°♊35'17	
retrograde	-382 Oct 13 j 21:56	26°♊45'35	
opposition	-382 Dec 19 j 08:46	23°♊17'58	-0°28'10
min. Earth dist.	-382 Dec 19 j 00:27	23°♊19'41	8.05830 AU
direct	-381 Feb 24 j 17:14	19°♊48'24	
evening set	-381 Jun 10 j 17:08	28°♊03'29	
	-381 Jun 25 j 20:52	0°♋	
conjunction	-381 Jun 28 j 21:19	0°♋23'25	-0°05'34
minimum elong	-381 Jun 28 j 21:21	0°♋23'25	0°05'33
behind sun begin	-381 Jun 28 j 14:17	0°♋21'10	
behind sun end	-381 Jun 29 j 04:24	0°♋25'40	
max. Earth dist.	-381 Jun 29 j 07:54	0°♋26'49	10.10075 AU
morning rise	-381 Jul 16 j 22:51	2°♋42'30	
asc. node	-381 Aug 29 j 16:44	7°♋40'41	
retrograde	-381 Oct 27 j 20:43	10°♋43'05	
opposition	-380 Jan 02 j 08:33	7°♋16'56	0°13'52
min. Earth dist.	-380 Jan 02 j 00:26	7°♋18'35	8.14815 AU
direct	-380 Mar 10 j 06:17	3°♋47'37	
evening set	-380 Jun 24 j 12:58	11°♋57'25	
conjunction	-380 Jul 12 j 14:20	14°♋14'56	0°27'53
minimum elong	-380 Jul 12 j 14:19	14°♋14'56	0°27'53
max. Earth dist.	-380 Jul 13 j 00:24	14°♋18'09	10.20144 AU
morning rise	-380 Jul 30 j 11:56	16°♋31'16	
retrograde	-380 Nov 09 j 11:25	24°♋21'24	
opposition	-379 Jan 15 j 02:21	20°♋56'47	0°54'05
min. Earth dist.	-379 Jan 14 j 19:07	20°♋58'15	8.25802 AU
direct	-379 Mar 24 j 13:35	17°♋27'57	
evening set	-379 Jul 08 j 23:29	25°♋30'55	
conjunction	-379 Jul 26 j 20:39	27°♋45'27	0°58'57
minimum elong	-379 Jul 26 j 20:36	27°♋45'26	0°58'58
max. Earth dist.	-379 Jul 27 j 05:17	27°♋48'10	10.31892 AU
morning rise	-379 Aug 13 j 13:22	29°♋58'34	
	-379 Aug 13 j 18:01	0°♌	
retrograde	-379 Nov 22 j 16:26	7°♌38'08	
opposition	-378 Jan 28 j 13:36	4°♌15'04	1°30'13
min. Earth dist.	-378 Jan 28 j 07:38	4°♌16'15	8.38165 AU
direct	-378 Apr 07 j 16:06	0°♌46'59	
evening set	-378 Jul 22 j 23:16	8°♌42'00	
conjunction	-378 Aug 09 j 15:18	10°♌53'13	1°26'08
minimum elong	-378 Aug 09 j 15:15	10°♌53'12	1°26'10
max. Earth dist.	-378 Aug 09 j 21:54	10°♌55'16	10.44654 AU
morning rise	-378 Aug 27 j 02:36	13°♌02'56	
	-378 Sep 12 j 14:04	15°♌	
retrograde	-378 Dec 05 j 10:48	20°♌32'23	
opposition	-377 Feb 10 j 18:00	17°♌10'47	2°00'37
min. Earth dist.	-377 Feb 10 j 13:06	17°♌11'45	8.51223 AU
	-377 Mar 12 j 19:25	15°℞♌	
direct	-377 Apr 21 j 11:52	13°♌43'40	
	-377 May 30 j 18:54	15°♌	
evening set	-377 Aug 05 j 11:30	21°♌30'05	
conjunction	-377 Aug 22 j 22:08	23°♌37'56	1°48'21
minimum elong	-377 Aug 22 j 22:05	23°♌37'55	1°48'21
max. Earth dist.	-377 Aug 23 j 02:51	23°♌39'23	10.57763 AU
morning rise	-377 Sep 09 j 03:56	25°♌44'16	
	-377 Oct 18 j 03:50	0°♍	
retrograde	-377 Dec 17 j 22:32	3°♍04'31	

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

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

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

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

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		
conjunction	-340 Nov 16 j 23:04	21°♏02'05	1°34'04	
minimum elong	-340 Nov 16 j 23:06	21°♏02'05	1°34'03	
max. Earth dist.	-340 Nov 16 j 15:23	20°♏59'50	11.14710 AU	
morning rise	-340 Dec 03 j 10:41	22°♏56'52		
retrograde	-339 Mar 13 j 21:00	29°♏51'54		
opposition	-339 May 23 j 13:14	26°♏34'54	1°41'51	
min. Earth dist.	-339 May 23 j 20:24	26°♏33'35	9.13918 AU	
direct	-339 Aug 02 j 16:02	23°♏16'43		
	-339 Nov 09 j 14:28	0°♐		
evening set	-339 Nov 11 j 13:15	0°♐13'21		
conjunction	-339 Nov 28 j 02:02	2°♐08'43	1°12'13	
minimum elong	-339 Nov 28 j 02:05	2°♐08'44	1°12'12	
max. Earth dist.	-339 Nov 27 j 16:47	2°♐06'00	11.12351 AU	
morning rise	-339 Dec 14 j 14:51	4°♐04'09		
retrograde	-338 Mar 25 j 14:25	11°♐02'30		
opposition	-338 Jun 04 j 12:38	7°♐44'40	1°13'20	
min. Earth dist.	-338 Jun 04 j 21:12	7°♐43'05	9.10264 AU	
direct	-338 Aug 14 j 07:45	4°♐26'37		
evening set	-338 Nov 22 j 17:00	11°♐23'23		
conjunction	-338 Dec 09 j 06:31	13°♐19'32	0°47'29	
minimum elong	-338 Dec 09 j 06:33	13°♐19'32	0°47'28	
max. Earth dist.	-338 Dec 08 j 20:10	13°♐16'29	11.07524 AU	
morning rise	-338 Dec 25 j 21:07	15°♐16'01		
retrograde	-337 Apr 06 j 13:43	22°♐19'18		
opposition	-337 Jun 16 j 14:18	19°♐00'22	0°41'45	
min. Earth dist.	-337 Jun 16 j 23:17	18°♐58'43	9.04220 AU	
direct	-337 Aug 26 j 01:24	15°♐42'13		
evening set	-337 Dec 03 j 23:44	22°♐40'42		
conjunction	-337 Dec 20 j 14:35	24°♐38'03	0°20'40	
minimum elong	-337 Dec 20 j 14:36	24°♐38'04	0°20'40	
max. Earth dist.	-337 Dec 20 j 04:39	24°♐35'07	11.00389 AU	
morning rise	-336 Jan 06 j 07:10	26°♐36'00		
	-336 Feb 06 j 19:09	0°♑		
retrograde	-336 Apr 17 j 18:00	3°♑45'44		
opposition	-336 Jun 27 j 19:07	0°♑25'31	0°08'01	
min. Earth dist.	-336 Jun 28 j 03:32	0°♑23'57	8.95991 AU	
	-336 Jul 03 j 12:56	30°℞♐		
direct	-336 Sep 05 j 19:06	27°♐07'02		
desc. node	-336 Sep 23 j 11:00	27°♐22'45		
	-336 Nov 05 j 03:43	0°♑		
evening set	-336 Dec 14 j 11:13	4°♑08'54		
conjunction	-336 Dec 31 j 03:43	6°♑07'49	-0°07'28	
minimum elong	-336 Dec 31 j 03:42	6°♑07'49	0°07'28	
behind sun begin	-336 Dec 30 j 21:18	6°♑05'56		
behind sun end	-336 Dec 31 j 10:06	6°♑09'42		
max. Earth dist.	-336 Dec 30 j 18:20	6°♑05'02	10.91189 AU	
morning rise	-335 Jan 16 j 22:35	8°♑07'32		
retrograde	-335 Apr 30 j 06:31	15°♑25'16		
opposition	-335 Jul 10 j 04:39	12°♑03'36	-0°26'43	
min. Earth dist.	-335 Jul 10 j 12:18	12°♑02'10	8.85868 AU	
direct	-335 Sep 17 j 16:40	8°♑44'35		
evening set	-335 Dec 26 j 05:09	15°♑51'25		
conjunction	-334 Jan 11 j 23:28	17°♑52'14	-0°35'43	
minimum elong	-334 Jan 11 j 23:27	17°♑52'14	0°35'43	
max. Earth dist.	-334 Jan 11 j 13:52	17°♑49'20	10.80261 AU	
morning rise	-334 Jan 28 j 21:06	19°♑54'06		
retrograde	-334 May 13 j 02:45	27°♑21'07		
opposition	-334 Jul 22 j 19:41	23°♑57'56	-1°01'13	
min. Earth dist.	-334 Jul 23 j 03:07	23°♑56'31	8.74230 AU	
direct	-334 Sep 29 j 17:22	20°♑38'09		
evening set	-333 Jan 07 j 07:22	27°♑51'33		
conjunction	-333 Jan 24 j 03:54	29°♑54'34	-1°03'04	
minimum elong	-333 Jan 24 j 03:52	29°♑54'33	1°03'04	
max. Earth dist.	-333 Jan 23 j 18:42	29°♑51'45	10.68022 AU	
	-333 Jan 24 j 21:39	0°♒		
morning rise	-333 Feb 10 j 04:33	1°♒58'51		
retrograde	-333 May 26 j 05:34	9°♒36'10		
opposition	-333 Aug 04 j 16:45	6°♒11'26	-1°33'57	
min. Earth dist.	-333 Aug 04 j 23:38	6°♒10'06	8.61538 AU	
direct	-333 Oct 12 j 00:48	2°♒50'42		
evening set	-332 Jan 19 j 19:12	10°♒12'06		
conjunction	-332 Feb 05 j 18:28	12°♒17'36	-1°28'13	
minimum elong	-332 Feb 05 j 18:25	12°♒17'35	1°28'13	
max. Earth dist.	-332 Feb 05 j 10:55	12°♒15'15	10.54967 AU	
morning rise	-332 Feb 22 j 22:13	14°♒24'30		
	-332 Feb 27 j 19:55	15°♒		
retrograde	-332 Jun 07 j 18:38	22°♒12'48		
opposition	-332 Aug 16 j 20:42	18°♒46'31	-2°03'15	
min. Earth dist.	-332 Aug 17 j 02:03	18°♒45'28	8.48331 AU	
direct	-332 Oct 23 j 16:23	15°♒24'44		
evening set	-331 Jan 31 j 17:45	22°♒55'11		
conjunction	-331 Feb 17 j 20:08	25°♒03'22	-1°49'44	
minimum elong	-331 Feb 17 j 20:06	25°♒03'21	1°49'44	
max. Earth dist.	-331 Feb 17 j 15:07	25°♒01'47	10.41686 AU	
morning rise	-331 Mar 07 j 03:10	27°♒13'04		
	-331 Mar 30 j 17:50	0°♓		
retrograde	-331 Jun 21 j 17:35	5°♓12'27		
opposition	-331 Aug 30 j 07:46	1°♓44'42	-2°27'18	
min. Earth dist.	-331 Aug 30 j 10:46	1°♓44'07	8.35238 AU	
	-331 Sep 22 j 11:43	30°℞♒		
direct	-331 Nov 05 j 14:06	28°♒21'47		
	-331 Dec 18 j 10:20	0°♓		
evening set	-330 Feb 14 j 04:09	6°♓02'01		
conjunction	-330 Mar 03 j 10:03	8°♓13'01	-2°06'10	
minimum elong	-330 Mar 03 j 10:01	8°♓13'00	2°06'10	
max. Earth dist.	-330 Mar 03 j 07:08	8°♓12'05	10.28855 AU	
morning rise	-330 Mar 20 j 20:43	10°♓25'36		
retrograde	-330 Jul 06 j 00:49	18°♓35'20		
opposition	-330 Sep 13 j 01:42	15°♓06'22	-2°44'15	
min. Earth dist.	-330 Sep 13 j 02:38	15°♓06'11	8.22947 AU	
direct	-330 Nov 18 j 20:16	11°♓42'13		
evening set	-329 Feb 28 j 02:24	19°♓32'27		
conjunction	-329 Mar 17 j 12:14	21°♓46'18	-2°16'08	
minimum elong	-329 Mar 17 j 12:13	21°♓46'18	2°16'08	
max. Earth dist.	-329 Mar 17 j 11:17	21°♓46'00	10.17187 AU	
morning rise	-329 Apr 04 j 02:50	24°♓01'43		
	-329 May 28 j 19:28	0°♈		
retrograde	-329 Jul 20 j 14:33	2°♈20'17		
	-329 Sep 12 j 12:43	30°℞♓		
opposition	-329 Sep 27 j 02:07	28°♓50'24	-2°52'23	
min. Earth dist.	-329 Sep 27 j 01:19	28°♓50'33	8.12163 AU	
direct	-329 Dec 02 j 11:53	25°♓25'02		
	-328 Feb 14 j 03:55	0°♈		
evening set	-328 Mar 13 j 11:47	3°♈24'45		
conjunction	-328 Mar 31 j 01:53	5°♈41'21	-2°18'30	
minimum elong	-328 Mar 31 j 01:54	5°♈41'21	2°18'30	
max. Earth dist.	-328 Mar 31 j 03:14	5°♈41'47	10.07386 AU	
morning rise	-328 Apr 17 j 20:31	7°♈59'22		
retrograde	-328 Aug 03 j 09:14	16°♈24'25		
opposition	-328 Oct 10 j 07:49	12°♈53'59	-2°50'30	
min. Earth dist.	-328 Oct 10 j 05:23	12°♈54'29	8.03561 AU	

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

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

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

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

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

conjunction	-272 Feb 19 j 18:39	26°♒39'29	-1°51'18
minimum elong	-272 Feb 19 j 18:36	26°♒39'28	1°51'19
max. Earth dist.	-272 Feb 19 j 13:45	26°♒37'57	10.41908 AU
morning rise	-272 Mar 08 j 01:43	28°♒49'09	
	-272 Mar 17 j 19:22	0°♓	
retrograde	-272 Jun 22 j 16:13	6°♓48'20	
opposition	-272 Aug 31 j 06:02	3°♓20'34	-2°28'55
min. Earth dist.	-272 Aug 31 j 08:42	3°♓20'02	8.35507 AU
	-272 Oct 30 j 22:21	30°℞♒	
direct	-272 Nov 06 j 12:06	29°♒57'37	
	-272 Nov 13 j 01:14	0°♓	
evening set	-271 Feb 15 j 02:30	7°♓37'40	
conjunction	-271 Mar 04 j 08:21	9°♓48'37	-2°07'13
minimum elong	-271 Mar 04 j 08:19	9°♓48'36	2°07'13
max. Earth dist.	-271 Mar 04 j 04:47	9°♓47'29	10.29160 AU
morning rise	-271 Mar 21 j 19:09	12°♓01'09	
retrograde	-271 Jul 06 j 22:42	20°♓10'34	
opposition	-271 Sep 13 j 23:44	16°♓41'36	-2°45'10
min. Earth dist.	-271 Sep 14 j 01:00	16°♓41'20	8.23288 AU
direct	-271 Nov 19 j 18:21	13°♓17'25	
evening set	-270 Mar 01 j 00:25	21°♓07'23	
conjunction	-270 Mar 18 j 10:16	23°♓21'11	-2°16'35
minimum elong	-270 Mar 18 j 10:15	23°♓21'10	2°16'35
max. Earth dist.	-270 Mar 18 j 08:44	23°♓20'41	10.17558 AU
morning rise	-270 Apr 05 j 01:03	25°♓36'33	
	-270 May 12 j 19:38	0°♈	
retrograde	-270 Jul 21 j 12:15	3°♈54'42	
opposition	-270 Sep 27 j 23:41	0°♈24'49	-2°52'33
min. Earth dist.	-270 Sep 27 j 23:30	0°♈24'51	8.12554 AU
	-270 Oct 03 j 01:58	30°℞♓	
direct	-270 Dec 03 j 09:16	26°♓59'24	
	-269 Jan 30 j 21:16	0°♈	
evening set	-269 Mar 15 j 09:31	4°♈58'49	
conjunction	-269 Apr 01 j 23:47	7°♈15'21	-2°18'20
minimum elong	-269 Apr 01 j 23:47	7°♈15'21	2°18'20
max. Earth dist.	-269 Apr 02 j 00:55	7°♈15'44	10.07792 AU
morning rise	-269 Apr 19 j 18:31	9°♈33'20	
retrograde	-269 Aug 05 j 06:10	17°♈57'52	
opposition	-269 Oct 12 j 04:45	14°♈27'27	-2°49'54
min. Earth dist.	-269 Oct 12 j 02:41	14°♈27'52	8.03970 AU
direct	-269 Dec 17 j 09:57	11°♈00'54	
evening set	-268 Mar 29 j 04:24	19°♈08'34	
conjunction	-268 Apr 15 j 23:15	21°♈27'33	-2°11'49
minimum elong	-268 Apr 15 j 23:17	21°♈27'33	2°11'49
max. Earth dist.	-268 Apr 16 j 03:28	21°♈28'56	10.00506 AU
morning rise	-268 May 03 j 21:46	23°♈47'43	
	-268 Jun 29 j 01:17	0°♉	
retrograde	-268 Aug 19 j 02:18	2°♉15'40	
	-268 Oct 10 j 03:14	30°℞♈	
opposition	-268 Oct 25 j 13:37	28°♈45'05	-2°36'45
min. Earth dist.	-268 Oct 25 j 09:20	28°♈45'58	7.98114 AU
direct	-268 Dec 30 j 17:27	25°♈17'31	
	-267 Mar 15 j 07:36	0°♉	
evening set	-267 Apr 13 j 06:53	3°♉31'32	
conjunction	-267 May 01 j 06:05	5°♉52'27	-1°57'05
minimum elong	-267 May 01 j 06:08	5°♉52'28	1°57'04
max. Earth dist.	-267 May 01 j 13:19	5°♉54'50	9.96200 AU
morning rise	-267 May 19 j 07:49	8°♉14'12	
	-267 Jul 21 j 06:51	15°♉	
retrograde	-267 Sep 02 j 23:04	16°♉42'09	
	-267 Oct 17 j 04:43	15°℞♉	
opposition	-267 Nov 09 j 00:19	13°♉11'48	-2°13'34

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

retrograde	-261 Nov 25 j 06:06	10°♌36'28	
opposition	-260 Jan 31 j 04:17	7°♌13'30	1°34'59
min. Earth dist.	-260 Jan 30 j 22:12	7°♌14'43	8.38253 AU
direct	-260 Apr 09 j 07:59	3°♌45'30	
evening set	-260 Jul 24 j 14:45	11°♌40'41	
conjunction	-260 Aug 11 j 06:30	13°♌51'50	1°29'41
minimum elong	-260 Aug 11 j 06:27	13°♌51'49	1°29'41
max. Earth dist.	-260 Aug 11 j 12:52	13°♌53'49	10.44597 AU
	-260 Aug 20 j 09:33	15°♌	
morning rise	-260 Aug 28 j 17:21	16°♌01'28	
retrograde	-260 Dec 07 j 02:37	23°♌31'11	
opposition	-259 Feb 12 j 08:56	20°♌09'39	2°04'34
min. Earth dist.	-259 Feb 12 j 03:45	20°♌10'40	8.51029 AU
direct	-259 Apr 23 j 02:28	16°♌42'37	
evening set	-259 Aug 07 j 03:11	24°♌29'23	
conjunction	-259 Aug 24 j 13:36	26°♌37'14	1°51'09
minimum elong	-259 Aug 24 j 13:32	26°♌37'13	1°51'09
max. Earth dist.	-259 Aug 24 j 18:50	26°♌38'51	10.57424 AU
morning rise	-259 Sep 10 j 18:50	28°♌43'33	
	-259 Sep 21 j 13:16	0°♍	
retrograde	-259 Dec 19 j 15:06	6°♍04'15	
opposition	-258 Feb 25 j 07:22	2°♍44'01	2°27'13
min. Earth dist.	-258 Feb 25 j 03:58	2°♍44'41	8.63833 AU
	-258 Apr 07 j 06:06	30°℞♌	
direct	-258 May 06 j 13:17	29°♌18'05	
	-258 Jun 04 j 16:54	0°♍	
evening set	-258 Aug 20 j 04:11	6°♍56'10	
conjunction	-258 Sep 06 j 09:16	9°♍00'53	2°06'50
minimum elong	-258 Sep 06 j 09:13	9°♍00'52	2°06'50
max. Earth dist.	-258 Sep 06 j 12:28	9°♍01'51	10.69964 AU
morning rise	-258 Sep 23 j 09:25	11°♍04'08	
retrograde	-258 Dec 31 j 20:43	18°♍16'52	
opposition	-257 Mar 09 j 23:46	14°♍57'45	2°42'29
min. Earth dist.	-257 Mar 09 j 22:08	14°♍58'03	8.76064 AU
direct	-257 May 19 j 15:52	11°♍32'59	
evening set	-257 Sep 01 j 18:25	19°♍02'33	
conjunction	-257 Sep 18 j 18:41	21°♍04'28	2°16'28
minimum elong	-257 Sep 18 j 18:39	21°♍04'28	2°16'27
max. Earth dist.	-257 Sep 18 j 19:29	21°♍04'42	10.81663 AU
morning rise	-257 Oct 05 j 14:32	23°♍05'03	
	-257 Dec 29 j 06:08	0°♎	
retrograde	-256 Jan 12 j 18:34	0°♎11'02	
	-256 Jan 27 j 11:17	30°℞♍	
opposition	-256 Mar 21 j 10:29	26°♍52'48	2°50'17
min. Earth dist.	-256 Mar 21 j 10:04	26°♍52'53	8.87191 AU
direct	-256 May 31 j 11:50	23°♍29'14	
	-256 Sep 05 j 14:17	0°♎	
evening set	-256 Sep 12 j 22:47	0°♎50'50	
conjunction	-256 Sep 29 j 19:07	2°♎50'22	2°20'04
minimum elong	-256 Sep 29 j 19:07	2°♎50'22	2°20'04
max. Earth dist.	-256 Sep 29 j 18:23	2°♎50'09	10.92034 AU
morning rise	-256 Oct 16 j 11:27	4°♎48'45	
retrograde	-255 Jan 23 j 14:10	11°♎49'24	
opposition	-255 Apr 02 j 16:39	8°♎31'49	2°50'51
min. Earth dist.	-255 Apr 02 j 16:59	8°♎31'46	8.96755 AU
direct	-255 Jun 13 j 00:50	5°♎09'27	
evening set	-255 Sep 24 j 18:39	12°♎23'48	
conjunction	-255 Oct 11 j 11:53	14°♎21'29	2°17'53
minimum elong	-255 Oct 11 j 11:54	14°♎21'29	2°17'54
max. Earth dist.	-255 Oct 11 j 10:28	14°♎21'04	11.00670 AU
morning rise	-255 Oct 28 j 01:31	16°♎18'10	

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

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	
	-242 Jan 24 j 16:04	0°♓	
evening set	-242 Feb 09 j 08:20	1°♓53'08	
conjunction	-242 Feb 26 j 12:23	4°♓02'21	-2°00'37
minimum elong	-242 Feb 26 j 12:21	4°♓02'20	2°00'37
max. Earth dist.	-242 Feb 26 j 07:42	4°♓00'52	10.37906 AU
morning rise	-242 Mar 15 j 21:14	6°♓13'07	
retrograde	-242 Jun 30 j 17:37	14°♓16'24	
opposition	-242 Sep 08 j 01:51	10°♓48'39	-2°38'32
min. Earth dist.	-242 Sep 08 j 04:49	10°♓48'04	8.31594 AU
direct	-242 Nov 14 j 02:57	7°♓25'39	
evening set	-241 Feb 22 j 23:52	15°♓09'36	
conjunction	-241 Mar 12 j 07:45	17°♓21'41	-2°13'06
minimum elong	-241 Mar 12 j 07:44	17°♓21'41	2°13'06
max. Earth dist.	-241 Mar 12 j 05:14	17°♓20'53	10.25352 AU
morning rise	-241 Mar 29 j 20:19	19°♓35'20	
retrograde	-241 Jul 15 j 03:23	27°♓48'11	
opposition	-241 Sep 21 j 21:53	24°♓19'12	-2°50'10
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	
evening set	-240 Mar 08 j 02:40	28°♓48'31	
	-240 Mar 17 j 10:17	0°♈	
conjunction	-240 Mar 25 j 14:43	1°♈03'25	-2°18'29
minimum elong	-240 Mar 25 j 14:43	1°♈03'25	2°18'29
max. Earth dist.	-240 Mar 25 j 14:15	1°♈03'16	10.14201 AU
morning rise	-240 Apr 12 j 07:14	3°♈19'50	
retrograde	-240 Jul 28 j 18:58	11°♈40'23	
opposition	-240 Oct 04 j 23:43	8°♈10'26	-2°52'19
min. Earth dist.	-240 Oct 04 j 22:45	8°♈10'38	8.09538 AU
direct	-240 Dec 10 j 07:05	4°♈44'39	
evening set	-239 Mar 22 j 16:01	12°♈47'18	
conjunction	-239 Apr 09 j 08:32	15°♈04'52	-2°15'54
minimum elong	-239 Apr 09 j 08:33	15°♈04'52	2°15'53
max. Earth dist.	-239 Apr 09 j 10:05	15°♈05'22	10.05161 AU
morning rise	-239 Apr 27 j 05:06	17°♈23'45	
retrograde	-239 Aug 12 j 13:25	25°♈49'18	
opposition	-239 Oct 19 j 05:58	22°♈18'47	-2°44'10
min. Earth dist.	-239 Oct 19 j 03:36	22°♈19'16	8.01781 AU
direct	-239 Dec 24 j 10:10	18°♈51'40	
evening set	-238 Apr 06 j 14:08	27°♈01'48	
conjunction	-238 Apr 24 j 11:07	29°♈21'38	-2°05'01
minimum elong	-238 Apr 24 j 11:10	29°♈21'39	2°05'01
max. Earth dist.	-238 Apr 24 j 14:35	29°♈22'46	9.98811 AU
	-238 Apr 29 j 08:07	0°♉	
morning rise	-238 May 12 j 11:23	1°♉42'29	
retrograde	-238 Aug 27 j 09:13	10°♉09'52	
opposition	-238 Nov 02 j 15:05	6°♉39'12	-2°25'42
min. Earth dist.	-238 Nov 02 j 11:31	6°♉39'56	7.96917 AU
direct	-237 Jan 07 j 19:44	3°♉10'55	
evening set	-237 Apr 21 j 18:31	11°♉26'28	
conjunction	-237 May 09 j 19:24	13°♉47'54	-1°46'16
minimum elong	-237 May 09 j 19:28	13°♉47'56	1°46'15
max. Earth dist.	-237 May 10 j 00:55	13°♉49'43	9.95558 AU
	-237 May 18 j 22:58	15°♉	
morning rise	-237 May 27 j 22:30	16°♉10'01	
retrograde	-237 Sep 11 j 03:51	24°♉35'54	
opposition	-237 Nov 17 j 01:06	21°♉05'31	-1°57'53
min. Earth dist.	-237 Nov 16 j 20:10	21°♉06'32	7.95265 AU
direct	-236 Jan 22 j 10:06	17°♉36'18	
evening set	-236 May 06 j 02:17	25°♉54'49	
conjunction	-236 May 24 j 06:08	28°♉17'03	-1°20'47
minimum elong	-236 May 24 j 06:11	28°♉17'04	1°20'46
max. Earth dist.	-236 May 24 j 13:37	28°♉19'30	9.95615 AU
	-236 Jun 06 j 08:37	0°♊	
morning rise	-236 Jun 11 j 10:48	0°♊39'30	
retrograde	-236 Sep 24 j 19:01	9°♊00'46	
opposition	-236 Nov 30 j 10:04	5°♊31'03	-1°22'37
min. Earth dist.	-236 Nov 30 j 03:42	5°♊32'22	7.96930 AU
direct	-235 Feb 05 j 03:09	2°♊01'12	
evening set	-235 May 21 j 10:14	10°♊20'07	
conjunction	-235 Jun 08 j 15:34	12°♊42'09	-0°50'20
minimum elong	-235 Jun 08 j 15:36	12°♊42'10	0°50'19
max. Earth dist.	-235 Jun 09 j 00:33	12°♊45'06	9.98952 AU
morning rise	-235 Jun 26 j 20:12	15°♊03'57	
retrograde	-235 Oct 09 j 04:26	23°♊18'01	
opposition	-235 Dec 14 j 16:18	19°♊49'20	-0°42'29
min. Earth dist.	-235 Dec 14 j 08:53	19°♊50'52	8.01774 AU
direct	-234 Feb 19 j 20:21	16°♊19'12	
evening set	-234 Jun 05 j 15:15	24°♊36'02	
conjunction	-234 Jun 23 j 20:12	26°♊56'52	-0°17'06
minimum elong	-234 Jun 23 j 20:13	26°♊56'52	0°17'05
max. Earth dist.	-234 Jun 24 j 06:04	27°♊00'04	10.05312 AU
morning rise	-234 Jul 11 j 22:59	29°♊17'01	
	-234 Jul 17 j 15:27	0°♋	
retrograde	-234 Oct 23 j 06:28	7°♋22'05	
opposition	-234 Dec 28 j 18:12	3°♋54'43	-0°00'24
min. Earth dist.	-234 Dec 28 j 10:20	3°♋56'20	8.09460 AU
asc. node	-233 Jan 01 j 07:15	3°♋37'14	
direct	-233 Mar 06 j 10:39	0°♋24'40	
evening set	-233 Jun 20 j 14:17	8°♋37'12	
conjunction	-233 Jul 08 j 17:03	10°♋55'58	0°16'41
minimum elong	-233 Jul 08 j 17:02	10°♋55'58	0°16'42
max. Earth dist.	-233 Jul 09 j 03:05	10°♋59'11	10.14266 AU
morning rise	-233 Jul 26 j 16:28	13°♋13'40	
retrograde	-233 Nov 06 j 00:57	21°♋08'41	
opposition	-232 Jan 11 j 14:43	17°♋42'50	0°40'48
min. Earth dist.	-232 Jan 11 j 07:20	17°♋44'20	8.19499 AU
direct	-232 Mar 19 j 20:32	14°♋13'12	
evening set	-232 Jul 04 j 04:56	22°♋19'41	
conjunction	-232 Jul 22 j 04:00	24°♋35'42	0°48'46
minimum elong	-232 Jul 22 j 03:57	24°♋35'41	0°48'47
max. Earth dist.	-232 Jul 22 j 13:05	24°♋38'35	10.25249 AU
morning rise	-232 Aug 08 j 22:54	26°♋50'22	
	-232 Sep 04 j 18:52	0°♌	
retrograde	-232 Nov 18 j 10:39	4°♌35'00	
opposition	-231 Jan 24 j 05:03	1°♌10'47	1°18'37
min. Earth dist.	-231 Jan 23 j 22:40	1°♌12'04	8.31266 AU
	-231 Feb 08 j 04:18	30°℞♋	
direct	-231 Apr 03 j 00:58	27°♋41'54	
	-231 May 25 j 23:18	0°♌	
evening set	-231 Jul 18 j 09:45	5°♌41'04	
conjunction	-231 Aug 05 j 03:58	7°♌53'53	1°17'29
minimum elong	-231 Aug 05 j 03:55	7°♌53'52	1°17'30
max. Earth dist.	-231 Aug 05 j 11:18	7°♌56'11	10.37602 AU
morning rise	-231 Aug 22 j 17:37	10°♌05'15	
	-231 Oct 06 j 17:27	15°♌	
retrograde	-231 Dec 01 j 09:37	17°♌39'44	
	-230 Jan 28 j 11:09	15°℞♌	
opposition	-230 Feb 06 j 12:47	14°♌17'10	1°51'11
min. Earth dist.	-230 Feb 06 j 07:19	14°♌18'15	8.44084 AU
direct	-230 Apr 17 j 00:11	10°♌49'19	
	-230 Jun 29 j 16:46	15°♌	

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

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

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°♊32'39	9.97844 AU	
morning rise	-206 Jun 20 j 07:58	8°♊51'42		
retrograde	-206 Oct 03 j 05:36	17°♊09'18		
opposition	-206 Dec 08 j 16:54	13°♊40'38	-1°00'50	
min. Earth dist.	-206 Dec 08 j 09:40	13°♊42'08	8.00191 AU	
direct	-205 Feb 13 j 14:15	10°♊11'10		
evening set	-205 May 30 j 05:21	18°♊29'03		
conjunction	-205 Jun 17 j 10:28	20°♊50'25	-0°32'10	
minimum elong	-205 Jun 17 j 10:29	20°♊50'26	0°32'09	
max. Earth dist.	-205 Jun 17 j 20:06	20°♊53'33	10.03225 AU	
morning rise	-205 Jul 05 j 14:19	23°♊11'20		
	-205 Sep 09 j 02:12	0°♋		
retrograde	-205 Oct 17 j 10:04	1°♋20'26		
	-205 Nov 25 j 04:51	30°℞♊		
opposition	-205 Dec 22 j 21:09	27°♊53'01	-0°19'17	
min. Earth dist.	-205 Dec 22 j 13:54	27°♊54'30	8.06906 AU	
direct	-204 Feb 28 j 07:01	24°♊23'27		
	-204 May 22 j 16:15	0°♋		
evening set	-204 Jun 13 j 07:31	2°♋37'50		
asc. node	-204 Jun 13 j 03:25	2°♋36'32		
conjunction	-204 Jul 01 j 11:17	4°♋57'29	0°01'41	
minimum elong	-204 Jul 01 j 11:16	4°♋57'29	0°01'41	
behind sun begin	-204 Jul 01 j 03:55	4°♋55'08		
behind sun end	-204 Jul 01 j 18:37	4°♋59'49		
max. Earth dist.	-204 Jul 01 j 20:12	5°♋00'20	10.11207 AU	
morning rise	-204 Jul 19 j 12:31	7°♋16'15		
retrograde	-204 Oct 30 j 07:36	15°♋15'38		
opposition	-203 Jan 04 j 20:06	11°♋49'38	0°22'37	
min. Earth dist.	-203 Jan 04 j 13:06	11°♋51'04	8.15942 AU	
direct	-203 Mar 13 j 19:45	8°♋20'18		
evening set	-203 Jun 28 j 02:25	16°♋29'29		
conjunction	-203 Jul 16 j 03:14	18°♋46'42	0°34'43	
minimum elong	-203 Jul 16 j 03:13	18°♋46'41	0°34'43	
max. Earth dist.	-203 Jul 16 j 11:17	18°♋49'16	10.21187 AU	
morning rise	-203 Aug 03 j 00:25	21°♋02'43		
retrograde	-203 Nov 12 j 21:18	28°♋51'57		
opposition	-202 Jan 18 j 13:22	25°♋27'30	1°02'13	
min. Earth dist.	-202 Jan 18 j 06:40	25°♋28'51	8.26716 AU	
direct	-202 Mar 28 j 03:17	21°♋58'45		
evening set	-202 Jul 12 j 12:06	0°♌01'20		
	-202 Jul 12 j 07:48	0°♌		
conjunction	-202 Jul 30 j 08:41	2°♌15'35	1°05'09	
minimum elong	-202 Jul 30 j 08:38	2°♌15'34	1°05'09	
max. Earth dist.	-202 Jul 30 j 16:10	2°♌17'57	10.32618 AU	
morning rise	-202 Aug 17 j 00:44	4°♌28'26		
retrograde	-202 Nov 26 j 02:15	12°♌07'37		
opposition	-201 Feb 01 j 00:30	8°♌44'42	1°37'21	
min. Earth dist.	-201 Jan 31 j 18:43	8°♌45'51	8.38698 AU	
direct	-201 Apr 11 j 04:41	5°♌16'44		
evening set	-201 Jul 26 j 11:23	13°♌11'41		
	-201 Aug 10 j 02:01	15°♌		
conjunction	-201 Aug 13 j 02:54	15°♌22'42	1°31'25	
minimum elong	-201 Aug 13 j 02:50	15°♌22'41	1°31'25	
max. Earth dist.	-201 Aug 13 j 09:12	15°♌24'40	10.44957 AU	
morning rise	-201 Aug 30 j 13:23	17°♌32'13		
retrograde	-201 Dec 08 j 22:58	25°♌01'46		
opposition	-200 Feb 14 j 05:10	21°♌40'18	2°06'29	
min. Earth dist.	-200 Feb 14 j 00:55	21°♌41'08	8.51310 AU	
direct	-200 Apr 23 j 22:26	18°♌13'18		
evening set	-200 Aug 07 j 23:34	25°♌59'58		
conjunction	-200 Aug 25 j 09:39	28°♌07'44	1°52'29	
minimum elong	-200 Aug 25 j 09:36	28°♌07'43	1°52'29	
max. Earth dist.	-200 Aug 25 j 13:57	28°♌09'04	10.57603 AU	
	-200 Sep 09 j 16:25	0°♍		
morning rise	-200 Sep 11 j 14:44	0°♍13'59		
retrograde	-200 Dec 20 j 11:15	7°♍34'40		
opposition	-199 Feb 26 j 03:37	4°♍14'30	2°28'37	
min. Earth dist.	-199 Feb 26 j 01:04	4°♍14'59	8.63926 AU	
direct	-199 May 07 j 09:09	0°♍48'35		
evening set	-199 Aug 21 j 00:33	8°♍26'44		
conjunction	-199 Sep 07 j 05:20	10°♍31'25	2°07'43	
minimum elong	-199 Sep 07 j 05:18	10°♍31'24	2°07'43	
max. Earth dist.	-199 Sep 07 j 07:16	10°♍32'00	10.69949 AU	
morning rise	-199 Sep 24 j 05:25	12°♍34'39		
retrograde	-198 Jan 01 j 15:37	19°♍47'31		
opposition	-198 Mar 10 j 20:06	16°♍28'27	2°43'18	
min. Earth dist.	-198 Mar 10 j 18:31	16°♍28'45	8.75955 AU	
direct	-198 May 20 j 13:07	13°♍03'43		
evening set	-198 Sep 02 j 14:45	20°♍33'29		
conjunction	-198 Sep 19 j 14:55	22°♍35'24	2°16'53	
minimum elong	-198 Sep 19 j 14:53	22°♍35'23	2°16'53	
max. Earth dist.	-198 Sep 19 j 15:28	22°♍35'34	10.81451 AU	
morning rise	-198 Oct 06 j 10:38	24°♍35'59		
	-198 Nov 29 j 14:01	0°♎		
retrograde	-197 Jan 13 j 16:20	1°♎42'18		
	-197 Mar 01 j 06:21	30°℞♍		
opposition	-197 Mar 23 j 07:13	28°♍24'05	2°50'31	
min. Earth dist.	-197 Mar 23 j 06:27	28°♍24'13	8.86879 AU	
direct	-197 Jun 02 j 09:03	25°♍00'34		
	-197 Aug 24 j 14:23	0°♎		
evening set	-197 Sep 14 j 19:07	2°♎22'22		
conjunction	-197 Oct 01 j 15:27	4°♎21'59	2°20'00	
minimum elong	-197 Oct 01 j 15:27	4°♎21'59	2°20'00	
max. Earth dist.	-197 Oct 01 j 15:12	4°♎21'55	10.91626 AU	
morning rise	-197 Oct 18 j 07:38	6°♎20'25		
retrograde	-196 Jan 25 j 11:46	13°♎21'28		
opposition	-196 Apr 03 j 13:49	10°♎03'54	2°50'29	
min. Earth dist.	-196 Apr 03 j 14:26	10°♎03'47	8.96252 AU	
direct	-196 Jun 13 j 20:14	6°♎41'34		
evening set	-196 Sep 25 j 15:18	13°♎56'14		
conjunction	-196 Oct 12 j 08:29	15°♎54'00	2°17'20	
minimum elong	-196 Oct 12 j 08:30	15°♎54'00	2°17'20	
max. Earth dist.	-196 Oct 12 j 06:46	15°♎53'29	11.00078 AU	
morning rise	-196 Oct 28 j 22:07	17°♎50'47		
retrograde	-195 Feb 05 j 03:36	24°♎48'02		
opposition	-195 Apr 15 j 16:48	21°♎30'54	2°43'39	
min. Earth dist.	-195 Apr 15 j 19:28	21°♎30'24	9.03733 AU	
direct	-195 Jun 26 j 02:39	18°♎09'39		
evening set	-195 Oct 07 j 04:42	25°♎18'11		
conjunction	-195 Oct 23 j 19:31	27°♎14'37	2°09'16	
minimum elong	-195 Oct 23 j 19:33	27°♎14'37	2°09'16	
max. Earth dist.	-195 Oct 23 j 15:29	27°♎13'25	11.06522 AU	
morning rise	-195 Nov 09 j 07:44	29°♎10'17		
	-195 Nov 16 j 14:29	0°♏		
retrograde	-194 Feb 16 j 17:38	6°♏05'15		
opposition	-194 Apr 27 j 17:15	2°♏48'19	2°30'34	
min. Earth dist.	-194 Apr 27 j 21:07	2°♏47'36	9.09074 AU	
	-194 Jun 12 j 00:11	30°℞♎		
direct	-194 Jul 08 j 03:40	29°♎28'04		
	-194 Aug 03 j 00:38	0°♏		
evening set	-194 Oct 18 j 12:46	6°♏31'37		
conjunction	-194 Nov 04 j 02:13	8°♏27'13	1°56'17	

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

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

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

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

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

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

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 18:14	22°♈30'20	
	-120 Apr 03 j 16:48	0°♉	
evening set	-120 Apr 08 j 22:09	0°♉39'55	
conjunction	-120 Apr 26 j 19:39	2°♉59'40	-2°02'04
minimum elong	-120 Apr 26 j 19:42	2°♉59'41	2°02'03
max. Earth dist.	-120 Apr 27 j 00:07	3°♉01'08	10.00015 AU
morning rise	-120 May 14 j 20:06	5°♉20'23	
retrograde	-120 Aug 29 j 14:13	13°♉46'27	
opposition	-120 Nov 04 j 20:36	10°♉16'03	-2°21'10
min. Earth dist.	-120 Nov 04 j 16:21	10°♉16'55	7.98275 AU
direct	-119 Jan 10 j 02:57	6°♉47'56	
	-119 Apr 23 j 17:43	15°♉	
evening set	-119 Apr 24 j 01:58	15°♉02'39	
conjunction	-119 May 12 j 03:22	17°♉23'57	-1°42'07
minimum elong	-119 May 12 j 03:26	17°♉23'58	1°42'06
max. Earth dist.	-119 May 12 j 10:02	17°♉26'08	9.97066 AU
morning rise	-119 May 30 j 06:30	19°♉45'49	
retrograde	-119 Sep 13 j 08:10	28°♉10'06	
opposition	-119 Nov 19 j 05:27	24°♉40'01	-1°52'02
min. Earth dist.	-119 Nov 18 j 23:44	24°♉41'12	7.96883 AU
direct	-118 Jan 24 j 15:35	21°♉10'59	
evening set	-118 May 09 j 08:56	29°♉28'29	
	-118 May 13 j 10:40	0°♊	
conjunction	-118 May 27 j 13:03	1°♊50'29	-1°15'44
minimum elong	-118 May 27 j 13:06	1°♊50'30	1°15'44
max. Earth dist.	-118 May 27 j 21:11	1°♊53'09	9.97339 AU
morning rise	-118 Jun 14 j 17:34	4°♊12'37	
retrograde	-118 Sep 27 j 22:50	12°♊32'07	
opposition	-118 Dec 03 j 13:23	9°♊02'44	-1°15'54
min. Earth dist.	-118 Dec 03 j 06:58	9°♊04'03	7.98713 AU
direct	-117 Feb 08 j 06:48	5°♊33'04	
evening set	-117 May 24 j 15:39	13°♊50'49	
conjunction	-117 Jun 11 j 20:52	16°♊12'32	-0°44'46
minimum elong	-117 Jun 11 j 20:54	16°♊12'33	0°44'45
max. Earth dist.	-117 Jun 12 j 05:36	16°♊15'23	10.00791 AU
morning rise	-117 Jun 30 j 01:12	18°♊33'57	
retrograde	-117 Oct 12 j 07:37	26°♊46'16	
opposition	-117 Dec 17 j 18:28	23°♊17'54	-0°35'22
min. Earth dist.	-117 Dec 17 j 12:01	23°♊19'14	8.03628 AU
direct	-116 Feb 22 j 22:47	19°♊47'54	
evening set	-116 Jun 07 j 19:19	28°♊03'33	
	-116 Jun 22 j 21:46	0°♋	
conjunction	-116 Jun 25 j 23:53	0°♋24'00	-0°11'24
minimum elong	-116 Jun 25 j 23:54	0°♋24'01	0°11'24
behind sun begin	-116 Jun 25 j 18:38	0°♋22'19	
behind sun end	-116 Jun 26 j 05:09	0°♋25'42	
max. Earth dist.	-116 Jun 26 j 08:23	0°♋26'45	10.07164 AU
morning rise	-116 Jul 14 j 02:23	2°♋43'46	
retrograde	-116 Oct 25 j 07:48	10°♋47'07	
asc. node	-116 Oct 31 j 17:14	10°♋44'49	
opposition	-116 Dec 30 j 19:08	7°♋20'04	0°06'38
min. Earth dist.	-116 Dec 30 j 12:55	7°♋21'20	8.11278 AU
direct	-115 Mar 08 j 13:34	3°♋50'05	
evening set	-115 Jun 22 j 17:00	12°♋01'32	
conjunction	-115 Jul 10 j 19:13	14°♋19'52	0°22'11
minimum elong	-115 Jul 10 j 19:12	14°♋19'52	0°22'12
max. Earth dist.	-115 Jul 11 j 03:01	14°♋22'22	10.16014 AU
morning rise	-115 Jul 28 j 18:17	16°♋37'10	
retrograde	-115 Nov 07 j 23:05	24°♋30'40	
opposition	-114 Jan 13 j 14:32	21°♋05'04	0°47'21
min. Earth dist.	-114 Jan 13 j 08:27	21°♋06'18	8.21158 AU
direct	-114 Mar 22 j 23:30	17°♋35'29	
evening set	-114 Jul 07 j 06:11	25°♋40'58	
conjunction	-114 Jul 25 j 04:36	27°♋56'32	0°53'47
minimum elong	-114 Jul 25 j 04:34	27°♋56'32	0°53'47
max. Earth dist.	-114 Jul 25 j 11:40	27°♋58'47	10.26777 AU
	-114 Aug 10 j 12:13	0°♌	
morning rise	-114 Aug 11 j 23:01	0°♌10'49	
retrograde	-114 Nov 21 j 07:13	7°♌54'15	
opposition	-113 Jan 27 j 03:52	4°♌30'10	1°24'24
min. Earth dist.	-113 Jan 26 j 21:42	4°♌31'24	8.32661 AU
direct	-113 Apr 06 j 02:58	1°♌01'20	
evening set	-113 Jul 21 j 09:30	8°♌59'35	
conjunction	-113 Aug 08 j 03:13	11°♌12'02	1°21'47
minimum elong	-113 Aug 08 j 03:10	11°♌12'01	1°21'47
max. Earth dist.	-113 Aug 08 j 09:50	11°♌14'07	10.38825 AU
morning rise	-113 Aug 25 j 16:13	13°♌23'01	
	-113 Sep 08 j 03:46	15°♌	
retrograde	-113 Dec 04 j 07:28	20°♌56'38	
opposition	-112 Feb 09 j 10:47	17°♌34'05	1°55'57
min. Earth dist.	-112 Feb 09 j 05:16	17°♌35'11	8.45136 AU
	-112 Mar 17 j 02:56	15°℞♌	
direct	-112 Apr 18 j 23:06	14°♌06'15	
	-112 May 21 j 15:58	15°♌	
evening set	-112 Aug 03 j 02:05	21°♌56'31	
conjunction	-112 Aug 20 j 14:35	24°♌05'43	1°44'55
minimum elong	-112 Aug 20 j 14:32	24°♌05'42	1°44'55
max. Earth dist.	-112 Aug 20 j 20:19	24°♌07'30	10.51498 AU
morning rise	-112 Sep 06 j 21:59	26°♌13'24	
	-112 Oct 10 j 14:23	0°♍	
retrograde	-112 Dec 15 j 23:06	3°♍37'52	
opposition	-111 Feb 21 j 11:38	0°♍16'50	2°20'50
min. Earth dist.	-111 Feb 21 j 07:33	0°♍17'38	8.57920 AU
	-111 Feb 25 j 01:48	30°℞♌	
direct	-111 May 02 j 12:43	26°♌50'12	
	-111 Jul 05 j 08:41	0°♍	
evening set	-111 Aug 16 j 07:39	4°♍32'07	
conjunction	-111 Sep 02 j 14:46	6°♍38'08	2°02'26
minimum elong	-111 Sep 02 j 14:43	6°♍38'08	2°02'25
max. Earth dist.	-111 Sep 02 j 18:49	6°♍39'23	10.64156 AU
morning rise	-111 Sep 19 j 16:52	8°♍42'40	
retrograde	-111 Dec 28 j 08:09	15°♍59'00	
opposition	-110 Mar 06 j 06:41	12°♍39'20	2°38'23
min. Earth dist.	-110 Mar 06 j 04:26	12°♍39'46	8.70396 AU
direct	-110 May 15 j 18:15	9°♍14'01	
evening set	-110 Aug 29 j 02:33	16°♍47'35	
conjunction	-110 Sep 15 j 04:39	18°♍50'43	2°13'54
minimum elong	-110 Sep 15 j 04:37	18°♍50'43	2°13'54
max. Earth dist.	-110 Sep 15 j 06:18	18°♍51'13	10.76223 AU
morning rise	-110 Oct 02 j 02:11	20°♍52'28	
retrograde	-109 Jan 09 j 10:00	28°♍01'46	
opposition	-109 Mar 18 j 20:15	24°♍43'15	2°48'23
min. Earth dist.	-109 Mar 18 j 19:13	24°♍43'27	8.82008 AU
direct	-109 May 28 j 16:51	21°♍19'19	
evening set	-109 Sep 10 j 11:26	28°♍44'52	
	-109 Sep 21 j 01:12	0°♎	
conjunction	-109 Sep 27 j 09:18	0°♎45'30	2°19'16
minimum elong	-109 Sep 27 j 09:18	0°♎45'29	2°19'16
max. Earth dist.	-109 Sep 27 j 09:16	0°♎45'29	10.87180 AU
morning rise	-109 Oct 14 j 03:03	2°♎44'54	
retrograde	-108 Jan 21 j 07:44	9°♎48'30	
opposition	-108 Mar 30 j 05:09	6°♎30'52	2°51'01

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

conjunction	62 Jul 16 j 06:21	20°♋42'11	0°33'27	
minimum elong	62 Jul 16 j 06:20	20°♋42'11	0°33'27	
max. Earth dist.	62 Jul 16 j 14:49	20°♋44'53	10.20141 AU	
morning rise	62 Aug 03 j 04:01	22°♋58'26		
	62 Oct 14 j 11:33	0°♌		
retrograde	62 Nov 13 j 03:55	0°♌48'24		
	62 Dec 13 j 01:36	30°℞♋		
opposition	63 Jan 18 j 20:09	27°♋23'18	1°00'39	
min. Earth dist.	63 Jan 18 j 14:14	27°♋24'30	8.25379 AU	
direct	63 Mar 28 j 07:54	23°♋54'01		
	63 Jun 26 j 11:07	0°♌		
evening set	63 Jul 12 j 15:02	1°♌56'39		
conjunction	63 Jul 30 j 12:12	4°♌11'12	1°03'51	
minimum elong	63 Jul 30 j 12:09	4°♌11'11	1°03'51	
max. Earth dist.	63 Jul 30 j 19:11	4°♌13'25	10.31023 AU	
morning rise	63 Aug 17 j 05:02	6°♌24'24		
retrograde	63 Nov 26 j 09:13	14°♌04'26		
opposition	64 Feb 01 j 06:59	10°♌40'50	1°35'49	
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		
	64 Jul 24 j 13:50	15°♌		
evening set	64 Jul 25 j 14:59	15°♌07'40		
conjunction	64 Aug 12 j 07:08	17°♌19'05	1°30'11	
minimum elong	64 Aug 12 j 07:05	17°♌19'03	1°30'10	
max. Earth dist.	64 Aug 12 j 12:07	17°♌20'38	10.42945 AU	
morning rise	64 Aug 29 j 18:38	19°♌29'01		
retrograde	64 Dec 08 j 04:42	26°♌59'35		
opposition	65 Feb 13 j 11:45	23°♌37'27	2°05'04	
min. Earth dist.	65 Feb 13 j 08:07	23°♌38'10	8.49134 AU	
direct	65 Apr 24 j 04:36	20°♌09'49		
evening set	65 Aug 08 j 03:58	27°♌57'21		
	65 Aug 24 j 20:46	0°♍		
conjunction	65 Aug 25 j 14:49	0°♍05'34	1°51'22	
minimum elong	65 Aug 25 j 14:46	0°♍05'33	1°51'21	
max. Earth dist.	65 Aug 25 j 18:04	0°♍06'34	10.55275 AU	
morning rise	65 Sep 11 j 20:53	2°♍12'17		
retrograde	65 Dec 20 j 18:00	9°♍34'14		
opposition	66 Feb 26 j 10:28	6°♍13'27	2°27'23	
min. Earth dist.	66 Feb 26 j 07:20	6°♍14'03	8.61481 AU	
direct	66 May 07 j 15:54	2°♍47'01		
evening set	66 Aug 21 j 06:09	10°♍26'24		
conjunction	66 Sep 07 j 11:58	12°♍31'36	2°06'44	
minimum elong	66 Sep 07 j 11:56	12°♍31'35	2°06'44	
max. Earth dist.	66 Sep 07 j 14:18	12°♍32'18	10.67413 AU	
morning rise	66 Sep 24 j 12:54	14°♍35'20		
retrograde	67 Jan 02 j 02:03	21°♍49'38		
opposition	67 Mar 11 j 03:25	18°♍30'05	2°42'16	
min. Earth dist.	67 Mar 11 j 01:24	18°♍30'29	8.73346 AU	
direct	67 May 20 j 17:54	15°♍04'58		
evening set	67 Sep 02 j 22:09	22°♍36'20		
conjunction	67 Sep 19 j 23:20	24°♍38'50	2°16'03	
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	
morning rise	67 Oct 06 j 19:47	26°♍39'58		
	67 Nov 06 j 01:10	0°♎		
retrograde	68 Jan 14 j 03:06	3°♎47'49		
opposition	68 Mar 22 j 15:38	0°♎29'22	2°49'39	
min. Earth dist.	68 Mar 22 j 15:27	0°♎29'24	8.84205 AU	
	68 Mar 29 j 02:48	30°℞♍		
direct	68 Jun 01 j 14:15	27°♍05'36		
	68 Aug 02 j 09:10	0°♎		
evening set	68 Sep 14 j 04:45	4°♎29'23		

conjunction	68 Oct 01 j 01:50	6°♎29'33	2°19'17	
minimum elong	68 Oct 01 j 01:50	6°♎29'33	2°19'17	
max. Earth dist.	68 Oct 01 j 01:03	6°♎29'19	10.88961 AU	
morning rise	68 Oct 17 j 18:46	8°♎28'32		
retrograde	69 Jan 25 j 00:28	15°♎31'16		
opposition	69 Apr 03 j 23:43	12°♎13'40	2°49'45	
min. Earth dist.	69 Apr 04 j 01:26	12°♎13'21	8.93620 AU	
direct	69 Jun 14 j 04:05	8°♎51'13		
evening set	69 Sep 26 j 03:13	16°♎08'05		
conjunction	69 Oct 12 j 21:03	18°♎06'25	2°16'41	
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	
morning rise	69 Oct 29 j 11:30	20°♎03'45		
retrograde	70 Feb 05 j 17:29	27°♎02'42		
opposition	70 Apr 16 j 04:16	23°♎45'41	2°42'58	
min. Earth dist.	70 Apr 16 j 06:58	23°♎45'11	9.01234 AU	
direct	70 Jun 26 j 11:42	20°♎24'28		
evening set	70 Oct 07 j 18:50	27°♎35'17		
conjunction	70 Oct 24 j 10:27	29°♎32'16	2°08'39	
minimum elong	70 Oct 24 j 10:29	29°♎32'16	2°08'39	
max. Earth dist.	70 Oct 24 j 06:30	29°♎31'06	11.04114 AU	
	70 Oct 28 j 08:29	0°♏		
morning rise	70 Nov 09 j 23:16	1°♏28'28		
retrograde	71 Feb 17 j 10:44	8°♏25'06		
opposition	71 Apr 28 j 06:23	5°♏08'23	2°29'53	
min. Earth dist.	71 Apr 28 j 09:39	5°♏07'47	9.06754 AU	
direct	71 Jul 08 j 16:16	1°♏48'16		
evening set	71 Oct 19 j 05:23	8°♏54'04		
conjunction	71 Nov 04 j 19:33	10°♏50'12	1°55'39	
minimum elong	71 Nov 04 j 19:35	10°♏50'12	1°55'39	
max. Earth dist.	71 Nov 04 j 15:08	10°♏48'54	11.08530 AU	
morning rise	71 Nov 21 j 07:27	12°♏45'44		
	71 Dec 11 j 13:33	15°♏		
retrograde	72 Feb 29 j 03:30	19°♏41'30		
opposition	72 May 09 j 07:07	16°♏24'50	2°11'11	
min. Earth dist.	72 May 09 j 11:31	16°♏24'01	9.09982 AU	
	72 May 29 j 04:14	15°℞♏		
direct	72 Jul 19 j 14:16	13°♏05'37		
	72 Sep 07 j 05:43	15°♏		
evening set	72 Oct 29 j 12:33	20°♏07'37		
conjunction	72 Nov 15 j 01:52	22°♏03'20	1°38'17	
minimum elong	72 Nov 15 j 01:54	22°♏03'21	1°38'16	
max. Earth dist.	72 Nov 14 j 19:50	22°♏01'34	11.10596 AU	
morning rise	72 Dec 01 j 13:52	23°♏58'45		
	73 Feb 06 j 02:01	0°♐		
retrograde	73 Mar 11 j 19:15	0°♐55'09		
	73 Apr 15 j 06:59	30°℞♏		
opposition	73 May 21 j 07:25	27°♏38'13	1°47'34	
min. Earth dist.	73 May 21 j 13:26	27°♏37'07	9.10798 AU	
direct	73 Jul 31 j 10:00	24°♏19'38		
	73 Oct 29 j 00:04	0°♐		
evening set	73 Nov 09 j 17:52	1°♐19'13		
conjunction	73 Nov 26 j 06:59	3°♐15'00	1°17'11	
minimum elong	73 Nov 26 j 07:01	3°♐15'00	1°17'10	
max. Earth dist.	73 Nov 25 j 23:19	3°♐12'44	11.10205 AU	
morning rise	73 Dec 12 j 19:51	5°♐10'42		
retrograde	74 Mar 23 j 14:23	12°♐09'21		
opposition	74 Jun 02 j 08:09	8°♐51'51	1°19'51	
min. Earth dist.	74 Jun 02 j 15:07	8°♐50'34	9.09108 AU	
direct	74 Aug 12 j 05:55	5°♐33'40		
evening set	74 Nov 20 j 23:14	12°♐32'20		

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

	87 Apr 18 j 06:41	15°♉	
evening set	87 Apr 23 j 14:09	15°♉40'38	
conjunction	87 May 11 j 14:52	18°♉01'37	-1°43'44
minimum elong	87 May 11 j 14:55	18°♉01'38	1°43'44
max. Earth dist.	87 May 11 j 22:42	18°♉04'12	9.97652 AU
morning rise	87 May 29 j 17:33	20°♉23'16	
retrograde	87 Sep 12 j 22:31	28°♉47'30	
opposition	87 Nov 18 j 21:35	25°♉17'12	-1°54'25
min. Earth dist.	87 Nov 18 j 15:05	25°♉18'33	7.97428 AU
direct	88 Jan 24 j 06:10	21°♉48'18	
evening set	88 May 07 j 19:58	0°♊04'44	
	88 May 07 j 05:11	0°♊	
conjunction	88 May 25 j 23:36	2°♊26'31	-1°17'57
minimum elong	88 May 25 j 23:39	2°♊26'32	1°17'56
max. Earth dist.	88 May 26 j 08:29	2°♊29'26	9.97816 AU
morning rise	88 Jun 13 j 04:00	4°♊48'33	
retrograde	88 Sep 26 j 13:50	13°♊08'25	
opposition	88 Dec 02 j 05:14	9°♊38'58	-1°18'56
min. Earth dist.	88 Dec 01 j 22:18	9°♊40'24	7.99120 AU
direct	89 Feb 06 j 21:20	6°♊09'34	
evening set	89 May 23 j 02:25	14°♊26'40	
conjunction	89 Jun 10 j 07:24	16°♊48'18	-0°47'24
minimum elong	89 Jun 10 j 07:27	16°♊48'18	0°47'23
max. Earth dist.	89 Jun 10 j 16:44	16°♊51'20	10.01113 AU
morning rise	89 Jun 28 j 11:54	19°♊09'44	
retrograde	89 Oct 10 j 22:13	27°♊22'44	
opposition	89 Dec 16 j 10:22	23°♊54'29	-0°38'49
min. Earth dist.	89 Dec 16 j 03:22	23°♊55'56	8.03872 AU
direct	90 Feb 21 j 13:26	20°♊24'55	
evening set	90 Jun 07 j 06:19	28°♊40'17	
	90 Jun 17 j 15:10	0°♋	
conjunction	90 Jun 25 j 10:57	1°♋00'47	-0°14'16
minimum elong	90 Jun 25 j 10:58	1°♋00'47	0°14'15
behind sun begin	90 Jun 25 j 07:44	0°♋59'45	
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
morning rise	90 Jul 13 j 13:52	3°♋20'41	
retrograde	90 Oct 24 j 23:06	11°♋25'03	
asc. node	90 Dec 02 j 23:00	10°♋04'06	
opposition	90 Dec 30 j 11:29	7°♋58'12	0°03'02
min. Earth dist.	90 Dec 30 j 04:29	7°♋59'38	8.11377 AU
direct	91 Mar 08 j 03:19	4°♋28'45	
evening set	91 Jun 22 j 04:42	12°♋40'13	
conjunction	91 Jul 10 j 07:20	14°♋58'44	0°19'17
minimum elong	91 Jul 10 j 07:19	14°♋58'43	0°19'18
max. Earth dist.	91 Jul 10 j 16:01	15°♋01'30	10.16048 AU
morning rise	91 Jul 28 j 07:03	17°♋16'15	
retrograde	91 Nov 07 j 16:42	25°♋10'55	
opposition	92 Jan 13 j 07:26	21°♋45'35	0°43'49
min. Earth dist.	92 Jan 13 j 00:23	21°♋47'01	8.21125 AU
direct	92 Mar 21 j 13:04	18°♋16'33	
evening set	92 Jul 05 j 19:21	26°♋22'18	
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
max. Earth dist.	92 Jul 24 j 02:34	28°♋40'44	10.26678 AU
	92 Aug 03 j 12:58	0°♌	
morning rise	92 Aug 10 j 13:36	0°♌52'44	
retrograde	92 Nov 20 j 02:40	8°♌37'17	
opposition	93 Jan 25 j 21:26	5°♌13'29	1°21'08
min. Earth dist.	93 Jan 25 j 14:51	5°♌14'48	8.32476 AU
direct	93 Apr 04 j 17:04	1°♌45'07	
evening set	93 Jul 20 j 00:16	9°♌43'50	
conjunction	93 Aug 06 j 18:46	11°♌56'37	1°19'18
minimum elong	93 Aug 06 j 18:42	11°♌56'36	1°19'17
max. Earth dist.	93 Aug 07 j 01:50	11°♌58'50	10.38538 AU
morning rise	93 Aug 24 j 08:34	14°♌07'56	
	93 Aug 31 j 12:13	15°♌	
retrograde	93 Dec 03 j 03:13	21°♌42'36	
opposition	94 Feb 08 j 05:12	18°♌20'18	1°53'06
min. Earth dist.	94 Feb 07 j 23:59	18°♌21'20	8.44707 AU
	94 Apr 06 j 18:27	15°℞♌	
direct	94 Apr 18 j 15:00	14°♌52'47	
	94 Apr 30 j 11:16	15°♌	
evening set	94 Aug 02 j 18:19	22°♌43'42	
conjunction	94 Aug 20 j 07:39	24°♌53'16	1°42'48
minimum elong	94 Aug 20 j 07:35	24°♌53'15	1°42'48
max. Earth dist.	94 Aug 20 j 12:49	24°♌54'52	10.50878 AU
morning rise	94 Sep 06 j 15:56	27°♌01'18	
	94 Oct 02 j 13:43	0°♍	
retrograde	94 Dec 15 j 20:22	4°♍26'52	
opposition	95 Feb 21 j 06:48	1°♍05'59	2°18'30
min. Earth dist.	95 Feb 21 j 03:55	1°♍06'33	8.57064 AU
	95 Mar 07 j 14:22	30°℞♌	
direct	95 May 02 j 05:05	27°♌39'30	
	95 Jun 25 j 12:18	0°♍	
evening set	95 Aug 16 j 01:44	5°♍22'25	
conjunction	95 Sep 02 j 09:43	7°♍28'52	2°00'45
minimum elong	95 Sep 02 j 09:40	7°♍28'51	2°00'44
max. Earth dist.	95 Sep 02 j 11:55	7°♍29'33	10.63008 AU
morning rise	95 Sep 19 j 12:46	9°♍33'50	
retrograde	95 Dec 28 j 06:17	16°♍51'22	
opposition	96 Mar 05 j 02:31	13°♍31'45	2°36'38
min. Earth dist.	96 Mar 05 j 01:40	13°♍31'55	8.68938 AU
direct	96 May 14 j 11:40	10°♍06'26	
evening set	96 Aug 27 j 22:37	17°♍41'25	
conjunction	96 Sep 14 j 01:36	19°♍45'03	2°12'40
minimum elong	96 Sep 14 j 01:35	19°♍45'02	2°12'40
max. Earth dist.	96 Sep 14 j 01:12	19°♍44'55	10.74424 AU
morning rise	96 Oct 01 j 00:02	21°♍47'17	
retrograde	97 Jan 08 j 09:05	28°♍57'59	
opposition	97 Mar 17 j 17:13	25°♍39'25	2°47'14
min. Earth dist.	97 Mar 17 j 17:31	25°♍39'21	8.79876 AU
direct	97 May 27 j 12:48	22°♍15'17	
evening set	97 Sep 09 j 09:29	29°♍42'36	
	97 Sep 11 j 20:39	0°♎	
conjunction	97 Sep 26 j 08:16	1°♎43'46	2°18'30
minimum elong	97 Sep 26 j 08:16	1°♎43'46	2°18'30
max. Earth dist.	97 Sep 26 j 06:31	1°♎43'14	10.84715 AU
morning rise	97 Oct 13 j 02:46	3°♎43'41	
retrograde	98 Jan 20 j 09:22	10°♎48'49	
opposition	98 Mar 30 j 03:22	7°♎31'00	2°50'26
min. Earth dist.	98 Mar 30 j 04:32	7°♎30'47	8.89478 AU
direct	98 Jun 09 j 06:05	4°♎08'04	
evening set	98 Sep 21 j 11:47	11°♎28'12	
conjunction	98 Oct 08 j 07:10	13°♎27'23	2°18'22
minimum elong	98 Oct 08 j 07:11	13°♎27'23	2°18'23
max. Earth dist.	98 Oct 08 j 04:35	13°♎26'37	10.93501 AU
morning rise	98 Oct 24 j 22:34	15°♎25'28	
retrograde	99 Feb 01 j 05:16	22°♎26'17	
opposition	99 Apr 11 j 09:40	19°♎08'59	2°46'34
min. Earth dist.	99 Apr 11 j 12:31	19°♎08'27	8.97391 AU
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	
	101 Feb 07 j 15:51	15°♏	
retrograde	101 Feb 23 j 13:35	15°♏12'39	
	101 Mar 11 j 15:54	15°℞♏	
opposition	101 May 04 j 14:58	11°♏55'34	2°19'43
min. Earth dist.	101 May 04 j 20:37	11°♏54'32	9.07141 AU
direct	101 Jul 14 j 23:22	8°♏35'27	
	101 Oct 19 j 09:22	15°♏	
evening set	101 Oct 25 j 04:22	15°♏39'34	
conjunction	101 Nov 10 j 18:02	17°♏35'36	1°46'04
minimum elong	101 Nov 10 j 18:05	17°♏35'37	1°46'03
max. Earth dist.	101 Nov 10 j 11:15	17°♏33'36	11.08071 AU
morning rise	101 Nov 27 j 06:09	19°♏31'13	