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

direct	-400 Feb 20 j 17:30	6°♊03'39		
evening set	-400 May 20 j 01:38	7°♊58'52		
conjunction	-400 Jun 05 j 09:57	8°♊35'02	-1°09'17	
minimum elong	-400 Jun 05 j 09:57	8°♊35'02	1°09'17	
max. Earth dist.	-400 Jun 05 j 08:33	8°♊34'54	30.90639 AU	
morning rise	-400 Jun 21 j 17:54	9°♊11'10		
retrograde	-400 Sep 18 j 21:21	11°♊06'35		
opposition	-400 Dec 05 j 15:59	9°♊42'27	-1°12'09	
min. Earth dist.	-400 Dec 05 j 16:26	9°♊42'26	28.91105 AU	
direct	-399 Feb 22 j 04:36	8°♊17'30		
evening set	-399 May 22 j 15:35	10°♊12'47		
conjunction	-399 Jun 08 j 00:03	10°♊48'57	-1°05'39	
minimum elong	-399 Jun 08 j 00:03	10°♊48'57	1°05'39	
max. Earth dist.	-399 Jun 07 j 22:20	10°♊48'47	30.91521 AU	
morning rise	-399 Jun 24 j 07:54	11°♊25'06		
retrograde	-399 Sep 21 j 06:57	13°♊20'21		
opposition	-399 Dec 08 j 02:19	11°♊56'20	-1°08'12	
min. Earth dist.	-399 Dec 08 j 04:24	11°♊56'11	28.92058 AU	
direct	-398 Feb 24 j 14:57	10°♊31'22		
evening set	-398 May 25 j 05:33	12°♊26'44		
conjunction	-398 Jun 10 j 14:10	13°♊02'54	-1°01'55	
minimum elong	-398 Jun 10 j 14:10	13°♊02'54	1°01'55	
max. Earth dist.	-398 Jun 10 j 11:45	13°♊02'40	30.92548 AU	
morning rise	-398 Jun 26 j 22:00	13°♊39'02		
retrograde	-398 Sep 23 j 18:51	15°♊34'10		
opposition	-398 Dec 10 j 12:33	14°♊10'16	-1°04'10	
min. Earth dist.	-398 Dec 10 j 14:28	14°♊10'07	28.93118 AU	
direct	-397 Feb 27 j 04:16	12°♊45'18		
evening set	-397 May 27 j 19:37	14°♊40'45		
conjunction	-397 Jun 13 j 04:11	15°♊16'55	-0°58'05	
minimum elong	-397 Jun 13 j 04:11	15°♊16'55	0°58'04	
max. Earth dist.	-397 Jun 13 j 00:31	15°♊16'35	30.93640 AU	
morning rise	-397 Jun 29 j 11:56	15°♊53'02		
retrograde	-397 Sep 26 j 06:24	17°♊48'04		
opposition	-397 Dec 12 j 22:57	16°♊24'16	-1°00'01	
min. Earth dist.	-397 Dec 13 j 02:27	16°♊24'01	28.94233 AU	
direct	-396 Feb 29 j 15:11	14°♊59'19		
evening set	-396 May 29 j 09:35	16°♊54'52		
conjunction	-396 Jun 14 j 18:18	17°♊31'02	-0°54'10	
minimum elong	-396 Jun 14 j 18:18	17°♊31'02	0°54'10	
max. Earth dist.	-396 Jun 14 j 14:19	17°♊30'40	30.94760 AU	
morning rise	-396 Jul 01 j 01:50	18°♊07'08		
retrograde	-396 Sep 27 j 18:25	20°♊02'01		
opposition	-396 Dec 14 j 09:15	18°♊38'21	-0°55'47	
min. Earth dist.	-396 Dec 14 j 13:10	18°♊38'04	28.95327 AU	
direct	-395 Mar 03 j 04:05	17°♊13'24		
evening set	-395 May 31 j 23:39	19°♊09'01		
conjunction	-395 Jun 17 j 08:14	19°♊45'11	-0°50'10	
minimum elong	-395 Jun 17 j 08:14	19°♊45'11	0°50'09	
max. Earth dist.	-395 Jun 17 j 02:06	19°♊44'37	30.95827 AU	
morning rise	-395 Jul 03 j 15:48	20°♊21'16		
retrograde	-395 Sep 30 j 07:55	22°♊16'01		
opposition	-395 Dec 16 j 19:42	20°♊52'26	-0°51'29	
min. Earth dist.	-395 Dec 17 j 00:51	20°♊52'04	28.96357 AU	
direct	-394 Mar 05 j 16:39	19°♊27'28		
evening set	-394 Jun 03 j 13:44	21°♊23'09		
conjunction	-394 Jun 19 j 22:27	21°♊59'18	-0°46'06	
minimum elong	-394 Jun 19 j 22:28	21°♊59'18	0°46'06	
max. Earth dist.	-394 Jun 19 j 16:11	21°♊58'43	30.96807 AU	
morning rise	-394 Jul 06 j 05:41	22°♊35'22		
retrograde	-394 Oct 02 j 18:48	24°♊29'58		
opposition	-394 Dec 19 j 06:04	23°♊06'27	-0°47'06	
min. Earth dist.	-394 Dec 19 j 12:29	23°♊06'00	28.97278 AU	
direct	-393 Mar 08 j 06:22	21°♊41'28		
evening set	-393 Jun 06 j 03:54	23°♊37'11		
conjunction	-393 Jun 22 j 12:25	24°♊13'19	-0°41'58	
minimum elong	-393 Jun 22 j 12:25	24°♊13'19	0°41'58	
max. Earth dist.	-393 Jun 22 j 03:53	24°♊12'32	30.97692 AU	
morning rise	-393 Jul 08 j 19:36	24°♊49'21		
retrograde	-393 Oct 05 j 07:13	26°♊43'48		
opposition	-393 Dec 21 j 16:27	25°♊20'20	-0°42'39	
min. Earth dist.	-393 Dec 21 j 23:20	25°♊19'51	28.98123 AU	
direct	-392 Mar 09 j 18:34	23°♊55'18		
evening set	-392 Jun 07 j 17:40	25°♊51'02		
conjunction	-392 Jun 24 j 02:15	26°♊27'10	-0°37'47	
minimum elong	-392 Jun 24 j 02:15	26°♊27'10	0°37'47	
max. Earth dist.	-392 Jun 23 j 17:41	26°♊26'23	30.98498 AU	
morning rise	-392 Jul 10 j 09:04	27°♊03'10		
retrograde	-392 Oct 06 j 17:31	28°♊57'26		
opposition	-392 Dec 23 j 02:52	27°♊34'02	-0°38'08	
min. Earth dist.	-392 Dec 23 j 11:23	27°♊33'26	28.98899 AU	
direct	-391 Mar 12 j 06:57	26°♊08'56		
evening set	-391 Jun 10 j 07:35	28°♊04'41		
conjunction	-391 Jun 26 j 15:58	28°♊40'48	-0°33'33	
minimum elong	-391 Jun 26 j 15:58	28°♊40'48	0°33'32	
max. Earth dist.	-391 Jun 26 j 05:39	28°♊39'51	30.99270 AU	
morning rise	-391 Jul 12 j 22:43	29°♊16'47		
	-391 Aug 02 j 23:19	0°♋		
retrograde	-391 Oct 09 j 05:41	1°♋10'52		
	-391 Dec 18 j 03:17	30°℞♊		
opposition	-391 Dec 25 j 12:57	29°♊47'30	-0°33'35	
min. Earth dist.	-391 Dec 25 j 21:22	29°♊46'54	28.99662 AU	
direct	-390 Mar 14 j 18:58	28°♊22'19		
	-390 Jun 04 j 09:18	0°♋		
evening set	-390 Jun 12 j 21:24	0°♋18'05		
conjunction	-390 Jun 29 j 05:44	0°♋54'11	-0°29'16	
minimum elong	-390 Jun 29 j 05:44	0°♋54'11	0°29'16	
max. Earth dist.	-390 Jun 28 j 18:58	0°♋53'12	31.00034 AU	
morning rise	-390 Jul 15 j 12:07	1°♋30'08		
retrograde	-390 Oct 11 j 14:14	3°♋24'03		
opposition	-390 Dec 27 j 23:18	2°♋00'43	-0°28'59	
min. Earth dist.	-390 Dec 28 j 09:27	2°♋00'00	29.00447 AU	
direct	-389 Mar 17 j 06:07	0°♋35'29		
evening set	-389 Jun 15 j 11:02	2°♋31'16		
conjunction	-389 Jul 01 j 19:10	3°♋07'20	-0°24'57	
minimum elong	-389 Jul 01 j 19:10	3°♋07'20	0°24'56	
max. Earth dist.	-389 Jul 01 j 07:43	3°♋06'17	31.00853 AU	
morning rise	-389 Jul 18 j 01:18	3°♋43'15		
retrograde	-389 Oct 14 j 00:43	5°♋37'00		
opposition	-389 Dec 30 j 09:27	4°♋13'43	-0°24'21	
min. Earth dist.	-389 Dec 30 j 19:15	4°♋13'01	29.01301 AU	
direct	-388 Mar 18 j 18:59	2°♋48'26		
evening set	-388 Jun 17 j 00:39	4°♋44'14		
conjunction	-388 Jul 03 j 08:33	5°♋20'17	-0°20'35	
minimum elong	-388 Jul 03 j 08:33	5°♋20'17	0°20'35	
max. Earth dist.	-388 Jul 02 j 20:14	5°♋19'09	31.01758 AU	
morning rise	-388 Jul 19 j 14:22	5°♋56'10		

Attention, astronomical year style is used: The year -388 in astronomical counting style is the year 389 BCE in historical counting style.

retrograde	-388 Oct	15 j 11:03	7°♓49'46	
opposition	-388 Dec	31 j 19:42	6°♓26'32	-0°19'40
min. Earth dist.	-387 Jan	01 j 06:41	6°♓25'46	29.02279 AU
direct	-387 Mar	21 j 05:08	5°♓01'13	
evening set	-387 Jun	19 j 14:04	6°♓57'03	
conjunction	-387 Jul	05 j 21:53	7°♓33'05	-0°16'13
minimum elong	-387 Jul	05 j 21:53	7°♓33'05	0°16'12
max. Earth dist.	-387 Jul	05 j 09:40	7°♓31'57	31.02802 AU
morning rise	-387 Jul	22 j 03:20	8°♓08'56	
retrograde	-387 Oct	17 j 21:39	10°♓02'24	
opposition	-386 Jan	03 j 05:56	8°♓39'15	-0°14'58
min. Earth dist.	-386 Jan	03 j 16:52	8°♓38'29	29.03374 AU
direct	-386 Mar	23 j 18:16	7°♓13'55	
evening set	-386 Jun	22 j 03:42	9°♓09'49	
conjunction	-386 Jul	08 j 11:08	9°♓45'49	-0°11'49
minimum elong	-386 Jul	08 j 11:08	9°♓45'49	0°11'49
behind sun begin	-386 Jul	08 j 06:36	9°♓45'25	
behind sun end	-386 Jul	08 j 15:40	9°♓46'13	
max. Earth dist.	-386 Jul	07 j 21:23	9°♓44'33	31.03961 AU
morning rise	-386 Jul	24 j 16:19	10°♓21'38	
retrograde	-386 Oct	20 j 09:54	12°♓14'59	
opposition	-385 Jan	05 j 16:09	10°♓51'56	-0°10'15
min. Earth dist.	-385 Jan	06 j 03:43	10°♓51'07	29.04592 AU
direct	-385 Mar	26 j 06:02	9°♓26'38	
evening set	-385 Jun	24 j 17:08	11°♓22'36	
max. Earth dist.	-385 Jul	10 j 11:13	11°♓57'22	31.05220 AU
conjunction	-385 Jul	11 j 00:28	11°♓58'35	-0°07'24
minimum elong	-385 Jul	11 j 00:28	11°♓58'35	0°07'23
behind sun begin	-385 Jul	10 j 18:28	11°♓58'03	
behind sun end	-385 Jul	11 j 06:28	11°♓59'07	
morning rise	-385 Jul	27 j 05:07	12°♓34'22	
retrograde	-385 Oct	22 j 20:25	14°♓27'37	
opposition	-384 Jan	08 j 02:31	13°♓04'41	-0°05'31
min. Earth dist.	-384 Jan	08 j 14:59	13°♓03'48	29.05869 AU
direct	-384 Mar	27 j 19:03	11°♓39'25	
evening set	-384 Jun	26 j 06:34	13°♓35'27	
conjunction	-384 Jul	12 j 13:26	14°♓11'24	-0°02'58
minimum elong	-384 Jul	12 j 13:26	14°♓11'24	0°02'58
behind sun begin	-384 Jul	12 j 06:52	14°♓10'50	
behind sun end	-384 Jul	12 j 19:59	14°♓11'59	
max. Earth dist.	-384 Jul	11 j 22:26	14°♓10'02	31.06511 AU
morning rise	-384 Jul	28 j 17:52	14°♓47'09	
retrograde	-384 Oct	24 j 09:04	16°♓40'20	
opposition	-383 Jan	09 j 12:49	15°♓17'30	-0°00'46
min. Earth dist.	-383 Jan	10 j 01:29	15°♓16'37	29.07155 AU
asc. node	-383 Mar	09 j 15:53	13°♓59'09	
direct	-383 Mar	30 j 06:51	13°♓52'16	
evening set	-383 Jun	28 j 20:01	15°♓48'23	
max. Earth dist.	-383 Jul	14 j 11:51	16°♓22'57	31.07759 AU
conjunction	-383 Jul	15 j 02:44	16°♓24'19	0°01'36
minimum elong	-383 Jul	15 j 02:43	16°♓24'19	0°01'36
behind sun begin	-383 Jul	14 j 20:08	16°♓23'44	
behind sun end	-383 Jul	15 j 09:18	16°♓24'54	
morning rise	-383 Jul	31 j 06:33	17°♓00'01	
retrograde	-383 Oct	26 j 19:43	18°♓53'07	
opposition	-382 Jan	11 j 23:12	17°♓30'23	0°03'59
min. Earth dist.	-382 Jan	12 j 13:33	17°♓29'23	29.08363 AU
direct	-382 Apr	01 j 19:17	16°♓05'11	
evening set	-382 Jul	01 j 09:38	18°♓01'21	
conjunction	-382 Jul	17 j 15:51	18°♓37'16	0°06'03
minimum elong	-382 Jul	17 j 15:51	18°♓37'16	0°06'02
behind sun begin	-382 Jul	17 j 09:36	18°♓36'42	
behind sun end	-382 Jul	17 j 22:06	18°♓37'49	
max. Earth dist.	-382 Jul	16 j 23:08	18°♓35'43	31.08919 AU
morning rise	-382 Aug	02 j 19:23	19°♓12'56	
retrograde	-382 Oct	29 j 08:07	21°♓05'56	
opposition	-381 Jan	14 j 09:37	19°♓43'18	0°08'43
min. Earth dist.	-381 Jan	14 j 23:52	19°♓42'18	29.09464 AU
direct	-381 Apr	04 j 07:37	18°♓18'05	
evening set	-381 Jul	03 j 22:58	20°♓14'18	
max. Earth dist.	-381 Jul	19 j 11:41	20°♓48'36	31.09946 AU
conjunction	-381 Jul	20 j 04:53	20°♓50'11	0°10'27
minimum elong	-381 Jul	20 j 04:52	20°♓50'11	0°10'27
behind sun begin	-381 Jul	19 j 23:46	20°♓49'44	
behind sun end	-381 Jul	20 j 09:59	20°♓50'38	
morning rise	-381 Aug	05 j 07:47	21°♓25'49	
retrograde	-381 Oct	31 j 16:51	23°♓18'43	
opposition	-380 Jan	16 j 20:12	21°♓56'09	0°13'26
min. Earth dist.	-380 Jan	17 j 12:17	21°♓55'02	29.10438 AU
direct	-380 Apr	05 j 18:49	20°♓30'56	
evening set	-380 Jul	05 j 12:18	22°♓27'11	
conjunction	-380 Jul	21 j 17:47	23°♓03'02	0°14'50
minimum elong	-380 Jul	21 j 17:47	23°♓03'02	0°14'50
behind sun begin	-380 Jul	21 j 15:25	23°♓02'49	
behind sun end	-380 Jul	21 j 20:09	23°♓03'14	
max. Earth dist.	-380 Jul	20 j 23:35	23°♓01'21	31.10866 AU
morning rise	-380 Aug	06 j 20:18	23°♓38'37	
retrograde	-380 Nov	02 j 03:13	25°♓31'24	
opposition	-379 Jan	18 j 06:32	24°♓08'54	0°18'08
min. Earth dist.	-379 Jan	18 j 22:34	24°♓07'47	29.11299 AU
direct	-379 Apr	08 j 07:20	22°♓43'39	
evening set	-379 Jul	08 j 01:33	24°♓39'56	
max. Earth dist.	-379 Jul	23 j 11:21	25°♓13'57	31.11674 AU
conjunction	-379 Jul	24 j 06:38	25°♓15'44	0°19'13
minimum elong	-379 Jul	24 j 06:38	25°♓15'44	0°19'14
morning rise	-379 Aug	09 j 08:39	25°♓51'18	
retrograde	-379 Nov	04 j 13:12	27°♓43'58	
opposition	-378 Jan	20 j 17:01	26°♓21'30	0°22'47
min. Earth dist.	-378 Jan	21 j 10:29	26°♓20'17	29.12076 AU
direct	-378 Apr	10 j 17:09	24°♓56'13	
evening set	-378 Jul	10 j 14:38	26°♓52'30	
conjunction	-378 Jul	26 j 19:21	27°♓28'16	0°23'33
minimum elong	-378 Jul	26 j 19:21	27°♓28'16	0°23'33
max. Earth dist.	-378 Jul	25 j 24:00	27°♓26'29	31.12418 AU
morning rise	-378 Aug	11 j 20:48	28°♓03'47	
retrograde	-378 Nov	06 j 22:39	29°♓56'21	
opposition	-377 Jan	23 j 03:24	28°♓33'54	0°27'25
min. Earth dist.	-377 Jan	23 j 21:01	28°♓32'40	29.12795 AU
direct	-377 Apr	13 j 06:44	27°♓08'35	
evening set	-377 Jul	13 j 03:43	29°♓04'52	
max. Earth dist.	-377 Jul	28 j 11:03	29°♓38'40	31.13135 AU
conjunction	-377 Jul	29 j 07:50	29°♓40'36	0°27'51
minimum elong	-377 Jul	29 j 07:50	29°♓40'36	0°27'52
	-377 Aug	07 j 01:13	0°♌	
morning rise	-377 Aug	14 j 08:51	0°♌16'03	
retrograde	-377 Nov	09 j 09:57	2°♌08'31	
opposition	-376 Jan	25 j 13:52	0°♌46'06	0°31'59
min. Earth dist.	-376 Jan	26 j 07:56	0°♌44'50	29.13536 AU
	-376 Feb	23 j 15:06	30°℞♓	
direct	-376 Apr	14 j 18:22	29°♓20'44	
	-376 Jun	03 j 21:11	0°♌	
evening set	-376 Jul	14 j 16:19	1°♌17'02	

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

conjunction	-376 Jul 30 j 20:08	1°♌52'43	0°32'06	
minimum elong	-376 Jul 30 j 20:08	1°♌52'43	0°32'06	
max. Earth dist.	-376 Jul 30 j 00:08	1°♌50'52	31.13891 AU	
morning rise	-376 Aug 15 j 20:28	2°♌28'07		
retrograde	-376 Nov 10 j 19:17	4°♌20'30		
opposition	-375 Jan 27 j 00:21	2°♌58'05	0°36'30	
min. Earth dist.	-375 Jan 27 j 19:03	2°♌56'47	29.14324 AU	
direct	-375 Apr 17 j 07:15	1°♌32'42		
evening set	-375 Jul 17 j 05:11	3°♌29'01		
max. Earth dist.	-375 Aug 01 j 10:58	4°♌02'40	31.14724 AU	
conjunction	-375 Aug 02 j 08:19	4°♌04'39	0°36'19	
minimum elong	-375 Aug 02 j 08:19	4°♌04'39	0°36'19	
morning rise	-375 Aug 18 j 08:15	4°♌40'00		
retrograde	-375 Nov 13 j 07:17	6°♌32'18		
opposition	-374 Jan 29 j 10:39	5°♌09'56	0°40'58	
min. Earth dist.	-374 Jan 30 j 04:57	5°♌08'39	29.15217 AU	
direct	-374 Apr 19 j 19:14	3°♌44'32		
evening set	-374 Jul 19 j 17:50	5°♌40'52		
conjunction	-374 Aug 04 j 20:36	6°♌16'28	0°40'28	
minimum elong	-374 Aug 04 j 20:36	6°♌16'28	0°40'27	
max. Earth dist.	-374 Aug 04 j 00:06	6°♌14'34	31.15663 AU	
morning rise	-374 Aug 20 j 19:47	6°♌51'46		
retrograde	-374 Nov 15 j 17:43	8°♌44'00		
opposition	-373 Jan 31 j 21:15	7°♌21'41	0°45'23	
min. Earth dist.	-373 Feb 01 j 16:33	7°♌20'20	29.16211 AU	
direct	-373 Apr 22 j 08:31	5°♌56'19		
evening set	-373 Jul 22 j 06:23	7°♌52'41		
max. Earth dist.	-373 Aug 06 j 10:59	8°♌26'14	31.16709 AU	
conjunction	-373 Aug 07 j 08:29	8°♌28'14	0°44'33	
minimum elong	-373 Aug 07 j 08:29	8°♌28'14	0°44'34	
morning rise	-373 Aug 23 j 07:13	9°♌03'29		
retrograde	-373 Nov 18 j 05:25	10°♌55'40		
opposition	-372 Feb 03 j 07:42	9°♌33'25	0°49'43	
min. Earth dist.	-372 Feb 04 j 02:14	9°♌32'08	29.17291 AU	
direct	-372 Apr 23 j 21:16	8°♌08'05		
evening set	-372 Jul 23 j 18:53	10°♌04'29		
conjunction	-372 Aug 08 j 20:32	10°♌40'00	0°48'35	
minimum elong	-372 Aug 08 j 20:31	10°♌40'00	0°48'35	
max. Earth dist.	-372 Aug 07 j 23:15	10°♌38'02	31.17801 AU	
morning rise	-372 Aug 24 j 18:33	11°♌15'13		
retrograde	-372 Nov 19 j 14:29	13°♌07'21		
opposition	-371 Feb 04 j 18:14	11°♌45'11	0°53'59	
min. Earth dist.	-371 Feb 05 j 14:13	11°♌43'48	29.18399 AU	
direct	-371 Apr 26 j 08:12	10°♌19'53		
evening set	-371 Jul 26 j 07:27	12°♌16'19		
max. Earth dist.	-371 Aug 10 j 10:38	12°♌49'46	31.18896 AU	
conjunction	-371 Aug 11 j 08:30	12°♌51'48	0°52'32	
minimum elong	-371 Aug 11 j 08:30	12°♌51'48	0°52'33	
morning rise	-371 Aug 27 j 06:00	13°♌26'58		
	-371 Oct 19 j 13:42	15°♌		
retrograde	-371 Nov 22 j 01:08	15°♌19'03		
	-371 Dec 26 j 02:09	15°℞♌		
opposition	-370 Feb 07 j 04:50	13°♌56'58	0°58'10	
min. Earth dist.	-370 Feb 08 j 00:29	13°♌55'36	29.19459 AU	
direct	-370 Apr 28 j 20:46	12°♌31'42		
evening set	-370 Jul 28 j 19:59	14°♌28'10		
	-370 Aug 12 j 05:46	15°♌		
conjunction	-370 Aug 13 j 20:25	15°♌03'35	0°56'25	
minimum elong	-370 Aug 13 j 20:25	15°♌03'35	0°56'25	
max. Earth dist.	-370 Aug 12 j 21:50	15°♌01'30	31.19904 AU	
morning rise	-370 Aug 29 j 17:15	15°♌38'43		
retrograde	-370 Nov 24 j 11:05	17°♌30'46		
opposition	-369 Feb 09 j 15:38	16°♌08'44	1°02'16	
min. Earth dist.	-369 Feb 10 j 12:27	16°♌07'17	29.20433 AU	
	-369 Mar 29 j 17:42	15°℞♌		
direct	-369 May 01 j 06:39	14°♌43'29		
	-369 Jun 02 j 10:28	15°♌		
evening set	-369 Jul 31 j 08:25	16°♌39'58		
max. Earth dist.	-369 Aug 15 j 09:48	17°♌13'15	31.20815 AU	
conjunction	-369 Aug 16 j 08:19	17°♌15'21	1°00'12	
minimum elong	-369 Aug 16 j 08:19	17°♌15'21	1°00'13	
morning rise	-369 Sep 01 j 04:29	17°♌50'26		
retrograde	-369 Nov 26 j 20:09	19°♌42'26		
opposition	-368 Feb 12 j 02:26	18°♌20'27	1°06'16	
min. Earth dist.	-368 Feb 12 j 23:21	18°♌19'00	29.21280 AU	
direct	-368 May 02 j 19:51	16°♌55'13		
evening set	-368 Aug 01 j 20:43	18°♌51'42		
conjunction	-368 Aug 17 j 19:55	19°♌27'02	1°03'54	
minimum elong	-368 Aug 17 j 19:55	19°♌27'02	1°03'54	
max. Earth dist.	-368 Aug 16 j 19:58	19°♌24'48	31.21595 AU	
morning rise	-368 Sep 02 j 15:35	20°♌02'03		
retrograde	-368 Nov 28 j 06:57	21°♌54'02		
opposition	-367 Feb 13 j 13:13	20°♌32'04	1°10'10	
min. Earth dist.	-367 Feb 14 j 10:39	20°♌30'35	29.22008 AU	
direct	-367 May 05 j 06:32	19°♌06'49		
evening set	-367 Aug 04 j 08:56	21°♌03'18		
max. Earth dist.	-367 Aug 19 j 08:17	21°♌36'25	31.22252 AU	
conjunction	-367 Aug 20 j 07:42	21°♌38'35	1°07'31	
minimum elong	-367 Aug 20 j 07:41	21°♌38'35	1°07'31	
morning rise	-367 Sep 05 j 02:34	22°♌13'34		
retrograde	-367 Nov 30 j 16:02	24°♌05'29		
opposition	-366 Feb 15 j 24:00	22°♌43'32	1°13'58	
min. Earth dist.	-366 Feb 16 j 22:18	22°♌41'59	29.22606 AU	
direct	-366 May 07 j 18:56	21°♌18'17		
evening set	-366 Aug 06 j 21:10	23°♌14'45		
conjunction	-366 Aug 22 j 19:08	23°♌49'59	1°11'01	
minimum elong	-366 Aug 22 j 19:08	23°♌49'59	1°11'00	
max. Earth dist.	-366 Aug 21 j 18:20	23°♌47'41	31.22805 AU	
morning rise	-366 Sep 07 j 13:33	24°♌24'55		
retrograde	-366 Dec 03 j 03:44	26°♌16'48		
opposition	-365 Feb 18 j 10:48	24°♌54'50	1°17'39	
min. Earth dist.	-365 Feb 19 j 08:43	24°♌53'19	29.23131 AU	
direct	-365 May 10 j 07:04	23°♌29'34		
evening set	-365 Aug 09 j 08:54	25°♌26'01		
max. Earth dist.	-365 Aug 24 j 06:32	25°♌58'59	31.23295 AU	
conjunction	-365 Aug 25 j 06:25	26°♌01'12	1°14'25	
minimum elong	-365 Aug 25 j 06:25	26°♌01'12	1°14'25	
morning rise	-365 Sep 10 j 00:03	26°♌36'04		
retrograde	-365 Dec 05 j 13:38	28°♌27'56		
opposition	-364 Feb 20 j 21:44	27°♌05'57	1°21'14	
min. Earth dist.	-364 Feb 21 j 20:40	27°♌04'22	29.23614 AU	
direct	-364 May 11 j 20:25	25°♌40'40		
evening set	-364 Aug 10 j 20:44	27°♌37'06		
conjunction	-364 Aug 26 j 17:29	28°♌12'14	1°17'42	
minimum elong	-364 Aug 26 j 17:29	28°♌12'14	1°17'41	
max. Earth dist.	-364 Aug 25 j 16:48	28°♌09'56	31.23783 AU	
morning rise	-364 Sep 11 j 10:39	28°♌47'03		
	-364 Oct 19 j 14:57	0°♍		
retrograde	-364 Dec 07 j 00:46	0°♍38'52		
	-363 Jan 25 j 23:06	30°℞♌		
opposition	-363 Feb 22 j 08:21	29°♌16'54	1°24'41	
min. Earth dist.	-363 Feb 23 j 06:16	29°♌15'23	29.24123 AU	

Attention, astronomical year style is used: The year -363 in astronomical counting style is the year 364 BCE in historical counting style.

direct	-363 May 14 j 09:22	27°♌51'36	
evening set	-363 Aug 13 j 08:22	29°♌48'02	
	-363 Aug 18 j 19:29	0°♍	
max. Earth dist.	-363 Aug 28 j 04:27	0°♍20'52	31.24311 AU
conjunction	-363 Aug 29 j 04:35	0°♍23'07	1°20'52
minimum elong	-363 Aug 29 j 04:35	0°♍23'07	1°20'53
morning rise	-363 Sep 13 j 21:00	0°♍57'53	
retrograde	-363 Dec 09 j 09:39	2°♍49'41	
opposition	-362 Feb 24 j 19:21	1°♍27'43	1°28'00
min. Earth dist.	-362 Feb 25 j 18:07	1°♍26'08	29.24705 AU
direct	-362 May 16 j 20:51	0°♍02'26	
evening set	-362 Aug 15 j 19:54	1°♍58'51	
conjunction	-362 Aug 31 j 15:26	2°♍33'53	1°23'56
minimum elong	-362 Aug 31 j 15:26	2°♍33'53	1°23'55
max. Earth dist.	-362 Aug 30 j 15:30	2°♍31'40	31.24943 AU
morning rise	-362 Sep 16 j 07:16	3°♍08'37	
retrograde	-362 Dec 11 j 19:47	5°♍00'24	
opposition	-361 Feb 27 j 06:15	3°♍38'28	1°31'12
min. Earth dist.	-361 Feb 28 j 03:55	3°♍36'58	29.25388 AU
direct	-361 May 19 j 09:41	2°♍13'14	
evening set	-361 Aug 18 j 07:24	4°♍09'39	
max. Earth dist.	-361 Sep 02 j 02:22	4°♍42'25	31.25676 AU
conjunction	-361 Sep 03 j 02:16	4°♍44'39	1°26'52
minimum elong	-361 Sep 03 j 02:16	4°♍44'39	1°26'53
morning rise	-361 Sep 18 j 17:29	5°♍19'20	
retrograde	-361 Dec 14 j 05:40	7°♍11'09	
opposition	-360 Feb 29 j 17:13	5°♍49'15	1°34'17
min. Earth dist.	-360 Mar 01 j 15:17	5°♍47'44	29.26185 AU
direct	-360 May 20 j 19:19	4°♍24'05	
evening set	-360 Aug 19 j 18:38	6°♍20'30	
conjunction	-360 Sep 04 j 13:00	6°♍55'27	1°29'40
minimum elong	-360 Sep 04 j 13:00	6°♍55'27	1°29'40
max. Earth dist.	-360 Sep 03 j 13:59	6°♍53'19	31.26507 AU
morning rise	-360 Sep 20 j 03:35	7°♍30'06	
retrograde	-360 Dec 15 j 14:13	9°♍21'56	
opposition	-359 Mar 03 j 04:13	8°♍00'07	1°37'13
min. Earth dist.	-359 Mar 04 j 01:53	7°♍58'37	29.27027 AU
direct	-359 May 23 j 08:00	6°♍35'01	
evening set	-359 Aug 22 j 06:05	8°♍31'27	
conjunction	-359 Sep 06 j 23:41	9°♍06'22	1°32'21
minimum elong	-359 Sep 06 j 23:40	9°♍06'22	1°32'22
max. Earth dist.	-359 Sep 05 j 23:48	9°♍04'08	31.27352 AU
morning rise	-359 Sep 22 j 13:44	9°♍40'58	
retrograde	-359 Dec 18 j 00:52	11°♍32'51	
opposition	-358 Mar 05 j 15:14	10°♍11'04	1°40'00
min. Earth dist.	-358 Mar 06 j 12:52	10°♍09'35	29.27875 AU
direct	-358 May 25 j 17:23	8°♍46'02	
evening set	-358 Aug 24 j 17:22	10°♍42'29	
max. Earth dist.	-358 Sep 08 j 11:41	11°♍15'14	31.28169 AU
conjunction	-358 Sep 09 j 10:28	11°♍17'22	1°34'54
minimum elong	-358 Sep 09 j 10:27	11°♍17'22	1°34'53
morning rise	-358 Sep 24 j 23:46	11°♍51'56	
retrograde	-358 Dec 20 j 10:08	13°♍43'51	
opposition	-357 Mar 08 j 02:35	12°♍22'07	1°42'39
min. Earth dist.	-357 Mar 09 j 00:44	12°♍20'36	29.28655 AU
direct	-357 May 28 j 04:37	10°♍57'09	
evening set	-357 Aug 27 j 04:36	12°♍53'35	
conjunction	-357 Sep 11 j 20:54	13°♍28'25	1°37'18
minimum elong	-357 Sep 11 j 20:54	13°♍28'25	1°37'19
max. Earth dist.	-357 Sep 10 j 21:05	13°♍26'11	31.28902 AU
morning rise	-357 Sep 27 j 09:47	14°♍02'57	
retrograde	-357 Dec 22 j 21:59	15°♍54'55	
opposition	-356 Mar 09 j 13:50	14°♍33'12	1°45'09
min. Earth dist.	-356 Mar 10 j 11:22	14°♍31'43	29.29342 AU
direct	-356 May 29 j 16:19	13°♍08'17	
evening set	-356 Aug 28 j 15:45	15°♍04'42	
max. Earth dist.	-356 Sep 12 j 08:40	15°♍37'21	31.29514 AU
conjunction	-356 Sep 13 j 07:36	15°♍39'29	1°39'35
minimum elong	-356 Sep 13 j 07:36	15°♍39'29	1°39'34
morning rise	-356 Sep 28 j 19:45	16°♍13'58	
retrograde	-356 Dec 24 j 08:15	18°♍05'58	
opposition	-355 Mar 12 j 01:09	16°♍44'16	1°47'30
min. Earth dist.	-355 Mar 12 j 23:44	16°♍42'43	29.29892 AU
direct	-355 Jun 01 j 05:02	15°♍19'23	
evening set	-355 Aug 31 j 03:01	17°♍15'47	
conjunction	-355 Sep 15 j 18:08	17°♍50'31	1°41'42
minimum elong	-355 Sep 15 j 18:08	17°♍50'31	1°41'43
max. Earth dist.	-355 Sep 14 j 18:20	17°♍48'18	31.29998 AU
morning rise	-355 Oct 01 j 05:51	18°♍24'58	
retrograde	-355 Dec 26 j 19:35	20°♍16'58	
opposition	-354 Mar 14 j 12:30	18°♍55'15	1°49'42
min. Earth dist.	-354 Mar 15 j 10:08	18°♍53'47	29.30307 AU
direct	-354 Jun 03 j 17:38	17°♍30'23	
evening set	-354 Sep 02 j 13:59	19°♍26'45	
max. Earth dist.	-354 Sep 17 j 05:08	19°♍59'15	31.30339 AU
conjunction	-354 Sep 18 j 04:34	20°♍01'26	1°43'41
minimum elong	-354 Sep 18 j 04:34	20°♍01'26	1°43'41
morning rise	-354 Oct 03 j 15:37	20°♍35'51	
retrograde	-354 Dec 29 j 05:15	22°♍27'52	
opposition	-353 Mar 17 j 00:04	21°♍06'08	1°51'44
min. Earth dist.	-353 Mar 17 j 22:41	21°♍04'35	29.30600 AU
direct	-353 Jun 06 j 05:53	19°♍41'16	
evening set	-353 Sep 05 j 00:53	21°♍37'34	
conjunction	-353 Sep 20 j 14:53	22°♍12'13	1°45'31
minimum elong	-353 Sep 20 j 14:52	22°♍12'13	1°45'32
max. Earth dist.	-353 Sep 19 j 15:36	22°♍10'02	31.30588 AU
morning rise	-353 Oct 06 j 01:27	22°♍46'34	
retrograde	-353 Dec 31 j 15:46	24°♍38'36	
opposition	-352 Mar 18 j 11:25	23°♍16'49	1°53'37
min. Earth dist.	-352 Mar 19 j 09:07	23°♍15'20	29.30808 AU
direct	-352 Jun 07 j 19:49	21°♍51'57	
evening set	-352 Sep 06 j 11:35	23°♍48'11	
max. Earth dist.	-352 Sep 21 j 01:39	24°♍20'37	31.30767 AU
conjunction	-352 Sep 22 j 01:00	24°♍22'47	1°47'12
minimum elong	-352 Sep 22 j 01:00	24°♍22'47	1°47'12
morning rise	-352 Oct 07 j 11:06	24°♍57'07	
retrograde	-351 Jan 02 j 01:27	26°♍49'09	
opposition	-351 Mar 20 j 22:54	25°♍27'19	1°55'19
min. Earth dist.	-351 Mar 21 j 20:55	25°♍25'49	29.30987 AU
direct	-351 Jun 10 j 06:51	24°♍02'28	
evening set	-351 Sep 08 j 22:07	25°♍58'37	
conjunction	-351 Sep 24 j 11:03	26°♍33'11	1°48'44
minimum elong	-351 Sep 24 j 11:03	26°♍33'11	1°48'44
max. Earth dist.	-351 Sep 23 j 12:54	26°♍31'06	31.30945 AU
morning rise	-351 Oct 09 j 20:33	27°♍07'28	
retrograde	-350 Jan 04 j 09:24	28°♍59'30	
opposition	-350 Mar 23 j 10:23	27°♍37'39	1°56'53
min. Earth dist.	-350 Mar 24 j 07:38	27°♍36'12	29.31179 AU
direct	-350 Jun 12 j 19:52	26°♍12'48	
evening set	-350 Sep 11 j 08:42	28°♍08'54	

Attention, astronomical year style is used: The year -350 in astronomical counting style is the year 351 BCE in historical counting style.

conjunction	-350 Sep 26 j 20:56	28°♑43'25	1°50'06	
minimum elong	-350 Sep 26 j 20:55	28°♑43'25	1°50'05	
max. Earth dist.	-350 Sep 25 j 22:23	28°♑41'18	31.31173 AU	
morning rise	-350 Oct 12 j 06:03	29°♑17'40		
	-350 Nov 01 j 16:10	0°♎		
retrograde	-349 Jan 06 j 19:40	1°♎09'45		
	-349 Mar 18 j 11:29	30°℞♑		
opposition	-349 Mar 25 j 21:58	29°♑47'53	1°58'16	
min. Earth dist.	-349 Mar 26 j 18:26	29°♑46'29	29.31462 AU	
direct	-349 Jun 15 j 05:42	28°♑23'04		
	-349 Sep 04 j 21:02	0°♎		
evening set	-349 Sep 13 j 18:52	0°♎19'06		
max. Earth dist.	-349 Sep 28 j 09:55	0°♎51'38	31.31494 AU	
conjunction	-349 Sep 29 j 06:44	0°♎53'35	1°51'19	
minimum elong	-349 Sep 29 j 06:43	0°♎53'35	1°51'19	
morning rise	-349 Oct 14 j 15:15	1°♎27'49		
retrograde	-348 Jan 09 j 04:32	3°♎19'58		
opposition	-348 Mar 27 j 09:37	1°♎58'05	1°59'28	
min. Earth dist.	-348 Mar 28 j 06:00	1°♎56'41	29.31820 AU	
direct	-348 Jun 16 j 17:04	0°♎33'20		
evening set	-348 Sep 15 j 05:16	2°♎29'20		
conjunction	-348 Sep 30 j 16:27	3°♎03'47	1°52'22	
minimum elong	-348 Sep 30 j 16:27	3°♎03'47	1°52'21	
max. Earth dist.	-348 Sep 29 j 19:14	3°♎01'48	31.31896 AU	
morning rise	-348 Oct 16 j 00:42	3°♎37'59		
retrograde	-347 Jan 10 j 16:00	5°♎30'12		
opposition	-347 Mar 29 j 21:04	4°♎08'21	2°00'31	
min. Earth dist.	-347 Mar 30 j 16:13	4°♎07'02	29.32248 AU	
direct	-347 Jun 19 j 03:48	2°♎43'40		
evening set	-347 Sep 17 j 15:29	4°♎39'39		
max. Earth dist.	-347 Oct 02 j 06:34	5°♎12'14	31.32330 AU	
conjunction	-347 Oct 03 j 02:19	5°♎14'05	1°53'16	
minimum elong	-347 Oct 03 j 02:19	5°♎14'05	1°53'16	
morning rise	-347 Oct 18 j 09:59	5°♎48'15		
retrograde	-346 Jan 13 j 02:24	7°♎40'34		
opposition	-346 Apr 01 j 08:56	6°♎18'44	2°01'23	
min. Earth dist.	-346 Apr 02 j 04:36	6°♎17'24	29.32683 AU	
direct	-346 Jun 21 j 15:13	4°♎54'09		
evening set	-346 Sep 20 j 01:42	6°♎50'06		
conjunction	-346 Oct 05 j 11:54	7°♎24'30	1°53'59	
minimum elong	-346 Oct 05 j 11:54	7°♎24'30	1°53'59	
max. Earth dist.	-346 Oct 04 j 16:01	7°♎22'38	31.32756 AU	
morning rise	-346 Oct 20 j 19:17	7°♎58'40		
retrograde	-345 Jan 15 j 14:05	9°♎51'05		
opposition	-345 Apr 03 j 20:47	8°♎29'16	2°02'04	
min. Earth dist.	-345 Apr 04 j 15:00	8°♎28'01	29.33076 AU	
direct	-345 Jun 24 j 02:51	7°♎04'46		
evening set	-345 Sep 22 j 11:54	9°♎00'42		
conjunction	-345 Oct 07 j 21:42	9°♎35'04	1°54'33	
minimum elong	-345 Oct 07 j 21:42	9°♎35'04	1°54'34	
max. Earth dist.	-345 Oct 07 j 02:24	9°♎33'16	31.33102 AU	
morning rise	-345 Oct 23 j 04:36	10°♎09'13		
retrograde	-344 Jan 18 j 00:41	12°♎01'44		
opposition	-344 Apr 05 j 08:44	10°♎39'55	2°02'36	
min. Earth dist.	-344 Apr 06 j 03:43	10°♎38'38	29.33382 AU	
direct	-344 Jun 25 j 14:32	9°♎15'31		
evening set	-344 Sep 23 j 22:04	11°♎11'25		
conjunction	-344 Oct 09 j 07:26	11°♎45'46	1°54'57	
minimum elong	-344 Oct 09 j 07:26	11°♎45'46	1°54'57	
max. Earth dist.	-344 Oct 08 j 12:32	11°♎43'59	31.33346 AU	
morning rise	-344 Oct 24 j 14:00	12°♎19'53		
retrograde	-343 Jan 19 j 12:00	14°♎12'29		
opposition	-343 Apr 07 j 20:42	12°♎50'41	2°02'56	
min. Earth dist.	-343 Apr 08 j 14:40	12°♎49'28	29.33545 AU	
direct	-343 Jun 28 j 04:20	11°♎26'20		
evening set	-343 Sep 26 j 08:16	13°♎22'12		
conjunction	-343 Oct 11 j 17:06	13°♎56'31	1°55'12	
minimum elong	-343 Oct 11 j 17:06	13°♎56'31	1°55'12	
max. Earth dist.	-343 Oct 10 j 21:59	13°♎54'44	31.33429 AU	
morning rise	-343 Oct 26 j 23:21	14°♎30'38		
retrograde	-342 Jan 21 j 22:35	16°♎23'19		
opposition	-342 Apr 10 j 08:51	15°♎01'30	2°03'06	
min. Earth dist.	-342 Apr 11 j 03:07	15°♎00'15	29.33560 AU	
direct	-342 Jun 30 j 15:26	13°♎37'12		
evening set	-342 Sep 28 j 18:19	15°♎33'00		
max. Earth dist.	-342 Oct 13 j 08:49	16°♎05'37	31.33367 AU	
conjunction	-342 Oct 14 j 02:51	16°♎07'18	1°55'16	
minimum elong	-342 Oct 14 j 02:51	16°♎07'18	1°55'16	
morning rise	-342 Oct 29 j 08:40	16°♎41'24		
retrograde	-341 Jan 24 j 07:04	18°♎34'09		
opposition	-341 Apr 12 j 21:01	17°♎12'18	2°03'06	
min. Earth dist.	-341 Apr 13 j 14:42	17°♎11'06	29.33413 AU	
direct	-341 Jul 03 j 04:38	15°♎48'02		
evening set	-341 Oct 01 j 04:15	17°♎43'45		
conjunction	-341 Oct 16 j 12:17	18°♎18'02	1°55'11	
minimum elong	-341 Oct 16 j 12:17	18°♎18'02	1°55'11	
max. Earth dist.	-341 Oct 15 j 17:35	18°♎16'17	31.33156 AU	
morning rise	-341 Oct 31 j 17:59	18°♎52'07		
retrograde	-340 Jan 26 j 17:32	20°♎44'56		
opposition	-340 Apr 14 j 09:07	19°♎23'01	2°02'55	
min. Earth dist.	-340 Apr 15 j 02:17	19°♎21'52	29.33144 AU	
direct	-340 Jul 04 j 15:08	17°♎58'46		
evening set	-340 Oct 02 j 14:01	19°♎54'24		
conjunction	-340 Oct 17 j 21:51	20°♎28'40	1°54'56	
minimum elong	-340 Oct 17 j 21:51	20°♎28'40	1°54'55	
max. Earth dist.	-340 Oct 17 j 04:41	20°♎27'03	31.32833 AU	
morning rise	-340 Nov 02 j 03:07	21°♎02'44		
retrograde	-339 Jan 28 j 02:19	22°♎55'36		
opposition	-339 Apr 16 j 21:12	21°♎33'38	2°02'34	
min. Earth dist.	-339 Apr 17 j 14:25	21°♎32'28	29.32776 AU	
direct	-339 Jul 07 j 03:17	20°♎09'23		
evening set	-339 Oct 04 j 23:51	22°♎04'55		
conjunction	-339 Oct 20 j 07:09	22°♎39'08	1°54'31	
minimum elong	-339 Oct 20 j 07:09	22°♎39'08	1°54'31	
max. Earth dist.	-339 Oct 19 j 13:45	22°♎37'30	31.32457 AU	
morning rise	-339 Nov 04 j 12:20	23°♎13'12		
retrograde	-338 Jan 30 j 13:08	25°♎06'08		
opposition	-338 Apr 19 j 09:22	23°♎44'05	2°02'03	
min. Earth dist.	-338 Apr 20 j 01:05	23°♎43'01	29.32400 AU	
direct	-338 Jul 09 j 14:13	22°♎19'51		
evening set	-338 Oct 07 j 09:17	24°♎15'16		
conjunction	-338 Oct 22 j 16:23	24°♎49'29	1°53'57	
minimum elong	-338 Oct 22 j 16:23	24°♎49'29	1°53'56	
max. Earth dist.	-338 Oct 22 j 00:41	24°♎48'01	31.32089 AU	
morning rise	-338 Nov 06 j 21:11	25°♎23'32		
retrograde	-337 Feb 01 j 23:00	27°♎16'33		
opposition	-337 Apr 21 j 21:42	25°♎54'25	2°01'21	
min. Earth dist.	-337 Apr 22 j 13:27	25°♎53'21	29.32064 AU	
direct	-337 Jul 12 j 01:01	24°♎30'12		
evening set	-337 Oct 09 j 18:52	26°♎25'33		
max. Earth dist.	-337 Oct 24 j 10:18	26°♎58'18	31.31800 AU	

Attention, astronomical year style is used: The year -337 in astronomical counting style is the year 338 BCE in historical counting style.

conjunction	-337 Oct 25 j 01:34	26°♎59'45	1°53'13
minimum elong	-337 Oct 25 j 01:34	26°♎59'45	1°53'13
morning rise	-337 Nov 09 j 06:17	27°♎33'47	
retrograde	-336 Feb 04 j 10:15	29°♎26'52	
opposition	-336 Apr 23 j 09:42	28°♎04'42	2°00'28
min. Earth dist.	-336 Apr 23 j 23:27	28°♎03'46	29.31811 AU
direct	-336 Jul 13 j 11:53	26°♎40'31	
evening set	-336 Oct 11 j 04:18	28°♎35'47	
conjunction	-336 Oct 26 j 10:47	29°♎09'59	1°52'19
minimum elong	-336 Oct 26 j 10:47	29°♎09'59	1°52'18
max. Earth dist.	-336 Oct 25 j 20:28	29°♎08'38	31.31586 AU
morning rise	-336 Nov 10 j 15:17	29°♎44'01	
	-336 Nov 18 j 00:10	0°♏	
retrograde	-335 Feb 05 j 21:21	1°♏37'12	
opposition	-335 Apr 25 j 22:02	0°♏14'59	1°59'26
min. Earth dist.	-335 Apr 26 j 11:53	0°♏14'03	29.31636 AU
	-335 May 05 j 04:50	30°℞♎	
direct	-335 Jul 15 j 23:36	28°♎50'53	
	-335 Sep 21 j 06:52	0°♏	
evening set	-335 Oct 13 j 13:40	0°♏46'05	
conjunction	-335 Oct 28 j 19:53	1°♏20'15	1°51'15
minimum elong	-335 Oct 28 j 19:53	1°♏20'15	1°51'15
max. Earth dist.	-335 Oct 28 j 06:48	1°♏19'01	31.31448 AU
morning rise	-335 Nov 13 j 00:12	1°♏54'17	
retrograde	-334 Feb 08 j 09:03	3°♏47'35	
opposition	-334 Apr 28 j 10:19	2°♏25'21	1°58'13
min. Earth dist.	-334 Apr 28 j 22:31	2°♏24'31	29.31502 AU
direct	-334 Jul 18 j 12:44	1°♏01'18	
evening set	-334 Oct 15 j 23:05	2°♏56'27	
conjunction	-334 Oct 31 j 04:59	3°♏30'37	1°50'02
minimum elong	-334 Oct 31 j 04:59	3°♏30'37	1°50'01
max. Earth dist.	-334 Oct 30 j 16:09	3°♏29'25	31.31327 AU
morning rise	-334 Nov 15 j 09:15	4°♏04'39	
retrograde	-333 Feb 10 j 20:12	5°♏58'04	
opposition	-333 Apr 30 j 22:45	4°♏35'49	1°56'49
min. Earth dist.	-333 May 01 j 10:44	4°♏35'00	29.31385 AU
direct	-333 Jul 20 j 23:13	3°♏11'50	
evening set	-333 Oct 18 j 08:19	5°♏06'56	
conjunction	-333 Nov 02 j 14:08	5°♏41'05	1°48'39
minimum elong	-333 Nov 02 j 14:09	5°♏41'05	1°48'39
max. Earth dist.	-333 Nov 02 j 02:56	5°♏40'02	31.31194 AU
morning rise	-333 Nov 17 j 18:13	6°♏15'08	
retrograde	-332 Feb 13 j 05:37	8°♏08'39	
opposition	-332 May 02 j 11:12	6°♏46'23	1°55'16
min. Earth dist.	-332 May 02 j 22:20	6°♏45'38	29.31208 AU
direct	-332 Jul 22 j 12:24	5°♏22'29	
evening set	-332 Oct 19 j 17:48	7°♏17'30	
conjunction	-332 Nov 03 j 23:15	7°♏51'40	1°47'06
minimum elong	-332 Nov 03 j 23:15	7°♏51'40	1°47'05
max. Earth dist.	-332 Nov 03 j 11:34	7°♏50'34	31.30979 AU
morning rise	-332 Nov 19 j 03:23	8°♏25'43	
retrograde	-331 Feb 14 j 17:04	10°♏19'20	
opposition	-331 May 04 j 23:38	8°♏57'03	1°53'32
min. Earth dist.	-331 May 05 j 10:01	8°♏56'21	29.30945 AU
direct	-331 Jul 24 j 23:19	7°♏33'13	
evening set	-331 Oct 22 j 03:09	9°♏28'09	
conjunction	-331 Nov 06 j 08:35	10°♏02'19	1°45'25
minimum elong	-331 Nov 06 j 08:35	10°♏02'19	1°45'25
max. Earth dist.	-331 Nov 05 j 22:30	10°♏01'22	31.30656 AU
morning rise	-331 Nov 21 j 12:28	10°♏36'23	
retrograde	-330 Feb 17 j 02:37	12°♏30'07	
opposition	-330 May 07 j 12:24	11°♏07'47	1°51'39
min. Earth dist.	-330 May 07 j 22:45	11°♏07'05	29.30549 AU
direct	-330 Jul 27 j 11:35	9°♏44'01	
evening set	-330 Oct 24 j 12:33	11°♏38'52	
conjunction	-330 Nov 08 j 17:40	12°♏13'01	1°43'34
minimum elong	-330 Nov 08 j 17:40	12°♏13'01	1°43'34
max. Earth dist.	-330 Nov 08 j 07:18	12°♏12'02	31.30201 AU
morning rise	-330 Nov 23 j 21:41	12°♏47'06	
retrograde	-329 Feb 19 j 13:51	14°♏40'57	
opposition	-329 May 10 j 01:04	13°♏18'34	1°49'36
min. Earth dist.	-329 May 10 j 10:04	13°♏17'57	29.30019 AU
direct	-329 Jul 29 j 22:23	11°♏54'49	
evening set	-329 Oct 26 j 21:53	13°♏49'35	
conjunction	-329 Nov 11 j 03:00	14°♏23'44	1°41'35
minimum elong	-329 Nov 11 j 03:00	14°♏23'44	1°41'36
max. Earth dist.	-329 Nov 10 j 17:50	14°♏22'52	31.29596 AU
morning rise	-329 Nov 26 j 06:54	14°♏57'49	
	-329 Nov 27 j 06:37	15°♏	
retrograde	-328 Feb 21 j 23:57	16°♏51'46	
opposition	-328 May 11 j 13:41	15°♏29'19	1°47'24
min. Earth dist.	-328 May 11 j 23:07	15°♏28'40	29.29344 AU
	-328 May 30 j 01:28	15°℞♏	
direct	-328 Jul 31 j 09:01	14°♏05'35	
	-328 Sep 28 j 07:02	15°♏	
evening set	-328 Oct 28 j 07:12	16°♏00'15	
conjunction	-328 Nov 12 j 12:10	16°♏34'25	1°39'27
minimum elong	-328 Nov 12 j 12:10	16°♏34'25	1°39'27
max. Earth dist.	-328 Nov 12 j 03:15	16°♏33'34	31.28877 AU
morning rise	-328 Nov 27 j 16:10	17°♏08'30	
retrograde	-327 Feb 23 j 11:30	19°♏02'33	
opposition	-327 May 14 j 02:18	17°♏40'00	1°45'03
min. Earth dist.	-327 May 14 j 09:57	17°♏39'29	29.28567 AU
direct	-327 Aug 02 j 20:13	16°♏16'16	
evening set	-327 Oct 30 j 16:18	18°♏10'51	
conjunction	-327 Nov 14 j 21:10	18°♏45'00	1°37'11
minimum elong	-327 Nov 14 j 21:10	18°♏45'00	1°37'12
max. Earth dist.	-327 Nov 14 j 13:01	18°♏44'14	31.28069 AU
morning rise	-327 Nov 30 j 01:11	19°♏19'07	
retrograde	-326 Feb 25 j 22:53	21°♏13'15	
opposition	-326 May 16 j 15:07	19°♏50'36	1°42'34
min. Earth dist.	-326 May 16 j 22:52	19°♏50'05	29.27750 AU
direct	-326 Aug 05 j 07:48	18°♏26'54	
evening set	-326 Nov 02 j 01:21	20°♏21'22	
conjunction	-326 Nov 17 j 06:12	20°♏55'31	1°34'47
minimum elong	-326 Nov 17 j 06:12	20°♏55'31	1°34'46
max. Earth dist.	-326 Nov 16 j 23:33	20°♏54'53	31.27268 AU
morning rise	-326 Dec 02 j 10:14	21°♏29'38	
retrograde	-325 Feb 28 j 10:48	23°♏23'52	
opposition	-325 May 19 j 03:43	22°♏01'08	1°39'55
min. Earth dist.	-325 May 19 j 09:36	22°♏00'44	29.26963 AU
direct	-325 Aug 07 j 20:32	20°♏37'26	
evening set	-325 Nov 04 j 10:24	22°♏31'49	
conjunction	-325 Nov 19 j 15:05	23°♏05'59	1°32'15
minimum elong	-325 Nov 19 j 15:06	23°♏05'59	1°32'15
max. Earth dist.	-325 Nov 19 j 08:48	23°♏05'24	31.26518 AU
morning rise	-325 Dec 04 j 19:20	23°♏40'08	
retrograde	-324 Mar 01 j 22:14	25°♏34'28	
opposition	-324 May 20 j 16:24	24°♏11'40	1°37'08
min. Earth dist.	-324 May 20 j 21:43	24°♏11'19	29.26263 AU
direct	-324 Aug 09 j 06:49	22°♏48'00	
evening set	-324 Nov 05 j 19:20	24°♏42'19	

Attention, astronomical year style is used: The year -324 in astronomical counting style is the year 325 BCE in historical counting style.

conjunction	-324 Nov 21 j 00:08	25°♏16'29	1°29'34
minimum elong	-324 Nov 21 j 00:08	25°♏16'29	1°29'33
max. Earth dist.	-324 Nov 20 j 19:54	25°♏16'05	31.25868 AU
morning rise	-324 Dec 06 j 04:17	25°♏50'39	
retrograde	-323 Mar 04 j 08:08	27°♏45'06	
opposition	-323 May 23 j 05:01	26°♏22'15	1°34'13
min. Earth dist.	-323 May 23 j 08:56	26°♏22'00	29.25649 AU
direct	-323 Aug 11 j 20:05	24°♏58'39	
evening set	-323 Nov 08 j 04:26	26°♏52'54	
conjunction	-323 Nov 23 j 09:03	27°♏27'05	1°26'46
minimum elong	-323 Nov 23 j 09:04	27°♏27'05	1°26'46
max. Earth dist.	-323 Nov 23 j 04:51	27°♏26'41	31.25316 AU
morning rise	-323 Dec 08 j 13:30	28°♏01'16	
retrograde	-322 Mar 06 j 20:32	29°♏55'51	
opposition	-322 May 25 j 17:48	28°♏32'58	1°31'09
min. Earth dist.	-322 May 25 j 20:22	28°♏32'48	29.25140 AU
direct	-322 Aug 14 j 07:10	27°♏09'27	
evening set	-322 Nov 10 j 13:16	29°♏03'37	
conjunction	-322 Nov 25 j 18:04	29°♏37'50	1°23'50
minimum elong	-322 Nov 25 j 18:04	29°♏37'50	1°23'49
max. Earth dist.	-322 Nov 25 j 15:58	29°♏37'38	31.24838 AU
	-322 Dec 05 j 13:11	0°♐	
morning rise	-322 Dec 10 j 22:31	0°♐12'02	
retrograde	-321 Mar 09 j 06:32	2°♐06'46	
opposition	-321 May 28 j 06:41	0°♐43'52	1°27'57
min. Earth dist.	-321 May 28 j 08:47	0°♐43'43	29.24673 AU
	-321 Jun 25 j 18:58	30°℞♏	
direct	-321 Aug 16 j 19:08	29°♏20'25	
	-321 Oct 05 j 06:47	0°♐	
evening set	-321 Nov 12 j 22:25	1°♐14'32	
conjunction	-321 Nov 28 j 03:07	1°♐48'45	1°20'47
minimum elong	-321 Nov 28 j 03:07	1°♐48'45	1°20'47
max. Earth dist.	-321 Nov 28 j 01:11	1°♐48'34	31.24394 AU
morning rise	-321 Dec 13 j 07:52	2°♐23'00	
retrograde	-320 Mar 10 j 17:41	4°♐17'51	
opposition	-320 May 29 j 19:18	2°♐54'57	1°24'37
min. Earth dist.	-320 May 29 j 19:50	2°♐54'55	29.24220 AU
direct	-320 Aug 18 j 05:36	1°♐31'34	
evening set	-320 Nov 14 j 07:32	3°♐25'38	
conjunction	-320 Nov 29 j 12:21	3°♐59'52	1°17'36
minimum elong	-320 Nov 29 j 12:21	3°♐59'52	1°17'35
max. Earth dist.	-320 Nov 29 j 11:46	3°♐59'49	31.23919 AU
morning rise	-320 Dec 14 j 17:10	4°♐34'08	
retrograde	-319 Mar 13 j 04:15	6°♐29'09	
opposition	-319 Jun 01 j 08:20	5°♐06'13	1°21'09
min. Earth dist.	-319 Jun 01 j 09:04	5°♐06'10	29.23716 AU
direct	-319 Aug 20 j 15:47	3°♐42'55	
evening set	-319 Nov 16 j 16:38	5°♐36'54	
conjunction	-319 Dec 01 j 21:28	6°♐11'09	1°14'18
minimum elong	-319 Dec 01 j 21:29	6°♐11'09	1°14'19
max. Earth dist.	-319 Dec 01 j 21:28	6°♐11'09	31.23388 AU
morning rise	-319 Dec 17 j 02:31	6°♐45'27	
retrograde	-318 Mar 15 j 16:26	8°♐40'36	
opposition	-318 Jun 03 j 21:18	7°♐17'38	1°17'34
min. Earth dist.	-318 Jun 03 j 20:13	7°♐17'42	29.23126 AU
direct	-318 Aug 23 j 02:44	5°♐54'23	
evening set	-318 Nov 19 j 01:57	7°♐48'19	
conjunction	-318 Dec 04 j 06:50	8°♐22'34	1°10'54
minimum elong	-318 Dec 04 j 06:50	8°♐22'35	1°10'54
max. Earth dist.	-318 Dec 04 j 07:12	8°♐22'37	31.22737 AU
morning rise	-318 Dec 19 j 12:06	8°♐56'54	
retrograde	-317 Mar 18 j 04:37	10°♐52'11	
opposition	-317 Jun 06 j 10:22	9°♐29'09	1°13'53
min. Earth dist.	-317 Jun 06 j 09:40	9°♐29'12	29.22417 AU
direct	-317 Aug 25 j 13:21	8°♐05'57	
evening set	-317 Nov 21 j 11:10	9°♐59'48	
conjunction	-317 Dec 06 j 16:15	10°♐34'04	1°07'24
minimum elong	-317 Dec 06 j 16:16	10°♐34'04	1°07'24
max. Earth dist.	-317 Dec 06 j 17:47	10°♐34'13	31.21963 AU
morning rise	-317 Dec 21 j 21:41	11°♐08'25	
retrograde	-316 Mar 19 j 17:00	13°♐03'49	
opposition	-316 Jun 07 j 23:20	11°♐40'43	1°10'05
min. Earth dist.	-316 Jun 07 j 21:13	11°♐40'51	29.21555 AU
direct	-316 Aug 27 j 01:15	10°♐17'31	
evening set	-316 Nov 22 j 20:30	12°♐11'17	
conjunction	-316 Dec 08 j 01:34	12°♐45'34	1°03'48
minimum elong	-316 Dec 08 j 01:34	12°♐45'35	1°03'47
max. Earth dist.	-316 Dec 08 j 02:52	12°♐45'42	31.21037 AU
morning rise	-316 Dec 23 j 07:22	13°♐19'57	
retrograde	-315 Mar 22 j 05:15	15°♐15'27	
opposition	-315 Jun 10 j 12:25	13°♐52'15	1°06'11
min. Earth dist.	-315 Jun 10 j 10:13	13°♐52'24	29.20570 AU
direct	-315 Aug 29 j 11:41	12°♐29'02	
evening set	-315 Nov 25 j 05:40	14°♐22'42	
conjunction	-315 Dec 10 j 11:02	14°♐57'01	1°00'06
minimum elong	-315 Dec 10 j 11:02	14°♐57'01	1°00'06
max. Earth dist.	-315 Dec 10 j 14:06	14°♐57'18	31.20010 AU
morning rise	-315 Dec 25 j 16:56	15°♐31'25	
retrograde	-314 Mar 24 j 16:31	17°♐27'00	
opposition	-314 Jun 13 j 01:29	16°♐03'41	1°02'12
min. Earth dist.	-314 Jun 12 j 22:12	16°♐03'54	29.19499 AU
direct	-314 Sep 01 j 01:23	14°♐40'28	
evening set	-314 Nov 27 j 14:51	16°♐34'02	
conjunction	-314 Dec 12 j 20:13	17°♐08'21	0°56'20
minimum elong	-314 Dec 12 j 20:13	17°♐08'21	0°56'18
max. Earth dist.	-314 Dec 12 j 23:09	17°♐08'38	31.18935 AU
morning rise	-314 Dec 28 j 02:36	17°♐42'47	
retrograde	-313 Mar 27 j 05:44	19°♐38'27	
opposition	-313 Jun 15 j 14:31	18°♐15'02	0°58'07
min. Earth dist.	-313 Jun 15 j 10:07	18°♐15'20	29.18429 AU
direct	-313 Sep 03 j 12:58	16°♐51'48	
evening set	-313 Nov 30 j 00:01	18°♐45'16	
conjunction	-313 Dec 15 j 05:40	19°♐19'37	0°52'28
minimum elong	-313 Dec 15 j 05:41	19°♐19'37	0°52'28
max. Earth dist.	-313 Dec 15 j 10:33	19°♐20'05	31.17875 AU
morning rise	-313 Dec 30 j 12:11	19°♐54'04	
retrograde	-312 Mar 28 j 15:40	21°♐49'50	
opposition	-312 Jun 17 j 03:23	20°♐26'19	0°53'57
min. Earth dist.	-312 Jun 16 j 22:28	20°♐26'39	29.17396 AU
direct	-312 Sep 05 j 01:11	19°♐03'06	
evening set	-312 Dec 01 j 09:18	20°♐56'29	
conjunction	-312 Dec 16 j 15:00	21°♐30'51	0°48'32
minimum elong	-312 Dec 16 j 15:01	21°♐30'51	0°48'31
max. Earth dist.	-312 Dec 16 j 20:17	21°♐31'21	31.16895 AU
morning rise	-312 Dec 31 j 21:55	22°♐05'20	
retrograde	-311 Mar 31 j 03:26	24°♐01'13	
opposition	-311 Jun 19 j 16:21	22°♐37'37	0°49'42
min. Earth dist.	-311 Jun 19 j 09:32	22°♐38'05	29.16461 AU
direct	-311 Sep 07 j 12:24	21°♐14'25	
evening set	-311 Dec 03 j 18:25	23°♐07'45	
conjunction	-311 Dec 19 j 00:20	23°♐42'08	0°44'31

Attention, astronomical year style is used: The year -311 in astronomical counting style is the year 312 BCE in historical counting style.

minimum elong	-311 Dec 19 j 00:21	23°♐42'08	0°44'32	
max. Earth dist.	-311 Dec 19 j 07:10	23°♐42'47	31.16003 AU	
morning rise	-310 Jan 03 j 07:30	24°♐16'39		
retrograde	-310 Apr 02 j 14:17	26°♐12'40		
opposition	-310 Jun 22 j 05:29	24°♐49'01	0°45'23	
min. Earth dist.	-310 Jun 21 j 22:30	24°♐49'30	29.15616 AU	
direct	-310 Sep 09 j 23:05	23°♐25'52		
evening set	-310 Dec 06 j 03:41	25°♐19'08		
conjunction	-310 Dec 21 j 09:50	25°♐53'33	0°40'27	
minimum elong	-310 Dec 21 j 09:50	25°♐53'33	0°40'26	
max. Earth dist.	-310 Dec 21 j 17:39	25°♐54'17	31.15212 AU	
morning rise	-309 Jan 05 j 17:20	26°♐28'07		
retrograde	-309 Apr 05 j 02:34	28°♐24'16		
opposition	-309 Jun 24 j 18:18	27°♐00'35	0°40'59	
min. Earth dist.	-309 Jun 24 j 09:16	27°♐01'12	29.14853 AU	
direct	-309 Sep 12 j 09:55	25°♐37'29		
evening set	-309 Dec 08 j 13:03	27°♐30'43		
conjunction	-309 Dec 23 j 19:21	28°♐05'09	0°36'18	
minimum elong	-309 Dec 23 j 19:21	28°♐05'09	0°36'19	
max. Earth dist.	-309 Dec 24 j 03:43	28°♐05'56	31.14470 AU	
morning rise	-308 Jan 08 j 03:15	28°♐39'45		
	-308 Feb 19 j 05:14	0°♑		
retrograde	-308 Apr 06 j 14:53	0°♑36'04		
	-308 May 26 j 02:46	30°℞♐		
opposition	-308 Jun 26 j 07:25	29°♐12'21	0°36'31	
min. Earth dist.	-308 Jun 25 j 22:30	29°♐12'58	29.14128 AU	
direct	-308 Sep 13 j 19:44	27°♐49'19		
evening set	-308 Dec 09 j 22:22	29°♐42'31		
	-308 Dec 17 j 17:31	0°♑		
conjunction	-308 Dec 25 j 04:59	0°♑16'59	0°32'06	
minimum elong	-308 Dec 25 j 04:59	0°♑16'59	0°32'05	
max. Earth dist.	-308 Dec 25 j 14:57	0°♑17'56	31.13752 AU	
morning rise	-307 Jan 09 j 13:05	0°♑51'37		
retrograde	-307 Apr 09 j 03:36	2°♑48'05		
opposition	-307 Jun 28 j 20:27	1°♑24'22	0°32'00	
min. Earth dist.	-307 Jun 28 j 09:55	1°♑25'05	29.13392 AU	
direct	-307 Sep 16 j 06:43	0°♑01'23		
evening set	-307 Dec 12 j 08:01	1°♑54'35		
conjunction	-307 Dec 27 j 14:41	2°♑29'04	0°27'51	
minimum elong	-307 Dec 27 j 14:42	2°♑29'04	0°27'51	
max. Earth dist.	-307 Dec 28 j 00:31	2°♑30'00	31.13002 AU	
morning rise	-306 Jan 11 j 23:17	3°♑03'45		
retrograde	-306 Apr 11 j 17:05	5°♑00'23		
opposition	-306 Jul 01 j 09:40	3°♑36'37	0°27'25	
min. Earth dist.	-306 Jun 30 j 23:06	3°♑37'20	29.12620 AU	
direct	-306 Sep 18 j 16:16	2°♑13'41		
evening set	-306 Dec 14 j 17:34	4°♑06'52		
conjunction	-306 Dec 30 j 00:40	4°♑41'23	0°23'33	
minimum elong	-306 Dec 30 j 00:40	4°♑41'23	0°23'32	
max. Earth dist.	-306 Dec 30 j 12:08	4°♑42'28	31.12182 AU	
morning rise	-305 Jan 14 j 09:28	5°♑16'06		
retrograde	-305 Apr 14 j 05:57	7°♑12'52		
opposition	-305 Jul 03 j 22:49	5°♑49'04	0°22'48	
min. Earth dist.	-305 Jul 03 j 11:27	5°♑49'51	29.11738 AU	
direct	-305 Sep 21 j 05:24	4°♑26'11		
evening set	-305 Dec 17 j 03:30	6°♑19'20		
conjunction	-304 Jan 01 j 10:41	6°♑53'53	0°19'13	
minimum elong	-304 Jan 01 j 10:41	6°♑53'53	0°19'13	
max. Earth dist.	-304 Jan 01 j 21:30	6°♑54'54	31.11242 AU	
morning rise	-304 Jan 16 j 19:59	7°♑28'38		
retrograde	-304 Apr 15 j 20:39	9°♑25'32		
opposition	-304 Jul 05 j 11:52	8°♑01'41	0°18'09	
min. Earth dist.	-304 Jul 04 j 23:55	8°♑02'29	29.10732 AU	
direct	-304 Sep 22 j 16:40	6°♑38'48		
evening set	-304 Dec 18 j 13:20	8°♑31'55		
conjunction	-303 Jan 02 j 20:54	9°♑06'30	0°14'52	
minimum elong	-303 Jan 02 j 20:54	9°♑06'30	0°14'51	
behind sun begin	-303 Jan 02 j 18:13	9°♑06'15		
behind sun end	-303 Jan 02 j 23:34	9°♑06'44		
max. Earth dist.	-303 Jan 03 j 09:04	9°♑07'38	31.10160 AU	
morning rise	-303 Jan 18 j 06:26	9°♑41'17		
retrograde	-303 Apr 18 j 07:41	11°♑38'18		
opposition	-303 Jul 08 j 01:07	10°♑14'22	0°13'29	
min. Earth dist.	-303 Jul 07 j 13:07	10°♑15'11	29.09580 AU	
direct	-303 Sep 25 j 04:50	8°♑51'29		
evening set	-303 Dec 20 j 23:08	10°♑44'32		
conjunction	-302 Jan 05 j 06:55	11°♑19'08	0°10'29	
minimum elong	-302 Jan 05 j 06:55	11°♑19'08	0°10'30	
behind sun begin	-302 Jan 05 j 01:52	11°♑18'41		
behind sun end	-302 Jan 05 j 11:58	11°♑19'36		
max. Earth dist.	-302 Jan 05 j 19:03	11°♑20'16	31.08963 AU	
morning rise	-302 Jan 20 j 16:57	11°♑53'58		
retrograde	-302 Apr 20 j 20:31	13°♑51'04		
opposition	-302 Jul 10 j 14:13	12°♑27'02	0°08'47	
min. Earth dist.	-302 Jul 10 j 00:58	12°♑27'56	29.08334 AU	
direct	-302 Sep 27 j 17:11	11°♑04'08		
evening set	-302 Dec 23 j 09:00	12°♑57'06		
conjunction	-301 Jan 07 j 17:05	13°♑31'44	0°06'07	
minimum elong	-301 Jan 07 j 17:05	13°♑31'44	0°06'06	
behind sun begin	-301 Jan 07 j 10:59	13°♑31'11		
behind sun end	-301 Jan 07 j 23:12	13°♑32'18		
max. Earth dist.	-301 Jan 08 j 06:12	13°♑32'58	31.07679 AU	
morning rise	-301 Jan 23 j 03:30	14°♑06'36		
retrograde	-301 Apr 23 j 08:09	16°♑03'47		
opposition	-301 Jul 13 j 03:13	14°♑39'39	0°04'05	
min. Earth dist.	-301 Jul 12 j 14:17	14°♑40'32	29.07042 AU	
direct	-301 Sep 30 j 04:49	13°♑16'42		
evening set	-301 Dec 25 j 18:52	15°♑09'37		
conjunction	-300 Jan 10 j 03:18	15°♑44'16	0°01'42	
minimum elong	-300 Jan 10 j 03:17	15°♑44'16	0°01'42	
behind sun begin	-300 Jan 09 j 20:53	15°♑43'42		
behind sun end	-300 Jan 10 j 09:42	15°♑44'51		
max. Earth dist.	-300 Jan 10 j 17:12	15°♑45'35	31.06397 AU	
morning rise	-300 Jan 25 j 14:04	16°♑19'10		
retrograde	-300 Apr 24 j 19:54	18°♑16'27		
desc. node	-300 May 25 j 23:00	18°♑01'25		
opposition	-300 Jul 14 j 16:06	16°♑52'12	-0°00'38	
min. Earth dist.	-300 Jul 14 j 01:18	16°♑53'12	29.05778 AU	
direct	-300 Oct 01 j 16:36	15°♑29'13		
evening set	-300 Dec 27 j 04:44	17°♑22'05		
conjunction	-299 Jan 11 j 13:19	17°♑56'45	-0°02'50	
minimum elong	-299 Jan 11 j 13:19	17°♑56'45	0°02'51	
behind sun begin	-299 Jan 11 j 06:55	17°♑56'10		
behind sun end	-299 Jan 11 j 19:43	17°♑57'20		
max. Earth dist.	-299 Jan 12 j 03:42	17°♑58'06	31.05158 AU	
morning rise	-299 Jan 27 j 00:33	18°♑31'41		
retrograde	-299 Apr 27 j 07:05	20°♑29'04		
opposition	-299 Jul 17 j 05:10	19°♑04'43	-0°05'21	
min. Earth dist.	-299 Jul 16 j 14:25	19°♑05'43	29.04595 AU	
direct	-299 Oct 04 j 02:37	17°♑41'43		
evening set	-299 Dec 29 j 14:37	19°♑34'32		
conjunction	-298 Jan 13 j 23:39	20°♑09'14	-0°07'14	

Attention, astronomical year style is used: The year -298 in astronomical counting style is the year 299 BCE in historical counting style.

minimum elong	-298 Jan	13 j 23:39	20°♓09'14	0°07'14
behind sun begin	-298 Jan	13 j 17:44	20°♓08'42	
behind sun end	-298 Jan	14 j 05:34	20°♓09'46	
max. Earth dist.	-298 Jan	14 j 15:45	20°♓10'45	31.04031 AU
morning rise	-298 Jan	29 j 11:09	20°♓44'11	
retrograde	-298 Apr	29 j 19:04	22°♓41'40	
opposition	-298 Jul	19 j 18:00	21°♓17'15	-0°10'04
min. Earth dist.	-298 Jul	19 j 01:30	21°♓18'22	29.03522 AU
direct	-298 Oct	06 j 13:25	19°♓54'15	
evening set	-297 Jan	01 j 00:42	21°♓47'02	
conjunction	-297 Jan	16 j 09:54	22°♓21'45	-0°11'37
minimum elong	-297 Jan	16 j 09:54	22°♓21'45	0°11'38
behind sun begin	-297 Jan	16 j 05:16	22°♓21'20	
behind sun end	-297 Jan	16 j 14:31	22°♓22'10	
max. Earth dist.	-297 Jan	17 j 01:57	22°♓23'16	31.03014 AU
morning rise	-297 Jan	31 j 21:59	22°♓56'45	
retrograde	-297 May	02 j 08:36	24°♓54'21	
opposition	-297 Jul	22 j 06:58	23°♓29'51	-0°14'46
min. Earth dist.	-297 Jul	21 j 14:17	23°♓31'00	29.02566 AU
direct	-297 Oct	08 j 23:05	22°♓06'51	
evening set	-296 Jan	03 j 10:44	23°♓59'37	
conjunction	-296 Jan	18 j 20:24	24°♓34'22	-0°15'59
minimum elong	-296 Jan	18 j 20:24	24°♓34'22	0°15'59
behind sun begin	-296 Jan	18 j 19:23	24°♓34'17	
behind sun end	-296 Jan	18 j 21:26	24°♓34'28	
max. Earth dist.	-296 Jan	19 j 14:20	24°♓36'04	31.02099 AU
morning rise	-296 Feb	03 j 08:43	25°♓09'24	
retrograde	-296 May	03 j 21:13	27°♓07'07	
opposition	-296 Jul	23 j 19:45	25°♓42'35	-0°19'27
min. Earth dist.	-296 Jul	23 j 02:00	25°♓43'48	29.01690 AU
direct	-296 Oct	10 j 11:13	24°♓19'36	
evening set	-295 Jan	04 j 21:02	26°♓12'22	
conjunction	-295 Jan	20 j 06:52	26°♓47'09	-0°20'21
minimum elong	-295 Jan	20 j 06:52	26°♓47'09	0°20'22
max. Earth dist.	-295 Jan	21 j 00:30	26°♓48'49	31.01268 AU
morning rise	-295 Feb	04 j 19:45	27°♓22'12	
retrograde	-295 May	06 j 12:05	29°♓20'03	
opposition	-295 Jul	26 j 08:43	27°♓55'28	-0°24'06
min. Earth dist.	-295 Jul	25 j 14:12	27°♓56'44	29.00892 AU
direct	-295 Oct	12 j 21:26	26°♓32'31	
evening set	-294 Jan	07 j 07:15	28°♓25'17	
conjunction	-294 Jan	22 j 17:31	29°♓00'06	-0°24'42
minimum elong	-294 Jan	22 j 17:31	29°♓00'06	0°24'41
max. Earth dist.	-294 Jan	23 j 12:43	29°♓01'55	31.00475 AU
morning rise	-294 Feb	07 j 06:42	29°♓35'12	
	-294 Feb	18 j 18:22	0°♒	
retrograde	-294 May	09 j 00:15	1°♒33'09	
opposition	-294 Jul	28 j 21:42	0°♒08'33	-0°28'44
min. Earth dist.	-294 Jul	28 j 03:08	0°♒09'50	29.00102 AU
	-294 Aug	03 j 02:41	30°℞♓	
direct	-294 Oct	15 j 09:05	28°♓45'38	
	-294 Dec	22 j 13:34	0°♒	
evening set	-293 Jan	09 j 17:51	0°♒38'24	
conjunction	-293 Jan	25 j 04:24	1°♒13'15	-0°29'00
minimum elong	-293 Jan	25 j 04:23	1°♒13'15	0°29'01
max. Earth dist.	-293 Jan	25 j 23:30	1°♒15'03	30.99682 AU
morning rise	-293 Feb	09 j 18:03	1°♒48'23	
retrograde	-293 May	11 j 15:01	3°♒46'27	
opposition	-293 Jul	31 j 10:27	2°♒21'49	-0°33'19
min. Earth dist.	-293 Jul	30 j 14:56	2°♒23'10	28.99290 AU
direct	-293 Oct	17 j 21:04	0°♒58'55	
evening set	-292 Jan	12 j 04:34	2°♒51'42	
conjunction	-292 Jan	27 j 15:26	3°♒26'35	-0°33'16
minimum elong	-292 Jan	27 j 15:26	3°♒26'35	0°33'16
max. Earth dist.	-292 Jan	28 j 11:06	3°♒28'26	30.98819 AU
morning rise	-292 Feb	12 j 05:29	4°♒01'45	
retrograde	-292 May	13 j 03:57	5°♒59'56	
opposition	-292 Aug	01 j 23:29	4°♒35'16	-0°37'51
min. Earth dist.	-292 Aug	01 j 04:40	4°♒36'33	28.98390 AU
direct	-292 Oct	19 j 08:40	3°♒12'22	
evening set	-291 Jan	13 j 15:14	5°♒05'09	
conjunction	-291 Jan	29 j 02:30	5°♒40'03	-0°37'29
minimum elong	-291 Jan	29 j 02:30	5°♒40'03	0°37'30
max. Earth dist.	-291 Jan	29 j 22:30	5°♒41'57	30.97871 AU
morning rise	-291 Feb	13 j 16:54	6°♒15'16	
retrograde	-291 May	15 j 16:50	8°♒13'33	
opposition	-291 Aug	04 j 12:25	6°♒48'50	-0°42'21
min. Earth dist.	-291 Aug	03 j 16:17	6°♒50'13	28.97386 AU
direct	-291 Oct	21 j 20:47	5°♒25'55	
evening set	-290 Jan	16 j 02:11	7°♒18'41	
conjunction	-290 Jan	31 j 13:42	7°♒53'37	-0°41'39
minimum elong	-290 Jan	31 j 13:42	7°♒53'37	0°41'39
max. Earth dist.	-290 Feb	01 j 09:25	7°♒55'29	30.96809 AU
morning rise	-290 Feb	16 j 04:38	8°♒28'52	
retrograde	-290 May	18 j 04:47	10°♒27'14	
min. Earth dist.	-290 Aug	06 j 06:01	9°♒03'46	28.96290 AU
opposition	-290 Aug	07 j 01:22	9°♒02'26	-0°46'46
direct	-290 Oct	24 j 07:09	7°♒39'29	
evening set	-289 Jan	18 j 12:59	9°♒32'15	
conjunction	-289 Feb	03 j 01:03	10°♒07'12	-0°45'45
minimum elong	-289 Feb	03 j 01:02	10°♒07'12	0°45'46
max. Earth dist.	-289 Feb	03 j 21:53	10°♒09'10	30.95682 AU
morning rise	-289 Feb	18 j 16:17	10°♒42'28	
retrograde	-289 May	20 j 17:07	12°♒40'55	
opposition	-289 Aug	09 j 14:05	11°♒16'02	-0°51'07
min. Earth dist.	-289 Aug	08 j 17:35	11°♒17'27	28.95138 AU
direct	-289 Oct	26 j 18:33	9°♒53'03	
evening set	-288 Jan	21 j 00:00	11°♒45'48	
conjunction	-288 Feb	05 j 12:13	12°♒20'46	-0°49'48
minimum elong	-288 Feb	05 j 12:13	12°♒20'46	0°49'48
max. Earth dist.	-288 Feb	06 j 08:33	12°♒22'41	30.94523 AU
morning rise	-288 Feb	21 j 04:01	12°♒56'04	
retrograde	-288 May	22 j 06:07	14°♒54'35	
min. Earth dist.	-288 Aug	10 j 06:36	13°♒31'01	28.94008 AU
opposition	-288 Aug	11 j 02:49	13°♒29'37	-0°55'24
direct	-288 Oct	28 j 04:33	12°♒06'35	
evening set	-287 Jan	22 j 10:54	13°♒59'20	
conjunction	-287 Feb	06 j 23:38	14°♒34'19	-0°53'45
minimum elong	-287 Feb	06 j 23:38	14°♒34'19	0°53'46
max. Earth dist.	-287 Feb	07 j 21:36	14°♒36'24	30.93417 AU
	-287 Feb	18 j 07:39	15°♒	
morning rise	-287 Feb	22 j 15:40	15°♒09'39	
retrograde	-287 May	24 j 18:24	17°♒08'14	
opposition	-287 Aug	13 j 15:26	15°♒43'12	-0°59'36
min. Earth dist.	-287 Aug	12 j 18:20	15°♒44'39	28.92950 AU
	-287 Sep	10 j 00:05	15°℞♒	
direct	-287 Oct	30 j 16:30	14°♒20'08	
	-287 Dec	18 j 09:42	15°♒	
evening set	-286 Jan	24 j 21:55	16°♒12'53	
conjunction	-286 Feb	09 j 10:54	16°♒47'54	-0°57'38
minimum elong	-286 Feb	09 j 10:53	16°♒47'54	0°57'38
max. Earth dist.	-286 Feb	10 j 08:25	16°♒49'56	30.92415 AU
morning rise	-286 Feb	25 j 03:31	17°♒23'16	

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

retrograde	-286 May 27 j 08:50	19°♒21'55	
min. Earth dist.	-286 Aug 15 j 06:23	17°♒58'19	28.92019 AU
opposition	-286 Aug 16 j 04:03	17°♒56'49	-1°03'42
direct	-286 Nov 02 j 02:25	16°♒33'43	
evening set	-285 Jan 27 j 09:05	18°♒26'30	
conjunction	-285 Feb 11 j 22:31	19°♒01'33	-1°01'26
minimum elong	-285 Feb 11 j 22:31	19°♒01'33	1°01'27
max. Earth dist.	-285 Feb 12 j 21:27	19°♒03'43	30.91534 AU
morning rise	-285 Feb 27 j 15:26	19°♒36'57	
retrograde	-285 May 29 j 21:13	21°♒35'40	
opposition	-285 Aug 18 j 16:28	20°♒10'32	-1°07'43
min. Earth dist.	-285 Aug 17 j 18:40	20°♒12'03	28.91209 AU
direct	-285 Nov 04 j 13:44	18°♒47'26	
evening set	-284 Jan 29 j 20:19	20°♒40'14	
conjunction	-284 Feb 14 j 10:05	21°♒15'19	-1°05'09
minimum elong	-284 Feb 14 j 10:05	21°♒15'19	1°05'08
max. Earth dist.	-284 Feb 15 j 08:59	21°♒17'29	30.90797 AU
morning rise	-284 Mar 01 j 03:29	21°♒50'44	
retrograde	-284 May 31 j 12:50	23°♒49'33	
min. Earth dist.	-284 Aug 19 j 06:02	22°♒25'58	28.90541 AU
opposition	-284 Aug 20 j 04:57	22°♒24'23	-1°11'38
direct	-284 Nov 06 j 02:00	21°♒01'17	
evening set	-283 Jan 31 j 07:31	22°♒54'07	
conjunction	-283 Feb 15 j 21:40	23°♒29'14	-1°08'46
minimum elong	-283 Feb 15 j 21:40	23°♒29'14	1°08'46
max. Earth dist.	-283 Feb 16 j 21:24	23°♒31'29	30.90173 AU
morning rise	-283 Mar 03 j 15:29	24°♒04'42	
retrograde	-283 Jun 03 j 02:05	26°♒03'35	
opposition	-283 Aug 22 j 17:36	24°♒38'25	-1°15'27
min. Earth dist.	-283 Aug 21 j 19:13	24°♒39'58	28.89975 AU
direct	-283 Nov 08 j 13:32	23°♒15'20	
evening set	-282 Feb 02 j 18:59	25°♒08'12	
conjunction	-282 Feb 18 j 09:35	25°♒43'21	-1°12'17
minimum elong	-282 Feb 18 j 09:35	25°♒43'21	1°12'17
max. Earth dist.	-282 Feb 19 j 09:47	25°♒45'39	30.89655 AU
morning rise	-282 Mar 06 j 03:47	26°♒18'51	
retrograde	-282 Jun 05 j 15:55	28°♒17'49	
min. Earth dist.	-282 Aug 24 j 06:23	26°♒54'17	28.89488 AU
opposition	-282 Aug 25 j 05:58	26°♒52'39	-1°19'09
direct	-282 Nov 11 j 01:28	25°♒29'35	
evening set	-281 Feb 05 j 06:44	27°♒22'31	
conjunction	-281 Feb 20 j 21:37	27°♒57'41	-1°15'41
minimum elong	-281 Feb 20 j 21:37	27°♒57'41	1°15'42
max. Earth dist.	-281 Feb 21 j 21:29	27°♒59'56	30.89173 AU
morning rise	-281 Mar 08 j 16:19	28°♒33'13	
	-281 Apr 24 j 02:32	0°♓	
retrograde	-281 Jun 08 j 05:13	0°♓32'16	
	-281 Jul 24 j 10:40	30°♑℞	
opposition	-281 Aug 27 j 18:34	29°♒07'05	-1°22'44
min. Earth dist.	-281 Aug 26 j 19:58	29°♒08'39	28.89017 AU
direct	-281 Nov 13 j 12:07	27°♒44'03	
evening set	-280 Feb 07 j 18:29	29°♒37'01	
	-280 Feb 18 j 00:40	0°♓	
conjunction	-280 Feb 23 j 09:52	0°♓12'13	-1°18'59
minimum elong	-280 Feb 23 j 09:52	0°♓12'13	1°18'59
max. Earth dist.	-280 Feb 24 j 10:34	0°♓14'33	30.88682 AU
morning rise	-280 Mar 10 j 04:48	0°♓47'46	
retrograde	-280 Jun 09 j 18:45	2°♓46'53	
min. Earth dist.	-280 Aug 28 j 07:36	1°♓23'20	28.88499 AU
opposition	-280 Aug 29 j 06:59	1°♓21'43	-1°26'12
	-280 Nov 06 j 04:19	30°♑℞	
direct	-280 Nov 15 j 00:03	29°♒58'40	
	-280 Nov 23 j 15:44	0°♓	
evening set	-279 Feb 09 j 06:35	1°♓51'41	
conjunction	-279 Feb 24 j 22:12	2°♓26'54	-1°22'10
minimum elong	-279 Feb 24 j 22:12	2°♓26'54	1°22'10
max. Earth dist.	-279 Feb 25 j 21:48	2°♓29'08	30.88123 AU
morning rise	-279 Mar 12 j 17:43	3°♓02'30	
retrograde	-279 Jun 12 j 07:28	5°♓01'40	
opposition	-279 Aug 31 j 19:37	3°♓36'28	-1°29'32
min. Earth dist.	-279 Aug 30 j 21:08	3°♓38'02	28.87907 AU
direct	-279 Nov 17 j 10:14	2°♓13'24	
evening set	-278 Feb 11 j 18:35	4°♓06'26	
conjunction	-278 Feb 27 j 10:48	4°♓41'41	-1°25'13
minimum elong	-278 Feb 27 j 10:48	4°♓41'41	1°25'13
max. Earth dist.	-278 Feb 28 j 11:16	4°♓43'59	30.87473 AU
morning rise	-278 Mar 15 j 06:35	5°♓17'17	
retrograde	-278 Jun 14 j 19:17	7°♓16'29	
min. Earth dist.	-278 Sep 02 j 09:28	5°♓52'49	28.87202 AU
opposition	-278 Sep 03 j 08:05	5°♓51'15	-1°32'44
direct	-278 Nov 19 j 22:11	4°♓28'08	
evening set	-277 Feb 14 j 06:53	6°♓21'11	
conjunction	-277 Mar 01 j 23:23	6°♓56'27	-1°28'09
minimum elong	-277 Mar 01 j 23:23	6°♓56'27	1°28'09
max. Earth dist.	-277 Mar 02 j 22:31	6°♓58'38	30.86727 AU
morning rise	-277 Mar 17 j 19:44	7°♓32'05	
retrograde	-277 Jun 17 j 09:28	9°♓31'17	
opposition	-277 Sep 05 j 20:22	8°♓05'59	-1°35'48
min. Earth dist.	-277 Sep 04 j 22:01	8°♓07'33	28.86430 AU
direct	-277 Nov 22 j 08:09	6°♓42'48	
evening set	-276 Feb 16 j 19:03	8°♓35'52	
conjunction	-276 Mar 03 j 12:04	9°♓11'10	-1°30'57
minimum elong	-276 Mar 03 j 12:03	9°♓11'10	1°30'56
max. Earth dist.	-276 Mar 04 j 12:00	9°♓13'25	30.85925 AU
morning rise	-276 Mar 19 j 08:41	9°♓46'49	
retrograde	-276 Jun 18 j 21:29	11°♓46'01	
min. Earth dist.	-276 Sep 06 j 10:43	10°♓22'11	28.85626 AU
opposition	-276 Sep 07 j 08:42	10°♓20'39	-1°38'43
direct	-276 Nov 23 j 20:09	8°♓57'24	
evening set	-275 Feb 18 j 07:10	10°♓50'28	
conjunction	-275 Mar 06 j 00:33	11°♓25'47	-1°33'36
minimum elong	-275 Mar 06 j 00:33	11°♓25'47	1°33'36
max. Earth dist.	-275 Mar 06 j 23:59	11°♓28'00	30.85141 AU
morning rise	-275 Mar 21 j 21:41	12°♓01'27	
retrograde	-275 Jun 21 j 12:25	14°♓00'39	
opposition	-275 Sep 09 j 20:55	12°♓35'13	-1°41'29
min. Earth dist.	-275 Sep 08 j 22:20	12°♓36'48	28.84873 AU
direct	-275 Nov 26 j 08:26	11°♓11'54	
evening set	-274 Feb 20 j 19:31	13°♓05'00	
conjunction	-274 Mar 08 j 13:19	13°♓40'20	-1°36'07
minimum elong	-274 Mar 08 j 13:19	13°♓40'20	1°36'07
max. Earth dist.	-274 Mar 09 j 13:11	13°♓42'35	30.84410 AU
morning rise	-274 Mar 24 j 10:50	14°♓16'02	
retrograde	-274 Jun 24 j 00:51	16°♓15'13	
min. Earth dist.	-274 Sep 11 j 11:19	14°♓51'16	28.84201 AU
opposition	-274 Sep 12 j 09:01	14°♓49'45	-1°44'05
direct	-274 Nov 28 j 19:57	13°♓26'22	
evening set	-273 Feb 23 j 07:53	15°♓19'30	
conjunction	-273 Mar 11 j 02:11	15°♓54'52	-1°38'29
minimum elong	-273 Mar 11 j 02:11	15°♓54'52	1°38'29
max. Earth dist.	-273 Mar 12 j 02:10	15°♓57'08	30.83797 AU

Attention, astronomical year style is used: The year -273 in astronomical counting style is the year 274 BCE in historical counting style.

morning rise	-273 Mar 27 j 00:04	16°♓30'35	
retrograde	-273 Jun 26 j 15:26	18°♓29'46	
opposition	-273 Sep 14 j 21:01	17°♓04'16	-1°46'33
min. Earth dist.	-273 Sep 13 j 22:15	17°♓05'52	28.83650 AU
direct	-273 Dec 01 j 08:28	15°♓40'51	
evening set	-272 Feb 25 j 20:18	17°♓34'01	
conjunction	-272 Mar 12 j 14:53	18°♓09'25	-1°40'42
minimum elong	-272 Mar 12 j 14:53	18°♓09'25	1°40'42
max. Earth dist.	-272 Mar 13 j 14:32	18°♓11'39	30.83298 AU
morning rise	-272 Mar 28 j 13:14	18°♓45'10	
retrograde	-272 Jun 28 j 05:02	20°♓44'22	
min. Earth dist.	-272 Sep 15 j 11:14	19°♓20'23	28.83230 AU
opposition	-272 Sep 16 j 09:08	19°♓18'51	-1°48'50
direct	-272 Dec 02 j 19:36	17°♓55'26	
evening set	-271 Feb 27 j 08:45	19°♓48'38	
conjunction	-271 Mar 15 j 03:54	20°♓24'04	-1°42'46
minimum elong	-271 Mar 15 j 03:54	20°♓24'04	1°42'47
max. Earth dist.	-271 Mar 16 j 04:24	20°♓26'23	30.82949 AU
morning rise	-271 Mar 31 j 02:32	20°♓59'51	
retrograde	-271 Jun 30 j 18:52	22°♓59'03	
opposition	-271 Sep 18 j 21:03	21°♓33'33	-1°50'58
min. Earth dist.	-271 Sep 17 j 22:14	21°♓35'09	28.82941 AU
direct	-271 Dec 05 j 07:54	20°♓10'08	
evening set	-270 Mar 01 j 21:27	22°♓03'25	
conjunction	-270 Mar 17 j 16:54	22°♓38'52	-1°44'41
minimum elong	-270 Mar 17 j 16:54	22°♓38'52	1°44'41
max. Earth dist.	-270 Mar 18 j 16:27	22°♓41'05	30.82713 AU
morning rise	-270 Apr 02 j 16:06	23°♓14'41	
retrograde	-270 Jul 03 j 07:39	25°♓13'54	
min. Earth dist.	-270 Sep 20 j 11:09	23°♓49'59	28.82759 AU
opposition	-270 Sep 21 j 09:05	23°♓48'26	-1°52'55
direct	-270 Dec 07 j 17:58	22°♓25'01	
evening set	-269 Mar 04 j 10:12	24°♓18'23	
conjunction	-269 Mar 20 j 06:14	24°♓53'52	-1°46'26
minimum elong	-269 Mar 20 j 06:14	24°♓53'52	1°46'26
max. Earth dist.	-269 Mar 21 j 06:43	24°♓56'11	30.82560 AU
morning rise	-269 Apr 05 j 05:38	25°♓29'42	
retrograde	-269 Jul 05 j 19:49	27°♓28'56	
opposition	-269 Sep 23 j 20:51	26°♓03'31	-1°54'42
min. Earth dist.	-269 Sep 22 j 22:53	26°♓05'04	28.82624 AU
direct	-269 Dec 10 j 05:25	24°♓40'07	
evening set	-268 Mar 05 j 23:15	26°♓33'34	
conjunction	-268 Mar 21 j 19:33	27°♓09'05	-1°48'01
minimum elong	-268 Mar 21 j 19:33	27°♓09'05	1°48'01
max. Earth dist.	-268 Mar 22 j 18:34	27°♓11'15	30.82437 AU
morning rise	-268 Apr 06 j 19:30	27°♓44'57	
retrograde	-268 Jul 07 j 10:21	29°♓44'12	
min. Earth dist.	-268 Sep 24 j 11:20	28°♓20'20	28.82502 AU
opposition	-268 Sep 25 j 08:49	28°♓18'49	-1°56'18
direct	-268 Dec 11 j 14:49	26°♓55'25	
evening set	-267 Mar 08 j 12:12	28°♓48'57	
conjunction	-267 Mar 24 j 09:04	29°♓24'30	-1°49'27
minimum elong	-267 Mar 24 j 09:04	29°♓24'30	1°49'26
max. Earth dist.	-267 Mar 25 j 08:32	29°♓26'42	30.82281 AU
morning rise	-267 Apr 09 j 09:16	0°♈00'23	
	-267 Apr 09 j 05:07	0°♈	
retrograde	-267 Jul 09 j 22:09	1°♈59'38	
opposition	-267 Sep 27 j 20:47	0°♈34'17	-1°57'44
min. Earth dist.	-267 Sep 27 j 00:09	0°♈35'45	28.82310 AU
	-267 Oct 18 j 18:40	30°♑℞♓	
direct	-267 Dec 14 j 02:37	29°♓10'52	
	-266 Feb 06 j 14:21	0°♈	
evening set	-266 Mar 11 j 01:32	1°♈04'28	
conjunction	-266 Mar 26 j 22:48	1°♈40'02	-1°50'42
minimum elong	-266 Mar 26 j 22:47	1°♈40'02	1°50'41
max. Earth dist.	-266 Mar 27 j 20:49	1°♈42'07	30.82051 AU
morning rise	-266 Apr 11 j 23:29	2°♈15'57	
retrograde	-266 Jul 12 j 12:45	4°♈15'10	
opposition	-266 Sep 30 j 08:34	2°♈49'50	-1°58'59
min. Earth dist.	-266 Sep 29 j 12:03	2°♈51'17	28.82032 AU
direct	-266 Dec 16 j 14:40	1°♈26'21	
evening set	-265 Mar 13 j 14:54	3°♈20'01	
conjunction	-265 Mar 29 j 12:38	3°♈55'37	-1°51'47
minimum elong	-265 Mar 29 j 12:38	3°♈55'37	1°51'47
max. Earth dist.	-265 Mar 30 j 10:22	3°♈57'40	30.81713 AU
morning rise	-265 Apr 14 j 13:39	4°♈31'33	
retrograde	-265 Jul 15 j 00:56	6°♈30'43	
opposition	-265 Oct 02 j 20:29	5°♈05'22	-2°00'03
min. Earth dist.	-265 Oct 02 j 01:27	5°♈06'42	28.81652 AU
direct	-265 Dec 19 j 01:57	3°♈41'50	
evening set	-264 Mar 15 j 04:04	5°♈35'31	
conjunction	-264 Mar 31 j 02:17	6°♈11'09	-1°52'42
minimum elong	-264 Mar 31 j 02:17	6°♈11'09	1°52'42
max. Earth dist.	-264 Mar 31 j 23:24	6°♈13'08	30.81311 AU
morning rise	-264 Apr 16 j 03:41	6°♈47'05	
retrograde	-264 Jul 16 j 15:39	8°♈46'11	
opposition	-264 Oct 04 j 08:09	7°♈20'49	-2°00'57
min. Earth dist.	-264 Oct 03 j 12:42	7°♈22'11	28.81227 AU
direct	-264 Dec 20 j 15:17	5°♈57'12	
evening set	-263 Mar 17 j 17:27	7°♈50'55	
conjunction	-263 Apr 02 j 16:02	8°♈26'34	-1°53'27
minimum elong	-263 Apr 02 j 16:02	8°♈26'34	1°53'27
max. Earth dist.	-263 Apr 03 j 12:17	8°♈28'28	30.80877 AU
morning rise	-263 Apr 18 j 17:53	9°♈02'32	
retrograde	-263 Jul 19 j 05:14	11°♈01'32	
opposition	-263 Oct 06 j 19:49	9°♈36'07	-2°01'39
min. Earth dist.	-263 Oct 06 j 01:48	9°♈37'23	28.80812 AU
direct	-263 Dec 23 j 03:32	8°♈12'25	
evening set	-262 Mar 20 j 06:43	10°♈06'10	
conjunction	-262 Apr 05 j 05:55	10°♈41'51	-1°54'01
minimum elong	-262 Apr 05 j 05:55	10°♈41'51	1°54'01
max. Earth dist.	-262 Apr 06 j 02:24	10°♈43'46	30.80490 AU
morning rise	-262 Apr 21 j 08:02	11°♈17'49	
retrograde	-262 Jul 21 j 18:39	13°♈16'44	
opposition	-262 Oct 09 j 07:15	11°♈51'17	-2°02'10
min. Earth dist.	-262 Oct 08 j 12:43	11°♈52'36	28.80453 AU
direct	-262 Dec 25 j 17:11	10°♈27'31	
evening set	-261 Mar 22 j 20:12	12°♈21'17	
conjunction	-261 Apr 07 j 19:39	12°♈56'59	-1°54'25
minimum elong	-261 Apr 07 j 19:39	12°♈56'59	1°54'24
max. Earth dist.	-261 Apr 08 j 14:54	12°♈58'48	30.80174 AU
morning rise	-261 Apr 23 j 22:15	13°♈32'59	
retrograde	-261 Jul 24 j 07:25	15°♈31'48	
opposition	-261 Oct 11 j 18:40	14°♈06'20	-2°02'30
min. Earth dist.	-261 Oct 11 j 01:12	14°♈07'34	28.80206 AU
direct	-261 Dec 28 j 03:53	12°♈42'29	
evening set	-260 Mar 24 j 09:29	14°♈36'18	
conjunction	-260 Apr 09 j 09:33	15°♈12'01	-1°54'38
minimum elong	-260 Apr 09 j 09:32	15°♈12'01	1°54'38
max. Earth dist.	-260 Apr 10 j 05:36	15°♈13'54	30.79992 AU
morning rise	-260 Apr 25 j 12:20	15°♈48'02	

Attention, astronomical year style is used: The year -260 in astronomical counting style is the year 261 BCE in historical counting style.

retrograde	-260 Jul 25 j 20:11	17°♈46'45	
opposition	-260 Oct 13 j 06:00	16°♈21'17	-2°02'39
min. Earth dist.	-260 Oct 12 j 12:22	16°♈22'32	28.80092 AU
direct	-260 Dec 29 j 16:26	14°♈57'24	
evening set	-259 Mar 26 j 22:52	16°♈51'14	
conjunction	-259 Apr 11 j 23:14	17°♈26'59	-1°54'41
minimum elong	-259 Apr 11 j 23:14	17°♈26'59	1°54'41
max. Earth dist.	-259 Apr 12 j 17:53	17°♈28'44	30.79962 AU
morning rise	-259 Apr 28 j 02:34	18°♈03'01	
retrograde	-259 Jul 28 j 09:26	20°♈01'39	
opposition	-259 Oct 15 j 17:23	18°♈36'13	-2°02'36
min. Earth dist.	-259 Oct 15 j 00:07	18°♈37'26	28.80142 AU
direct	-258 Jan 01 j 02:41	17°♈12'16	
evening set	-258 Mar 29 j 12:21	19°♈06'10	
conjunction	-258 Apr 14 j 13:18	19°♈41'57	-1°54'34
minimum elong	-258 Apr 14 j 13:18	19°♈41'57	1°54'33
max. Earth dist.	-258 Apr 15 j 08:35	19°♈43'45	30.80080 AU
morning rise	-258 Apr 30 j 16:50	20°♈18'00	
retrograde	-258 Jul 30 j 20:16	22°♈16'33	
min. Earth dist.	-258 Oct 17 j 11:57	20°♈52'20	28.80326 AU
opposition	-258 Oct 18 j 04:35	20°♈51'09	-2°02'22
direct	-257 Jan 03 j 14:22	19°♈27'12	
evening set	-257 Apr 01 j 02:00	21°♈21'10	
conjunction	-257 Apr 17 j 03:18	21°♈56'58	-1°54'15
minimum elong	-257 Apr 17 j 03:19	21°♈56'58	1°54'15
max. Earth dist.	-257 Apr 17 j 21:18	21°♈58'39	30.80340 AU
morning rise	-257 May 03 j 07:18	22°♈33'02	
retrograde	-257 Aug 02 j 09:59	24°♈31'30	
opposition	-257 Oct 20 j 15:50	23°♈06'11	-2°01'56
min. Earth dist.	-257 Oct 19 j 23:06	23°♈07'22	28.80635 AU
direct	-256 Jan 06 j 01:17	21°♈42'12	
evening set	-256 Apr 02 j 15:33	23°♈36'15	
conjunction	-256 Apr 18 j 17:19	24°♈12'05	-1°53'46
minimum elong	-256 Apr 18 j 17:19	24°♈12'05	1°53'47
max. Earth dist.	-256 Apr 19 j 11:23	24°♈13'46	30.80679 AU
morning rise	-256 May 04 j 21:32	24°♈48'10	
retrograde	-256 Aug 03 j 21:50	26°♈46'35	
min. Earth dist.	-256 Oct 21 j 11:56	25°♈22'24	28.80997 AU
opposition	-256 Oct 22 j 03:10	25°♈21'19	-2°01'20
direct	-255 Jan 07 j 11:44	23°♈57'20	
evening set	-255 Apr 05 j 05:23	25°♈51'29	
conjunction	-255 Apr 21 j 07:35	26°♈27'20	-1°53'07
minimum elong	-255 Apr 21 j 07:35	26°♈27'20	1°53'07
max. Earth dist.	-255 Apr 22 j 00:41	26°♈28'56	30.81059 AU
morning rise	-255 May 07 j 12:09	27°♈03'25	
retrograde	-255 Aug 06 j 11:59	29°♈01'45	
opposition	-255 Oct 24 j 14:15	27°♈36'34	-2°00'32
min. Earth dist.	-255 Oct 23 j 22:55	27°♈37'40	28.81362 AU
direct	-254 Jan 10 j 00:39	26°♈12'34	
evening set	-254 Apr 07 j 19:25	28°♈06'48	
conjunction	-254 Apr 23 j 21:59	28°♈42'41	-1°52'17
minimum elong	-254 Apr 23 j 21:59	28°♈42'41	1°52'17
max. Earth dist.	-254 Apr 24 j 13:50	28°♈44'10	30.81391 AU
morning rise	-254 May 10 j 02:54	29°♈18'48	
	-254 May 29 j 21:17	0°♉	
retrograde	-254 Aug 09 j 01:01	1°♉17'02	
	-254 Oct 22 j 07:11	30°℞♈	
opposition	-254 Oct 27 j 01:36	29°♈51'54	-1°59'33
min. Earth dist.	-254 Oct 26 j 12:08	29°♈52'51	28.81661 AU
direct	-253 Jan 12 j 12:35	28°♈27'52	
	-253 Mar 31 j 00:23	0°♉	
evening set	-253 Apr 10 j 09:22	0°♉22'10	
conjunction	-253 Apr 26 j 12:27	0°♉58'05	-1°51'17
minimum elong	-253 Apr 26 j 12:27	0°♉58'05	1°51'16
max. Earth dist.	-253 Apr 27 j 03:46	0°♉59'30	30.81653 AU
morning rise	-253 May 12 j 17:33	1°♉34'12	
retrograde	-253 Aug 11 j 14:34	3°♉32'20	
opposition	-253 Oct 29 j 12:40	2°♉07'14	-1°58'23
min. Earth dist.	-253 Oct 28 j 23:10	2°♉08'12	28.81871 AU
direct	-252 Jan 15 j 02:18	0°♉43'10	
evening set	-252 Apr 11 j 23:26	2°♉37'31	
conjunction	-252 Apr 28 j 02:47	3°♉13'27	-1°50'06
minimum elong	-252 Apr 28 j 02:47	3°♉13'27	1°50'07
max. Earth dist.	-252 Apr 28 j 16:15	3°♉14'42	30.81833 AU
morning rise	-252 May 14 j 08:18	3°♉49'35	
retrograde	-252 Aug 13 j 03:53	5°♉47'35	
opposition	-252 Oct 30 j 23:49	4°♉22'31	-1°57'03
min. Earth dist.	-252 Oct 30 j 11:56	4°♉23'22	28.82029 AU
direct	-251 Jan 16 j 13:28	2°♉58'23	
evening set	-251 Apr 14 j 13:17	4°♉52'46	
conjunction	-251 Apr 30 j 17:14	5°♉28'44	-1°48'46
minimum elong	-251 Apr 30 j 17:15	5°♉28'44	1°48'46
max. Earth dist.	-251 May 01 j 06:52	5°♉30'00	30.81977 AU
morning rise	-251 May 16 j 22:55	6°♉04'53	
retrograde	-251 Aug 15 j 17:08	8°♉02'44	
opposition	-251 Nov 02 j 10:48	6°♉37'42	-1°55'32
min. Earth dist.	-251 Nov 01 j 23:20	6°♉38'31	28.82151 AU
direct	-250 Jan 19 j 02:57	5°♉13'29	
evening set	-250 Apr 17 j 03:25	7°♉07'55	
conjunction	-250 May 03 j 07:36	7°♉43'54	-1°47'16
minimum elong	-250 May 03 j 07:36	7°♉43'54	1°47'16
max. Earth dist.	-250 May 03 j 19:13	7°♉44'59	30.82115 AU
morning rise	-250 May 19 j 13:43	8°♉20'04	
retrograde	-250 Aug 18 j 05:42	10°♉17'46	
opposition	-250 Nov 04 j 21:38	8°♉52'45	-1°53'50
min. Earth dist.	-250 Nov 04 j 11:01	8°♉53'30	28.82310 AU
direct	-249 Jan 21 j 14:00	7°♉28'28	
evening set	-249 Apr 19 j 17:21	9°♉22'57	
conjunction	-249 May 05 j 22:04	9°♉58'56	-1°45'37
minimum elong	-249 May 05 j 22:04	9°♉58'56	1°45'36
max. Earth dist.	-249 May 06 j 10:00	10°♉00'03	30.82301 AU
morning rise	-249 May 22 j 04:15	10°♉35'07	
retrograde	-249 Aug 20 j 16:19	12°♉32'39	
opposition	-249 Nov 07 j 08:31	11°♉07'41	-1°51'59
min. Earth dist.	-249 Nov 06 j 22:43	11°♉08'22	28.82531 AU
direct	-248 Jan 24 j 02:13	9°♉43'20	
evening set	-248 Apr 21 j 07:11	11°♉37'51	
conjunction	-248 May 07 j 12:09	12°♉13'52	-1°43'48
minimum elong	-248 May 07 j 12:09	12°♉13'52	1°43'48
max. Earth dist.	-248 May 07 j 22:33	12°♉14'50	30.82588 AU
morning rise	-248 May 23 j 18:44	12°♉50'02	
retrograde	-248 Aug 22 j 05:23	14°♉47'27	
opposition	-248 Nov 08 j 19:17	13°♉22'30	-1°49'57
min. Earth dist.	-248 Nov 08 j 09:27	13°♉23'12	28.82880 AU
direct	-247 Jan 25 j 13:07	11°♉58'06	
evening set	-247 Apr 23 j 21:08	13°♉52'40	
conjunction	-247 May 10 j 02:32	14°♉28'42	-1°41'49
minimum elong	-247 May 10 j 02:32	14°♉28'42	1°41'49
max. Earth dist.	-247 May 10 j 13:02	14°♉29'40	30.83000 AU
	-247 May 24 j 03:51	15°♉	
morning rise	-247 May 26 j 09:14	15°♉04'53	

Attention, astronomical year style is used: The year -247 in astronomical counting style is the year 248 BCE in historical counting style.

retrograde	-247 Aug 24 j 16:03	17°♉02'09	
opposition	-247 Nov 11 j 06:01	15°♉37'15	-1°47'45
min. Earth dist.	-247 Nov 10 j 21:34	15°♉37'51	28.83363 AU
	-247 Dec 03 j 20:16	15°℞♉	
direct	-246 Jan 27 j 23:06	14°♉12'48	
	-246 Mar 22 j 22:54	15°♉	
evening set	-246 Apr 26 j 11:09	16°♉07'26	
conjunction	-246 May 12 j 16:54	16°♉43'29	-1°39'41
minimum elong	-246 May 12 j 16:54	16°♉43'29	1°39'42
max. Earth dist.	-246 May 13 j 02:25	16°♉44'22	30.83572 AU
morning rise	-246 May 28 j 23:52	17°♉19'40	
retrograde	-246 Aug 27 j 04:30	19°♉16'48	
opposition	-246 Nov 13 j 16:41	17°♉51'59	-1°45'23
min. Earth dist.	-246 Nov 13 j 07:49	17°♉52'37	28.84001 AU
direct	-245 Jan 30 j 12:11	16°♉27'30	
evening set	-245 Apr 29 j 01:08	18°♉22'12	
conjunction	-245 May 15 j 07:09	18°♉58'16	-1°37'24
minimum elong	-245 May 15 j 07:09	18°♉58'16	1°37'24
max. Earth dist.	-245 May 15 j 16:00	18°♉59'06	30.84277 AU
morning rise	-245 May 31 j 14:16	19°♉34'28	
retrograde	-245 Aug 29 j 16:03	21°♉31'28	
opposition	-245 Nov 16 j 03:27	20°♉06'44	-1°42'52
min. Earth dist.	-245 Nov 15 j 20:07	20°♉07'15	28.84772 AU
direct	-244 Feb 01 j 23:22	18°♉42'15	
evening set	-244 Apr 30 j 15:06	20°♉37'02	
conjunction	-244 May 16 j 21:32	21°♉13'07	-1°34'58
minimum elong	-244 May 16 j 21:32	21°♉13'07	1°34'59
max. Earth dist.	-244 May 17 j 06:01	21°♉13'54	30.85117 AU
morning rise	-244 Jun 02 j 04:48	21°♉49'18	
retrograde	-244 Aug 31 j 05:13	23°♉46'11	
opposition	-244 Nov 17 j 14:00	22°♉21'34	-1°40'10
min. Earth dist.	-244 Nov 17 j 06:32	22°♉22'06	28.85637 AU
direct	-243 Feb 03 j 12:19	20°♉57'04	
evening set	-243 May 03 j 05:18	22°♉51'57	
conjunction	-243 May 19 j 11:55	23°♉28'02	-1°32'23
minimum elong	-243 May 19 j 11:55	23°♉28'03	1°32'22
max. Earth dist.	-243 May 19 j 18:44	23°♉28'41	30.86006 AU
morning rise	-243 Jun 04 j 19:27	24°♉04'15	
retrograde	-243 Sep 02 j 18:32	26°♉01'00	
opposition	-243 Nov 20 j 00:46	24°♉36'28	-1°37'20
min. Earth dist.	-243 Nov 19 j 18:57	24°♉36'53	28.86531 AU
direct	-242 Feb 05 j 23:40	23°♉11'58	
evening set	-242 May 05 j 19:32	25°♉06'55	
conjunction	-242 May 22 j 02:34	25°♉43'02	-1°29'39
minimum elong	-242 May 22 j 02:35	25°♉43'02	1°29'39
max. Earth dist.	-242 May 22 j 09:14	25°♉43'40	30.86884 AU
morning rise	-242 Jun 07 j 10:04	26°♉19'14	
retrograde	-242 Sep 05 j 07:44	28°♉15'51	
opposition	-242 Nov 22 j 11:22	26°♉51'25	-1°34'21
min. Earth dist.	-242 Nov 22 j 06:15	26°♉51'46	28.87367 AU
direct	-241 Feb 08 j 13:49	25°♉26'54	
evening set	-241 May 08 j 09:57	27°♉21'55	
conjunction	-241 May 24 j 17:04	27°♉58'03	-1°26'48
minimum elong	-241 May 24 j 17:05	27°♉58'03	1°26'47
max. Earth dist.	-241 May 24 j 21:23	27°♉58'27	30.87688 AU
morning rise	-241 Jun 10 j 00:50	28°♉34'14	
	-241 Jul 26 j 12:41	0°♊	
retrograde	-241 Sep 07 j 20:27	0°♊30'42	
	-241 Oct 21 j 17:44	30°℞♉	
opposition	-241 Nov 24 j 22:09	29°♉06'20	-1°31'13
min. Earth dist.	-241 Nov 24 j 18:07	29°♉06'37	28.88129 AU
direct	-240 Feb 11 j 01:26	27°♉41'47	
evening set	-240 May 10 j 00:01	29°♉36'50	
	-240 May 20 j 12:10	0°♊	
conjunction	-240 May 26 j 07:33	0°♊12'59	-1°23'48
minimum elong	-240 May 26 j 07:33	0°♊12'59	1°23'48
max. Earth dist.	-240 May 26 j 11:45	0°♊13'22	30.88400 AU
morning rise	-240 Jun 11 j 15:15	0°♊49'10	
retrograde	-240 Sep 09 j 07:57	2°♊45'28	
opposition	-240 Nov 26 j 08:52	1°♊21'09	-1°27'57
min. Earth dist.	-240 Nov 26 j 06:09	1°♊21'21	28.88782 AU
	-239 Jan 29 j 05:47	30°℞♉	
direct	-239 Feb 12 j 14:18	29°♉56'33	
	-239 Feb 26 j 19:13	0°♊	
evening set	-239 May 12 j 14:22	1°♊51'38	
conjunction	-239 May 28 j 22:01	2°♊27'47	-1°20'41
minimum elong	-239 May 28 j 22:02	2°♊27'47	1°20'41
max. Earth dist.	-239 May 28 j 23:55	2°♊27'58	30.89028 AU
morning rise	-239 Jun 14 j 05:59	3°♊03'58	
retrograde	-239 Sep 11 j 21:07	5°♊00'04	
opposition	-239 Nov 28 j 19:21	3°♊35'48	-1°24'33
min. Earth dist.	-239 Nov 28 j 17:05	3°♊35'58	28.89372 AU
direct	-238 Feb 15 j 02:02	2°♊11'08	
evening set	-238 May 15 j 04:37	4°♊06'15	
conjunction	-238 May 31 j 12:34	4°♊42'24	-1°17'27
minimum elong	-238 May 31 j 12:35	4°♊42'24	1°17'28
max. Earth dist.	-238 May 31 j 14:09	4°♊42'33	30.89589 AU
morning rise	-238 Jun 16 j 20:26	5°♊18'35	
retrograde	-238 Sep 14 j 07:01	7°♊14'30	
opposition	-238 Dec 01 j 05:57	5°♊50'16	-1°21'02
min. Earth dist.	-238 Dec 01 j 05:31	5°♊50'18	28.89915 AU
direct	-237 Feb 17 j 13:06	4°♊25'32	
evening set	-237 May 17 j 18:41	6°♊20'40	
conjunction	-237 Jun 03 j 02:45	6°♊56'49	-1°14'07
minimum elong	-237 Jun 03 j 02:46	6°♊56'49	1°14'06
max. Earth dist.	-237 Jun 03 j 02:55	6°♊56'50	30.90143 AU
morning rise	-237 Jun 19 j 10:44	7°♊32'59	
retrograde	-237 Sep 16 j 18:28	9°♊28'43	
opposition	-237 Dec 03 j 16:20	8°♊04'32	-1°17'24
min. Earth dist.	-237 Dec 03 j 15:45	8°♊04'34	28.90471 AU
direct	-236 Feb 20 j 02:07	6°♊39'43	
evening set	-236 May 19 j 08:47	8°♊34'53	
conjunction	-236 Jun 04 j 17:00	9°♊11'02	-1°10'40
minimum elong	-236 Jun 04 j 17:00	9°♊11'02	1°10'40
max. Earth dist.	-236 Jun 04 j 16:25	9°♊10'59	30.90719 AU
morning rise	-236 Jun 21 j 00:56	9°♊47'12	
retrograde	-236 Sep 18 j 04:54	11°♊42'45	
opposition	-236 Dec 05 j 02:45	10°♊18'36	-1°13'40
min. Earth dist.	-236 Dec 05 j 03:52	10°♊18'32	28.91086 AU
direct	-235 Feb 21 j 12:55	8°♊53'43	
evening set	-235 May 21 j 22:45	10°♊48'56	
conjunction	-235 Jun 07 j 07:11	11°♊25'05	-1°07'06
minimum elong	-235 Jun 07 j 07:12	11°♊25'05	1°07'05
max. Earth dist.	-235 Jun 07 j 06:01	11°♊24'59	30.91385 AU
morning rise	-235 Jun 23 j 15:08	12°♊01'14	
retrograde	-235 Sep 20 j 16:45	13°♊56'37	
opposition	-235 Dec 07 j 13:04	12°♊32'32	-1°09'48
min. Earth dist.	-235 Dec 07 j 13:55	12°♊32'28	28.91788 AU
direct	-234 Feb 24 j 01:55	11°♊07'35	
evening set	-234 May 24 j 12:52	13°♊02'51	
conjunction	-234 Jun 09 j 21:17	13°♊39'00	-1°03'27

Attention, astronomical year style is used: The year -234 in astronomical counting style is the year 235 BCE in historical counting style.

minimum elong	-234 Jun	09 j 21:17	13°♊39'00	1°03'27
max. Earth dist.	-234 Jun	09 j 18:44	13°♊38'46	30.92144 AU
morning rise	-234 Jun	26 j 05:12	14°♊15'08	
retrograde	-234 Sep	23 j 04:38	16°♊10'22	
opposition	-234 Dec	09 j 23:27	14°♊46'21	-1°05'51
min. Earth dist.	-234 Dec	10 j 01:34	14°♊46'12	28.92617 AU
direct	-233 Feb	26 j 13:22	13°♊21'23	
evening set	-233 May	27 j 02:46	15°♊16'43	
conjunction	-233 Jun	12 j 11:24	15°♊52'53	-0°59'42
minimum elong	-233 Jun	12 j 11:24	15°♊52'53	0°59'42
max. Earth dist.	-233 Jun	12 j 09:05	15°♊52'40	30.93044 AU
morning rise	-233 Jun	28 j 19:09	16°♊28'59	
retrograde	-233 Sep	25 j 16:47	18°♊24'05	
opposition	-233 Dec	12 j 09:48	17°♊00'10	-1°01'47
min. Earth dist.	-233 Dec	12 j 12:08	17°♊00'00	28.93568 AU
direct	-232 Feb	29 j 03:17	15°♊35'12	
evening set	-232 May	28 j 16:41	17°♊30'36	
conjunction	-232 Jun	14 j 01:14	18°♊06'45	-0°55'52
minimum elong	-232 Jun	14 j 01:14	18°♊06'45	0°55'52
max. Earth dist.	-232 Jun	13 j 21:11	18°♊06'23	30.94062 AU
morning rise	-232 Jun	30 j 09:04	18°♊42'52	
retrograde	-232 Sep	27 j 05:13	20°♊37'50	
opposition	-232 Dec	13 j 20:09	19°♊14'01	-0°57'38
min. Earth dist.	-232 Dec	13 j 23:14	19°♊13'48	28.94631 AU
direct	-231 Mar	02 j 14:34	17°♊49'03	
evening set	-231 May	31 j 06:40	19°♊44'33	
conjunction	-231 Jun	16 j 15:25	20°♊20'43	-0°51'56
minimum elong	-231 Jun	16 j 15:26	20°♊20'43	0°51'56
max. Earth dist.	-231 Jun	16 j 11:35	20°♊20'21	30.95155 AU
morning rise	-231 Jul	02 j 22:59	20°♊56'48	
retrograde	-231 Sep	29 j 16:58	22°♊51'38	
opposition	-231 Dec	16 j 06:26	21°♊27'57	-0°53'24
min. Earth dist.	-231 Dec	16 j 10:43	21°♊27'39	28.95727 AU
direct	-230 Mar	05 j 03:23	20°♊03'01	
evening set	-230 Jun	02 j 20:52	21°♊58'35	
conjunction	-230 Jun	19 j 05:27	22°♊34'45	-0°47'56
minimum elong	-230 Jun	19 j 05:28	22°♊34'45	0°47'56
max. Earth dist.	-230 Jun	18 j 23:28	22°♊34'12	30.96256 AU
morning rise	-230 Jul	05 j 13:01	23°♊10'50	
retrograde	-230 Oct	02 j 06:31	25°♊05'32	
opposition	-230 Dec	18 j 16:48	23°♊41'58	-0°49'05
min. Earth dist.	-230 Dec	18 j 21:26	23°♊41'38	28.96808 AU
direct	-229 Mar	07 j 15:10	22°♊17'01	
evening set	-229 Jun	05 j 10:48	24°♊12'41	
conjunction	-229 Jun	21 j 19:27	24°♊48'50	-0°43'52
minimum elong	-229 Jun	21 j 19:27	24°♊48'50	0°43'51
max. Earth dist.	-229 Jun	21 j 13:15	24°♊48'16	30.97295 AU
morning rise	-229 Jul	08 j 02:40	25°♊24'54	
retrograde	-229 Oct	04 j 16:19	27°♊19'29	
opposition	-229 Dec	21 j 03:20	25°♊56'00	-0°44'42
min. Earth dist.	-229 Dec	21 j 09:50	25°♊55'33	28.97804 AU
direct	-228 Mar	09 j 02:26	24°♊31'03	
evening set	-228 Jun	07 j 00:53	26°♊26'46	
conjunction	-228 Jun	23 j 09:25	27°♊02'55	-0°39'44
minimum elong	-228 Jun	23 j 09:26	27°♊02'55	0°39'44
max. Earth dist.	-228 Jun	23 j 01:26	27°♊02'10	30.98250 AU
morning rise	-228 Jul	09 j 16:35	27°♊38'57	
retrograde	-228 Oct	06 j 03:37	29°♊33'23	
opposition	-228 Dec	22 j 13:34	28°♊09'59	-0°40'14
min. Earth dist.	-228 Dec	22 j 20:12	28°♊09'31	28.98701 AU
direct	-227 Mar	11 j 15:03	26°♊45'00	
evening set	-227 Jun	09 j 14:56	28°♊40'45	
conjunction	-227 Jun	25 j 23:27	29°♊16'54	-0°35'32
minimum elong	-227 Jun	25 j 23:27	29°♊16'54	0°35'32
max. Earth dist.	-227 Jun	25 j 14:28	29°♊16'04	30.99090 AU
morning rise	-227 Jul	12 j 06:19	29°♊52'54	
	-227 Jul	15 j 13:16	0°♋	
retrograde	-227 Oct	08 j 13:59	1°♋47'11	
opposition	-227 Dec	25 j 00:04	0°♋23'51	-0°35'44
min. Earth dist.	-227 Dec	25 j 08:39	0°♋23'15	28.99494 AU
	-226 Jan	08 j 06:11	30°℞♊	
direct	-226 Mar	14 j 01:17	28°♊58'48	
	-226 May	16 j 00:07	0°♋	
evening set	-226 Jun	12 j 04:51	0°♋54'35	
conjunction	-226 Jun	28 j 13:17	1°♋30'42	-0°31'18
minimum elong	-226 Jun	28 j 13:17	1°♋30'42	0°31'18
max. Earth dist.	-226 Jun	28 j 03:18	1°♋29'47	30.99847 AU
morning rise	-226 Jul	14 j 19:55	2°♋06'42	
retrograde	-226 Oct	11 j 00:31	4°♋00'48	
opposition	-226 Dec	27 j 10:19	2°♋37'31	-0°31'11
min. Earth dist.	-226 Dec	27 j 18:57	2°♋36'55	29.00207 AU
direct	-225 Mar	16 j 14:08	1°♋12'25	
evening set	-225 Jun	14 j 18:44	3°♋08'13	
conjunction	-225 Jul	01 j 02:57	3°♋44'19	-0°27'02
minimum elong	-225 Jul	01 j 02:57	3°♋44'19	0°27'01
max. Earth dist.	-225 Jun	30 j 15:28	3°♋43'15	31.00539 AU
morning rise	-225 Jul	17 j 09:22	4°♋20'16	
retrograde	-225 Oct	13 j 10:59	6°♋14'13	
opposition	-225 Dec	29 j 20:39	4°♋50'57	-0°26'36
min. Earth dist.	-225 Dec	30 j 06:44	4°♋50'15	29.00899 AU
direct	-224 Mar	18 j 01:52	3°♋25'47	
evening set	-224 Jun	16 j 08:15	5°♋21'36	
conjunction	-224 Jul	02 j 16:28	5°♋57'40	-0°22'43
minimum elong	-224 Jul	02 j 16:28	5°♋57'40	0°22'43
max. Earth dist.	-224 Jul	02 j 05:03	5°♋56'37	31.01233 AU
morning rise	-224 Jul	18 j 22:33	6°♋33'35	
retrograde	-224 Oct	14 j 21:33	8°♋27'22	
opposition	-224 Dec	31 j 06:54	7°♋04'08	-0°21'58
min. Earth dist.	-224 Dec	31 j 17:24	7°♋03'24	29.01591 AU
direct	-223 Mar	20 j 15:48	5°♋38'53	
evening set	-223 Jun	18 j 22:00	7°♋34'44	
conjunction	-223 Jul	05 j 05:52	8°♋10'47	-0°18'23
minimum elong	-223 Jul	05 j 05:52	8°♋10'47	0°18'22
max. Earth dist.	-223 Jul	04 j 16:43	8°♋09'34	31.01952 AU
morning rise	-223 Jul	21 j 11:45	8°♋46'40	
retrograde	-223 Oct	17 j 09:08	10°♋40'17	
opposition	-222 Jan	02 j 17:01	9°♋17'05	-0°17'19
min. Earth dist.	-222 Jan	03 j 04:06	9°♋16'18	29.02355 AU
direct	-222 Mar	23 j 03:07	7°♋51'46	
evening set	-222 Jun	21 j 11:28	9°♋47'38	
conjunction	-222 Jul	07 j 19:16	10°♋23'39	-0°14'02
minimum elong	-222 Jul	07 j 19:17	10°♋23'39	0°14'02
behind sun begin	-222 Jul	07 j 16:10	10°♋23'23	
behind sun end	-222 Jul	07 j 22:24	10°♋23'56	
max. Earth dist.	-222 Jul	07 j 06:42	10°♋22'30	31.02757 AU
morning rise	-222 Jul	24 j 00:39	10°♋59'30	
retrograde	-222 Oct	19 j 20:01	12°♋52'58	
opposition	-221 Jan	05 j 03:22	11°♋29'49	-0°12'39
min. Earth dist.	-221 Jan	05 j 15:12	11°♋28'59	29.03213 AU
direct	-221 Mar	25 j 16:55	10°♋04'28	
evening set	-221 Jun	24 j 00:51	12°♋00'21	

Attention, astronomical year style is used: The year -221 in astronomical counting style is the year 222 BCE in historical counting style.

conjunction	-221 Jul	10 j 08:15	12°♓36'21	-0°09'40
minimum elong	-221 Jul	10 j 08:14	12°♓36'21	0°09'39
behind sun begin	-221 Jul	10 j 02:51	12°♓35'52	
behind sun end	-221 Jul	10 j 13:38	12°♓36'50	
max. Earth dist.	-221 Jul	09 j 18:06	12°♓35'03	31.03686 AU
morning rise	-221 Jul	26 j 13:25	13°♓12'09	
retrograde	-221 Oct	22 j 08:24	15°♓05'30	
opposition	-220 Jan	07 j 13:33	13°♓42'24	-0°07'58
min. Earth dist.	-220 Jan	08 j 01:04	13°♓41'35	29.04212 AU
direct	-220 Mar	27 j 05:26	12°♓17'02	
evening set	-220 Jun	25 j 14:11	14°♓12'58	
conjunction	-220 Jul	11 j 21:26	14°♓48'57	-0°05'17
minimum elong	-220 Jul	11 j 21:27	14°♓48'57	0°05'18
behind sun begin	-220 Jul	11 j 15:05	14°♓48'23	
behind sun end	-220 Jul	12 j 03:49	14°♓49'31	
max. Earth dist.	-220 Jul	11 j 07:45	14°♓47'41	31.04746 AU
morning rise	-220 Jul	28 j 02:06	15°♓24'43	
retrograde	-220 Oct	23 j 17:55	17°♓17'57	
opposition	-219 Jan	08 j 23:45	15°♓54'56	-0°03'16
min. Earth dist.	-219 Jan	09 j 12:41	15°♓54'01	29.05330 AU
direct	-219 Mar	29 j 17:03	14°♓29'35	
evening set	-219 Jun	28 j 03:40	16°♓25'35	
conjunction	-219 Jul	14 j 10:33	17°♓01'32	-0°00'51
minimum elong	-219 Jul	14 j 10:33	17°♓01'32	0°00'51
behind sun begin	-219 Jul	14 j 03:58	17°♓00'57	
behind sun end	-219 Jul	14 j 17:07	17°♓02'06	
max. Earth dist.	-219 Jul	13 j 19:37	17°♓00'09	31.05920 AU
morning rise	-219 Jul	30 j 14:56	17°♓37'16	
asc. node	-219 Sep	20 j 22:49	19°♓09'24	
retrograde	-219 Oct	26 j 05:28	19°♓30'23	
opposition	-218 Jan	11 j 09:57	18°♓07'29	0°01'26
min. Earth dist.	-218 Jan	11 j 22:31	18°♓06'36	29.06530 AU
direct	-218 Apr	01 j 05:13	16°♓42'09	
evening set	-218 Jun	30 j 17:01	18°♓38'13	
conjunction	-218 Jul	16 j 23:35	19°♓14'08	0°03'39
minimum elong	-218 Jul	16 j 23:36	19°♓14'09	0°03'39
behind sun begin	-218 Jul	16 j 17:05	19°♓13'34	
behind sun end	-218 Jul	17 j 06:07	19°♓14'43	
max. Earth dist.	-218 Jul	16 j 08:23	19°♓12'44	31.07128 AU
morning rise	-218 Aug	02 j 03:26	19°♓49'51	
retrograde	-218 Oct	28 j 15:46	21°♓42'53	
opposition	-217 Jan	13 j 20:21	20°♓20'05	0°06'09
min. Earth dist.	-217 Jan	14 j 10:33	20°♓19'05	29.07746 AU
direct	-217 Apr	03 j 15:09	18°♓54'47	
evening set	-217 Jul	03 j 06:23	20°♓50'54	
conjunction	-217 Jul	19 j 12:37	21°♓26'48	0°08'02
minimum elong	-217 Jul	19 j 12:37	21°♓26'48	0°08'03
behind sun begin	-217 Jul	19 j 06:47	21°♓26'17	
behind sun end	-217 Jul	19 j 18:28	21°♓27'19	
max. Earth dist.	-217 Jul	18 j 20:39	21°♓25'20	31.08330 AU
morning rise	-217 Aug	04 j 16:02	22°♓02'29	
retrograde	-217 Oct	31 j 02:07	23°♓55'26	
opposition	-216 Jan	16 j 06:39	22°♓32'44	0°10'50
min. Earth dist.	-216 Jan	16 j 20:46	22°♓31'44	29.08914 AU
direct	-216 Apr	05 j 03:33	21°♓07'27	
evening set	-216 Jul	04 j 19:44	23°♓03'38	
max. Earth dist.	-216 Jul	20 j 08:11	23°♓37'54	31.09450 AU
conjunction	-216 Jul	21 j 01:33	23°♓39'30	0°12'24
minimum elong	-216 Jul	21 j 01:33	23°♓39'30	0°12'24
behind sun begin	-216 Jul	20 j 21:19	23°♓39'07	
behind sun end	-216 Jul	21 j 05:46	23°♓39'52	
morning rise	-216 Aug	06 j 04:32	24°♓15'08	

retrograde	-216 Nov	01 j 12:30	26°♓08'00	
opposition	-215 Jan	17 j 17:08	24°♓45'23	0°15'30
min. Earth dist.	-215 Jan	18 j 08:41	24°♓44'18	29.09995 AU
direct	-215 Apr	07 j 14:26	23°♓20'07	
evening set	-215 Jul	07 j 09:03	25°♓16'20	
conjunction	-215 Jul	23 j 14:35	25°♓52'10	0°16'45
minimum elong	-215 Jul	23 j 14:35	25°♓52'10	0°16'45
max. Earth dist.	-215 Jul	22 j 21:03	25°♓50'33	31.10470 AU
morning rise	-215 Aug	08 j 16:59	26°♓27'46	
retrograde	-215 Nov	03 j 22:40	28°♓20'32	
opposition	-214 Jan	20 j 03:33	26°♓58'00	0°20'09
min. Earth dist.	-214 Jan	20 j 19:42	26°♓56'52	29.10952 AU
direct	-214 Apr	10 j 03:31	25°♓32'43	
evening set	-214 Jul	09 j 22:26	27°♓28'59	
max. Earth dist.	-214 Jul	25 j 08:02	28°♓02'59	31.11376 AU
conjunction	-214 Jul	26 j 03:23	28°♓04'47	0°21'04
minimum elong	-214 Jul	26 j 03:22	28°♓04'46	0°21'04
morning rise	-214 Aug	11 j 05:23	28°♓40'20	
	-214 Sep	22 j 23:25	0°♌	
retrograde	-214 Nov	06 j 10:15	0°♌33'01	
	-214 Dec	21 j 22:54	30°℞♓	
opposition	-213 Jan	22 j 14:02	29°♓10'31	0°24'45
min. Earth dist.	-213 Jan	23 j 06:48	29°♓09'21	29.11820 AU
direct	-213 Apr	12 j 14:27	27°♓45'13	
evening set	-213 Jul	12 j 11:20	29°♓41'30	
	-213 Jul	20 j 21:44	0°♌	
conjunction	-213 Jul	28 j 16:01	0°♌17'16	0°25'22
minimum elong	-213 Jul	28 j 16:01	0°♌17'16	0°25'22
max. Earth dist.	-213 Jul	27 j 21:06	0°♌15'31	31.12195 AU
morning rise	-213 Aug	13 j 17:22	0°♌52'46	
retrograde	-213 Nov	08 j 20:50	2°♌45'21	
opposition	-212 Jan	25 j 00:32	1°♌22'53	0°29'20
min. Earth dist.	-212 Jan	25 j 18:21	1°♌21'39	29.12601 AU
	-212 Apr	01 j 22:18	30°℞♓	
direct	-212 Apr	14 j 04:34	29°♓57'34	
	-212 Apr	26 j 09:36	0°♌	
evening set	-212 Jul	14 j 00:26	1°♌53'52	
max. Earth dist.	-212 Jul	29 j 07:49	2°♌27'41	31.12956 AU
conjunction	-212 Jul	30 j 04:30	2°♌29'36	0°29'37
minimum elong	-212 Jul	30 j 04:30	2°♌29'35	0°29'37
morning rise	-212 Aug	15 j 05:30	3°♌05'03	
retrograde	-212 Nov	10 j 08:52	4°♌57'32	
opposition	-211 Jan	26 j 10:45	3°♌35'06	0°33'51
min. Earth dist.	-211 Jan	27 j 04:26	3°♌33'52	29.13353 AU
direct	-211 Apr	16 j 17:33	2°♌09'44	
evening set	-211 Jul	16 j 13:18	4°♌06'04	
conjunction	-211 Aug	01 j 17:02	4°♌41'45	0°33'49
minimum elong	-211 Aug	01 j 17:02	4°♌41'45	0°33'50
max. Earth dist.	-211 Jul	31 j 20:47	4°♌39'52	31.13696 AU
morning rise	-211 Aug	17 j 17:20	5°♌17'09	
retrograde	-211 Nov	12 j 18:06	7°♌09'32	
opposition	-210 Jan	28 j 21:17	5°♌47'08	0°38'19
min. Earth dist.	-210 Jan	29 j 16:20	5°♌45'48	29.14109 AU
direct	-210 Apr	19 j 05:49	4°♌21'45	
evening set	-210 Jul	19 j 02:02	6°♌18'04	
max. Earth dist.	-210 Aug	03 j 07:58	6°♌51'45	31.14478 AU
conjunction	-210 Aug	04 j 05:08	6°♌53'42	0°37'58
minimum elong	-210 Aug	04 j 05:07	6°♌53'42	0°37'58
morning rise	-210 Aug	20 j 04:58	7°♌29'03	
retrograde	-210 Nov	15 j 05:10	9°♌21'22	
opposition	-209 Jan	31 j 07:40	7°♌58'59	0°42'43

Attention, astronomical year style is used: The year -209 in astronomical counting style is the year 210 BCE in historical counting style.

min. Earth dist.	-209 Feb 01 j 01:58	7°♌57'42	29.14929 AU
direct	-209 Apr 21 j 18:45	6°♌33'35	
evening set	-209 Jul 21 j 14:38	8°♌29'55	
conjunction	-209 Aug 06 j 17:17	9°♌05'31	0°42'04
minimum elong	-209 Aug 06 j 17:17	9°♌05'31	0°42'04
max. Earth dist.	-209 Aug 05 j 20:19	9°♌03'35	31.15336 AU
morning rise	-209 Aug 22 j 16:27	9°♌40'49	
retrograde	-209 Nov 17 j 15:15	11°♌33'03	
opposition	-208 Feb 02 j 18:09	10°♌10'43	0°47'03
min. Earth dist.	-208 Feb 03 j 13:31	10°♌09'22	29.15859 AU
direct	-208 Apr 23 j 05:10	8°♌45'19	
evening set	-208 Jul 23 j 03:07	10°♌41'40	
max. Earth dist.	-208 Aug 07 j 08:10	11°♌15'16	31.16325 AU
conjunction	-208 Aug 08 j 05:16	11°♌17'14	0°46'06
minimum elong	-208 Aug 08 j 05:15	11°♌17'14	0°46'06
morning rise	-208 Aug 24 j 03:55	11°♌52'29	
retrograde	-208 Nov 19 j 00:21	13°♌44'39	
opposition	-207 Feb 04 j 04:36	12°♌22'23	0°51'20
min. Earth dist.	-207 Feb 04 j 23:17	12°♌21'05	29.16893 AU
direct	-207 Apr 25 j 17:49	10°♌57'01	
evening set	-207 Jul 25 j 15:41	12°♌53'24	
conjunction	-207 Aug 10 j 17:12	13°♌28'55	0°50'03
minimum elong	-207 Aug 10 j 17:12	13°♌28'55	0°50'04
max. Earth dist.	-207 Aug 09 j 19:29	13°♌26'54	31.17403 AU
morning rise	-207 Aug 26 j 15:15	14°♌04'08	
	-207 Sep 23 j 13:13	15°♌	
retrograde	-207 Nov 21 j 09:55	15°♌56'15	
	-206 Jan 21 j 19:33	15°℞♌	
opposition	-206 Feb 06 j 15:09	14°♌34'04	0°55'31
min. Earth dist.	-206 Feb 07 j 10:36	14°♌32'42	29.18021 AU
direct	-206 Apr 28 j 03:47	13°♌08'44	
	-206 Jul 25 j 18:50	15°♌	
evening set	-206 Jul 28 j 04:05	15°♌05'09	
max. Earth dist.	-206 Aug 12 j 07:58	15°♌38'40	31.18554 AU
conjunction	-206 Aug 13 j 05:09	15°♌40'38	0°53'57
minimum elong	-206 Aug 13 j 05:08	15°♌40'38	0°53'57
morning rise	-206 Aug 29 j 02:31	16°♌15'48	
retrograde	-206 Nov 23 j 19:31	18°♌07'53	
opposition	-205 Feb 09 j 01:49	16°♌45'47	0°59'38
min. Earth dist.	-205 Feb 09 j 21:25	16°♌44'25	29.19174 AU
direct	-205 Apr 30 j 15:24	15°♌20'30	
evening set	-205 Jul 30 j 16:26	17°♌16'57	
conjunction	-205 Aug 15 j 16:46	17°♌52'23	0°57'46
minimum elong	-205 Aug 15 j 16:46	17°♌52'23	0°57'46
max. Earth dist.	-205 Aug 14 j 18:22	17°♌50'18	31.19695 AU
morning rise	-205 Aug 31 j 13:40	18°♌27'31	
retrograde	-205 Nov 26 j 06:52	20°♌19'35	
opposition	-204 Feb 11 j 12:29	18°♌57'33	1°03'40
min. Earth dist.	-204 Feb 12 j 08:23	18°♌56'10	29.20303 AU
direct	-204 May 02 j 01:53	17°♌32'18	
evening set	-204 Aug 01 j 04:47	19°♌28'48	
max. Earth dist.	-204 Aug 16 j 06:54	20°♌02'09	31.20771 AU
conjunction	-204 Aug 17 j 04:42	20°♌04'10	1°01'29
minimum elong	-204 Aug 17 j 04:42	20°♌04'10	1°01'29
morning rise	-204 Sep 02 j 00:49	20°♌39'15	
retrograde	-204 Nov 27 j 16:54	22°♌31'18	
opposition	-203 Feb 12 j 23:13	21°♌09'19	1°07'36
min. Earth dist.	-203 Feb 13 j 20:08	21°♌07'52	29.21325 AU
direct	-203 May 04 j 15:15	19°♌44'07	
evening set	-203 Aug 03 j 17:18	21°♌40'37	

conjunction	-203 Aug 19 j 16:26	22°♌15'57	1°05'07
minimum elong	-203 Aug 19 j 16:26	22°♌15'57	1°05'07
max. Earth dist.	-203 Aug 18 j 16:59	22°♌13'46	31.21732 AU
morning rise	-203 Sep 04 j 12:04	22°♌50'59	
retrograde	-203 Nov 30 j 04:51	24°♌43'00	
opposition	-202 Feb 15 j 10:03	23°♌21'03	1°11'26
min. Earth dist.	-202 Feb 16 j 06:41	23°♌19'38	29.22228 AU
direct	-202 May 07 j 03:40	21°♌55'52	
evening set	-202 Aug 06 j 05:28	23°♌52'23	
max. Earth dist.	-202 Aug 21 j 05:05	24°♌25'32	31.22552 AU
conjunction	-202 Aug 22 j 04:07	24°♌27'40	1°08'40
minimum elong	-202 Aug 22 j 04:07	24°♌27'40	1°08'39
morning rise	-202 Sep 06 j 22:56	25°♌02'39	
retrograde	-202 Dec 02 j 14:31	26°♌54'38	
opposition	-201 Feb 17 j 21:04	25°♌32'43	1°15'09
min. Earth dist.	-201 Feb 18 j 19:08	25°♌31'11	29.22986 AU
direct	-201 May 09 j 16:00	24°♌07'32	
evening set	-201 Aug 08 j 17:43	26°♌04'02	
conjunction	-201 Aug 24 j 15:39	26°♌39'16	1°12'06
minimum elong	-201 Aug 24 j 15:38	26°♌39'16	1°12'06
max. Earth dist.	-201 Aug 23 j 15:31	26°♌37'02	31.23246 AU
morning rise	-201 Sep 09 j 09:59	27°♌14'11	
retrograde	-201 Dec 05 j 01:56	29°♌06'08	
opposition	-200 Feb 20 j 07:48	27°♌44'14	1°18'46
min. Earth dist.	-200 Feb 21 j 05:20	27°♌42'44	29.23619 AU
direct	-200 May 11 j 05:35	26°♌19'02	
evening set	-200 Aug 10 j 05:45	28°♌15'32	
max. Earth dist.	-200 Aug 25 j 02:59	28°♌48'28	31.23811 AU
conjunction	-200 Aug 26 j 03:10	28°♌50'43	1°15'25
minimum elong	-200 Aug 26 j 03:10	28°♌50'43	1°15'26
morning rise	-200 Sep 10 j 20:48	29°♌25'35	
	-200 Sep 27 j 08:06	0°♍	
retrograde	-200 Dec 06 j 11:59	1°♍17'29	
	-199 Feb 19 j 02:44	30°℞♌	
opposition	-199 Feb 21 j 18:47	29°♌55'35	1°22'16
min. Earth dist.	-199 Feb 22 j 17:36	29°♌54'00	29.24146 AU
direct	-199 May 13 j 17:16	28°♌30'22	
	-199 Jul 31 j 00:33	0°♍	
evening set	-199 Aug 12 j 17:41	0°♍26'51	
conjunction	-199 Aug 28 j 14:27	1°♍01'59	1°18'38
minimum elong	-199 Aug 28 j 14:27	1°♍01'59	1°18'39
max. Earth dist.	-199 Aug 27 j 14:09	0°♍59'43	31.24300 AU
morning rise	-199 Sep 13 j 07:30	1°♍36'48	
retrograde	-199 Dec 08 j 20:52	3°♍28'39	
opposition	-198 Feb 24 j 05:39	2°♍06'44	1°25'39
min. Earth dist.	-198 Feb 25 j 03:51	2°♍05'12	29.24606 AU
direct	-198 May 16 j 06:35	0°♍41'31	
evening set	-198 Aug 15 j 05:29	2°♍37'58	
max. Earth dist.	-198 Aug 30 j 00:46	3°♍10'44	31.24748 AU
conjunction	-198 Aug 31 j 01:34	3°♍13'03	1°21'44
minimum elong	-198 Aug 31 j 01:34	3°♍13'03	1°21'45
morning rise	-198 Sep 15 j 18:00	3°♍47'49	
retrograde	-198 Dec 11 j 06:15	5°♍39'39	
opposition	-197 Feb 26 j 16:39	4°♍17'43	1°28'54
min. Earth dist.	-197 Feb 27 j 15:19	4°♍16'10	29.25080 AU
direct	-197 May 18 j 16:54	2°♍52'30	
evening set	-197 Aug 17 j 16:54	4°♍48'54	
conjunction	-197 Sep 02 j 12:28	5°♍23'57	1°24'43
minimum elong	-197 Sep 02 j 12:28	5°♍23'57	1°24'43
max. Earth dist.	-197 Sep 01 j 12:39	5°♍21'44	31.25235 AU
morning rise	-197 Sep 18 j 04:14	5°♍58'40	

Attention, astronomical year style is used: The year -197 in astronomical counting style is the year 198 BCE in historical counting style.

retrograde	-197 Dec 13 j 14:59	7°♑50'29	
opposition	-196 Feb 29 j 03:38	6°♑28'34	1°32'01
min. Earth dist.	-196 Mar 01 j 02:02	6°♑27'01	29.25594 AU
direct	-196 May 20 j 04:43	5°♑03'21	
evening set	-196 Aug 19 j 04:30	6°♑59'45	
conjunction	-196 Sep 03 j 23:18	7°♑34'44	1°27'35
minimum elong	-196 Sep 03 j 23:18	7°♑34'44	1°27'34
max. Earth dist.	-196 Sep 02 j 22:44	7°♑32'27	31.25789 AU
morning rise	-196 Sep 19 j 14:33	8°♑09'26	
retrograde	-196 Dec 15 j 01:42	10°♑01'15	
opposition	-195 Mar 02 j 14:30	8°♑39'20	1°35'00
min. Earth dist.	-195 Mar 03 j 12:28	8°♑37'50	29.26207 AU
direct	-195 May 22 j 15:00	7°♑14'09	
evening set	-195 Aug 21 j 15:53	9°♑10'33	
max. Earth dist.	-195 Sep 05 j 11:02	9°♑43'21	31.26442 AU
conjunction	-195 Sep 06 j 10:13	9°♑45'30	1°30'18
minimum elong	-195 Sep 06 j 10:13	9°♑45'30	1°30'18
morning rise	-195 Sep 22 j 00:42	10°♑20'09	
retrograde	-195 Dec 17 j 11:23	12°♑12'00	
opposition	-194 Mar 05 j 01:40	10°♑50'08	1°37'51
min. Earth dist.	-194 Mar 05 j 23:56	10°♑48'36	29.26900 AU
direct	-194 May 25 j 03:28	9°♑25'01	
evening set	-194 Aug 24 j 03:12	11°♑21'25	
conjunction	-194 Sep 08 j 20:44	11°♑56'20	1°32'54
minimum elong	-194 Sep 08 j 20:44	11°♑56'20	1°32'54
max. Earth dist.	-194 Sep 07 j 20:46	11°♑54'05	31.27172 AU
morning rise	-194 Sep 24 j 10:47	12°♑30'56	
retrograde	-194 Dec 19 j 23:08	14°♑22'49	
opposition	-193 Mar 07 j 12:43	13°♑01'00	1°40'33
min. Earth dist.	-193 Mar 08 j 09:59	12°♑59'32	29.27654 AU
direct	-193 May 27 j 14:40	11°♑35'57	
evening set	-193 Aug 26 j 14:24	13°♑32'23	
max. Earth dist.	-193 Sep 10 j 08:31	14°♑05'06	31.27922 AU
conjunction	-193 Sep 11 j 07:28	14°♑07'15	1°35'22
minimum elong	-193 Sep 11 j 07:28	14°♑07'15	1°35'22
morning rise	-193 Sep 26 j 20:47	14°♑41'49	
retrograde	-193 Dec 22 j 09:04	16°♑33'45	
opposition	-192 Mar 08 j 23:52	15°♑11'59	1°43'06
min. Earth dist.	-192 Mar 09 j 22:12	15°♑10'27	29.28399 AU
direct	-192 May 29 j 02:10	13°♑47'00	
evening set	-192 Aug 28 j 01:44	15°♑43'27	
conjunction	-192 Sep 12 j 18:05	16°♑18'16	1°37'42
minimum elong	-192 Sep 12 j 18:05	16°♑18'16	1°37'42
max. Earth dist.	-192 Sep 11 j 18:33	16°♑16'04	31.28643 AU
morning rise	-192 Sep 28 j 06:57	16°♑52'47	
retrograde	-192 Dec 23 j 21:05	18°♑44'46	
opposition	-191 Mar 11 j 11:05	17°♑23'03	1°45'31
min. Earth dist.	-191 Mar 12 j 08:30	17°♑21'34	29.29079 AU
direct	-191 May 31 j 15:51	15°♑58'08	
evening set	-191 Aug 30 j 12:54	17°♑54'35	
max. Earth dist.	-191 Sep 14 j 05:24	18°♑27'11	31.29259 AU
conjunction	-191 Sep 15 j 04:40	18°♑29'22	1°39'53
minimum elong	-191 Sep 15 j 04:40	18°♑29'22	1°39'53
morning rise	-191 Sep 30 j 16:51	19°♑03'51	
retrograde	-191 Dec 26 j 07:55	20°♑55'53	
opposition	-190 Mar 13 j 22:34	19°♑34'10	1°47'46
min. Earth dist.	-190 Mar 14 j 20:59	19°♑32'38	29.29651 AU
direct	-190 Jun 03 j 03:41	18°♑09'18	
evening set	-190 Sep 02 j 00:02	20°♑05'44	
conjunction	-190 Sep 17 j 15:12	20°♑40'29	1°41'55
minimum elong	-190 Sep 17 j 15:12	20°♑40'29	1°41'55
max. Earth dist.	-190 Sep 16 j 16:03	20°♑38'19	31.29766 AU
morning rise	-190 Oct 03 j 02:51	21°♑14'56	
retrograde	-190 Dec 28 j 16:57	23°♑06'59	
opposition	-189 Mar 16 j 10:00	21°♑45'18	1°49'53
min. Earth dist.	-189 Mar 17 j 07:41	21°♑43'48	29.30087 AU
direct	-189 Jun 05 j 16:50	20°♑20'28	
evening set	-189 Sep 04 j 11:02	22°♑16'51	
max. Earth dist.	-189 Sep 19 j 01:48	22°♑49'20	31.30126 AU
conjunction	-189 Sep 20 j 01:34	22°♑51'34	1°43'49
minimum elong	-189 Sep 20 j 01:34	22°♑51'34	1°43'49
morning rise	-189 Oct 05 j 12:44	23°♑25'58	
retrograde	-189 Dec 31 j 02:43	25°♑18'03	
opposition	-188 Mar 17 j 21:30	23°♑56'21	1°51'49
min. Earth dist.	-188 Mar 18 j 19:42	23°♑54'50	29.30387 AU
direct	-188 Jun 07 j 03:44	22°♑31'32	
evening set	-188 Sep 05 j 21:57	24°♑27'53	
conjunction	-188 Sep 21 j 12:01	25°♑02'33	1°45'33
minimum elong	-188 Sep 21 j 12:01	25°♑02'33	1°45'33
max. Earth dist.	-188 Sep 20 j 13:03	25°♑00'24	31.30353 AU
morning rise	-188 Oct 06 j 22:32	25°♑36'55	
retrograde	-187 Jan 01 j 11:22	27°♑29'01	
opposition	-187 Mar 20 j 08:57	26°♑07'17	1°53'36
min. Earth dist.	-187 Mar 21 j 07:07	26°♑05'46	29.30542 AU
direct	-187 Jun 09 j 16:12	24°♑42'28	
evening set	-187 Sep 08 j 08:53	26°♑38'45	
conjunction	-187 Sep 23 j 22:14	27°♑13'22	1°47'09
minimum elong	-187 Sep 23 j 22:14	27°♑13'22	1°47'09
max. Earth dist.	-187 Sep 22 j 22:26	27°♑11'08	31.30460 AU
morning rise	-187 Oct 09 j 08:23	27°♑47'43	
retrograde	-186 Jan 03 j 21:39	29°♑39'49	
opposition	-186 Mar 22 j 20:30	28°♑18'02	1°55'14
min. Earth dist.	-186 Mar 23 j 18:14	28°♑16'33	29.30619 AU
direct	-186 Jun 12 j 03:09	26°♑53'13	
evening set	-186 Sep 10 j 19:19	28°♑49'25	
max. Earth dist.	-186 Sep 25 j 09:58	29°♑21'54	31.30502 AU
conjunction	-186 Sep 26 j 08:17	29°♑23'59	1°48'36
minimum elong	-186 Sep 26 j 08:17	29°♑23'59	1°48'35
morning rise	-186 Oct 11 j 17:47	29°♑58'18	
	-186 Oct 12 j 12:31	0°♌	
retrograde	-185 Jan 06 j 06:08	1°♌50'25	
opposition	-185 Mar 25 j 08:08	0°♌28'35	1°56'41
min. Earth dist.	-185 Mar 26 j 06:06	0°♌27'05	29.30647 AU
	-185 Apr 12 j 03:00	30°℞♑	
direct	-185 Jun 14 j 15:11	29°♑03'45	
	-185 Aug 14 j 06:04	0°♌	
evening set	-185 Sep 13 j 05:54	0°♌59'52	
conjunction	-185 Sep 28 j 18:10	1°♌34'24	1°49'53
minimum elong	-185 Sep 28 j 18:10	1°♌34'24	1°49'52
max. Earth dist.	-185 Sep 27 j 19:19	1°♌32'16	31.30539 AU
morning rise	-185 Oct 14 j 03:22	2°♌08'41	
retrograde	-184 Jan 08 j 17:06	4°♌00'49	
opposition	-184 Mar 26 j 19:28	2°♌38'55	1°57'59
min. Earth dist.	-184 Mar 27 j 16:07	2°♌37'31	29.30709 AU
direct	-184 Jun 16 j 01:52	1°♌14'05	
evening set	-184 Sep 14 j 16:16	3°♌10'09	
max. Earth dist.	-184 Sep 29 j 06:38	3°♌42'38	31.30625 AU
conjunction	-184 Sep 30 j 04:08	3°♌44'38	1°51'01
minimum elong	-184 Sep 30 j 04:08	3°♌44'38	1°51'00
morning rise	-184 Oct 15 j 12:43	4°♌18'53	
retrograde	-183 Jan 10 j 02:44	6°♌11'04	

Attention, astronomical year style is used: The year -183 in astronomical counting style is the year 184 BCE in historical counting style.

opposition	-183 Mar 29 j 07:11	4°♎49'08	1°59'06	
min. Earth dist.	-183 Mar 30 j 04:13	4°♎47'42	29.30843 AU	
direct	-183 Jun 18 j 13:37	3°♎24'19		
evening set	-183 Sep 17 j 02:34	5°♎20'19		
conjunction	-183 Oct 02 j 13:48	5°♎54'47	1°51'59	
minimum elong	-183 Oct 02 j 13:48	5°♎54'47	1°51'59	
max. Earth dist.	-183 Oct 01 j 16:34	5°♎52'47	31.30813 AU	
morning rise	-183 Oct 17 j 22:01	6°♎28'59		
retrograde	-182 Jan 12 j 14:18	8°♎21'13		
opposition	-182 Mar 31 j 18:48	6°♎59'16	2°00'04	
min. Earth dist.	-182 Apr 01 j 14:07	6°♎57'57	29.31076 AU	
direct	-182 Jun 21 j 02:46	5°♎34'31		
evening set	-182 Sep 19 j 12:46	7°♎30'29		
conjunction	-182 Oct 04 j 23:34	8°♎04'54	1°52'47	
minimum elong	-182 Oct 04 j 23:33	8°♎04'54	1°52'48	
max. Earth dist.	-182 Oct 04 j 03:11	8°♎03'00	31.31091 AU	
morning rise	-182 Oct 20 j 07:19	8°♎39'05		
retrograde	-181 Jan 15 j 01:10	10°♎31'24		
opposition	-181 Apr 03 j 06:32	9°♎09'27	2°00'50	
min. Earth dist.	-181 Apr 04 j 02:09	9°♎08'07	29.31402 AU	
direct	-181 Jun 23 j 13:53	7°♎44'47		
evening set	-181 Sep 21 j 22:50	9°♎40'42		
conjunction	-181 Oct 07 j 09:11	10°♎15'06	1°53'26	
minimum elong	-181 Oct 07 j 09:11	10°♎15'06	1°53'27	
max. Earth dist.	-181 Oct 06 j 13:43	10°♎13'17	31.31445 AU	
morning rise	-181 Oct 22 j 16:34	10°♎49'16		
retrograde	-180 Jan 17 j 10:43	12°♎41'39		
opposition	-180 Apr 04 j 18:14	11°♎19'44	2°01'27	
min. Earth dist.	-180 Apr 05 j 12:37	11°♎18'29	29.31753 AU	
direct	-180 Jun 25 j 02:44	9°♎55'08		
evening set	-180 Sep 23 j 09:00	11°♎51'02		
conjunction	-180 Oct 08 j 18:48	12°♎25'25	1°53'56	
minimum elong	-180 Oct 08 j 18:48	12°♎25'25	1°53'55	
max. Earth dist.	-180 Oct 07 j 23:10	12°♎23'35	31.31791 AU	
morning rise	-180 Oct 24 j 01:51	12°♎59'34		
retrograde	-179 Jan 18 j 21:19	14°♎52'03		
opposition	-179 Apr 07 j 06:04	13°♎30'08	2°01'53	
min. Earth dist.	-179 Apr 08 j 00:28	13°♎28'53	29.32092 AU	
direct	-179 Jun 27 j 13:34	12°♎05'38		
evening set	-179 Sep 25 j 19:05	14°♎01'30		
max. Earth dist.	-179 Oct 10 j 10:15	14°♎34'09	31.32100 AU	
conjunction	-179 Oct 11 j 04:32	14°♎35'52	1°54'15	
minimum elong	-179 Oct 11 j 04:32	14°♎35'52	1°54'15	
morning rise	-179 Oct 26 j 11:05	15°♎09'59		
retrograde	-178 Jan 21 j 06:40	17°♎02'34		
opposition	-178 Apr 09 j 18:07	15°♎40'41	2°02'08	
min. Earth dist.	-178 Apr 10 j 12:07	15°♎39'27	29.32354 AU	
direct	-178 Jun 30 j 01:55	14°♎16'16		
evening set	-178 Sep 28 j 05:08	16°♎12'05		
conjunction	-178 Oct 13 j 14:00	16°♎46'25	1°54'24	
minimum elong	-178 Oct 13 j 14:00	16°♎46'25	1°54'24	
max. Earth dist.	-178 Oct 12 j 19:08	16°♎44'39	31.32316 AU	
morning rise	-178 Oct 28 j 20:23	17°♎20'33		
retrograde	-177 Jan 23 j 17:36	19°♎13'13		
opposition	-177 Apr 12 j 06:09	17°♎51'20	2°02'13	
min. Earth dist.	-177 Apr 12 j 23:31	17°♎50'09	29.32519 AU	
direct	-177 Jul 02 j 12:24	16°♎26'59		
evening set	-177 Sep 30 j 15:08	18°♎22'45		
conjunction	-177 Oct 15 j 23:46	18°♎57'04	1°54'24	
minimum elong	-177 Oct 15 j 23:46	18°♎57'04	1°54'24	
max. Earth dist.	-177 Oct 15 j 06:15	18°♎55'26	31.32407 AU	
morning rise	-177 Oct 31 j 05:40	19°♎31'11		
retrograde	-176 Jan 26 j 02:37	21°♎23'57		
opposition	-176 Apr 13 j 18:11	20°♎02'03	2°02'08	
min. Earth dist.	-176 Apr 14 j 11:55	20°♎00'51	29.32535 AU	
direct	-176 Jul 03 j 23:47	18°♎37'45		
evening set	-176 Oct 02 j 01:15	20°♎33'28		
conjunction	-176 Oct 17 j 09:20	21°♎07'46	1°54'14	
minimum elong	-176 Oct 17 j 09:20	21°♎07'46	1°54'14	
max. Earth dist.	-176 Oct 16 j 15:09	21°♎06'03	31.32360 AU	
morning rise	-176 Nov 01 j 15:06	21°♎41'52		
retrograde	-175 Jan 27 j 14:09	23°♎34'43		
opposition	-175 Apr 16 j 06:17	22°♎12'47	2°01'52	
min. Earth dist.	-175 Apr 16 j 22:47	22°♎11'40	29.32415 AU	
direct	-175 Jul 06 j 10:01	20°♎48'31		
evening set	-175 Oct 04 j 11:02	22°♎44'10		
conjunction	-175 Oct 19 j 18:53	23°♎18'27	1°53'54	
minimum elong	-175 Oct 19 j 18:53	23°♎18'27	1°53'55	
max. Earth dist.	-175 Oct 19 j 01:46	23°♎16'50	31.32169 AU	
morning rise	-175 Nov 04 j 00:14	23°♎52'32		
retrograde	-174 Jan 30 j 00:18	25°♎45'28		
opposition	-174 Apr 18 j 18:39	24°♎23'29	2°01'26	
min. Earth dist.	-174 Apr 19 j 11:44	24°♎22'19	29.32166 AU	
direct	-174 Jul 08 j 21:47	22°♎59'15		
evening set	-174 Oct 06 j 20:50	24°♎54'48		
max. Earth dist.	-174 Oct 21 j 11:24	25°♎27'28	31.31883 AU	
conjunction	-174 Oct 22 j 04:17	25°♎29'03	1°53'25	
minimum elong	-174 Oct 22 j 04:17	25°♎29'03	1°53'26	
morning rise	-174 Nov 06 j 09:30	26°♎03'08		
retrograde	-173 Feb 01 j 12:13	27°♎56'07		
opposition	-173 Apr 21 j 06:41	26°♎34'04	2°00'50	
min. Earth dist.	-173 Apr 21 j 22:14	26°♎33'01	29.31839 AU	
direct	-173 Jul 11 j 10:45	25°♎09'51		
evening set	-173 Oct 09 j 06:25	27°♎05'19		
conjunction	-173 Oct 24 j 13:35	27°♎39'33	1°52'46	
minimum elong	-173 Oct 24 j 13:35	27°♎39'33	1°52'46	
max. Earth dist.	-173 Oct 23 j 21:23	27°♎38'02	31.31533 AU	
morning rise	-173 Nov 08 j 18:35	28°♎13'37		
	-172 Jan 15 j 01:13	0°♏		
retrograde	-172 Feb 03 j 23:23	0°♏06'41		
	-172 Feb 24 j 02:08	30°℞♎		
opposition	-172 Apr 22 j 18:58	28°♎44'33	2°00'03	
min. Earth dist.	-172 Apr 23 j 10:44	28°♎43'29	29.31491 AU	
direct	-172 Jul 12 j 21:51	27°♎20'21		
evening set	-172 Oct 10 j 15:55	29°♎15'44		
conjunction	-172 Oct 25 j 22:48	29°♎49'57	1°51'58	
minimum elong	-172 Oct 25 j 22:48	29°♎49'57	1°51'57	
max. Earth dist.	-172 Oct 25 j 07:53	29°♎48'33	31.31201 AU	
	-172 Oct 30 j 09:37	0°♏		
morning rise	-172 Nov 10 j 03:33	0°♏24'00		
retrograde	-171 Feb 05 j 08:50	2°♏17'08		
opposition	-171 Apr 25 j 07:10	0°♏54'57	1°59'07	
min. Earth dist.	-171 Apr 25 j 21:16	0°♏54'00	29.31175 AU	
	-171 Jun 01 j 03:53	30°℞♎		
direct	-171 Jul 15 j 11:10	29°♎30'47		
	-171 Aug 27 j 06:13	0°♏		
evening set	-171 Oct 13 j 01:27	1°♏26'05		
conjunction	-171 Oct 28 j 07:56	2°♏00'17	1°51'00	
minimum elong	-171 Oct 28 j 07:57	2°♏00'17	1°51'00	
max. Earth dist.	-171 Oct 27 j 17:12	1°♏58'53	31.30927 AU	
morning rise	-171 Nov 12 j 12:36	2°♏34'20		

Attention, astronomical year style is used: The year -170 in astronomical counting style is the year 171 BCE in historical counting style.

retrograde	-170 Feb 07 j 20:09	4°♏27'32	
opposition	-170 Apr 27 j 19:32	3°♏05'19	1°58'00
min. Earth dist.	-170 Apr 28 j 08:59	3°♏04'24	29.30954 AU
direct	-170 Jul 17 j 22:47	1°♏41'11	
evening set	-170 Oct 15 j 10:41	3°♏36'24	
conjunction	-170 Oct 30 j 17:05	4°♏10'36	1°49'53
minimum elong	-170 Oct 30 j 17:05	4°♏10'36	1°49'52
max. Earth dist.	-170 Oct 30 j 04:18	4°♏09'24	31.30752 AU
morning rise	-170 Nov 14 j 21:29	4°♏44'39	
retrograde	-169 Feb 10 j 05:41	6°♏37'58	
opposition	-169 Apr 30 j 07:52	5°♏15'42	1°56'43
min. Earth dist.	-169 Apr 30 j 20:23	5°♏14'52	29.30804 AU
direct	-169 Jul 20 j 11:43	3°♏51'39	
evening set	-169 Oct 17 j 20:10	5°♏46'48	
conjunction	-169 Nov 02 j 02:10	6°♏20'59	1°48'35
minimum elong	-169 Nov 02 j 02:10	6°♏20'59	1°48'35
max. Earth dist.	-169 Nov 01 j 13:16	6°♏19'46	31.30642 AU
morning rise	-169 Nov 17 j 06:36	6°♏55'03	
retrograde	-168 Feb 12 j 16:21	8°♏48'27	
opposition	-168 May 01 j 20:04	7°♏26'11	1°55'15
min. Earth dist.	-168 May 02 j 07:27	7°♏25'25	29.30714 AU
direct	-168 Jul 21 j 22:02	6°♏02'12	
evening set	-168 Oct 19 j 05:29	7°♏57'17	
conjunction	-168 Nov 03 j 11:25	8°♏31'28	1°47'09
minimum elong	-168 Nov 03 j 11:25	8°♏31'28	1°47'09
max. Earth dist.	-168 Nov 03 j 00:24	8°♏30'26	31.30559 AU
morning rise	-168 Nov 18 j 15:35	9°♏05'32	
retrograde	-167 Feb 14 j 01:17	10°♏59'04	
opposition	-167 May 04 j 08:40	9°♏36'47	1°53'38
min. Earth dist.	-167 May 04 j 19:54	9°♏36'02	29.30620 AU
direct	-167 Jul 24 j 09:31	8°♏12'53	
evening set	-167 Oct 21 j 14:51	10°♏07'54	
conjunction	-167 Nov 05 j 20:26	10°♏42'05	1°45'33
minimum elong	-167 Nov 05 j 20:26	10°♏42'05	1°45'33
max. Earth dist.	-167 Nov 05 j 09:21	10°♏41'02	31.30461 AU
morning rise	-167 Nov 21 j 00:40	11°♏16'09	
retrograde	-166 Feb 16 j 13:13	13°♏09'48	
opposition	-166 May 06 j 21:13	11°♏47'31	1°51'50
min. Earth dist.	-166 May 07 j 06:49	11°♏46'52	29.30490 AU
direct	-166 Jul 26 j 19:46	10°♏23'41	
evening set	-166 Oct 24 j 00:13	12°♏18'38	
conjunction	-166 Nov 08 j 05:43	12°♏52'48	1°43'48
minimum elong	-166 Nov 08 j 05:43	12°♏52'48	1°43'48
max. Earth dist.	-166 Nov 07 j 19:49	12°♏51'52	31.30285 AU
morning rise	-166 Nov 23 j 09:48	13°♏26'53	
	-165 Jan 14 j 19:07	15°♏	
retrograde	-165 Feb 18 j 23:38	15°♏20'40	
	-165 Mar 27 j 09:36	15°℞♏	
opposition	-165 May 09 j 09:50	13°♏58'20	1°49'53
min. Earth dist.	-165 May 09 j 19:56	13°♏57'39	29.30266 AU
direct	-165 Jul 29 j 06:44	12°♏34'35	
evening set	-165 Oct 26 j 09:40	14°♏29'27	
	-165 Nov 09 j 00:34	15°♏	
conjunction	-165 Nov 10 j 14:59	15°♏03'38	1°41'54
minimum elong	-165 Nov 10 j 14:59	15°♏03'38	1°41'53
max. Earth dist.	-165 Nov 10 j 05:26	15°♏02'44	31.30008 AU
morning rise	-165 Nov 25 j 19:04	15°♏37'43	
retrograde	-164 Feb 21 j 11:48	17°♏31'36	
opposition	-164 May 10 j 22:27	16°♏09'15	1°47'46
min. Earth dist.	-164 May 11 j 07:01	16°♏08'40	29.29907 AU
	-164 Jun 30 j 05:59	15°℞♏	
direct	-164 Jul 30 j 18:34	14°♏45'32	
	-164 Aug 29 j 14:35	15°♏	
evening set	-164 Oct 27 j 19:05	16°♏40'20	
conjunction	-164 Nov 12 j 00:13	17°♏14'31	1°39'51
minimum elong	-164 Nov 12 j 00:13	17°♏14'31	1°39'50
max. Earth dist.	-164 Nov 11 j 15:00	17°♏13'38	31.29571 AU
morning rise	-164 Nov 27 j 04:17	17°♏48'37	
retrograde	-163 Feb 22 j 23:34	19°♏42'37	
opposition	-163 May 13 j 11:18	18°♏20'11	1°45'31
min. Earth dist.	-163 May 13 j 20:16	18°♏19'35	29.29396 AU
direct	-163 Aug 02 j 04:58	16°♏56'31	
evening set	-163 Oct 30 j 04:27	18°♏51'14	
conjunction	-163 Nov 14 j 09:34	19°♏25'24	1°37'39
minimum elong	-163 Nov 14 j 09:34	19°♏25'24	1°37'39
max. Earth dist.	-163 Nov 14 j 01:25	19°♏24'38	31.28992 AU
morning rise	-163 Nov 29 j 13:35	19°♏59'31	
retrograde	-162 Feb 25 j 10:20	21°♏53'36	
opposition	-162 May 16 j 00:04	20°♏31'07	1°43'06
min. Earth dist.	-162 May 16 j 07:40	20°♏30'36	29.28730 AU
direct	-162 Aug 04 j 18:27	19°♏07'28	
evening set	-162 Nov 01 j 13:45	21°♏02'05	
conjunction	-162 Nov 16 j 18:41	21°♏36'15	1°35'20
minimum elong	-162 Nov 16 j 18:41	21°♏36'15	1°35'20
max. Earth dist.	-162 Nov 16 j 10:17	21°♏35'28	31.28266 AU
morning rise	-162 Dec 01 j 22:54	22°♏10'23	
retrograde	-161 Feb 27 j 22:36	24°♏04'34	
opposition	-161 May 18 j 12:50	22°♏41'59	1°40'33
min. Earth dist.	-161 May 18 j 20:12	22°♏41'29	29.27948 AU
direct	-161 Aug 07 j 06:10	21°♏18'20	
evening set	-161 Nov 03 j 22:54	23°♏12'51	
conjunction	-161 Nov 19 j 03:55	23°♏47'02	1°32'52
minimum elong	-161 Nov 19 j 03:55	23°♏47'02	1°32'51
max. Earth dist.	-161 Nov 18 j 21:16	23°♏46'24	31.27443 AU
morning rise	-161 Dec 04 j 08:02	24°♏21'10	
retrograde	-160 Mar 01 j 08:22	26°♏15'26	
opposition	-160 May 20 j 01:29	24°♏52'46	1°37'51
min. Earth dist.	-160 May 20 j 08:03	24°♏52'19	29.27087 AU
direct	-160 Aug 08 j 19:28	23°♏29'07	
evening set	-160 Nov 05 j 08:09	25°♏23'32	
conjunction	-160 Nov 20 j 12:57	25°♏57'43	1°30'17
minimum elong	-160 Nov 20 j 12:57	25°♏57'43	1°30'16
max. Earth dist.	-160 Nov 20 j 06:15	25°♏57'05	31.26588 AU
morning rise	-160 Dec 05 j 17:18	26°♏31'52	
retrograde	-159 Mar 03 j 19:31	28°♏26'13	
opposition	-159 May 22 j 14:16	27°♏03'28	1°35'01
min. Earth dist.	-159 May 22 j 19:30	27°♏03'07	29.26246 AU
direct	-159 Aug 11 j 06:23	25°♏39'50	
evening set	-159 Nov 07 j 17:04	27°♏34'09	
conjunction	-159 Nov 22 j 21:58	28°♏08'21	1°27'33
minimum elong	-159 Nov 22 j 21:58	28°♏08'21	1°27'33
max. Earth dist.	-159 Nov 22 j 17:21	28°♏07'54	31.25767 AU
morning rise	-159 Dec 08 j 02:16	28°♏42'31	
	-158 Jan 17 j 13:20	0°♐	
retrograde	-158 Mar 06 j 04:33	0°♐36'59	
	-158 Apr 25 j 03:12	30°℞♏	
opposition	-158 May 25 j 03:08	29°♏14'09	1°32'02
min. Earth dist.	-158 May 25 j 07:51	29°♏13'50	29.25457 AU
direct	-158 Aug 13 j 18:23	27°♏50'33	
evening set	-158 Nov 10 j 02:12	29°♏44'47	
	-158 Nov 16 j 21:50	0°♐	

Attention, astronomical year style is used: The year -158 in astronomical counting style is the year 159 BCE in historical counting style.

conjunction	-158 Nov 25 j 06:59	0°↗18'59	1°24'43
minimum elong	-158 Nov 25 j 06:59	0°↗18'59	1°24'43
max. Earth dist.	-158 Nov 25 j 02:42	0°↗18'35	31.25035 AU
morning rise	-158 Dec 10 j 11:33	0°↗53'11	
retrograde	-157 Mar 08 j 16:31	2°↗47'46	
opposition	-157 May 27 j 15:42	1°↗24'53	1°28'56
min. Earth dist.	-157 May 27 j 18:22	1°↗24'42	29.24764 AU
direct	-157 Aug 16 j 04:41	0°↗01'20	
evening set	-157 Nov 12 j 11:13	1°↗55'30	
conjunction	-157 Nov 27 j 16:06	2°↗29'42	1°21'44
minimum elong	-157 Nov 27 j 16:06	2°↗29'43	1°21'44
max. Earth dist.	-157 Nov 27 j 13:15	2°↗29'26	31.24380 AU
morning rise	-157 Dec 12 j 20:44	3°↗03'56	
retrograde	-156 Mar 10 j 02:59	4°↗58'39	
opposition	-156 May 29 j 04:35	3°↗35'44	1°25'41
min. Earth dist.	-156 May 29 j 07:13	3°↗35'34	29.24143 AU
direct	-156 Aug 17 j 15:17	2°↗12'15	
evening set	-156 Nov 13 j 20:12	4°↗06'21	
conjunction	-156 Nov 29 j 01:05	4°↗40'35	1°18'39
minimum elong	-156 Nov 29 j 01:05	4°↗40'35	1°18'39
max. Earth dist.	-156 Nov 28 j 23:18	4°↗40'25	31.23800 AU
morning rise	-156 Dec 14 j 05:53	5°↗14'50	
retrograde	-155 Mar 12 j 15:17	7°↗09'42	
opposition	-155 May 31 j 17:24	5°↗46'45	1°22'19
min. Earth dist.	-155 May 31 j 18:00	5°↗46'43	29.23570 AU
direct	-155 Aug 20 j 02:06	4°↗23'20	
evening set	-155 Nov 16 j 05:20	6°↗17'23	
conjunction	-155 Dec 01 j 10:12	6°↗51'38	1°15'26
minimum elong	-155 Dec 01 j 10:12	6°↗51'38	1°15'26
max. Earth dist.	-155 Dec 01 j 09:05	6°↗51'32	31.23239 AU
morning rise	-155 Dec 16 j 15:14	7°↗25'55	
retrograde	-154 Mar 15 j 03:40	9°↗20'56	
opposition	-154 Jun 03 j 06:23	7°↗57'57	1°18'50
min. Earth dist.	-154 Jun 03 j 07:02	7°↗57'55	29.23012 AU
direct	-154 Aug 22 j 11:04	6°↗34'37	
evening set	-154 Nov 18 j 14:21	8°↗28'37	
conjunction	-154 Dec 03 j 19:25	9°↗02'52	1°12'07
minimum elong	-154 Dec 03 j 19:25	9°↗02'52	1°12'06
max. Earth dist.	-154 Dec 03 j 19:49	9°↗02'55	31.22672 AU
morning rise	-154 Dec 19 j 00:33	9°↗37'11	
retrograde	-153 Mar 17 j 15:28	11°↗32'21	
opposition	-153 Jun 05 j 19:17	10°↗09'20	1°15'13
min. Earth dist.	-153 Jun 05 j 18:25	10°↗09'24	29.22404 AU
direct	-153 Aug 25 j 00:08	8°↗46'03	
evening set	-153 Nov 20 j 23:40	10°↗40'01	
conjunction	-153 Dec 06 j 04:38	11°↗14'17	1°08'41
minimum elong	-153 Dec 06 j 04:38	11°↗14'17	1°08'40
max. Earth dist.	-153 Dec 06 j 04:47	11°↗14'18	31.22030 AU
morning rise	-153 Dec 21 j 10:05	11°↗48'37	
retrograde	-152 Mar 19 j 05:26	13°↗43'55	
opposition	-152 Jun 07 j 08:16	12°↗20'52	1°11'30
min. Earth dist.	-152 Jun 07 j 07:07	12°↗20'57	29.21719 AU
direct	-152 Aug 26 j 11:12	10°↗57'39	
evening set	-152 Nov 22 j 08:55	12°↗51'32	
conjunction	-152 Dec 07 j 14:07	13°↗25'50	1°05'09
minimum elong	-152 Dec 07 j 14:07	13°↗25'50	1°05'09
max. Earth dist.	-152 Dec 07 j 15:58	13°↗26'01	31.21290 AU
morning rise	-152 Dec 22 j 19:37	14°↗00'12	
retrograde	-151 Mar 21 j 16:20	15°↗55'38	
opposition	-151 Jun 09 j 21:25	14°↗32'31	1°07'41
min. Earth dist.	-151 Jun 09 j 19:33	14°↗32'39	29.20907 AU
direct	-151 Aug 28 j 23:59	13°↗09'20	
evening set	-151 Nov 24 j 18:15	15°↗03'09	
conjunction	-151 Dec 09 j 23:25	15°↗37'28	1°01'32
minimum elong	-151 Dec 09 j 23:25	15°↗37'28	1°01'32
max. Earth dist.	-151 Dec 10 j 00:55	15°↗37'36	31.20423 AU
morning rise	-151 Dec 25 j 05:20	16°↗11'51	
retrograde	-150 Mar 24 j 04:40	18°↗07'24	
opposition	-150 Jun 12 j 10:33	16°↗44'13	1°03'45
min. Earth dist.	-150 Jun 12 j 07:46	16°↗44'24	29.19971 AU
direct	-150 Aug 31 j 11:21	15°↗21'02	
evening set	-150 Nov 27 j 03:34	17°↗14'45	
conjunction	-150 Dec 12 j 09:00	17°↗49'06	0°57'49
minimum elong	-150 Dec 12 j 09:01	17°↗49'06	0°57'49
max. Earth dist.	-150 Dec 12 j 11:58	17°↗49'22	31.19416 AU
morning rise	-150 Dec 27 j 15:03	18°↗23'31	
retrograde	-149 Mar 26 j 14:40	20°↗19'09	
opposition	-149 Jun 14 j 23:32	18°↗55'52	0°59'45
min. Earth dist.	-149 Jun 14 j 20:45	18°↗56'03	29.18899 AU
direct	-149 Sep 03 j 00:22	17°↗32'41	
evening set	-149 Nov 29 j 12:54	19°↗26'18	
conjunction	-149 Dec 14 j 18:25	20°↗00'39	0°54'02
minimum elong	-149 Dec 14 j 18:25	20°↗00'39	0°54'02
max. Earth dist.	-149 Dec 14 j 21:26	20°↗00'56	31.18312 AU
morning rise	-149 Dec 30 j 00:50	20°↗35'06	
retrograde	-148 Mar 28 j 03:08	22°↗30'49	
opposition	-148 Jun 16 j 12:30	21°↗07'26	0°55'39
min. Earth dist.	-148 Jun 16 j 08:02	21°↗07'44	29.17756 AU
direct	-148 Sep 04 j 11:56	19°↗44'13	
evening set	-148 Nov 30 j 22:02	21°↗37'44	
conjunction	-148 Dec 16 j 03:43	22°↗12'06	0°50'10
minimum elong	-148 Dec 16 j 03:43	22°↗12'06	0°50'09
max. Earth dist.	-148 Dec 16 j 07:56	22°↗12'30	31.17149 AU
morning rise	-148 Dec 31 j 10:23	22°↗46'35	
retrograde	-147 Mar 30 j 12:45	24°↗42'24	
opposition	-147 Jun 19 j 01:39	23°↗18'53	0°51'29
min. Earth dist.	-147 Jun 18 j 21:13	23°↗19'11	29.16600 AU
direct	-147 Sep 06 j 23:05	21°↗55'39	
evening set	-147 Dec 03 j 07:15	23°↗49'04	
conjunction	-147 Dec 18 j 13:08	24°↗23'27	0°46'13
minimum elong	-147 Dec 18 j 13:08	24°↗23'27	0°46'13
max. Earth dist.	-147 Dec 18 j 18:33	24°↗23'58	31.16026 AU
morning rise	-146 Jan 02 j 20:04	24°↗57'57	
retrograde	-146 Apr 02 j 00:16	26°↗53'52	
opposition	-146 Jun 21 j 14:30	25°↗30'15	0°47'14
min. Earth dist.	-146 Jun 21 j 07:58	25°↗30'41	29.15509 AU
direct	-146 Sep 09 j 10:08	24°↗07'00	
evening set	-146 Dec 05 j 16:30	26°↗00'20	
conjunction	-146 Dec 20 j 22:29	26°↗34'44	0°42'13
minimum elong	-146 Dec 20 j 22:29	26°↗34'45	0°42'13
max. Earth dist.	-146 Dec 21 j 04:32	26°↗35'19	31.14977 AU
morning rise	-145 Jan 05 j 05:49	27°↗09'17	
retrograde	-145 Apr 04 j 12:22	29°↗05'18	
opposition	-145 Jun 24 j 03:30	27°↗41'36	0°42'55
min. Earth dist.	-145 Jun 23 j 20:50	27°↗42'03	29.14518 AU
direct	-145 Sep 11 j 19:21	26°↗18'22	
evening set	-145 Dec 08 j 01:42	28°↗11'39	
conjunction	-145 Dec 23 j 07:59	28°↗46'04	0°38'09
minimum elong	-145 Dec 23 j 07:59	28°↗46'04	0°38'08
max. Earth dist.	-145 Dec 23 j 15:52	28°↗46'48	31.14043 AU
morning rise	-144 Jan 07 j 15:28	29°↗20'38	

Attention, astronomical year style is used: The year -144 in astronomical counting style is the year 145 BCE in historical counting style.

	-144 Jan 26 j 06:38	0°♓		
retrograde	-144 Apr 06 j 00:15	1°♓16'46		
	-144 Jun 21 j 09:09	30°♑℞		
opposition	-144 Jun 25 j 16:20	29°♐53'01	0°38'32	
min. Earth dist.	-144 Jun 25 j 07:45	29°♐53'36	29.13629 AU	
direct	-144 Sep 13 j 07:48	28°♐29'49		
	-144 Nov 28 j 19:03	0°♓		
evening set	-144 Dec 09 j 11:05	0°♓23'03		
conjunction	-144 Dec 24 j 17:24	0°♓57'29	0°34'01	
minimum elong	-144 Dec 24 j 17:24	0°♓57'29	0°34'01	
max. Earth dist.	-144 Dec 25 j 01:22	0°♓58'14	31.13213 AU	
morning rise	-143 Jan 09 j 01:23	1°♓32'06		
retrograde	-143 Apr 08 j 14:32	3°♓28'22		
opposition	-143 Jun 28 j 05:23	2°♓04'34	0°34'05	
min. Earth dist.	-143 Jun 27 j 20:09	2°♓05'12	29.12851 AU	
direct	-143 Sep 15 j 17:43	0°♓41'25		
evening set	-143 Dec 11 j 20:17	2°♓34'36		
conjunction	-143 Dec 27 j 03:01	3°♓09'05	0°29'50	
minimum elong	-143 Dec 27 j 03:01	3°♓09'05	0°29'49	
max. Earth dist.	-143 Dec 27 j 13:05	3°♓10'02	31.12471 AU	
morning rise	-142 Jan 11 j 11:12	3°♓43'43		
retrograde	-142 Apr 11 j 02:04	5°♓40'09		
opposition	-142 Jun 30 j 18:25	4°♓16'19	0°29'35	
min. Earth dist.	-142 Jun 30 j 08:12	4°♓17'01	29.12126 AU	
direct	-142 Sep 18 j 05:40	2°♓53'14		
evening set	-142 Dec 14 j 05:52	4°♓46'24		
conjunction	-142 Dec 29 j 12:41	5°♓20'54	0°25'35	
minimum elong	-142 Dec 29 j 12:41	5°♓20'54	0°25'35	
max. Earth dist.	-142 Dec 29 j 22:39	5°♓21'50	31.11771 AU	
morning rise	-141 Jan 13 j 21:22	5°♓55'35		
retrograde	-141 Apr 13 j 15:48	7°♓52'09		
opposition	-141 Jul 03 j 07:18	6°♓28'18	0°25'01	
min. Earth dist.	-141 Jul 02 j 20:05	6°♓29'03	29.11431 AU	
direct	-141 Sep 20 j 16:23	5°♓05'16		
evening set	-141 Dec 16 j 15:26	6°♓58'25		
conjunction	-141 Dec 31 j 22:34	7°♓32'57	0°21'19	
minimum elong	-141 Dec 31 j 22:34	7°♓32'57	0°21'19	
max. Earth dist.	-140 Jan 01 j 10:08	7°♓34'02	31.11059 AU	
morning rise	-140 Jan 16 j 07:29	8°♓07'40		
retrograde	-140 Apr 15 j 03:33	10°♓04'24		
opposition	-140 Jul 04 j 20:28	8°♓40'31	0°20'26	
min. Earth dist.	-140 Jul 04 j 09:12	8°♓41'17	29.10697 AU	
direct	-140 Sep 22 j 04:53	7°♓17'33		
evening set	-140 Dec 18 j 01:06	9°♓10'41		
conjunction	-139 Jan 02 j 08:24	9°♓45'15	0°17'00	
minimum elong	-139 Jan 02 j 08:24	9°♓45'15	0°17'00	
max. Earth dist.	-139 Jan 02 j 20:04	9°♓46'20	31.10302 AU	
morning rise	-139 Jan 17 j 17:44	10°♓20'00		
retrograde	-139 Apr 17 j 17:20	12°♓16'53		
opposition	-139 Jul 07 j 09:36	10°♓52'58	0°15'48	
min. Earth dist.	-139 Jul 06 j 20:51	10°♓53'50	29.09895 AU	
direct	-139 Sep 24 j 16:14	9°♓30'03		
evening set	-139 Dec 20 j 10:59	11°♓23'09		
conjunction	-138 Jan 04 j 18:32	11°♓57'45	0°12'40	
minimum elong	-138 Jan 04 j 18:32	11°♓57'45	0°12'40	
behind sun begin	-138 Jan 04 j 14:24	11°♓57'22		
behind sun end	-138 Jan 04 j 22:41	11°♓58'07		
max. Earth dist.	-138 Jan 05 j 06:52	11°♓58'54	31.09437 AU	
morning rise	-138 Jan 20 j 04:13	12°♓32'33		
retrograde	-138 Apr 20 j 03:55	14°♓29'34		
opposition	-138 Jul 09 j 22:47	13°♓05'36	0°11'08	
min. Earth dist.	-138 Jul 09 j 10:34	13°♓06'26	29.08976 AU	
direct	-138 Sep 27 j 03:10	11°♓42'42		
evening set	-138 Dec 22 j 20:53	13°♓35'47		
conjunction	-137 Jan 07 j 04:48	14°♓10'24	0°08'19	
minimum elong	-137 Jan 07 j 04:48	14°♓10'23	0°08'19	
behind sun begin	-137 Jan 06 j 23:08	14°♓09'53		
behind sun end	-137 Jan 07 j 10:28	14°♓10'54		
max. Earth dist.	-137 Jan 07 j 17:47	14°♓11'37	31.08461 AU	
morning rise	-137 Jan 22 j 14:49	14°♓45'14		
retrograde	-137 Apr 22 j 16:10	16°♓42'21		
opposition	-137 Jul 12 j 11:51	15°♓18'20	0°06'28	
min. Earth dist.	-137 Jul 11 j 22:10	15°♓19'16	29.07927 AU	
direct	-137 Sep 29 j 14:26	13°♓55'26		
evening set	-137 Dec 25 j 06:51	15°♓48'28		
conjunction	-136 Jan 09 j 14:55	16°♓23'06	0°03'58	
minimum elong	-136 Jan 09 j 14:55	16°♓23'06	0°03'57	
behind sun begin	-136 Jan 09 j 08:35	16°♓22'32		
behind sun end	-136 Jan 09 j 21:15	16°♓23'41		
max. Earth dist.	-136 Jan 10 j 03:51	16°♓24'19	31.07349 AU	
morning rise	-136 Jan 25 j 01:25	16°♓57'58		
retrograde	-136 Apr 24 j 04:31	18°♓55'13		
min. Earth dist.	-136 Jul 13 j 11:49	17°♓32'00	29.06775 AU	
opposition	-136 Jul 14 j 01:02	17°♓31'06	0°01'47	
direct	-136 Sep 30 j 23:53	16°♓08'11		
desc. node	-136 Dec 01 j 07:14	17°♓08'55		
evening set	-136 Dec 26 j 16:44	18°♓01'09		
conjunction	-135 Jan 11 j 01:16	18°♓35'49	-0°00'30	
minimum elong	-135 Jan 11 j 01:14	18°♓35'49	0°00'31	
behind sun begin	-135 Jan 10 j 18:50	18°♓35'14		
behind sun end	-135 Jan 11 j 07:38	18°♓36'23		
max. Earth dist.	-135 Jan 11 j 15:39	18°♓37'10	31.06172 AU	
morning rise	-135 Jan 26 j 11:59	19°♓10'43		
retrograde	-135 Apr 26 j 16:35	21°♓08'03		
opposition	-135 Jul 16 j 14:03	19°♓43'50	-0°02'54	
min. Earth dist.	-135 Jul 15 j 23:22	19°♓44'51	29.05579 AU	
direct	-135 Oct 03 j 12:37	18°♓20'54		
evening set	-135 Dec 29 j 02:44	20°♓13'48		
conjunction	-134 Jan 13 j 11:22	20°♓48'29	-0°04'56	
minimum elong	-134 Jan 13 j 11:22	20°♓48'29	0°04'57	
behind sun begin	-134 Jan 13 j 05:06	20°♓47'55		
behind sun end	-134 Jan 13 j 17:37	20°♓49'03		
max. Earth dist.	-134 Jan 14 j 01:32	20°♓49'49	31.04981 AU	
morning rise	-134 Jan 28 j 22:42	21°♓23'25		
retrograde	-134 Apr 29 j 06:46	23°♓20'51		
opposition	-134 Jul 19 j 03:07	21°♓56'32	-0°07'35	
min. Earth dist.	-134 Jul 18 j 12:07	21°♓57'33	29.04416 AU	
direct	-134 Oct 05 j 22:17	20°♓33'33		
evening set	-134 Dec 31 j 12:43	22°♓26'25		
conjunction	-133 Jan 15 j 21:47	23°♓01'08	-0°09'17	
minimum elong	-133 Jan 15 j 21:48	23°♓01'08	0°09'17	
behind sun begin	-133 Jan 15 j 16:22	23°♓00'38		
behind sun end	-133 Jan 16 j 03:13	23°♓01'37		
max. Earth dist.	-133 Jan 16 j 13:52	23°♓02'39	31.03841 AU	
morning rise	-133 Jan 31 j 09:20	23°♓36'06		
retrograde	-133 May 01 j 18:09	25°♓33'37		
opposition	-133 Jul 21 j 15:54	24°♓09'13	-0°12'15	
min. Earth dist.	-133 Jul 20 j 23:58	24°♓10'18	29.03318 AU	
direct	-133 Oct 08 j 09:56	22°♓46'13		
evening set	-132 Jan 02 j 22:52	24°♓39'04		
conjunction	-132 Jan 18 j 08:06	25°♓13'47	-0°13'38	
minimum elong	-132 Jan 18 j 08:06	25°♓13'47	0°13'38	

Attention, astronomical year style is used: The year -132 in astronomical counting style is the year 133 BCE in historical counting style.

behind sun begin	-132 Jan 18 j 04:31	25°♑13'28		
behind sun end	-132 Jan 18 j 11:41	25°♑14'07		
max. Earth dist.	-132 Jan 19 j 00:07	25°♑15'18	31.02800 AU	
morning rise	-132 Feb 02 j 20:11	25°♑48'47		
retrograde	-132 May 03 j 08:50	27°♑46'24		
min. Earth dist.	-132 Jul 22 j 11:49	26°♑23'06	29.02340 AU	
opposition	-132 Jul 23 j 04:51	26°♑21'56	-0°16'54	
direct	-132 Oct 09 j 21:08	24°♑58'56		
evening set	-131 Jan 04 j 08:50	26°♑51'45		
conjunction	-131 Jan 19 j 18:28	27°♑26'30	-0°17'58	
minimum elong	-131 Jan 19 j 18:28	27°♑26'30	0°17'58	
max. Earth dist.	-131 Jan 20 j 12:12	27°♑28'11	31.01866 AU	
morning rise	-131 Feb 04 j 06:51	28°♑01'32		
retrograde	-131 May 05 j 21:32	29°♑59'16		
opposition	-131 Jul 25 j 17:51	28°♑34'44	-0°21'32	
min. Earth dist.	-131 Jul 25 j 00:33	28°♑35'55	29.01462 AU	
direct	-131 Oct 12 j 09:46	27°♑11'45		
evening set	-130 Jan 06 j 19:06	29°♑04'33		
conjunction	-130 Jan 22 j 05:02	29°♑39'20	-0°22'18	
minimum elong	-130 Jan 22 j 05:02	29°♑39'20	0°22'17	
max. Earth dist.	-130 Jan 22 j 23:04	29°♑41'03	31.01047 AU	
	-130 Jan 31 j 07:28	0°♒		
morning rise	-130 Feb 06 j 17:53	0°♒14'24		
retrograde	-130 May 08 j 11:28	2°♒12'15		
min. Earth dist.	-130 Jul 27 j 11:44	0°♒48'58	29.00688 AU	
opposition	-130 Jul 28 j 06:36	0°♒47'40	-0°26'09	
	-130 Aug 28 j 02:54	30°℞♑		
direct	-130 Oct 14 j 20:57	29°♑24'43		
	-130 Nov 29 j 16:40	0°♒		
evening set	-129 Jan 09 j 05:28	1°♒17'30		
conjunction	-129 Jan 24 j 15:42	1°♒52'19	-0°26'35	
minimum elong	-129 Jan 24 j 15:42	1°♒52'19	0°26'35	
max. Earth dist.	-129 Jan 25 j 10:31	1°♒54'06	31.00294 AU	
morning rise	-129 Feb 09 j 04:58	2°♒27'26		
retrograde	-129 May 10 j 22:57	4°♒25'23		
opposition	-129 Jul 30 j 19:34	3°♒00'47	-0°30'43	
min. Earth dist.	-129 Jul 30 j 01:06	3°♒02'03	28.99964 AU	
direct	-129 Oct 17 j 08:09	1°♒37'51		
evening set	-128 Jan 11 j 15:49	3°♒30'39		
conjunction	-128 Jan 27 j 02:26	4°♒05'29	-0°30'51	
minimum elong	-128 Jan 27 j 02:26	4°♒05'29	0°30'51	
max. Earth dist.	-128 Jan 27 j 22:12	4°♒07'22	30.99588 AU	
morning rise	-128 Feb 11 j 16:02	4°♒40'38		
retrograde	-128 May 12 j 12:23	6°♒38'42		
opposition	-128 Aug 01 j 08:25	5°♒14'05	-0°35'16	
min. Earth dist.	-128 Jul 31 j 12:28	5°♒15'27	28.99256 AU	
direct	-128 Oct 18 j 19:57	3°♒51'11		
evening set	-127 Jan 13 j 02:35	5°♒43'59		
conjunction	-127 Jan 28 j 13:24	6°♒18'51	-0°35'04	
minimum elong	-127 Jan 28 j 13:23	6°♒18'51	0°35'04	
max. Earth dist.	-127 Jan 29 j 09:00	6°♒20'43	30.98862 AU	
morning rise	-127 Feb 13 j 03:30	6°♒54'02		
retrograde	-127 May 15 j 01:02	8°♒52'14		
opposition	-127 Aug 03 j 21:27	7°♒27'35	-0°39'45	
min. Earth dist.	-127 Aug 03 j 02:13	7°♒28'54	28.98519 AU	
direct	-127 Oct 21 j 05:35	6°♒04'42		
evening set	-126 Jan 15 j 13:18	7°♒57'31		
conjunction	-126 Jan 31 j 00:37	8°♒32'24	-0°39'14	
minimum elong	-126 Jan 31 j 00:37	8°♒32'24	0°39'14	
max. Earth dist.	-126 Jan 31 j 21:22	8°♒34'22	30.98084 AU	
morning rise	-126 Feb 15 j 15:00	9°♒07'37		
retrograde	-126 May 17 j 13:15	11°♒05'55		
opposition	-126 Aug 06 j 10:20	9°♒41'14	-0°44'10	
min. Earth dist.	-126 Aug 05 j 14:08	9°♒42'38	28.97687 AU	
direct	-126 Oct 23 j 17:45	8°♒18'22		
evening set	-125 Jan 18 j 00:24	10°♒11'11		
conjunction	-125 Feb 02 j 11:54	10°♒46'06	-0°43'20	
minimum elong	-125 Feb 02 j 11:54	10°♒46'06	0°43'20	
max. Earth dist.	-125 Feb 03 j 07:40	10°♒47'58	30.97188 AU	
morning rise	-125 Feb 18 j 02:50	11°♒21'21		
retrograde	-125 May 20 j 03:08	13°♒19'45		
opposition	-125 Aug 08 j 23:14	11°♒55'01	-0°48'32	
min. Earth dist.	-125 Aug 08 j 03:25	11°♒56'22	28.96739 AU	
direct	-125 Oct 26 j 03:10	10°♒32'06		
evening set	-124 Jan 20 j 11:23	12°♒24'56		
conjunction	-124 Feb 04 j 23:23	12°♒59'53	-0°47'23	
minimum elong	-124 Feb 04 j 23:23	12°♒59'53	0°47'24	
max. Earth dist.	-124 Feb 05 j 20:22	13°♒01'52	30.96173 AU	
morning rise	-124 Feb 20 j 14:34	13°♒35'09		
	-124 Apr 05 j 16:02	15°♒		
retrograde	-124 May 21 j 15:22	15°♒33'38		
	-124 Jul 08 j 04:44	15°℞♒		
opposition	-124 Aug 10 j 12:09	14°♒08'49	-0°52'50	
min. Earth dist.	-124 Aug 09 j 15:59	14°♒10'13	28.95667 AU	
direct	-124 Oct 27 j 15:03	12°♒45'53		
evening set	-123 Jan 21 j 22:23	14°♒38'41		
	-123 Jan 31 j 10:22	15°♒		
conjunction	-123 Feb 06 j 10:39	15°♒13'40	-0°51'22	
minimum elong	-123 Feb 06 j 10:38	15°♒13'40	0°51'22	
max. Earth dist.	-123 Feb 07 j 06:59	15°♒15'35	30.95066 AU	
morning rise	-123 Feb 22 j 02:25	15°♒48'58		
retrograde	-123 May 24 j 06:19	17°♒47'31		
min. Earth dist.	-123 Aug 12 j 04:31	16°♒24'02	28.94535 AU	
opposition	-123 Aug 13 j 01:02	16°♒22'37	-0°57'03	
	-123 Oct 25 j 11:39	15°℞♒		
direct	-123 Oct 30 j 02:22	14°♒59'38		
	-123 Nov 03 j 17:52	15°♒		
evening set	-122 Jan 24 j 09:28	16°♒52'25		
conjunction	-122 Feb 08 j 22:11	17°♒27'25	-0°55'16	
minimum elong	-122 Feb 08 j 22:11	17°♒27'25	0°55'16	
max. Earth dist.	-122 Feb 09 j 19:39	17°♒29'27	30.93908 AU	
morning rise	-122 Feb 24 j 14:18	18°♒02'45		
retrograde	-122 May 26 j 19:03	20°♒01'21		
opposition	-122 Aug 15 j 13:40	18°♒36'22	-1°01'10	
min. Earth dist.	-122 Aug 14 j 17:25	18°♒37'46	28.93386 AU	
direct	-122 Nov 01 j 14:52	17°♒13'20		
evening set	-121 Jan 26 j 20:38	19°♒06'07		
conjunction	-121 Feb 11 j 09:41	19°♒41'09	-0°59'05	
minimum elong	-121 Feb 11 j 09:41	19°♒41'09	0°59'05	
max. Earth dist.	-121 Feb 12 j 07:06	19°♒43'10	30.92783 AU	
morning rise	-121 Feb 27 j 02:15	20°♒16'30		
retrograde	-121 May 29 j 09:17	22°♒15'10		
min. Earth dist.	-121 Aug 17 j 04:46	20°♒51'35	28.92301 AU	
opposition	-121 Aug 18 j 02:16	20°♒50'06	-1°05'12	
direct	-121 Nov 04 j 02:26	19°♒27'01		
evening set	-120 Jan 29 j 07:44	21°♒19'49		
conjunction	-120 Feb 13 j 21:06	21°♒54'52	-1°02'49	
minimum elong	-120 Feb 13 j 21:06	21°♒54'52	1°02'49	
max. Earth dist.	-120 Feb 14 j 19:09	21°♒56'57	30.91726 AU	
morning rise	-120 Feb 29 j 14:04	22°♒30'16		
retrograde	-120 May 30 j 21:34	24°♒28'59		
opposition	-120 Aug 19 j 14:58	23°♒03'51	-1°09'09	

Attention, astronomical year style is used: The year -120 in astronomical counting style is the year 121 BCE in historical counting style.

min. Earth dist.	-120 Aug 18 j 17:53	23°♒05'19	28.91310 AU
direct	-120 Nov 05 j 14:13	21°♒40'45	
evening set	-119 Jan 30 j 18:57	23°♒33'33	
conjunction	-119 Feb 15 j 08:48	24°♒08'38	-1°06'27
minimum elong	-119 Feb 15 j 08:47	24°♒08'38	1°06'26
max. Earth dist.	-119 Feb 16 j 07:43	24°♒10'48	30.90801 AU
morning rise	-119 Mar 03 j 02:07	24°♒44'04	
retrograde	-119 Jun 02 j 12:01	26°♒42'51	
min. Earth dist.	-119 Aug 21 j 04:50	25°♒19'14	28.90452 AU
opposition	-119 Aug 22 j 03:24	25°♒17'41	-1°12'59
direct	-119 Nov 08 j 02:27	23°♒54'34	
evening set	-118 Feb 02 j 06:22	25°♒47'23	
conjunction	-118 Feb 17 j 20:29	26°♒22'30	-1°09'59
minimum elong	-118 Feb 17 j 20:28	26°♒22'30	1°10'00
max. Earth dist.	-118 Feb 18 j 19:17	26°♒24'40	30.89997 AU
morning rise	-118 Mar 05 j 14:21	26°♒57'58	
retrograde	-118 Jun 05 j 00:09	28°♒56'50	
opposition	-118 Aug 24 j 16:01	27°♒31'38	-1°16'43
min. Earth dist.	-118 Aug 23 j 18:03	27°♒33'09	28.89721 AU
direct	-118 Nov 10 j 12:25	26°♒08'31	
evening set	-117 Feb 04 j 17:45	28°♒01'22	
conjunction	-117 Feb 20 j 08:24	28°♒36'31	-1°13'25
minimum elong	-117 Feb 20 j 08:23	28°♒36'31	1°13'25
max. Earth dist.	-117 Feb 21 j 08:31	28°♒38'47	30.89319 AU
morning rise	-117 Mar 08 j 02:30	29°♒12'00	
	-117 Mar 31 j 04:35	0°♓	
retrograde	-117 Jun 07 j 12:02	1°♓10'57	
	-117 Aug 18 j 13:56	30°℞♒	
min. Earth dist.	-117 Aug 26 j 05:15	29°♒47'20	28.89093 AU
opposition	-117 Aug 27 j 04:20	29°♒45'44	-1°20'20
direct	-117 Nov 13 j 00:16	28°♒22'38	
	-116 Jan 31 j 01:56	0°♓	
evening set	-116 Feb 07 j 05:25	0°♓15'32	
conjunction	-116 Feb 22 j 20:16	0°♓50'42	-1°16'45
minimum elong	-116 Feb 22 j 20:15	0°♓50'42	1°16'45
max. Earth dist.	-116 Feb 23 j 19:40	0°♓52'55	30.88738 AU
morning rise	-116 Mar 09 j 14:58	1°♓26'13	
retrograde	-116 Jun 09 j 01:44	3°♓25'15	
opposition	-116 Aug 28 j 16:54	2°♓00'02	-1°23'49
min. Earth dist.	-116 Aug 27 j 18:06	2°♓01'37	28.88559 AU
direct	-116 Nov 14 j 08:58	0°♓36'57	
evening set	-115 Feb 08 j 17:00	2°♓29'54	
conjunction	-115 Feb 24 j 08:24	3°♓05'06	-1°19'57
minimum elong	-115 Feb 24 j 08:24	3°♓05'06	1°19'57
max. Earth dist.	-115 Feb 25 j 09:09	3°♓07'26	30.88218 AU
morning rise	-115 Mar 12 j 03:22	3°♓40'39	
retrograde	-115 Jun 11 j 14:13	5°♓39'46	
min. Earth dist.	-115 Aug 30 j 06:19	4°♓16'09	28.88046 AU
opposition	-115 Aug 31 j 05:21	4°♓14'33	-1°27'12
direct	-115 Nov 16 j 20:26	2°♓51'28	
evening set	-114 Feb 11 j 05:02	4°♓44'28	
conjunction	-114 Feb 26 j 20:43	5°♓19'42	-1°23'03
minimum elong	-114 Feb 26 j 20:43	5°♓19'42	1°23'03
max. Earth dist.	-114 Feb 27 j 20:29	5°♓21'56	30.87701 AU
morning rise	-114 Mar 14 j 16:13	5°♓55'17	
retrograde	-114 Jun 14 j 04:50	7°♓54'27	
opposition	-114 Sep 02 j 17:41	6°♓29'14	-1°30'26
min. Earth dist.	-114 Sep 01 j 18:44	6°♓30'50	28.87519 AU
direct	-114 Nov 19 j 07:03	5°♓06'08	
evening set	-113 Feb 13 j 17:08	6°♓59'12	
conjunction	-113 Mar 01 j 09:17	7°♓34'27	-1°26'01
minimum elong	-113 Mar 01 j 09:16	7°♓34'27	1°26'01
max. Earth dist.	-113 Mar 02 j 09:41	7°♓36'45	30.87124 AU
morning rise	-113 Mar 17 j 05:04	8°♓10'03	
retrograde	-113 Jun 16 j 17:33	10°♓09'17	
min. Earth dist.	-113 Sep 04 j 07:56	8°♓45'35	28.86904 AU
opposition	-113 Sep 05 j 06:11	8°♓44'02	-1°33'32
direct	-113 Nov 21 j 18:50	7°♓20'55	
evening set	-112 Feb 16 j 05:13	9°♓14'01	
conjunction	-112 Mar 02 j 21:44	9°♓49'17	-1°28'52
minimum elong	-112 Mar 02 j 21:44	9°♓49'17	1°28'52
max. Earth dist.	-112 Mar 03 j 21:25	9°♓51'31	30.86469 AU
morning rise	-112 Mar 18 j 17:59	10°♓24'55	
retrograde	-112 Jun 18 j 08:25	12°♓24'10	
opposition	-112 Sep 06 j 18:36	10°♓58'53	-1°36'30
min. Earth dist.	-112 Sep 05 j 19:48	11°♓00'28	28.86206 AU
direct	-112 Nov 23 j 06:24	9°♓35'42	
evening set	-111 Feb 17 j 17:30	11°♓28'49	
conjunction	-111 Mar 05 j 10:25	12°♓04'07	-1°31'34
minimum elong	-111 Mar 05 j 10:25	12°♓04'07	1°31'33
max. Earth dist.	-111 Mar 06 j 09:58	12°♓06'21	30.85719 AU
morning rise	-111 Mar 21 j 07:06	12°♓39'47	
retrograde	-111 Jun 20 j 21:46	14°♓39'01	
min. Earth dist.	-111 Sep 08 j 09:17	13°♓15'11	28.85432 AU
opposition	-111 Sep 09 j 06:55	13°♓13'40	-1°39'20
direct	-111 Nov 25 j 18:57	11°♓50'26	
evening set	-110 Feb 20 j 05:46	13°♓43'33	
conjunction	-110 Mar 07 j 23:14	14°♓18'53	-1°34'08
minimum elong	-110 Mar 07 j 23:13	14°♓18'53	1°34'09
max. Earth dist.	-110 Mar 08 j 22:54	14°♓21'07	30.84934 AU
morning rise	-110 Mar 23 j 20:16	14°♓54'34	
retrograde	-110 Jun 23 j 12:31	16°♓53'47	
opposition	-110 Sep 11 j 19:04	15°♓28'22	-1°42'00
min. Earth dist.	-110 Sep 10 j 20:35	15°♓29'56	28.84641 AU
direct	-110 Nov 28 j 08:17	14°♓05'04	
evening set	-109 Feb 22 j 18:09	15°♓58'11	
conjunction	-109 Mar 10 j 11:52	16°♓33'32	-1°36'33
minimum elong	-109 Mar 10 j 11:51	16°♓33'32	1°36'33
max. Earth dist.	-109 Mar 11 j 10:57	16°♓35'43	30.84143 AU
morning rise	-109 Mar 26 j 09:24	17°♓09'14	
retrograde	-109 Jun 26 j 00:36	19°♓08'26	
min. Earth dist.	-109 Sep 13 j 09:47	17°♓44'28	28.83890 AU
opposition	-109 Sep 14 j 07:13	17°♓42'58	-1°44'31
direct	-109 Nov 30 j 19:07	16°♓19'35	
evening set	-108 Feb 25 j 06:25	18°♓12'43	
conjunction	-108 Mar 12 j 00:43	18°♓48'06	-1°38'50
minimum elong	-108 Mar 12 j 00:43	18°♓48'05	1°38'51
max. Earth dist.	-108 Mar 13 j 00:47	18°♓50'22	30.83434 AU
morning rise	-108 Mar 27 j 22:31	19°♓23'49	
retrograde	-108 Jun 27 j 13:20	21°♓23'00	
opposition	-108 Sep 15 j 19:11	19°♓57'28	-1°46'52
min. Earth dist.	-108 Sep 14 j 20:53	19°♓59'02	28.83234 AU
direct	-108 Dec 02 j 07:44	18°♓34'02	
evening set	-107 Feb 26 j 18:52	20°♓27'12	
conjunction	-107 Mar 14 j 13:26	21°♓02'36	-1°40'58
minimum elong	-107 Mar 14 j 13:26	21°♓02'36	1°40'57
max. Earth dist.	-107 Mar 15 j 12:32	21°♓04'46	30.82836 AU
morning rise	-107 Mar 30 j 11:50	21°♓38'20	
retrograde	-107 Jun 30 j 02:50	23°♓37'31	
min. Earth dist.	-107 Sep 17 j 09:26	22°♓13'29	28.82714 AU
opposition	-107 Sep 18 j 07:15	22°♓11'57	-1°49'04

Attention, astronomical year style is used: The year -107 in astronomical counting style is the year 108 BCE in historical counting style.

direct	-107 Dec 04 j 17:28	20°♓48'29	
evening set	-106 Mar 01 j 07:20	22°♓41'40	
conjunction	-106 Mar 17 j 02:31	23°♓17'06	-1°42'57
minimum elong	-106 Mar 17 j 02:30	23°♓17'06	1°42'57
max. Earth dist.	-106 Mar 18 j 02:45	23°♓19'23	30.82378 AU
morning rise	-106 Apr 02 j 01:07	23°♓52'52	
retrograde	-106 Jul 02 j 14:23	25°♓52'01	
opposition	-106 Sep 20 j 19:01	24°♓26'28	-1°51'06
min. Earth dist.	-106 Sep 19 j 20:55	24°♓28'01	28.82329 AU
direct	-106 Dec 07 j 05:16	23°♓02'58	
evening set	-105 Mar 03 j 19:59	24°♓56'13	
conjunction	-105 Mar 19 j 15:28	25°♓31'40	-1°44'46
minimum elong	-105 Mar 19 j 15:28	25°♓31'40	1°44'45
max. Earth dist.	-105 Mar 20 j 14:46	25°♓33'52	30.82072 AU
morning rise	-105 Apr 04 j 14:37	26°♓07'28	
retrograde	-105 Jul 05 j 04:03	28°♓06'37	
min. Earth dist.	-105 Sep 22 j 08:44	26°♓42'38	28.82101 AU
opposition	-105 Sep 23 j 06:57	26°♓41'05	-1°52'57
direct	-105 Dec 09 j 15:22	25°♓17'34	
evening set	-104 Mar 05 j 08:28	27°♓10'53	
conjunction	-104 Mar 21 j 04:29	27°♓46'22	-1°46'26
minimum elong	-104 Mar 21 j 04:29	27°♓46'22	1°46'26
max. Earth dist.	-104 Mar 22 j 04:44	27°♓48'39	30.81900 AU
morning rise	-104 Apr 06 j 03:56	28°♓22'11	
	-104 May 31 j 09:13	0°♈	
retrograde	-104 Jul 06 j 16:14	0°♈21'22	
	-104 Aug 12 j 16:02	30°℞♓	
opposition	-104 Sep 24 j 18:54	28°♓55'51	-1°54'39
min. Earth dist.	-104 Sep 23 j 21:15	28°♓57'22	28.81986 AU
direct	-104 Dec 11 j 02:22	27°♓32'21	
evening set	-103 Mar 07 j 21:20	29°♓25'44	
conjunction	-103 Mar 23 j 17:45	0°♈01'15	-1°47'55
minimum elong	-103 Mar 23 j 17:45	0°♈01'15	1°47'55
	-103 Mar 23 j 04:30	0°♈	
max. Earth dist.	-103 Mar 24 j 17:17	0°♈03'28	30.81842 AU
morning rise	-103 Apr 08 j 17:41	0°♈37'06	
retrograde	-103 Jul 09 j 07:12	2°♈36'17	
min. Earth dist.	-103 Sep 26 j 08:35	1°♈12'22	28.81964 AU
opposition	-103 Sep 27 j 06:38	1°♈10'49	-1°56'09
	-103 Nov 16 j 05:20	30°℞♓	
direct	-103 Dec 13 j 13:19	29°♓47'19	
	-102 Jan 09 j 15:16	0°♈	
evening set	-102 Mar 10 j 10:24	1°♈40'49	
conjunction	-102 Mar 26 j 07:14	2°♈16'21	-1°49'15
minimum elong	-102 Mar 26 j 07:14	2°♈16'21	1°49'16
max. Earth dist.	-102 Mar 27 j 06:36	2°♈18'33	30.81825 AU
morning rise	-102 Apr 11 j 07:32	2°♈52'14	
retrograde	-102 Jul 11 j 20:49	4°♈51'25	
opposition	-102 Sep 29 j 18:33	3°♈26'00	-1°57'29
min. Earth dist.	-102 Sep 28 j 21:52	3°♈27'28	28.81954 AU
direct	-102 Dec 16 j 01:26	2°♈02'31	
evening set	-101 Mar 12 j 23:28	3°♈56'06	
conjunction	-101 Mar 28 j 20:48	4°♈31'40	-1°50'25
minimum elong	-101 Mar 28 j 20:48	4°♈31'40	1°50'25
max. Earth dist.	-101 Mar 29 j 19:49	4°♈33'50	30.81804 AU
morning rise	-101 Apr 13 j 21:24	5°♈07'34	
retrograde	-101 Jul 14 j 11:53	7°♈06'45	
min. Earth dist.	-101 Oct 01 j 09:11	5°♈42'52	28.81903 AU
opposition	-101 Oct 02 j 06:19	5°♈41'23	-1°58'39
direct	-101 Dec 18 j 14:38	4°♈17'53	
evening set	-100 Mar 14 j 12:50	6°♈11'32	
conjunction	-100 Mar 30 j 10:29	6°♈47'08	-1°51'25
minimum elong	-100 Mar 30 j 10:29	6°♈47'08	1°51'26
max. Earth dist.	-100 Mar 31 j 08:21	6°♈49'12	30.81709 AU
morning rise	-100 Apr 15 j 11:34	7°♈23'04	
retrograde	-100 Jul 16 j 01:03	9°♈22'13	
opposition	-100 Oct 03 j 18:14	7°♈56'52	-1°59'37
min. Earth dist.	-100 Oct 02 j 22:45	7°♈58'14	28.81774 AU
direct	-100 Dec 20 j 01:34	6°♈33'21	
evening set	-99 Mar 17 j 02:04	8°♈27'03	
conjunction	-99 Apr 02 j 00:22	9°♈02'41	-1°52'15
minimum elong	-99 Apr 02 j 00:22	9°♈02'41	1°52'14
max. Earth dist.	-99 Apr 02 j 22:19	9°♈04'45	30.81539 AU
morning rise	-99 Apr 18 j 01:44	9°♈38'38	
retrograde	-99 Jul 18 j 15:18	11°♈37'43	
min. Earth dist.	-99 Oct 05 j 10:19	10°♈13'45	28.81551 AU
opposition	-99 Oct 06 j 05:57	10°♈12'22	-2°00'25
direct	-99 Dec 22 j 15:01	8°♈48'48	
evening set	-98 Mar 19 j 15:36	10°♈42'33	
conjunction	-98 Apr 04 j 14:11	11°♈18'13	-1°52'54
minimum elong	-98 Apr 04 j 14:11	11°♈18'13	1°52'55
max. Earth dist.	-98 Apr 05 j 10:22	11°♈20'06	30.81283 AU
morning rise	-98 Apr 20 j 16:04	11°♈54'10	
retrograde	-98 Jul 21 j 05:05	13°♈53'12	
opposition	-98 Oct 08 j 17:35	12°♈27'50	-2°01'01
min. Earth dist.	-98 Oct 07 j 23:11	12°♈29'08	28.81279 AU
direct	-98 Dec 25 j 01:42	11°♈04'12	
evening set	-97 Mar 22 j 04:54	12°♈57'58	
conjunction	-97 Apr 07 j 04:06	13°♈33'39	-1°53'23
minimum elong	-97 Apr 07 j 04:06	13°♈33'39	1°53'23
max. Earth dist.	-97 Apr 08 j 00:49	13°♈35'36	30.81000 AU
morning rise	-97 Apr 23 j 06:11	14°♈09'38	
retrograde	-97 Jul 23 j 16:11	16°♈08'34	
min. Earth dist.	-97 Oct 10 j 10:52	14°♈44'29	28.80996 AU
opposition	-97 Oct 11 j 05:06	14°♈43'12	-2°01'27
direct	-97 Dec 27 j 14:26	13°♈19'30	
evening set	-96 Mar 23 j 18:13	15°♈13'17	
conjunction	-96 Apr 08 j 17:44	15°♈48'59	-1°53'42
minimum elong	-96 Apr 08 j 17:44	15°♈48'59	1°53'42
max. Earth dist.	-96 Apr 09 j 12:59	15°♈50'48	30.80745 AU
morning rise	-96 Apr 24 j 20:22	16°♈25'00	
retrograde	-96 Jul 25 j 05:00	18°♈23'50	
opposition	-96 Oct 12 j 16:37	16°♈58'27	-2°01'41
min. Earth dist.	-96 Oct 11 j 22:47	16°♈59'42	28.80776 AU
direct	-96 Dec 29 j 00:57	15°♈34'40	
evening set	-95 Mar 26 j 07:40	17°♈28'29	
conjunction	-95 Apr 11 j 07:44	18°♈04'13	-1°53'51
minimum elong	-95 Apr 11 j 07:44	18°♈04'13	1°53'50
max. Earth dist.	-95 Apr 12 j 03:33	18°♈06'05	30.80557 AU
morning rise	-95 Apr 27 j 10:36	18°♈40'14	
retrograde	-95 Jul 27 j 16:30	20°♈38'58	
min. Earth dist.	-95 Oct 14 j 10:57	19°♈14'47	28.80639 AU
opposition	-95 Oct 15 j 03:56	19°♈13'35	-2°01'45
direct	-95 Dec 31 j 11:48	17°♈49'44	
evening set	-94 Mar 28 j 21:11	19°♈43'36	
conjunction	-94 Apr 13 j 21:39	20°♈19'21	-1°53'48
minimum elong	-94 Apr 13 j 21:39	20°♈19'21	1°53'49
max. Earth dist.	-94 Apr 14 j 16:22	20°♈21'07	30.80488 AU
morning rise	-94 Apr 30 j 00:58	20°♈55'23	
retrograde	-94 Jul 30 j 05:46	22°♈54'02	
opposition	-94 Oct 17 j 15:14	21°♈28'39	-2°01'37
min. Earth dist.	-94 Oct 16 j 21:53	21°♈29'53	28.80634 AU

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

direct	-93 Jan 02 j 23:08	20°♈04'44	
evening set	-93 Mar 31 j 10:38	21°♈58'40	
conjunction	-93 Apr 16 j 11:30	22°♈34'26	-1°53'36
minimum elong	-93 Apr 16 j 11:31	22°♈34'26	1°53'35
max. Earth dist.	-93 Apr 17 j 06:13	22°♈36'11	30.80540 AU
morning rise	-93 May 02 j 15:06	23°♈10'29	
retrograde	-93 Aug 01 j 17:26	25°♈09'02	
min. Earth dist.	-93 Oct 19 j 10:26	23°♈44'49	28.80760 AU
opposition	-93 Oct 20 j 02:38	23°♈43'40	-2°01'18
direct	-92 Jan 05 j 11:09	22°♈19'44	
evening set	-92 Apr 02 j 00:09	24°♈13'42	
conjunction	-92 Apr 18 j 01:32	24°♈49'30	-1°53'13
minimum elong	-92 Apr 18 j 01:32	24°♈49'30	1°53'14
max. Earth dist.	-92 Apr 18 j 19:51	24°♈51'13	30.80750 AU
morning rise	-92 May 04 j 05:27	25°♈25'34	
retrograde	-92 Aug 03 j 07:26	27°♈24'02	
opposition	-92 Oct 21 j 13:46	25°♈58'43	-2°00'47
min. Earth dist.	-92 Oct 20 j 20:59	25°♈59'54	28.81029 AU
direct	-91 Jan 06 j 23:47	24°♈34'44	
evening set	-91 Apr 04 j 13:52	26°♈28'47	
conjunction	-91 Apr 20 j 15:37	27°♈04'37	-1°52'39
minimum elong	-91 Apr 20 j 15:37	27°♈04'37	1°52'39
max. Earth dist.	-91 Apr 21 j 09:04	27°♈06'15	30.81075 AU
morning rise	-91 May 06 j 19:58	27°♈40'42	
retrograde	-91 Aug 05 j 20:34	29°♈39'05	
min. Earth dist.	-91 Oct 23 j 09:52	28°♈14'54	28.81402 AU
opposition	-91 Oct 24 j 01:06	28°♈13'49	-2°00'06
direct	-90 Jan 09 j 10:43	26°♈49'50	
evening set	-90 Apr 07 j 03:36	28°♈43'58	
conjunction	-90 Apr 23 j 05:55	29°♈19'49	-1°51'55
minimum elong	-90 Apr 23 j 05:55	29°♈19'49	1°51'55
max. Earth dist.	-90 Apr 23 j 23:28	29°♈21'28	30.81485 AU
morning rise	-90 May 09 j 10:27	29°♈55'55	
	-90 May 11 j 07:28	0°♉	
retrograde	-90 Aug 08 j 10:54	1°♉54'12	
opposition	-90 Oct 26 j 12:09	0°♉29'01	-1°59'13
min. Earth dist.	-90 Oct 25 j 20:51	0°♉30'07	28.81819 AU
	-90 Nov 12 j 22:06	30°℞♈	
direct	-89 Jan 12 j 00:21	29°♈05'02	
	-89 Mar 11 j 03:32	0°♉	
evening set	-89 Apr 09 j 17:36	0°♉59'15	
conjunction	-89 Apr 25 j 20:09	1°♉35'08	-1°51'01
minimum elong	-89 Apr 25 j 20:09	1°♉35'08	1°51'00
max. Earth dist.	-89 Apr 26 j 11:53	1°♉36'36	30.81908 AU
morning rise	-89 May 12 j 01:08	2°♉11'14	
retrograde	-89 Aug 11 j 00:41	4°♉09'27	
opposition	-89 Oct 28 j 23:26	2°♉44'20	-1°58'09
min. Earth dist.	-89 Oct 28 j 09:31	2°♉45'19	28.82236 AU
direct	-88 Jan 14 j 11:30	1°♉20'20	
evening set	-88 Apr 11 j 07:25	3°♉14'37	
conjunction	-88 Apr 27 j 10:34	3°♉50'31	-1°49'56
minimum elong	-88 Apr 27 j 10:35	3°♉50'31	1°49'56
max. Earth dist.	-88 Apr 28 j 02:23	3°♉52'00	30.82293 AU
morning rise	-88 May 13 j 15:42	4°♉26'39	
retrograde	-88 Aug 12 j 12:56	6°♉24'45	
opposition	-88 Oct 30 j 10:39	4°♉59'42	-1°56'54
min. Earth dist.	-88 Oct 29 j 21:22	5°♉00'39	28.82570 AU
direct	-87 Jan 16 j 00:28	3°♉35'41	
evening set	-87 Apr 13 j 21:38	5°♉30'01	
conjunction	-87 Apr 30 j 01:03	6°♉05'57	-1°48'41
minimum elong	-87 Apr 30 j 01:04	6°♉05'57	1°48'40
max. Earth dist.	-87 Apr 30 j 14:36	6°♉07'13	30.82589 AU
morning rise	-87 May 16 j 06:39	6°♉42'06	
retrograde	-87 Aug 15 j 02:35	8°♉40'04	
opposition	-87 Nov 01 j 21:45	7°♉15'04	-1°55'29
min. Earth dist.	-87 Nov 01 j 09:26	7°♉15'56	28.82817 AU
direct	-86 Jan 18 j 11:28	5°♉50'59	
evening set	-86 Apr 16 j 11:43	7°♉45'22	
conjunction	-86 May 02 j 15:41	8°♉21'20	-1°47'16
minimum elong	-86 May 02 j 15:42	8°♉21'20	1°47'17
max. Earth dist.	-86 May 03 j 05:10	8°♉22'36	30.82787 AU
morning rise	-86 May 18 j 21:24	8°♉57'29	
retrograde	-86 Aug 17 j 14:01	10°♉55'20	
opposition	-86 Nov 04 j 08:55	9°♉30'21	-1°53'53
min. Earth dist.	-86 Nov 03 j 21:57	9°♉31'08	28.82969 AU
direct	-85 Jan 20 j 22:54	8°♉06'13	
evening set	-85 Apr 19 j 01:41	10°♉00'38	
conjunction	-85 May 05 j 05:57	10°♉36'37	-1°45'42
minimum elong	-85 May 05 j 05:58	10°♉36'37	1°45'42
max. Earth dist.	-85 May 05 j 17:42	10°♉37'43	30.82927 AU
morning rise	-85 May 21 j 12:04	11°♉12'47	
retrograde	-85 Aug 20 j 02:33	13°♉10'29	
opposition	-85 Nov 06 j 19:53	11°♉45'32	-1°52'07
min. Earth dist.	-85 Nov 06 j 09:04	11°♉46'18	28.83090 AU
direct	-84 Jan 23 j 10:42	10°♉21'18	
evening set	-84 Apr 20 j 15:43	12°♉15'46	
conjunction	-84 May 06 j 20:25	12°♉51'46	-1°43'58
minimum elong	-84 May 06 j 20:25	12°♉51'46	1°43'59
max. Earth dist.	-84 May 07 j 07:45	12°♉52'49	30.83042 AU
morning rise	-84 May 23 j 02:42	13°♉27'56	
	-84 Jul 13 j 03:45	15°♉	
retrograde	-84 Aug 21 j 13:11	15°♉25'29	
	-84 Sep 30 j 13:50	15°℞♉	
opposition	-84 Nov 08 j 06:47	14°♉00'33	-1°50'11
min. Earth dist.	-84 Nov 07 j 21:36	14°♉01'12	28.83215 AU
direct	-83 Jan 24 j 22:31	12°♉36'15	
evening set	-83 Apr 23 j 05:43	14°♉30'45	
	-83 May 06 j 10:20	15°♉	
conjunction	-83 May 09 j 10:50	15°♉06'46	-1°42'05
minimum elong	-83 May 09 j 10:50	15°♉06'46	1°42'05
max. Earth dist.	-83 May 09 j 21:12	15°♉07'44	30.83203 AU
morning rise	-83 May 25 j 17:24	15°♉42'57	
retrograde	-83 Aug 24 j 02:18	17°♉40'20	
opposition	-83 Nov 10 j 17:32	16°♉15'26	-1°48'05
min. Earth dist.	-83 Nov 10 j 08:02	16°♉16'06	28.83400 AU
	-82 Jan 04 j 11:06	15°℞♉	
direct	-82 Jan 27 j 11:05	14°♉51'03	
	-82 Feb 19 j 08:58	15°♉	
evening set	-82 Apr 25 j 19:45	16°♉45'37	
conjunction	-82 May 12 j 01:07	17°♉21'38	-1°40'03
minimum elong	-82 May 12 j 01:07	17°♉21'38	1°40'03
max. Earth dist.	-82 May 12 j 10:33	17°♉22'31	30.83428 AU
morning rise	-82 May 28 j 07:54	17°♉57'49	
retrograde	-82 Aug 26 j 14:02	19°♉55'04	
opposition	-82 Nov 13 j 04:18	18°♉30'12	-1°45'49
min. Earth dist.	-82 Nov 12 j 20:22	18°♉30'45	28.83686 AU
direct	-81 Jan 29 j 22:15	17°♉05'45	
evening set	-81 Apr 28 j 09:36	19°♉00'22	
conjunction	-81 May 14 j 15:26	19°♉36'24	-1°37'52
minimum elong	-81 May 14 j 15:26	19°♉36'24	1°37'51
max. Earth dist.	-81 May 15 j 00:53	19°♉37'17	30.83788 AU

Attention, astronomical year style is used: The year -81 in astronomical counting style is the year 82 BCE in historical counting style.

morning rise	-81 May 30 j 22:21	20°♉12'35	
retrograde	-81 Aug 29 j 03:28	22°♉09'41	
opposition	-81 Nov 15 j 14:56	20°♉44'51	-1°43'24
min. Earth dist.	-81 Nov 15 j 06:42	20°♉45'27	28.84108 AU
direct	-80 Feb 01 j 12:21	19°♉20'22	
evening set	-80 Apr 29 j 23:32	21°♉15'02	
conjunction	-80 May 16 j 05:34	21°♉51'06	-1°35'32
minimum elong	-80 May 16 j 05:34	21°♉51'06	1°35'31
max. Earth dist.	-80 May 16 j 13:32	21°♉51'51	30.84290 AU
morning rise	-80 Jun 01 j 12:49	22°♉27'18	
retrograde	-80 Aug 30 j 16:15	24°♉24'16	
opposition	-80 Nov 17 j 01:40	22°♉59'29	-1°40'50
min. Earth dist.	-80 Nov 16 j 18:32	23°♉00'00	28.84688 AU
direct	-79 Feb 02 j 23:58	21°♉34'58	
evening set	-79 May 02 j 13:28	23°♉29'43	
conjunction	-79 May 18 j 20:00	24°♉05'48	-1°33'03
minimum elong	-79 May 18 j 20:00	24°♉05'48	1°33'02
max. Earth dist.	-79 May 19 j 04:18	24°♉06'34	30.84945 AU
morning rise	-79 Jun 04 j 03:16	24°♉41'59	
retrograde	-79 Sep 02 j 04:26	26°♉38'48	
opposition	-79 Nov 19 j 12:11	25°♉14'08	-1°38'06
min. Earth dist.	-79 Nov 19 j 05:23	25°♉14'37	28.85395 AU
direct	-78 Feb 05 j 12:46	23°♉49'36	
evening set	-78 May 05 j 03:39	25°♉44'25	
conjunction	-78 May 21 j 10:18	26°♉20'32	-1°30'25
minimum elong	-78 May 21 j 10:18	26°♉20'32	1°30'25
max. Earth dist.	-78 May 21 j 16:42	26°♉21'08	30.85723 AU
morning rise	-78 Jun 06 j 17:53	26°♉56'44	
retrograde	-78 Sep 04 j 18:42	28°♉53'25	
opposition	-78 Nov 21 j 22:50	27°♉28'50	-1°35'12
min. Earth dist.	-78 Nov 21 j 16:40	27°♉29'17	28.86216 AU
direct	-77 Feb 08 j 00:08	26°♉04'18	
evening set	-77 May 07 j 17:33	27°♉59'12	
conjunction	-77 May 24 j 00:37	28°♉35'20	-1°27'39
minimum elong	-77 May 24 j 00:37	28°♉35'20	1°27'38
max. Earth dist.	-77 May 24 j 07:19	28°♉35'57	30.86569 AU
morning rise	-77 Jun 09 j 08:09	29°♉11'32	
	-77 Jul 03 j 00:26	0°♊	
retrograde	-77 Sep 07 j 05:47	1°♊08'06	
	-77 Nov 14 j 17:27	30°℞♉	
opposition	-77 Nov 24 j 09:31	29°♉43'37	-1°32'11
min. Earth dist.	-77 Nov 24 j 04:41	29°♉43'58	28.87065 AU
direct	-76 Feb 10 j 11:45	28°♉19'05	
	-76 May 02 j 18:32	0°♊	
evening set	-76 May 09 j 07:50	0°♊14'03	
conjunction	-76 May 25 j 15:03	0°♊50'12	-1°24'45
minimum elong	-76 May 25 j 15:03	0°♊50'12	1°24'45
max. Earth dist.	-76 May 25 j 19:46	0°♊50'38	30.87424 AU
morning rise	-76 Jun 10 j 22:51	1°♊26'24	
retrograde	-76 Sep 08 j 18:15	3°♊22'49	
opposition	-76 Nov 25 j 20:01	1°♊58'27	-1°29'00
min. Earth dist.	-76 Nov 25 j 15:33	1°♊58'46	28.87896 AU
direct	-75 Feb 11 j 23:26	0°♊33'53	
evening set	-75 May 11 j 22:08	2°♊28'55	
conjunction	-75 May 28 j 05:40	3°♊05'04	-1°21'43
minimum elong	-75 May 28 j 05:40	3°♊05'04	1°21'43
max. Earth dist.	-75 May 28 j 09:44	3°♊05'27	30.88213 AU
morning rise	-75 Jun 13 j 13:26	3°♊41'17	
retrograde	-75 Sep 11 j 04:46	5°♊37'33	
opposition	-75 Nov 28 j 06:46	4°♊13'15	-1°25'42
min. Earth dist.	-75 Nov 28 j 04:14	4°♊13'25	28.88640 AU
direct	-74 Feb 14 j 10:34	2°♊48'38	
evening set	-74 May 14 j 12:22	4°♊43'43	
conjunction	-74 May 30 j 20:05	5°♊19'53	-1°18'34
minimum elong	-74 May 30 j 20:05	5°♊19'53	1°18'34
max. Earth dist.	-74 May 30 j 22:34	5°♊20'07	30.88922 AU
morning rise	-74 Jun 16 j 03:58	5°♊56'05	
retrograde	-74 Sep 13 j 17:24	7°♊52'11	
opposition	-74 Nov 30 j 17:16	6°♊27'56	-1°22'16
min. Earth dist.	-74 Nov 30 j 14:46	6°♊28'07	28.89296 AU
direct	-73 Feb 16 j 22:31	5°♊03'16	
evening set	-73 May 17 j 02:37	6°♊58'24	
conjunction	-73 Jun 02 j 10:29	7°♊34'33	-1°15'18
minimum elong	-73 Jun 02 j 10:29	7°♊34'33	1°15'18
max. Earth dist.	-73 Jun 02 j 11:41	7°♊34'40	30.89543 AU
morning rise	-73 Jun 18 j 18:25	8°♊10'44	
retrograde	-73 Sep 16 j 03:42	10°♊06'40	
opposition	-73 Dec 03 j 03:52	8°♊42'28	-1°18'43
min. Earth dist.	-73 Dec 03 j 03:19	8°♊42'30	28.89892 AU
direct	-72 Feb 19 j 10:03	7°♊17'43	
evening set	-72 May 18 j 16:39	9°♊12'52	
conjunction	-72 Jun 04 j 00:50	9°♊49'02	-1°11'56
minimum elong	-72 Jun 04 j 00:51	9°♊49'02	1°11'56
max. Earth dist.	-72 Jun 04 j 01:27	9°♊49'05	30.90129 AU
morning rise	-72 Jun 20 j 08:47	10°♊25'12	
retrograde	-72 Sep 17 j 15:36	12°♊20'56	
opposition	-72 Dec 04 j 14:16	10°♊56'46	-1°15'04
min. Earth dist.	-72 Dec 04 j 13:53	10°♊56'48	28.90450 AU
direct	-71 Feb 21 j 00:10	9°♊31'57	
evening set	-71 May 21 j 06:54	11°♊27'08	
conjunction	-71 Jun 06 j 15:06	12°♊03'17	-1°08'28
minimum elong	-71 Jun 06 j 15:06	12°♊03'17	1°08'27
max. Earth dist.	-71 Jun 06 j 13:55	12°♊03'11	30.90691 AU
morning rise	-71 Jun 22 j 23:08	12°♊39'27	
retrograde	-71 Sep 20 j 03:26	14°♊35'00	
opposition	-71 Dec 07 j 00:38	13°♊10'52	-1°11'18
min. Earth dist.	-71 Dec 07 j 01:40	13°♊10'47	28.91030 AU
direct	-70 Feb 23 j 11:53	11°♊45'57	
evening set	-70 May 23 j 20:52	13°♊41'11	
conjunction	-70 Jun 09 j 05:21	14°♊17'20	-1°04'53
minimum elong	-70 Jun 09 j 05:22	14°♊17'20	1°04'53
max. Earth dist.	-70 Jun 09 j 04:18	14°♊17'14	30.91299 AU
morning rise	-70 Jun 25 j 13:14	14°♊53'29	
retrograde	-70 Sep 22 j 15:02	16°♊48'50	
opposition	-70 Dec 09 j 11:00	15°♊24'44	-1°07'25
min. Earth dist.	-70 Dec 09 j 12:26	15°♊24'38	28.91663 AU
direct	-69 Feb 26 j 01:17	13°♊59'47	
evening set	-69 May 26 j 10:45	15°♊55'01	
conjunction	-69 Jun 11 j 19:10	16°♊31'11	-1°01'13
minimum elong	-69 Jun 11 j 19:10	16°♊31'11	1°01'13
max. Earth dist.	-69 Jun 11 j 16:17	16°♊30'55	30.91988 AU
morning rise	-69 Jun 28 j 03:11	17°♊07'18	
retrograde	-69 Sep 25 j 04:20	19°♊02'30	
opposition	-69 Dec 11 j 21:20	17°♊38'27	-1°03'27
min. Earth dist.	-69 Dec 11 j 23:14	17°♊38'19	28.92413 AU
direct	-68 Feb 28 j 13:32	16°♊13'26	
evening set	-68 May 28 j 00:37	18°♊08'43	
conjunction	-68 Jun 13 j 09:17	18°♊44'53	-0°57'28
minimum elong	-68 Jun 13 j 09:17	18°♊44'53	0°57'28
max. Earth dist.	-68 Jun 13 j 06:50	18°♊44'39	30.92799 AU
morning rise	-68 Jun 29 j 17:03	19°♊21'00	

Attention, astronomical year style is used: The year -68 in astronomical counting style is the year 69 BCE in historical counting style.

retrograde	-68 Sep 26 j 14:38	21°♊16'01		
opposition	-68 Dec 13 j 07:35	19°♊52'03	-0°59'23	
min. Earth dist.	-68 Dec 13 j 10:34	19°♊51'50	28.93286 AU	
direct	-67 Mar 02 j 01:52	18°♊27'01		
evening set	-67 May 30 j 14:38	20°♊22'21		
conjunction	-67 Jun 15 j 23:13	20°♊58'31	-0°53'37	
minimum elong	-67 Jun 15 j 23:13	20°♊58'31	0°53'37	
max. Earth dist.	-67 Jun 15 j 19:08	20°♊58'08	30.93755 AU	
morning rise	-67 Jul 02 j 07:03	21°♊34'37		
retrograde	-67 Sep 29 j 02:59	23°♊29'29		
opposition	-67 Dec 15 j 17:51	22°♊05'37	-0°55'14	
min. Earth dist.	-67 Dec 15 j 20:39	22°♊05'25	28.94308 AU	
direct	-66 Mar 04 j 13:35	20°♊40'34		
evening set	-66 Jun 02 j 04:25	22°♊35'59		
conjunction	-66 Jun 18 j 13:07	23°♊12'09	-0°49'42	
minimum elong	-66 Jun 18 j 13:07	23°♊12'09	0°49'42	
max. Earth dist.	-66 Jun 18 j 09:07	23°♊11'47	30.94836 AU	
morning rise	-66 Jul 04 j 20:40	23°♊48'14		
retrograde	-66 Oct 01 j 13:19	25°♊42'59		
opposition	-66 Dec 18 j 04:14	24°♊19'14	-0°51'00	
min. Earth dist.	-66 Dec 18 j 08:32	24°♊18'55	28.95442 AU	
direct	-65 Mar 07 j 00:11	22°♊54'12		
evening set	-65 Jun 04 j 18:18	24°♊49'42		
conjunction	-65 Jun 21 j 02:57	25°♊25'51	-0°45'41	
minimum elong	-65 Jun 21 j 02:57	25°♊25'51	0°45'42	
max. Earth dist.	-65 Jun 20 j 21:43	25°♊25'22	30.96025 AU	
morning rise	-65 Jul 07 j 10:28	26°♊01'56		
retrograde	-65 Oct 04 j 01:38	27°♊56'33		
opposition	-65 Dec 20 j 14:22	26°♊32'56	-0°46'41	
min. Earth dist.	-65 Dec 20 j 18:29	26°♊32'39	28.96646 AU	
direct	-64 Mar 08 j 11:13	25°♊07'56		
evening set	-64 Jun 06 j 08:15	27°♊03'31		
conjunction	-64 Jun 22 j 16:53	27°♊39'40	-0°41'37	
minimum elong	-64 Jun 22 j 16:53	27°♊39'40	0°41'37	
max. Earth dist.	-64 Jun 22 j 10:42	27°♊39'05	30.97230 AU	
morning rise	-64 Jul 09 j 00:12	28°♊15'43		
	-64 Sep 10 j 23:49	0°♋		
retrograde	-64 Oct 05 j 11:36	0°♋10'15		
	-64 Oct 30 j 06:32	30°℞♊		
opposition	-64 Dec 22 j 00:48	28°♊46'45	-0°42'18	
min. Earth dist.	-64 Dec 22 j 06:51	28°♊46'19	28.97841 AU	
direct	-63 Mar 10 j 22:15	27°♊21'45		
evening set	-63 Jun 08 j 22:17	29°♊17'25		
conjunction	-63 Jun 25 j 06:54	29°♊53'34	-0°37'29	
minimum elong	-63 Jun 25 j 06:54	29°♊53'34	0°37'29	
max. Earth dist.	-63 Jun 24 j 23:55	29°♊52'55	30.98397 AU	
	-63 Jun 28 j 04:05	0°♋		
morning rise	-63 Jul 11 j 13:58	0°♋29'36		
retrograde	-63 Oct 07 j 23:02	2°♋24'00		
opposition	-63 Dec 24 j 11:06	1°♋00'37	-0°37'51	
min. Earth dist.	-63 Dec 24 j 17:26	1°♋00'10	28.98955 AU	
	-62 Feb 02 j 07:24	30°℞♊		
direct	-62 Mar 13 j 11:26	29°♊35'37		
	-62 Apr 21 j 05:14	0°♋		
evening set	-62 Jun 11 j 12:23	1°♋31'21		
conjunction	-62 Jun 27 j 20:47	2°♋07'29	-0°33'18	
minimum elong	-62 Jun 27 j 20:47	2°♋07'29	0°33'18	
max. Earth dist.	-62 Jun 27 j 11:58	2°♋06'40	30.99463 AU	
morning rise	-62 Jul 14 j 03:42	2°♋43'30		
retrograde	-62 Oct 10 j 10:43	4°♋37'47		
opposition	-62 Dec 26 j 21:36	3°♋14'28	-0°33'21	
min. Earth dist.	-62 Dec 27 j 05:25	3°♋13'55	28.99978 AU	
direct	-61 Mar 15 j 22:23	1°♋49'27		
evening set	-61 Jun 14 j 02:08	3°♋45'15		
conjunction	-61 Jun 30 j 10:35	4°♋21'21	-0°29'04	
minimum elong	-61 Jun 30 j 10:36	4°♋21'21	0°29'04	
max. Earth dist.	-61 Jun 30 j 01:33	4°♋20'31	31.00430 AU	
morning rise	-61 Jul 16 j 17:10	4°♋57'21		
retrograde	-61 Oct 12 j 22:05	6°♋51'29		
opposition	-61 Dec 29 j 08:00	5°♋28'14	-0°28'48	
min. Earth dist.	-61 Dec 29 j 16:37	5°♋27'38	29.00880 AU	
direct	-60 Mar 17 j 12:03	4°♋03'11		
evening set	-60 Jun 15 j 16:10	5°♋59'01		
conjunction	-60 Jul 02 j 00:20	6°♋35'07	-0°24'48	
minimum elong	-60 Jul 02 j 00:20	6°♋35'07	0°24'48	
max. Earth dist.	-60 Jul 01 j 13:01	6°♋34'04	31.01292 AU	
morning rise	-60 Jul 18 j 06:48	7°♋11'04		
retrograde	-60 Oct 14 j 11:12	9°♋05'03		
opposition	-60 Dec 30 j 18:14	7°♋41'51	-0°24'13	
min. Earth dist.	-60 Dec 31 j 03:39	7°♋41'11	29.01706 AU	
direct	-59 Mar 20 j 01:11	6°♋16'45		
evening set	-59 Jun 18 j 05:58	8°♋12'37		
conjunction	-59 Jul 04 j 14:09	8°♋48'41	-0°20'30	
minimum elong	-59 Jul 04 j 14:09	8°♋48'41	0°20'30	
max. Earth dist.	-59 Jul 04 j 02:55	8°♋47'40	31.02080 AU	
morning rise	-59 Jul 20 j 20:08	9°♋24'36		
retrograde	-59 Oct 16 j 20:58	11°♋18'26		
opposition	-58 Jan 02 j 04:38	9°♋55'16	-0°19'37	
min. Earth dist.	-58 Jan 02 j 15:27	9°♋54'31	29.02466 AU	
direct	-58 Mar 22 j 14:22	8°♋30'07		
evening set	-58 Jun 20 j 19:39	10°♋26'00		
conjunction	-58 Jul 07 j 03:28	11°♋02'03	-0°16'11	
minimum elong	-58 Jul 07 j 03:27	11°♋02'03	0°16'11	
max. Earth dist.	-58 Jul 06 j 14:27	11°♋00'51	31.02838 AU	
morning rise	-58 Jul 23 j 09:18	11°♋37'56		
retrograde	-58 Oct 19 j 09:12	13°♋31'35		
opposition	-57 Jan 04 j 14:51	12°♋08'28	-0°14'59	
min. Earth dist.	-57 Jan 05 j 01:37	12°♋07'43	29.03226 AU	
direct	-57 Mar 25 j 02:59	10°♋43'15		
evening set	-57 Jun 23 j 09:10	12°♋39'09		
conjunction	-57 Jul 09 j 16:53	13°♋15'11	-0°11'51	
minimum elong	-57 Jul 09 j 16:53	13°♋15'11	0°11'51	
behind sun begin	-57 Jul 09 j 12:23	13°♋14'47		
behind sun end	-57 Jul 09 j 21:24	13°♋15'35		
max. Earth dist.	-57 Jul 09 j 04:00	13°♋14'00	31.03604 AU	
morning rise	-57 Jul 25 j 22:14	13°♋51'01		
retrograde	-57 Oct 21 j 19:19	15°♋44'31		
opposition	-56 Jan 07 j 01:06	14°♋21'26	-0°10'20	
min. Earth dist.	-56 Jan 07 j 13:24	14°♋20'34	29.04024 AU	
direct	-56 Mar 26 j 14:42	12°♋56'10		
evening set	-56 Jun 24 j 22:41	14°♋52'05		
conjunction	-56 Jul 11 j 06:07	15°♋28'05	-0°07'30	
minimum elong	-56 Jul 11 j 06:07	15°♋28'05	0°07'30	
behind sun begin	-56 Jul 11 j 00:08	15°♋27'33		
behind sun end	-56 Jul 11 j 12:05	15°♋28'37		
max. Earth dist.	-56 Jul 10 j 16:04	15°♋26'47	31.04444 AU	
morning rise	-56 Jul 27 j 11:14	16°♋03'53		
retrograde	-56 Oct 23 j 06:27	17°♋57'14		
opposition	-55 Jan 08 j 11:18	16°♋34'12	-0°05'40	
min. Earth dist.	-55 Jan 08 j 23:04	16°♋33'22	29.04902 AU	
direct	-55 Mar 29 j 02:56	15°♋08'53		
evening set	-55 Jun 27 j 12:09	17°♋04'50		

Attention, astronomical year style is used: The year -55 in astronomical counting style is the year 56 BCE in historical counting style.

conjunction	-55 Jul 13 j 19:17	17°♋40'48	-0°03'09	
minimum elong	-55 Jul 13 j 19:17	17°♋40'48	0°03'09	
behind sun begin	-55 Jul 13 j 12:44	17°♋40'13		
behind sun end	-55 Jul 14 j 01:51	17°♋41'23		
max. Earth dist.	-55 Jul 13 j 04:49	17°♋39'28	31.05366 AU	
morning rise	-55 Jul 29 j 23:56	18°♋16'34		
retrograde	-55 Oct 25 j 15:12	20°♋09'47		
opposition	-54 Jan 10 j 21:39	18°♋46'49	-0°01'00	
min. Earth dist.	-54 Jan 11 j 10:45	18°♋45'54	29.05892 AU	
asc. node	-54 Mar 30 j 04:53	17°♋21'31		
direct	-54 Mar 31 j 13:48	17°♋21'30		
evening set	-54 Jun 30 j 01:30	19°♋17'28		
conjunction	-54 Jul 16 j 08:23	19°♋53'25	0°01'20	
minimum elong	-54 Jul 16 j 08:23	19°♋53'25	0°01'20	
behind sun begin	-54 Jul 16 j 01:48	19°♋52'50		
behind sun end	-54 Jul 16 j 14:57	19°♋54'00		
max. Earth dist.	-54 Jul 15 j 17:43	19°♋52'04	31.06421 AU	
morning rise	-54 Aug 01 j 12:37	20°♋29'08		
retrograde	-54 Oct 28 j 01:36	22°♋22'15		
opposition	-53 Jan 13 j 07:54	20°♋59'22	0°03'40	
min. Earth dist.	-53 Jan 13 j 20:43	20°♋58'27	29.06991 AU	
direct	-53 Apr 03 j 01:53	19°♋34'02		
evening set	-53 Jul 02 j 14:46	21°♋30'03		
conjunction	-53 Jul 18 j 21:15	22°♋05'59	0°05'43	
minimum elong	-53 Jul 18 j 21:15	22°♋05'59	0°05'43	
behind sun begin	-53 Jul 18 j 14:57	22°♋05'25		
behind sun end	-53 Jul 19 j 03:34	22°♋06'32		
max. Earth dist.	-53 Jul 18 j 05:31	22°♋04'32	31.07565 AU	
morning rise	-53 Aug 04 j 01:09	22°♋41'41		
retrograde	-53 Oct 30 j 12:31	24°♋34'42		
opposition	-52 Jan 15 j 18:14	23°♋11'54	0°08'20	
min. Earth dist.	-52 Jan 16 j 08:04	23°♋10'56	29.08172 AU	
direct	-52 Apr 04 j 11:55	21°♋46'35		
evening set	-52 Jul 04 j 04:05	23°♋42'41		
conjunction	-52 Jul 20 j 10:21	24°♋18'34	0°10'03	
minimum elong	-52 Jul 20 j 10:21	24°♋18'34	0°10'04	
behind sun begin	-52 Jul 20 j 05:06	24°♋18'06		
behind sun end	-52 Jul 20 j 15:36	24°♋19'02		
max. Earth dist.	-52 Jul 19 j 18:49	24°♋17'08	31.08756 AU	
morning rise	-52 Aug 05 j 13:41	24°♋54'14		
retrograde	-52 Oct 31 j 22:54	26°♋47'10		
opposition	-51 Jan 17 j 04:29	25°♋24'28	0°12'59	
min. Earth dist.	-51 Jan 17 j 18:56	25°♋23'27	29.09350 AU	
direct	-51 Apr 07 j 01:09	23°♋59'11		
evening set	-51 Jul 06 j 17:34	25°♋55'20		
conjunction	-51 Jul 22 j 23:17	26°♋31'12	0°14'23	
minimum elong	-51 Jul 22 j 23:17	26°♋31'12	0°14'23	
behind sun begin	-51 Jul 22 j 20:27	26°♋30'57		
behind sun end	-51 Jul 23 j 02:07	26°♋31'27		
max. Earth dist.	-51 Jul 22 j 05:51	26°♋29'35	31.09914 AU	
morning rise	-51 Aug 08 j 02:16	27°♋06'49		
retrograde	-51 Nov 03 j 11:29	28°♋59'40		
opposition	-50 Jan 19 j 14:56	27°♋37'04	0°17'37	
min. Earth dist.	-50 Jan 20 j 05:54	27°♋36'01	29.10485 AU	
direct	-50 Apr 09 j 13:17	26°♋11'48		
evening set	-50 Jul 09 j 06:40	28°♋08'01		
conjunction	-50 Jul 25 j 12:08	28°♋43'50	0°18'42	
minimum elong	-50 Jul 25 j 12:08	28°♋43'50	0°18'42	
max. Earth dist.	-50 Jul 24 j 19:00	28°♋42'15	31.10992 AU	
morning rise	-50 Aug 10 j 14:27	29°♋19'25		
	-50 Aug 30 j 06:33	0°♌		
retrograde	-50 Nov 05 j 21:20	1°♌12'12		
	-49 Jan 15 j 21:23	30°℞♋		
opposition	-49 Jan 22 j 01:30	29°♋49'39	0°22'13	
min. Earth dist.	-49 Jan 22 j 17:51	29°♋48'31	29.11509 AU	
direct	-49 Apr 12 j 01:59	28°♋24'24		
	-49 Jul 02 j 02:15	0°♌		
evening set	-49 Jul 11 j 19:59	0°♌20'40		
max. Earth dist.	-49 Jul 27 j 05:51	0°♌54'41	31.11960 AU	
conjunction	-49 Jul 28 j 00:53	0°♌56'27	0°22'59	
minimum elong	-49 Jul 28 j 00:53	0°♌56'27	0°22'58	
morning rise	-49 Aug 13 j 02:52	1°♌31'59		
retrograde	-49 Nov 08 j 09:47	3°♌24'40		
opposition	-48 Jan 24 j 11:50	2°♌02'12	0°26'47	
min. Earth dist.	-48 Jan 25 j 04:12	2°♌01'03	29.12422 AU	
direct	-48 Apr 13 j 14:43	0°♌36'56		
evening set	-48 Jul 13 j 09:09	2°♌33'14		
conjunction	-48 Jul 29 j 13:45	3°♌08'59	0°27'14	
minimum elong	-48 Jul 29 j 13:45	3°♌08'59	0°27'14	
max. Earth dist.	-48 Jul 28 j 18:40	3°♌07'13	31.12802 AU	
morning rise	-48 Aug 14 j 15:03	3°♌44'28		
retrograde	-48 Nov 09 j 20:07	5°♌37'04		
opposition	-47 Jan 25 j 22:26	4°♌14'39	0°31'18	
min. Earth dist.	-47 Jan 26 j 16:30	4°♌13'23	29.13210 AU	
direct	-47 Apr 16 j 03:03	2°♌49'22		
evening set	-47 Jul 15 j 22:15	4°♌45'41		
max. Earth dist.	-47 Jul 31 j 05:53	5°♌19'30	31.13542 AU	
conjunction	-47 Aug 01 j 02:16	5°♌21'23	0°31'26	
minimum elong	-47 Aug 01 j 02:16	5°♌21'23	0°31'26	
morning rise	-47 Aug 17 j 03:09	5°♌56'50		
retrograde	-47 Nov 12 j 06:59	7°♌49'20		
opposition	-46 Jan 28 j 08:51	6°♌26'57	0°35'46	
min. Earth dist.	-46 Jan 29 j 02:33	6°♌25'42	29.13905 AU	
direct	-46 Apr 18 j 15:55	5°♌01'38		
evening set	-46 Jul 18 j 11:11	6°♌57'58		
conjunction	-46 Aug 03 j 14:46	7°♌33'38	0°35'35	
minimum elong	-46 Aug 03 j 14:46	7°♌33'38	0°35'36	
max. Earth dist.	-46 Aug 02 j 17:54	7°♌31'42	31.14199 AU	
morning rise	-46 Aug 19 j 15:02	8°♌09'02		
retrograde	-46 Nov 14 j 15:38	10°♌01'27		
opposition	-45 Jan 30 j 19:22	8°♌39'05	0°40'10	
min. Earth dist.	-45 Jan 31 j 14:32	8°♌37'44	29.14555 AU	
direct	-45 Apr 21 j 02:54	7°♌13'44		
evening set	-45 Jul 20 j 23:51	9°♌10'03		
max. Earth dist.	-45 Aug 05 j 05:56	9°♌43'44	31.14841 AU	
conjunction	-45 Aug 06 j 03:00	9°♌45'42	0°39'41	
minimum elong	-45 Aug 06 j 02:59	9°♌45'42	0°39'41	
morning rise	-45 Aug 22 j 02:45	10°♌21'03		
retrograde	-45 Nov 17 j 01:12	12°♌13'22		
opposition	-44 Feb 02 j 05:47	10°♌51'01	0°44'31	
min. Earth dist.	-44 Feb 03 j 00:42	10°♌49'42	29.15192 AU	
direct	-44 Apr 22 j 15:04	9°♌25'38		
evening set	-44 Jul 22 j 12:37	11°♌21'58		
conjunction	-44 Aug 07 j 15:09	11°♌57'34	0°43'43	
minimum elong	-44 Aug 07 j 15:09	11°♌57'34	0°43'43	
max. Earth dist.	-44 Aug 06 j 17:13	11°♌55'32	31.15488 AU	
morning rise	-44 Aug 23 j 14:21	12°♌32'52		
retrograde	-44 Nov 18 j 11:11	14°♌25'06		
opposition	-43 Feb 03 j 16:13	13°♌02'47	0°48'47	
min. Earth dist.	-43 Feb 04 j 11:48	13°♌01'25	29.15886 AU	
direct	-43 Apr 25 j 00:56	11°♌37'22		
evening set	-43 Jul 25 j 01:08	13°♌33'43		
max. Earth dist.	-43 Aug 09 j 06:02	14°♌07'18	31.16220 AU	

Attention, astronomical year style is used: The year -43 in astronomical counting style is the year 44 BCE in historical counting style.

conjunction	-43 Aug 10 j 03:14	14°♌09'16	0°47'41
minimum elong	-43 Aug 10 j 03:14	14°♌09'16	0°47'40
morning rise	-43 Aug 26 j 01:44	14°♌44'31	
	-43 Sep 02 j 07:36	15°♌	
retrograde	-43 Nov 20 j 20:23	16°♌36'41	
opposition	-42 Feb 06 j 02:47	15°♌14'24	0°52'59
min. Earth dist.	-42 Feb 06 j 22:22	15°♌13'02	29.16667 AU
	-42 Feb 14 j 18:11	15°℞♌	
direct	-42 Apr 27 j 14:10	13°♌49'00	
	-42 Jul 05 j 09:21	15°♌	
evening set	-42 Jul 27 j 13:32	15°♌45'21	
conjunction	-42 Aug 12 j 14:56	16°♌20'51	0°51'34
minimum elong	-42 Aug 12 j 14:55	16°♌20'51	0°51'35
max. Earth dist.	-42 Aug 11 j 16:36	16°♌18'47	31.17059 AU
morning rise	-42 Aug 28 j 12:58	16°♌56'04	
retrograde	-42 Nov 23 j 08:02	18°♌48'12	
opposition	-41 Feb 08 j 13:17	17°♌25'56	0°57'06
min. Earth dist.	-41 Feb 09 j 08:36	17°♌24'36	29.17576 AU
direct	-41 Apr 30 j 01:29	16°♌00'33	
evening set	-41 Jul 30 j 01:49	17°♌56'57	
max. Earth dist.	-41 Aug 14 j 05:30	18°♌30'26	31.18016 AU
conjunction	-41 Aug 15 j 02:51	18°♌32'24	0°55'23
minimum elong	-41 Aug 15 j 02:50	18°♌32'24	0°55'23
morning rise	-41 Aug 31 j 00:08	19°♌07'34	
retrograde	-41 Nov 25 j 17:21	20°♌59'40	
opposition	-40 Feb 10 j 23:46	19°♌37'29	1°01'08
min. Earth dist.	-40 Feb 11 j 19:58	19°♌36'04	29.18575 AU
direct	-40 May 01 j 13:04	18°♌12'08	
evening set	-40 Jul 31 j 14:17	20°♌08'34	
conjunction	-40 Aug 16 j 14:34	20°♌43'59	0°59'08
minimum elong	-40 Aug 16 j 14:34	20°♌43'59	0°59'08
max. Earth dist.	-40 Aug 15 j 16:02	20°♌41'53	31.19050 AU
morning rise	-40 Sep 01 j 11:25	21°♌19'06	
retrograde	-40 Nov 27 j 05:55	23°♌11'10	
opposition	-39 Feb 12 j 10:19	21°♌49'03	1°05'05
min. Earth dist.	-39 Feb 13 j 05:57	21°♌47'42	29.19627 AU
direct	-39 May 04 j 01:58	20°♌23'46	
evening set	-39 Aug 03 j 02:30	22°♌20'14	
max. Earth dist.	-39 Aug 18 j 04:23	22°♌53'35	31.20088 AU
conjunction	-39 Aug 19 j 02:18	22°♌55'37	1°02'47
minimum elong	-39 Aug 19 j 02:18	22°♌55'37	1°02'47
morning rise	-39 Sep 03 j 22:21	23°♌30'40	
retrograde	-39 Nov 29 j 16:32	25°♌22'44	
opposition	-38 Feb 14 j 21:09	24°♌00'41	1°08'56
min. Earth dist.	-38 Feb 15 j 18:05	23°♌59'14	29.20658 AU
direct	-38 May 06 j 14:33	22°♌35'26	
evening set	-38 Aug 05 j 14:49	24°♌31'57	
conjunction	-38 Aug 21 j 13:55	25°♌07'16	1°06'20
minimum elong	-38 Aug 21 j 13:55	25°♌07'16	1°06'21
max. Earth dist.	-38 Aug 20 j 15:06	25°♌05'09	31.21090 AU
morning rise	-38 Sep 06 j 09:28	25°♌42'17	
retrograde	-38 Dec 02 j 03:27	27°♌34'19	
opposition	-37 Feb 17 j 07:48	26°♌12'20	1°12'42
min. Earth dist.	-37 Feb 18 j 04:09	26°♌10'55	29.21622 AU
direct	-37 May 09 j 03:30	24°♌47'07	
evening set	-37 Aug 08 j 02:58	26°♌43'38	
max. Earth dist.	-37 Aug 23 j 02:22	27°♌16'46	31.21991 AU
conjunction	-37 Aug 24 j 01:32	27°♌18'55	1°09'48
minimum elong	-37 Aug 24 j 01:32	27°♌18'55	1°09'48
morning rise	-37 Sep 08 j 20:24	27°♌53'54	
retrograde	-37 Dec 04 j 12:50	29°♌45'54	
opposition	-36 Feb 19 j 18:44	28°♌23'57	1°16'20
min. Earth dist.	-36 Feb 20 j 16:26	28°♌22'27	29.22476 AU
direct	-36 May 10 j 14:35	26°♌58'45	
evening set	-36 Aug 09 j 15:10	28°♌55'17	
conjunction	-36 Aug 25 j 13:07	29°♌30'31	1°13'09
minimum elong	-36 Aug 25 j 13:07	29°♌30'31	1°13'10
max. Earth dist.	-36 Aug 24 j 13:44	29°♌28'20	31.22778 AU
	-36 Sep 07 j 19:38	0°♍	
morning rise	-36 Sep 10 j 07:21	0°♍05'26	
retrograde	-36 Dec 05 j 22:38	1°♍57'24	
opposition	-35 Feb 21 j 05:33	0°♍35'29	1°19'52
min. Earth dist.	-35 Feb 22 j 03:05	0°♍34'00	29.23196 AU
	-35 Mar 15 j 07:09	30°℞♌	
direct	-35 May 13 j 03:20	29°♌10'18	
	-35 Jul 08 j 22:11	0°♍	
evening set	-35 Aug 12 j 03:18	1°♍06'48	
max. Earth dist.	-35 Aug 27 j 00:13	1°♍39'43	31.23434 AU
conjunction	-35 Aug 28 j 00:34	1°♍41'59	1°16'24
minimum elong	-35 Aug 28 j 00:33	1°♍41'59	1°16'24
morning rise	-35 Sep 12 j 18:12	2°♍16'52	
retrograde	-35 Dec 08 j 08:30	4°♍08'48	
opposition	-34 Feb 23 j 16:33	2°♍46'53	1°23'17
min. Earth dist.	-34 Feb 24 j 14:44	2°♍45'21	29.23811 AU
direct	-34 May 15 j 13:42	1°♍21'41	
evening set	-34 Aug 14 j 15:01	3°♍18'10	
conjunction	-34 Aug 30 j 11:48	3°♍53'19	1°19'33
minimum elong	-34 Aug 30 j 11:48	3°♍53'18	1°19'33
max. Earth dist.	-34 Aug 29 j 12:07	3°♍51'06	31.23993 AU
morning rise	-34 Sep 15 j 04:45	4°♍28'08	
retrograde	-34 Dec 10 j 16:54	6°♍20'02	
opposition	-33 Feb 26 j 03:30	4°♍58'07	1°26'34
min. Earth dist.	-33 Feb 27 j 01:56	4°♍56'34	29.24322 AU
direct	-33 May 18 j 02:40	3°♍32'55	
evening set	-33 Aug 17 j 02:53	5°♍29'21	
conjunction	-33 Sep 01 j 22:54	6°♍04'27	1°22'34
minimum elong	-33 Sep 01 j 22:54	6°♍04'27	1°22'33
max. Earth dist.	-33 Aug 31 j 21:58	6°♍02'07	31.24472 AU
morning rise	-33 Sep 17 j 15:23	6°♍39'13	
retrograde	-33 Dec 13 j 03:46	8°♍31'05	
opposition	-32 Feb 28 j 14:13	7°♍09'09	1°29'44
min. Earth dist.	-32 Feb 29 j 12:28	7°♍07'37	29.24792 AU
direct	-32 May 19 j 13:23	5°♍43'55	
evening set	-32 Aug 18 j 14:27	7°♍40'21	
max. Earth dist.	-32 Sep 02 j 10:10	8°♍13'10	31.24924 AU
conjunction	-32 Sep 03 j 10:01	8°♍15'23	1°25'28
minimum elong	-32 Sep 03 j 10:01	8°♍15'23	1°25'28
morning rise	-32 Sep 19 j 01:43	8°♍50'07	
retrograde	-32 Dec 14 j 12:41	10°♍41'57	
opposition	-31 Mar 02 j 01:19	9°♍20'00	1°32'46
min. Earth dist.	-31 Mar 03 j 00:14	9°♍18'26	29.25253 AU
direct	-31 May 22 j 01:14	7°♍54'47	
evening set	-31 Aug 21 j 01:57	9°♍51'10	
conjunction	-31 Sep 05 j 20:42	10°♍26'09	1°28'15
minimum elong	-31 Sep 05 j 20:42	10°♍26'09	1°28'14
max. Earth dist.	-31 Sep 04 j 20:09	10°♍23'52	31.25409 AU
morning rise	-31 Sep 21 j 11:56	11°♍00'50	
retrograde	-31 Dec 17 j 00:25	12°♍52'40	
opposition	-30 Mar 04 j 12:17	11°♍30'43	1°35'40
min. Earth dist.	-30 Mar 05 j 10:05	11°♍29'13	29.25781 AU
direct	-30 May 24 j 14:04	10°♍05'30	
evening set	-30 Aug 23 j 13:15	12°♍01'52	

Attention, astronomical year style is used: The year -30 in astronomical counting style is the year 31 BCE in historical counting style.

max. Earth dist.	-30 Sep 07 j 08:05	12°♑34'38	31.25971 AU
conjunction	-30 Sep 08 j 07:31	12°♑36'49	1°30'53
minimum elong	-30 Sep 08 j 07:31	12°♑36'49	1°30'54
morning rise	-30 Sep 23 j 22:00	13°♑11'27	
retrograde	-30 Dec 19 j 10:38	15°♑03'18	
opposition	-29 Mar 06 j 23:21	13°♑41'21	1°38'26
min. Earth dist.	-29 Mar 07 j 21:51	13°♑39'48	29.26404 AU
direct	-29 May 27 j 02:15	12°♑16'11	
evening set	-29 Aug 26 j 00:34	14°♑12'33	
conjunction	-29 Sep 10 j 18:09	14°♑47'27	1°33'24
minimum elong	-29 Sep 10 j 18:09	14°♑47'27	1°33'24
max. Earth dist.	-29 Sep 09 j 18:33	14°♑45'15	31.26650 AU
morning rise	-29 Sep 26 j 08:10	15°♑22'03	
retrograde	-29 Dec 21 j 21:23	17°♑13'55	
opposition	-28 Mar 08 j 10:22	15°♑52'01	1°41'03
min. Earth dist.	-28 Mar 09 j 07:34	15°♑50'34	29.27121 AU
direct	-28 May 28 j 15:03	14°♑26'54	
evening set	-28 Aug 27 j 11:48	16°♑23'17	
max. Earth dist.	-28 Sep 11 j 05:31	16°♑55'59	31.27395 AU
conjunction	-28 Sep 12 j 04:47	16°♑58'09	1°35'47
minimum elong	-28 Sep 12 j 04:47	16°♑58'09	1°35'48
morning rise	-28 Sep 27 j 18:08	17°♑32'42	
retrograde	-28 Dec 23 j 07:06	19°♑24'37	
opposition	-27 Mar 10 j 21:34	18°♑02'47	1°43'31
min. Earth dist.	-27 Mar 11 j 19:29	18°♑01'16	29.27901 AU
direct	-27 May 31 j 02:01	16°♑37'45	
evening set	-27 Aug 29 j 22:59	18°♑34'09	
conjunction	-27 Sep 14 j 15:22	19°♑08'58	1°38'02
minimum elong	-27 Sep 14 j 15:22	19°♑08'58	1°38'02
max. Earth dist.	-27 Sep 13 j 16:40	19°♑06'51	31.28186 AU
morning rise	-27 Sep 30 j 04:09	19°♑43'29	
retrograde	-27 Dec 25 j 17:10	21°♑35'27	
opposition	-26 Mar 13 j 08:51	20°♑13'40	1°45'50
min. Earth dist.	-26 Mar 14 j 06:04	20°♑12'13	29.28680 AU
direct	-26 Jun 02 j 14:32	18°♑48'43	
evening set	-26 Sep 01 j 10:03	20°♑45'07	
max. Earth dist.	-26 Sep 16 j 02:34	21°♑17'45	31.28940 AU
conjunction	-26 Sep 17 j 01:46	21°♑19'55	1°40'08
minimum elong	-26 Sep 17 j 01:45	21°♑19'55	1°40'09
morning rise	-26 Oct 02 j 14:03	21°♑54'24	
retrograde	-26 Dec 28 j 03:30	23°♑46'25	
opposition	-25 Mar 15 j 20:12	22°♑24'41	1°48'00
min. Earth dist.	-25 Mar 16 j 17:44	22°♑23'13	29.29412 AU
direct	-25 Jun 05 j 00:40	20°♑59'49	
evening set	-25 Sep 03 j 21:08	22°♑56'13	
conjunction	-25 Sep 19 j 12:22	23°♑30'58	1°42'06
minimum elong	-25 Sep 19 j 12:22	23°♑30'58	1°42'05
max. Earth dist.	-25 Sep 18 j 14:05	23°♑28'53	31.29614 AU
morning rise	-25 Oct 04 j 23:58	24°♑05'25	
retrograde	-25 Dec 30 j 11:52	25°♑57'29	
opposition	-24 Mar 17 j 07:33	24°♑35'48	1°50'01
min. Earth dist.	-24 Mar 18 j 05:15	24°♑34'18	29.30021 AU
direct	-24 Jun 06 j 13:01	23°♑10'59	
evening set	-24 Sep 05 j 08:21	25°♑07'22	
conjunction	-24 Sep 20 j 22:49	25°♑42'05	1°43'54
minimum elong	-24 Sep 20 j 22:49	25°♑42'05	1°43'54
max. Earth dist.	-24 Sep 19 j 23:23	25°♑39'53	31.30157 AU
morning rise	-24 Oct 06 j 10:01	26°♑16'30	
retrograde	-24 Dec 31 j 23:07	28°♑08'37	
opposition	-23 Mar 19 j 19:05	26°♑46'56	1°51'52
min. Earth dist.	-23 Mar 20 j 16:24	26°♑45'29	29.30504 AU
direct	-23 Jun 08 j 22:54	25°♑22'10	
evening set	-23 Sep 07 j 19:12	27°♑18'32	
max. Earth dist.	-23 Sep 22 j 10:51	27°♑51'06	31.30555 AU
conjunction	-23 Sep 23 j 09:15	27°♑53'12	1°45'34
minimum elong	-23 Sep 23 j 09:14	27°♑53'12	1°45'33
morning rise	-23 Oct 08 j 19:44	28°♑27'35	
	-23 Nov 30 j 07:11	0°♎	
retrograde	-22 Jan 03 j 08:16	0°♎19'45	
	-22 Feb 07 j 10:12	30°℞♑	
opposition	-22 Mar 22 j 06:47	28°♑58'03	1°53'34
min. Earth dist.	-22 Mar 23 j 04:52	28°♑56'33	29.30826 AU
direct	-22 Jun 11 j 10:22	27°♑33'20	
evening set	-22 Sep 10 j 06:11	29°♑29'38	
	-22 Sep 23 j 22:01	0°♎	
conjunction	-22 Sep 25 j 19:32	0°♎04'16	1°47'04
minimum elong	-22 Sep 25 j 19:31	0°♎04'16	1°47'05
max. Earth dist.	-22 Sep 24 j 20:14	0°♎02'05	31.30810 AU
morning rise	-22 Oct 11 j 05:41	0°♎38'37	
retrograde	-21 Jan 05 j 20:06	2°♎30'48	
opposition	-21 Mar 24 j 18:11	1°♎09'05	1°55'06
min. Earth dist.	-21 Mar 25 j 15:23	1°♎07'38	29.31016 AU
	-21 May 13 j 02:32	30°℞♑	
direct	-21 Jun 13 j 23:08	29°♑44'21	
	-21 Jul 15 j 07:27	0°♎	
evening set	-21 Sep 12 j 16:55	1°♎40'37	
max. Earth dist.	-21 Sep 27 j 07:22	2°♎13'06	31.30928 AU
conjunction	-21 Sep 28 j 05:52	2°♎15'12	1°48'26
minimum elong	-21 Sep 28 j 05:52	2°♎15'12	1°48'25
morning rise	-21 Oct 13 j 15:24	2°♎49'31	
retrograde	-20 Jan 08 j 06:26	4°♎41'44	
opposition	-20 Mar 26 j 05:53	3°♎19'58	1°56'28
min. Earth dist.	-20 Mar 27 j 04:00	3°♎18'27	29.31086 AU
direct	-20 Jun 15 j 11:13	1°♎55'14	
evening set	-20 Sep 14 j 03:33	3°♎51'26	
conjunction	-20 Sep 29 j 15:52	4°♎25'58	1°49'38
minimum elong	-20 Sep 29 j 15:52	4°♎25'58	1°49'38
max. Earth dist.	-20 Sep 28 j 17:19	4°♎23'52	31.30963 AU
morning rise	-20 Oct 15 j 01:02	5°♎00'15	
retrograde	-19 Jan 09 j 16:53	6°♎52'29	
opposition	-19 Mar 28 j 17:28	5°♎30'40	1°57'40
min. Earth dist.	-19 Mar 29 j 14:14	5°♎29'15	29.31091 AU
direct	-19 Jun 18 j 00:19	4°♎05'56	
evening set	-19 Sep 16 j 14:01	6°♎02'03	
max. Earth dist.	-19 Oct 01 j 03:42	6°♎34'29	31.30958 AU
conjunction	-19 Oct 02 j 01:50	6°♎36'33	1°50'41
minimum elong	-19 Oct 02 j 01:50	6°♎36'33	1°50'40
morning rise	-19 Oct 17 j 10:30	7°♎10'48	
retrograde	-18 Jan 12 j 03:05	9°♎03'03	
opposition	-18 Mar 31 j 05:13	7°♎41'10	1°58'42
min. Earth dist.	-18 Apr 01 j 02:20	7°♎39'44	29.31111 AU
direct	-18 Jun 20 j 12:22	6°♎16'27	
evening set	-18 Sep 19 j 00:12	8°♎12'29	
conjunction	-18 Oct 04 j 11:33	8°♎46'57	1°51'34
minimum elong	-18 Oct 04 j 11:33	8°♎46'57	1°51'34
max. Earth dist.	-18 Oct 03 j 14:31	8°♎44'59	31.31000 AU
morning rise	-18 Oct 19 j 19:47	9°♎21'10	
retrograde	-17 Jan 14 j 12:57	11°♎13'27	
opposition	-17 Apr 02 j 16:52	9°♎51'32	1°59'34
min. Earth dist.	-17 Apr 03 j 12:47	9°♎50'11	29.31177 AU
direct	-17 Jun 23 j 02:08	8°♎26'50	

Attention, astronomical year style is used: The year -17 in astronomical counting style is the year 18 BCE in historical counting style.

evening set	-17 Sep	21 j 10:31	10°♎22'48	
conjunction	-17 Oct	06 j 21:17	10°♎57'14	1°52'17
minimum elong	-17 Oct	06 j 21:17	10°♎57'14	1°52'16
max. Earth dist.	-17 Oct	06 j 00:11	10°♎55'16	31.31106 AU
morning rise	-17 Oct	22 j 05:09	11°♎31'26	
retrograde	-16 Jan	16 j 22:52	13°♎23'46	
opposition	-16 Apr	04 j 04:31	12°♎01'50	2°00'16
min. Earth dist.	-16 Apr	05 j 00:03	12°♎00'30	29.31335 AU
direct	-16 Jun	24 j 12:36	10°♎37'10	
evening set	-16 Sep	22 j 20:39	12°♎33'05	
max. Earth dist.	-16 Oct	07 j 11:39	13°♎05'41	31.31304 AU
conjunction	-16 Oct	08 j 07:04	13°♎07'30	1°52'51
minimum elong	-16 Oct	08 j 07:04	13°♎07'30	1°52'52
morning rise	-16 Oct	23 j 14:25	13°♎41'40	
retrograde	-15 Jan	18 j 07:06	15°♎34'04	
opposition	-15 Apr	06 j 16:23	14°♎12'08	2°00'47
min. Earth dist.	-15 Apr	07 j 11:21	14°♎10'51	29.31556 AU
direct	-15 Jun	27 j 01:01	12°♎47'33	
evening set	-15 Sep	25 j 06:43	14°♎43'25	
conjunction	-15 Oct	10 j 16:31	15°♎17'48	1°53'16
minimum elong	-15 Oct	10 j 16:31	15°♎17'48	1°53'15
max. Earth dist.	-15 Oct	09 j 20:42	15°♎15'57	31.31555 AU
morning rise	-15 Oct	25 j 23:40	15°♎51'58	
retrograde	-14 Jan	20 j 18:18	17°♎44'27	
opposition	-14 Apr	09 j 04:15	16°♎22'31	2°01'08
min. Earth dist.	-14 Apr	09 j 22:09	16°♎21'18	29.31821 AU
direct	-14 Jun	29 j 10:48	14°♎58'00	
evening set	-14 Sep	27 j 16:43	16°♎53'50	
max. Earth dist.	-14 Oct	12 j 08:00	17°♎26'29	31.31809 AU
conjunction	-14 Oct	13 j 02:16	17°♎28'12	1°53'30
minimum elong	-14 Oct	13 j 02:16	17°♎28'12	1°53'31
morning rise	-14 Oct	28 j 08:54	18°♎02'21	
retrograde	-13 Jan	23 j 03:34	19°♎54'56	
opposition	-13 Apr	11 j 16:09	18°♎33'01	2°01'18
min. Earth dist.	-13 Apr	12 j 10:29	18°♎31'46	29.32054 AU
direct	-13 Jul	01 j 21:59	17°♎08'34	
evening set	-13 Sep	30 j 02:53	19°♎04'22	
conjunction	-13 Oct	15 j 11:51	19°♎38'43	1°53'35
minimum elong	-13 Oct	15 j 11:51	19°♎38'43	1°53'34
max. Earth dist.	-13 Oct	14 j 17:11	19°♎36'57	31.32018 AU
morning rise	-13 Oct	30 j 18:19	20°♎12'51	
retrograde	-12 Jan	25 j 15:29	22°♎05'31	
opposition	-12 Apr	13 j 04:09	20°♎43'36	2°01'18
min. Earth dist.	-12 Apr	13 j 21:11	20°♎42'27	29.32217 AU
direct	-12 Jul	03 j 09:26	19°♎19'14	
evening set	-12 Oct	01 j 12:51	21°♎15'00	
conjunction	-12 Oct	16 j 21:30	21°♎49'20	1°53'29
minimum elong	-12 Oct	16 j 21:30	21°♎49'20	1°53'30
max. Earth dist.	-12 Oct	16 j 03:51	21°♎47'40	31.32118 AU
morning rise	-12 Nov	01 j 03:30	22°♎23'26	
retrograde	-11 Jan	27 j 02:19	24°♎16'14	
opposition	-11 Apr	15 j 16:26	22°♎54'18	2°01'07
min. Earth dist.	-11 Apr	16 j 10:09	22°♎53'06	29.32261 AU
direct	-11 Jul	05 j 20:24	21°♎30'00	
evening set	-11 Oct	03 j 22:54	23°♎25'43	
conjunction	-11 Oct	19 j 07:07	24°♎00'01	1°53'15
minimum elong	-11 Oct	19 j 07:07	24°♎00'01	1°53'14
max. Earth dist.	-11 Oct	18 j 13:34	23°♎58'22	31.32102 AU
morning rise	-11 Nov	03 j 12:53	24°♎34'07	
retrograde	-10 Jan	29 j 13:31	26°♎27'00	
opposition	-10 Apr	18 j 04:34	25°♎05'03	2°00'46
min. Earth dist.	-10 Apr	18 j 20:54	25°♎03'57	29.32168 AU
direct	-10 Jul	08 j 08:53	23°♎40'48	
evening set	-10 Oct	06 j 08:47	25°♎36'28	
conjunction	-10 Oct	21 j 16:39	26°♎10'44	1°52'50
minimum elong	-10 Oct	21 j 16:39	26°♎10'44	1°52'50
max. Earth dist.	-10 Oct	20 j 23:13	26°♎09'06	31.31931 AU
morning rise	-10 Nov	05 j 22:11	26°♎44'50	
retrograde	-9 Feb	01 j 00:42	28°♎37'48	
opposition	-9 Apr	20 j 16:51	27°♎15'49	2°00'15
min. Earth dist.	-9 Apr	21 j 09:42	27°♎14'40	29.31928 AU
direct	-9 Jul	10 j 20:54	25°♎51'36	
evening set	-9 Oct	08 j 18:38	27°♎47'11	
max. Earth dist.	-9 Oct	23 j 09:42	28°♎19'54	31.31624 AU
conjunction	-9 Oct	24 j 02:13	28°♎21'27	1°52'16
minimum elong	-9 Oct	24 j 02:13	28°♎21'27	1°52'15
morning rise	-9 Nov	08 j 07:27	28°♎55'32	
	-9 Dec	10 j 19:23	0°♏	
retrograde	-8 Feb	03 j 11:08	0°♏48'34	
	-8 Mar	31 j 23:36	30°℞♎	
opposition	-8 Apr	22 j 05:01	29°♎26'32	1°59'33
min. Earth dist.	-8 Apr	22 j 20:55	29°♎25'27	29.31542 AU
direct	-8 Jul	12 j 10:56	28°♎02'20	
evening set	-8 Oct	10 j 04:27	29°♎57'50	
	-8 Oct	11 j 04:01	0°♏	
conjunction	-8 Oct	25 j 11:37	0°♏32'05	1°51'32
minimum elong	-8 Oct	25 j 11:37	0°♏32'05	1°51'33
max. Earth dist.	-8 Oct	24 j 18:50	0°♏30'31	31.31194 AU
morning rise	-8 Nov	09 j 16:44	1°♏06'10	
retrograde	-7 Feb	04 j 21:35	2°♏59'16	
opposition	-7 Apr	24 j 17:21	1°♏37'09	1°58'42
min. Earth dist.	-7 Apr	25 j 08:56	1°♏36'06	29.31081 AU
direct	-7 Jul	14 j 21:48	0°♏12'58	
evening set	-7 Oct	12 j 13:52	2°♏08'23	
conjunction	-7 Oct	27 j 20:53	2°♏42'37	1°50'40
minimum elong	-7 Oct	27 j 20:53	2°♏42'37	1°50'39
max. Earth dist.	-7 Oct	27 j 05:54	2°♏41'12	31.30710 AU
morning rise	-7 Nov	12 j 01:42	3°♏16'41	
retrograde	-6 Feb	07 j 05:38	5°♏09'51	
opposition	-6 Apr	27 j 05:41	3°♏47'40	1°57'41
min. Earth dist.	-6 Apr	27 j 20:36	3°♏46'39	29.30582 AU
direct	-6 Jul	17 j 11:02	2°♏23'30	
evening set	-6 Oct	14 j 23:27	4°♏18'47	
conjunction	-6 Oct	30 j 06:02	4°♏53'01	1°49'37
minimum elong	-6 Oct	30 j 06:02	4°♏53'01	1°49'38
max. Earth dist.	-6 Oct	29 j 14:49	4°♏51'35	31.30231 AU
morning rise	-6 Nov	14 j 10:51	5°♏27'05	
retrograde	-5 Feb	09 j 16:39	7°♏20'19	
opposition	-5 Apr	29 j 17:46	5°♏58'04	1°56'29
min. Earth dist.	-5 Apr	30 j 07:19	5°♏57'09	29.30135 AU
direct	-5 Jul	19 j 21:20	4°♏33'55	
evening set	-5 Oct	17 j 08:51	6°♏29'08	
conjunction	-5 Nov	01 j 15:19	7°♏03'20	1°48'26
minimum elong	-5 Nov	01 j 15:19	7°♏03'20	1°48'25
max. Earth dist.	-5 Nov	01 j 02:00	7°♏02'05	31.29817 AU
morning rise	-5 Nov	16 j 19:48	7°♏37'25	
retrograde	-4 Feb	12 j 01:34	9°♏30'44	
opposition	-4 May	01 j 06:11	8°♏08'26	1°55'08
min. Earth dist.	-4 May	01 j 19:30	8°♏07'32	29.29764 AU
direct	-4 Jul	21 j 08:58	6°♏44'20	
evening set	-4 Oct	18 j 18:13	8°♏39'27	

Attention, astronomical year style is used: The year -4 in astronomical counting style is the year 5 BCE in historical counting style.

max. Earth dist.	-4 Nov 02 j 11:18	9°♏12'26	31.29508 AU
conjunction	-4 Nov 03 j 00:18	9°♏13'39	1°47'05
minimum elong	-4 Nov 03 j 00:19	9°♏13'39	1°47'05
morning rise	-4 Nov 18 j 04:48	9°♏47'44	
retrograde	-3 Feb 13 j 12:56	11°♏41'09	
opposition	-3 May 03 j 18:30	10°♏18'49	1°53'37
min. Earth dist.	-3 May 04 j 05:50	10°♏18'03	29.29496 AU
direct	-3 Jul 23 j 19:36	8°♏54'46	
evening set	-3 Oct 21 j 03:29	10°♏49'50	
conjunction	-3 Nov 05 j 09:27	11°♏24'02	1°45'35
minimum elong	-3 Nov 05 j 09:28	11°♏24'02	1°45'34
max. Earth dist.	-3 Nov 04 j 21:55	11°♏22'57	31.29281 AU
morning rise	-3 Nov 20 j 13:47	11°♏58'07	
retrograde	-2 Feb 15 j 23:44	13°♏51'39	
opposition	-2 May 06 j 06:55	12°♏29'17	1°51'55
min. Earth dist.	-2 May 06 j 18:22	12°♏28'31	29.29305 AU
direct	-2 Jul 26 j 05:02	11°♏05'19	
evening set	-2 Oct 23 j 12:44	13°♏00'19	
conjunction	-2 Nov 07 j 18:31	13°♏34'30	1°43'55
minimum elong	-2 Nov 07 j 18:32	13°♏34'30	1°43'56
max. Earth dist.	-2 Nov 07 j 07:48	13°♏33'30	31.29122 AU
morning rise	-2 Nov 22 j 22:50	14°♏08'36	
	-2 Dec 17 j 23:29	15°♏	
retrograde	-1 Feb 18 j 11:15	16°♏02'15	
	-1 Apr 26 j 06:16	15°℞♏	
opposition	-1 May 08 j 19:17	14°♏39'53	1°50'04
min. Earth dist.	-1 May 09 j 04:52	14°♏39'14	29.29138 AU
direct	-1 Jul 28 j 16:55	13°♏15'58	
	-1 Oct 20 j 21:43	15°♏	
evening set	-1 Oct 25 j 22:02	15°♏10'56	
conjunction	-1 Nov 10 j 03:35	15°♏45'07	1°42'07
minimum elong	-1 Nov 10 j 03:35	15°♏45'07	1°42'06
max. Earth dist.	-1 Nov 09 j 17:18	15°♏44'09	31.28948 AU
morning rise	-1 Nov 25 j 07:51	16°♏19'13	
retrograde	00 Feb 20 j 23:30	18°♏13'00	
opposition	00 May 10 j 07:51	16°♏50'36	1°48'04
min. Earth dist.	00 May 10 j 17:33	16°♏49'57	29.28953 AU
direct	00 Jul 30 j 04:13	15°♏26'46	
evening set	00 Oct 27 j 07:19	17°♏21'40	
conjunction	00 Nov 11 j 12:48	17°♏55'51	1°40'09
minimum elong	00 Nov 11 j 12:48	17°♏55'51	1°40'10
max. Earth dist.	00 Nov 11 j 03:57	17°♏55'01	31.28743 AU
morning rise	00 Nov 26 j 16:57	18°♏29'57	
retrograde	01 Feb 22 j 10:59	20°♏23'51	
opposition	01 May 12 j 20:33	19°♏01'26	1°45'54
min. Earth dist.	01 May 13 j 05:00	19°♏00'52	29.28697 AU
direct	01 Aug 01 j 17:25	17°♏37'41	
evening set	01 Oct 29 j 16:39	19°♏32'30	
conjunction	01 Nov 13 j 21:52	20°♏06'41	1°38'03
minimum elong	01 Nov 13 j 21:52	20°♏06'41	1°38'02
max. Earth dist.	01 Nov 13 j 12:48	20°♏05'50	31.28443 AU
morning rise	01 Nov 29 j 02:09	20°♏40'48	
retrograde	02 Feb 24 j 22:27	22°♏34'50	
opposition	02 May 15 j 09:18	21°♏12'22	1°43'34
min. Earth dist.	02 May 15 j 17:24	21°♏11'49	29.28343 AU
direct	02 Aug 04 j 03:58	19°♏48'39	
evening set	02 Nov 01 j 01:58	21°♏43'24	
conjunction	02 Nov 16 j 07:15	22°♏17'36	1°35'49
minimum elong	02 Nov 16 j 07:15	22°♏17'36	1°35'49
max. Earth dist.	02 Nov 15 j 23:45	22°♏16'53	31.28021 AU
morning rise	02 Dec 01 j 11:23	22°♏51'43	
retrograde	03 Feb 27 j 07:52	24°♏45'50	
opposition	03 May 17 j 21:57	23°♏23'20	1°41'06
min. Earth dist.	03 May 18 j 05:38	23°♏22'49	29.27840 AU
direct	03 Aug 06 j 17:34	21°♏59'40	
evening set	03 Nov 03 j 11:28	23°♏54'19	
conjunction	03 Nov 18 j 16:30	24°♏28'31	1°33'26
minimum elong	03 Nov 18 j 16:30	24°♏28'31	1°33'26
max. Earth dist.	03 Nov 18 j 08:27	24°♏27'45	31.27460 AU
morning rise	03 Dec 03 j 20:49	25°♏02'40	
retrograde	04 Feb 29 j 20:00	26°♏56'52	
opposition	04 May 19 j 10:45	25°♏34'18	1°38'30
min. Earth dist.	04 May 19 j 17:19	25°♏33'51	29.27208 AU
direct	04 Aug 08 j 04:49	24°♏10'39	
evening set	04 Nov 04 j 20:37	26°♏05'12	
conjunction	04 Nov 20 j 01:43	26°♏39'24	1°30'55
minimum elong	04 Nov 20 j 01:44	26°♏39'24	1°30'56
max. Earth dist.	04 Nov 19 j 19:13	26°♏38'47	31.26762 AU
morning rise	04 Dec 05 j 05:58	27°♏13'34	
retrograde	05 Mar 03 j 05:10	29°♏07'52	
opposition	05 May 21 j 23:42	27°♏45'13	1°35'45
min. Earth dist.	05 May 22 j 06:21	27°♏44'46	29.26449 AU
direct	05 Aug 10 j 17:00	26°♏21'35	
evening set	05 Nov 07 j 05:54	28°♏16'01	
conjunction	05 Nov 22 j 10:52	28°♏50'13	1°28'17
minimum elong	05 Nov 22 j 10:52	28°♏50'13	1°28'17
max. Earth dist.	05 Nov 22 j 04:33	28°♏49'37	31.25980 AU
morning rise	05 Dec 07 j 15:19	29°♏24'24	
	05 Dec 24 j 10:20	0°♐	
retrograde	06 Mar 05 j 16:21	1°♐18'47	
	06 May 22 j 01:28	30°℞♏	
opposition	06 May 24 j 12:20	29°♏56'02	1°32'52
min. Earth dist.	06 May 24 j 17:15	29°♏55'42	29.25638 AU
direct	06 Aug 13 j 03:57	28°♏32'24	
	06 Oct 28 j 03:41	0°♐	
evening set	06 Nov 09 j 14:59	0°♐26'43	
conjunction	06 Nov 24 j 19:59	1°♐00'56	1°25'32
minimum elong	06 Nov 24 j 19:59	1°♐00'56	1°25'32
max. Earth dist.	06 Nov 24 j 14:54	1°♐00'27	31.25156 AU
morning rise	06 Dec 10 j 00:30	1°♐35'08	
retrograde	07 Mar 08 j 02:58	3°♐29'37	
opposition	07 May 27 j 01:12	2°♐06'46	1°29'51
min. Earth dist.	07 May 27 j 06:11	2°♐06'26	29.24825 AU
direct	07 Aug 15 j 13:53	0°♐43'09	
evening set	07 Nov 12 j 00:01	2°♐37'23	
conjunction	07 Nov 27 j 05:00	3°♐11'36	1°22'39
minimum elong	07 Nov 27 j 05:00	3°♐11'36	1°22'37
max. Earth dist.	07 Nov 27 j 01:04	3°♐11'14	31.24375 AU
morning rise	07 Dec 12 j 09:36	3°♐45'49	
retrograde	08 Mar 09 j 14:26	5°♐40'24	
opposition	08 May 28 j 13:55	4°♐17'29	1°26'42
min. Earth dist.	08 May 28 j 16:42	4°♐17'18	29.24069 AU
direct	08 Aug 17 j 01:50	2°♐53'54	
evening set	08 Nov 13 j 09:09	4°♐48'03	
conjunction	08 Nov 28 j 14:03	5°♐22'16	1°19'38
minimum elong	08 Nov 28 j 14:03	5°♐22'17	1°19'39
max. Earth dist.	08 Nov 28 j 10:44	5°♐21'58	31.23668 AU
morning rise	08 Dec 13 j 18:51	5°♐56'31	
retrograde	09 Mar 12 j 03:09	7°♐51'14	
opposition	09 May 31 j 02:51	6°♐28'16	1°23'26
min. Earth dist.	09 May 31 j 05:16	6°♐28'06	29.23416 AU

direct	09 Aug 19 j 12:22	5°♐04'43	
evening set	09 Nov 15 j 18:04	6°♐58'49	
conjunction	09 Nov 30 j 23:08	7°♐33'03	1°16'31
minimum elong	09 Nov 30 j 23:09	7°♐33'03	1°16'30
max. Earth dist.	09 Nov 30 j 21:45	7°♐32'55	31.23065 AU
morning rise	09 Dec 16 j 04:00	8°♐07'18	
retrograde	10 Mar 14 j 14:59	10°♐02'10	
opposition	10 Jun 02 j 15:38	8°♐39'09	1°20'02
min. Earth dist.	10 Jun 02 j 16:25	8°♐39'06	29.22837 AU
direct	10 Aug 22 j 00:49	7°♐15'41	
evening set	10 Nov 18 j 03:16	9°♐09'43	
conjunction	10 Dec 03 j 08:13	9°♐43'59	1°13'17
minimum elong	10 Dec 03 j 08:13	9°♐43'59	1°13'17
max. Earth dist.	10 Dec 03 j 06:54	9°♐43'51	31.22526 AU
morning rise	10 Dec 18 j 13:24	10°♐18'16	
retrograde	11 Mar 17 j 03:13	12°♐13'16	
opposition	11 Jun 05 j 04:25	10°♐50'14	1°16'31
min. Earth dist.	11 Jun 05 j 04:30	10°♐50'14	29.22321 AU
direct	11 Aug 24 j 10:47	9°♐26'50	
evening set	11 Nov 20 j 12:20	11°♐20'50	
conjunction	11 Dec 05 j 17:30	11°♐55'07	1°09'56
minimum elong	11 Dec 05 j 17:31	11°♐55'07	1°09'55
max. Earth dist.	11 Dec 05 j 18:13	11°♐55'11	31.22022 AU
morning rise	11 Dec 20 j 22:43	12°♐29'26	
retrograde	12 Mar 18 j 13:55	14°♐24'34	
opposition	12 Jun 06 j 17:25	13°♐01'31	1°12'53
min. Earth dist.	12 Jun 06 j 16:41	13°♐01'34	29.21808 AU
direct	12 Aug 26 j 00:11	11°♐38'13	
evening set	12 Nov 21 j 21:30	13°♐32'09	
conjunction	12 Dec 07 j 02:35	14°♐06'27	1°06'29
minimum elong	12 Dec 07 j 02:36	14°♐06'27	1°06'29
max. Earth dist.	12 Dec 07 j 03:11	14°♐06'30	31.21511 AU
morning rise	12 Dec 22 j 08:10	14°♐40'48	
retrograde	13 Mar 21 j 03:26	16°♐36'05	
opposition	13 Jun 09 j 06:27	15°♐13'01	1°09'08
min. Earth dist.	13 Jun 09 j 04:24	15°♐13'10	29.21273 AU
direct	13 Aug 28 j 11:18	13°♐49'47	
evening set	13 Nov 24 j 06:46	15°♐43'41	
conjunction	13 Dec 09 j 12:04	16°♐18'00	1°02'55
minimum elong	13 Dec 09 j 12:04	16°♐18'00	1°02'55
max. Earth dist.	13 Dec 09 j 14:11	16°♐18'12	31.20934 AU
morning rise	13 Dec 24 j 17:44	16°♐52'23	
retrograde	14 Mar 23 j 13:11	18°♐47'49	
opposition	14 Jun 11 j 19:27	17°♐24'43	1°05'17
min. Earth dist.	14 Jun 11 j 17:33	17°♐24'51	29.20648 AU
direct	14 Aug 30 j 23:01	16°♐01'33	
evening set	14 Nov 26 j 16:10	17°♐55'23	
conjunction	14 Dec 11 j 21:30	18°♐29'43	0°59'17
minimum elong	14 Dec 11 j 21:30	18°♐29'43	0°59'17
max. Earth dist.	14 Dec 11 j 23:43	18°♐29'55	31.20264 AU
morning rise	14 Dec 27 j 03:29	19°♐04'08	
retrograde	15 Mar 26 j 00:48	20°♐59'41	
opposition	15 Jun 14 j 08:28	19°♐36'33	1°01'20
min. Earth dist.	15 Jun 14 j 05:02	19°♐36'47	29.19905 AU
direct	15 Sep 02 j 10:06	18°♐13'25	
evening set	15 Nov 29 j 01:31	20°♐07'12	
conjunction	15 Dec 14 j 06:58	20°♐41'33	0°55'33
minimum elong	15 Dec 14 j 06:58	20°♐41'33	0°55'32
max. Earth dist.	15 Dec 14 j 09:56	20°♐41'50	31.19442 AU
morning rise	15 Dec 29 j 13:10	21°♐15'59	
retrograde	16 Mar 27 j 11:59	23°♐11'41	
opposition	16 Jun 15 j 21:45	21°♐48'29	0°57'18
min. Earth dist.	16 Jun 15 j 18:45	21°♐48'41	29.19010 AU
direct	16 Sep 03 j 20:07	20°♐25'22	
evening set	16 Nov 30 j 10:56	22°♐19'03	
conjunction	16 Dec 15 j 16:35	22°♐53'25	0°51'44
minimum elong	16 Dec 15 j 16:35	22°♐53'25	0°51'45
max. Earth dist.	16 Dec 15 j 20:20	22°♐53'47	31.18488 AU
morning rise	16 Dec 30 j 23:01	23°♐27'54	
retrograde	17 Mar 29 j 23:55	25°♐23'42	
opposition	17 Jun 18 j 10:49	24°♐00'24	0°53'11
min. Earth dist.	17 Jun 18 j 06:08	24°♐00'43	29.17979 AU
direct	17 Sep 06 j 08:19	22°♐37'17	
evening set	17 Dec 02 j 20:18	24°♐30'52	
conjunction	17 Dec 18 j 02:02	25°♐05'15	0°47'51
minimum elong	17 Dec 18 j 02:02	25°♐05'15	0°47'50
max. Earth dist.	17 Dec 18 j 05:50	25°♐05'37	31.17401 AU
morning rise	18 Jan 02 j 08:53	25°♐39'46	
retrograde	18 Apr 01 j 12:37	27°♐35'40	
opposition	18 Jun 21 j 00:01	26°♐12'15	0°49'00
min. Earth dist.	18 Jun 20 j 19:28	26°♐12'34	29.16849 AU
direct	18 Sep 08 j 18:35	24°♐49'06	
evening set	18 Dec 05 j 05:36	26°♐42'36	
conjunction	18 Dec 20 j 11:38	27°♐17'00	0°43'54
minimum elong	18 Dec 20 j 11:38	27°♐17'00	0°43'54
max. Earth dist.	18 Dec 20 j 17:07	27°♐17'32	31.16246 AU
morning rise	19 Jan 04 j 18:37	27°♐51'32	
retrograde	19 Apr 04 j 00:10	29°♐47'31	
opposition	19 Jun 23 j 12:56	28°♐24'00	0°44'44
min. Earth dist.	19 Jun 23 j 06:57	28°♐24'24	29.15674 AU
direct	19 Sep 11 j 06:39	27°♐00'49	
evening set	19 Dec 07 j 15:02	28°♐54'14	
conjunction	19 Dec 22 j 21:04	29°♐28'39	0°39'53
minimum elong	19 Dec 22 j 21:04	29°♐28'39	0°39'52
max. Earth dist.	19 Dec 23 j 02:34	29°♐29'10	31.15087 AU
	20 Jan 05 j 17:53	0°♑	
morning rise	20 Jan 07 j 04:31	0°♑03'12	
retrograde	20 Apr 05 j 13:04	1°♑59'17	
opposition	20 Jun 25 j 02:04	0°♑35'39	0°40'25
min. Earth dist.	20 Jun 24 j 19:21	0°♑36'06	29.14548 AU
	20 Jul 17 j 17:24	30°℞♐	
direct	20 Sep 12 j 17:13	29°♐12'28	
	20 Nov 05 j 21:03	0°♑	
evening set	20 Dec 09 j 00:13	1°♑05'48	
conjunction	20 Dec 24 j 06:36	1°♑40'14	0°35'48
minimum elong	20 Dec 24 j 06:36	1°♑40'14	0°35'49
max. Earth dist.	20 Dec 24 j 14:15	1°♑40'57	31.13992 AU
morning rise	21 Jan 08 j 14:11	2°♑14'49	
retrograde	21 Apr 08 j 00:45	4°♑11'00	
opposition	21 Jun 27 j 15:09	2°♑47'16	0°36'02
min. Earth dist.	21 Jun 27 j 07:23	2°♑47'47	29.13492 AU
direct	21 Sep 15 j 06:37	1°♑24'05	
evening set	21 Dec 11 j 09:41	3°♑17'21	
conjunction	21 Dec 26 j 16:08	3°♑51'48	0°31'41
minimum elong	21 Dec 26 j 16:08	3°♑51'48	0°31'40
max. Earth dist.	21 Dec 26 j 23:51	3°♑52'32	31.12995 AU
morning rise	22 Jan 11 j 00:13	4°♑26'25	
retrograde	22 Apr 10 j 14:25	6°♑22'43	
opposition	22 Jun 30 j 03:59	4°♑58'55	0°31'35
min. Earth dist.	22 Jun 29 j 18:43	4°♑59'32	29.12546 AU
direct	22 Sep 17 j 17:34	3°♑35'45	

evening set	22 Dec	13 j 19:04	5°♓28'58	
conjunction	22 Dec	29 j 01:50	6°♓03'27	0°27'30
minimum elong	22 Dec	29 j 01:50	6°♓03'27	0°27'31
max. Earth dist.	22 Dec	29 j 11:15	6°♓04'20	31.12087 AU
morning rise	23 Jan	13 j 10:08	6°♓38'06	
retrograde	23 Apr	13 j 00:49	8°♓34'31	
opposition	23 Jul	02 j 17:04	7°♓10'40	0°27'06
min. Earth dist.	23 Jul	02 j 07:32	7°♓11'19	29.11676 AU
direct	23 Sep	20 j 05:21	5°♓47'33	
evening set	23 Dec	16 j 04:28	7°♓40'43	
conjunction	23 Dec	31 j 11:24	8°♓15'13	0°23'17
minimum elong	23 Dec	31 j 11:24	8°♓15'13	0°23'16
max. Earth dist.	23 Dec	31 j 21:29	8°♓16'10	31.11263 AU
morning rise	24 Jan	15 j 20:05	8°♓49'55	
retrograde	24 Apr	14 j 13:15	10°♓46'28	
opposition	24 Jul	04 j 06:05	9°♓22'35	0°22'33
min. Earth dist.	24 Jul	03 j 18:42	9°♓23'21	29.10874 AU
direct	24 Sep	21 j 16:44	7°♓59'30	
evening set	24 Dec	17 j 14:03	9°♓52'39	
conjunction	25 Jan	01 j 21:12	10°♓27'11	0°19'01
minimum elong	25 Jan	01 j 21:12	10°♓27'11	0°19'02
max. Earth dist.	25 Jan	02 j 08:13	10°♓28'13	31.10473 AU
morning rise	25 Jan	17 j 06:15	11°♓01'55	
retrograde	25 Apr	17 j 01:06	12°♓58'37	
opposition	25 Jul	06 j 19:14	11°♓34'42	0°17'59
min. Earth dist.	25 Jul	06 j 08:08	11°♓35'27	29.10096 AU
direct	25 Sep	24 j 02:45	10°♓11'41	
evening set	25 Dec	19 j 23:40	12°♓04'47	
conjunction	26 Jan	04 j 07:09	12°♓39'21	0°14'44
minimum elong	26 Jan	04 j 07:09	12°♓39'21	0°14'43
behind sun begin	26 Jan	04 j 04:21	12°♓39'06	
behind sun end	26 Jan	04 j 09:57	12°♓39'36	
max. Earth dist.	26 Jan	04 j 19:15	12°♓40'29	31.09694 AU
morning rise	26 Jan	19 j 16:31	13°♓14'07	
retrograde	26 Apr	19 j 13:24	15°♓10'58	
opposition	26 Jul	09 j 08:15	13°♓47'01	0°13'22
min. Earth dist.	26 Jul	08 j 19:27	13°♓47'54	29.09289 AU
direct	26 Sep	26 j 14:24	12°♓24'03	
evening set	26 Dec	22 j 09:34	14°♓17'09	
conjunction	27 Jan	06 j 17:08	14°♓51'44	0°10'25
minimum elong	27 Jan	06 j 17:08	14°♓51'44	0°10'25
behind sun begin	27 Jan	06 j 12:03	14°♓51'16	
behind sun end	27 Jan	06 j 22:12	14°♓52'12	
max. Earth dist.	27 Jan	07 j 05:06	14°♓52'51	31.08850 AU
morning rise	27 Jan	22 j 02:56	15°♓26'32	
retrograde	27 Apr	22 j 02:24	17°♓23'33	
opposition	27 Jul	11 j 21:23	15°♓59'34	0°08'44
min. Earth dist.	27 Jul	11 j 08:56	16°♓00'24	29.08413 AU
direct	27 Sep	28 j 23:50	14°♓36'37	
evening set	27 Dec	24 j 19:27	16°♓29'42	
conjunction	28 Jan	09 j 03:26	17°♓04'19	0°06'06
minimum elong	28 Jan	09 j 03:26	17°♓04'19	0°06'05
behind sun begin	28 Jan	08 j 21:20	17°♓03'46	
behind sun end	28 Jan	09 j 09:32	17°♓04'52	
max. Earth dist.	28 Jan	09 j 16:52	17°♓05'35	31.07925 AU
morning rise	28 Jan	24 j 13:26	17°♓39'09	
retrograde	28 Apr	23 j 14:48	19°♓36'18	
opposition	28 Jul	13 j 10:33	18°♓12'16	0°04'06
min. Earth dist.	28 Jul	12 j 20:58	18°♓13'11	29.07425 AU
direct	28 Sep	30 j 11:16	16°♓49'20	
evening set	28 Dec	26 j 05:30	18°♓42'23	

conjunction	29 Jan	10 j 13:35	19°♓17'02	0°01'44
minimum elong	29 Jan	10 j 13:35	19°♓17'02	0°01'45
behind sun begin	29 Jan	10 j 07:11	19°♓16'27	
behind sun end	29 Jan	10 j 20:00	19°♓17'37	
max. Earth dist.	29 Jan	11 j 02:29	19°♓18'15	31.06880 AU
morning rise	29 Jan	26 j 00:09	19°♓51'55	
retrograde	29 Apr	26 j 04:50	21°♓49'11	
desc. node	29 Jun	02 j 01:23	21°♓28'23	
opposition	29 Jul	15 j 23:46	20°♓25'04	-0°00'33
min. Earth dist.	29 Jul	15 j 10:05	20°♓26'00	29.06325 AU
direct	29 Oct	02 j 21:40	19°♓02'08	
evening set	29 Dec	28 j 15:30	20°♓55'09	
conjunction	30 Jan	13 j 00:03	21°♓29'49	-0°02'44
minimum elong	30 Jan	13 j 00:03	21°♓29'49	0°02'44
behind sun begin	30 Jan	12 j 17:39	21°♓29'14	
behind sun end	30 Jan	13 j 06:27	21°♓30'24	
max. Earth dist.	30 Jan	13 j 14:25	21°♓31'10	31.05718 AU
morning rise	30 Jan	28 j 10:51	22°♓04'44	
retrograde	30 Apr	28 j 17:35	24°♓02'06	
opposition	30 Jul	18 j 12:42	22°♓37'53	-0°05'12
min. Earth dist.	30 Jul	17 j 22:37	22°♓38'51	29.05112 AU
direct	30 Oct	05 j 10:52	21°♓14'56	
evening set	30 Dec	31 j 01:39	23°♓07'54	
conjunction	31 Jan	15 j 10:21	23°♓42'36	-0°07'04
minimum elong	31 Jan	15 j 10:21	23°♓42'36	0°07'04
behind sun begin	31 Jan	15 j 04:25	23°♓42'04	
behind sun end	31 Jan	15 j 16:18	23°♓43'08	
max. Earth dist.	31 Jan	16 j 00:22	23°♓43'55	31.04483 AU
morning rise	31 Jan	30 j 21:41	24°♓17'32	
retrograde	31 May	01 j 07:46	26°♓15'00	
min. Earth dist.	31 Jul	20 j 10:34	24°♓51'43	29.03865 AU
opposition	31 Jul	21 j 01:42	24°♓50'41	-0°09'51
direct	31 Oct	07 j 21:59	23°♓27'42	
evening set	32 Jan	02 j 11:32	25°♓20'37	
conjunction	32 Jan	17 j 20:36	25°♓55'20	-0°11'23
minimum elong	32 Jan	17 j 20:36	25°♓55'20	0°11'24
behind sun begin	32 Jan	17 j 15:53	25°♓54'55	
behind sun end	32 Jan	18 j 01:19	25°♓55'46	
max. Earth dist.	32 Jan	18 j 12:04	25°♓56'48	31.03229 AU
morning rise	32 Feb	02 j 08:14	26°♓30'19	
retrograde	32 May	02 j 18:48	28°♓27'52	
opposition	32 Jul	22 j 14:45	27°♓03'27	-0°14'28
min. Earth dist.	32 Jul	21 j 23:31	27°♓04'29	29.02637 AU
direct	32 Oct	09 j 10:14	25°♓40'26	
evening set	33 Jan	03 j 21:39	27°♓33'18	
conjunction	33 Jan	19 j 07:00	28°♓08'03	-0°15'41
minimum elong	33 Jan	19 j 07:00	28°♓08'03	0°15'41
behind sun begin	33 Jan	19 j 05:21	28°♓07'54	
behind sun end	33 Jan	19 j 08:39	28°♓08'12	
max. Earth dist.	33 Jan	19 j 23:03	28°♓09'34	31.02046 AU
morning rise	33 Feb	03 j 19:04	28°♓43'03	
	33 Mar	15 j 13:19	0°♒	
retrograde	33 May	05 j 08:08	0°♒40'41	
	33 Jun	27 j 01:28	30°℞♓	
min. Earth dist.	33 Jul	24 j 10:36	29°♓17'21	29.01505 AU
opposition	33 Jul	25 j 03:32	29°♓16'11	-0°19'05
direct	33 Oct	11 j 22:29	27°♓53'09	
evening set	34 Jan	06 j 07:50	29°♓46'00	
	34 Jan	12 j 13:57	0°♒	
conjunction	34 Jan	21 j 17:27	0°♒20'46	-0°19'59
minimum elong	34 Jan	21 j 17:27	0°♒20'46	0°19'59
max. Earth dist.	34 Jan	22 j 10:18	0°♒22'22	31.00956 AU

morning rise	34 Feb 06 j 05:56	0°♒55'49		
retrograde	34 May 07 j 20:19	2°♒53'33		
opposition	34 Jul 27 j 16:28	1°♒28'58	-0°23'39	
min. Earth dist.	34 Jul 26 j 23:45	1°♒30'07	29.00484 AU	
direct	34 Oct 14 j 09:17	0°♒05'56		
evening set	35 Jan 08 j 17:57	1°♒58'45		
conjunction	35 Jan 24 j 03:58	2°♒33'33	-0°24'15	
minimum elong	35 Jan 24 j 03:58	2°♒33'33	0°24'14	
max. Earth dist.	35 Jan 24 j 22:06	2°♒35'15	30.99999 AU	
morning rise	35 Feb 08 j 16:45	3°♒08'37		
retrograde	35 May 10 j 07:45	5°♒06'27		
min. Earth dist.	35 Jul 29 j 10:36	3°♒43'07	28.99586 AU	
opposition	35 Jul 30 j 05:13	3°♒41'50	-0°28'13	
direct	35 Oct 16 j 21:00	2°♒18'48		
evening set	36 Jan 11 j 04:19	4°♒11'37		
conjunction	36 Jan 26 j 14:31	4°♒46'26	-0°28'29	
minimum elong	36 Jan 26 j 14:31	4°♒46'26	0°28'29	
max. Earth dist.	36 Jan 27 j 08:43	4°♒48'09	30.99158 AU	
morning rise	36 Feb 11 j 03:50	5°♒21'33		
retrograde	36 May 11 j 20:09	7°♒19'30		
opposition	36 Jul 31 j 18:11	5°♒54'50	-0°32'43	
min. Earth dist.	36 Jul 30 j 23:40	5°♒56'06	28.98810 AU	
direct	36 Oct 18 j 06:10	4°♒31'50		
evening set	37 Jan 12 j 14:35	6°♒24'37		
conjunction	37 Jan 28 j 01:17	6°♒59'29	-0°32'41	
minimum elong	37 Jan 28 j 01:17	6°♒59'29	0°32'40	
max. Earth dist.	37 Jan 28 j 21:15	7°♒01'22	30.98426 AU	
morning rise	37 Feb 12 j 14:53	7°♒34'37		
retrograde	37 May 14 j 08:33	9°♒32'42		
min. Earth dist.	37 Aug 02 j 11:13	8°♒09'22	28.98108 AU	
opposition	37 Aug 03 j 07:01	8°♒08'00	-0°37'12	
direct	37 Oct 20 j 17:09	6°♒45'01		
evening set	38 Jan 15 j 01:16	8°♒37'50		
conjunction	38 Jan 30 j 12:08	9°♒12'42	-0°36'50	
minimum elong	38 Jan 30 j 12:08	9°♒12'42	0°36'51	
max. Earth dist.	38 Jan 31 j 07:39	9°♒14'33	30.97749 AU	
morning rise	38 Feb 15 j 02:18	9°♒47'53		
retrograde	38 May 16 j 22:39	11°♒46'05		
opposition	38 Aug 05 j 19:47	10°♒21'22	-0°41'37	
min. Earth dist.	38 Aug 04 j 23:59	10°♒22'43	28.97453 AU	
direct	38 Oct 23 j 03:03	8°♒58'24		
evening set	39 Jan 17 j 11:56	10°♒51'14		
conjunction	39 Feb 01 j 23:16	11°♒26'08	-0°40'57	
minimum elong	39 Feb 01 j 23:16	11°♒26'08	0°40'56	
max. Earth dist.	39 Feb 02 j 20:18	11°♒28'07	30.97082 AU	
morning rise	39 Feb 17 j 13:39	12°♒01'21		
retrograde	39 May 19 j 11:40	13°♒59'39		
opposition	39 Aug 08 j 08:41	12°♒34'55	-0°45'58	
min. Earth dist.	39 Aug 07 j 12:33	12°♒36'18	28.96774 AU	
direct	39 Oct 25 j 14:57	11°♒11'59		
evening set	40 Jan 19 j 22:46	13°♒04'49		
conjunction	40 Feb 04 j 10:19	13°♒39'45	-0°45'00	
minimum elong	40 Feb 04 j 10:18	13°♒39'45	0°45'00	
max. Earth dist.	40 Feb 05 j 06:46	13°♒41'41	30.96382 AU	
morning rise	40 Feb 20 j 01:14	14°♒14'59		
	40 Mar 12 j 13:05	15°♒		
retrograde	40 May 21 j 02:27	16°♒13'25		
	40 Aug 02 j 23:45	15°℞♒		
opposition	40 Aug 09 j 21:38	14°♒48'38	-0°50'16	
min. Earth dist.	40 Aug 09 j 00:54	14°♒50'04	28.96042 AU	
direct	40 Oct 27 j 01:26	13°♒25'42		
	41 Jan 12 j 20:58	15°♒		
evening set	41 Jan 21 j 09:49	15°♒18'33		
conjunction	41 Feb 05 j 21:47	15°♒53'31	-0°48'59	
minimum elong	41 Feb 05 j 21:47	15°♒53'31	0°48'58	
max. Earth dist.	41 Feb 06 j 19:01	15°♒55'31	30.95586 AU	
morning rise	41 Feb 21 j 13:02	16°♒28'47		
retrograde	41 May 23 j 15:15	18°♒27'18		
opposition	41 Aug 12 j 10:30	17°♒02'28	-0°54'30	
min. Earth dist.	41 Aug 11 j 14:20	17°♒03'51	28.95198 AU	
direct	41 Oct 29 j 13:38	15°♒39'31		
evening set	42 Jan 23 j 20:58	17°♒32'22		
conjunction	42 Feb 08 j 09:18	18°♒07'21	-0°52'53	
minimum elong	42 Feb 08 j 09:18	18°♒07'21	0°52'54	
max. Earth dist.	42 Feb 09 j 06:21	18°♒09'21	30.94693 AU	
morning rise	42 Feb 24 j 01:01	18°♒42'40		
retrograde	42 May 26 j 06:12	20°♒41'14		
opposition	42 Aug 14 j 23:18	19°♒16'20	-0°58'38	
min. Earth dist.	42 Aug 14 j 02:11	19°♒17'48	28.94251 AU	
direct	42 Nov 01 j 02:20	17°♒53'22		
evening set	43 Jan 26 j 08:07	19°♒46'12		
conjunction	43 Feb 10 j 20:44	20°♒21'13	-0°56'43	
minimum elong	43 Feb 10 j 20:44	20°♒21'13	0°56'43	
max. Earth dist.	43 Feb 11 j 17:55	20°♒23'13	30.93690 AU	
morning rise	43 Feb 26 j 12:52	20°♒56'33		
retrograde	43 May 28 j 18:41	22°♒55'11		
opposition	43 Aug 17 j 12:11	21°♒30'12	-1°02'41	
min. Earth dist.	43 Aug 16 j 15:54	21°♒31'36	28.93227 AU	
direct	43 Nov 03 j 13:49	20°♒07'11		
evening set	44 Jan 28 j 19:14	22°♒00'00		
conjunction	44 Feb 13 j 08:21	22°♒35'02	-1°00'28	
minimum elong	44 Feb 13 j 08:20	22°♒35'02	1°00'29	
max. Earth dist.	44 Feb 14 j 06:19	22°♒37'07	30.92660 AU	
morning rise	44 Feb 29 j 00:49	23°♒10'24		
retrograde	44 May 30 j 07:05	25°♒09'05		
min. Earth dist.	44 Aug 18 j 03:12	23°♒45'31	28.92201 AU	
opposition	44 Aug 19 j 00:47	23°♒44'02	-1°06'39	
direct	44 Nov 05 j 02:11	22°♒20'58		
evening set	45 Jan 30 j 06:31	24°♒13'46		
conjunction	45 Feb 14 j 19:52	24°♒48'49	-1°04'08	
minimum elong	45 Feb 14 j 19:51	24°♒48'49	1°04'08	
max. Earth dist.	45 Feb 15 j 17:28	24°♒50'52	30.91645 AU	
morning rise	45 Mar 02 j 12:54	25°♒24'13		
retrograde	45 Jun 01 j 19:38	27°♒22'57		
opposition	45 Aug 21 j 13:30	25°♒57'50	-1°10'31	
min. Earth dist.	45 Aug 20 j 16:25	25°♒59'17	28.91231 AU	
direct	45 Nov 07 j 12:10	24°♒34'44		
evening set	46 Feb 01 j 17:49	26°♒27'32		
conjunction	46 Feb 17 j 07:41	27°♒02'37	-1°07'41	
minimum elong	46 Feb 17 j 07:40	27°♒02'37	1°07'42	
max. Earth dist.	46 Feb 18 j 06:43	27°♒04'48	30.90710 AU	
morning rise	46 Mar 05 j 00:56	27°♒38'02		
retrograde	46 Jun 04 j 07:46	29°♒36'50		
min. Earth dist.	46 Aug 23 j 03:39	28°♒13'12	28.90350 AU	
opposition	46 Aug 24 j 01:50	28°♒11'39	-1°14'16	
direct	46 Nov 09 j 23:34	26°♒48'32		
evening set	47 Feb 04 j 05:16	28°♒41'22		
conjunction	47 Feb 19 j 19:20	29°♒16'28	-1°11'09	
minimum elong	47 Feb 19 j 19:19	29°♒16'28	1°11'09	
max. Earth dist.	47 Feb 20 j 17:50	29°♒18'35	30.89888 AU	
morning rise	47 Mar 07 j 13:10	29°♒51'55		

	47 Mar 11 j 05:28	0°♓	
retrograde	47 Jun 06 j 21:09	1°♓50'47	
opposition	47 Aug 26 j 14:24	0°♓25'34	-1°17'55
min. Earth dist.	47 Aug 25 j 16:11	0°♓27'06	28.89605 AU
	47 Sep 11 j 04:30	30°♓℞	
direct	47 Nov 12 j 09:28	29°♒02'25	
	48 Jan 10 j 13:51	0°♓	
evening set	48 Feb 06 j 16:32	0°♓55'17	
conjunction	48 Feb 22 j 07:09	1°♓30'25	-1°14'31
minimum elong	48 Feb 22 j 07:09	1°♓30'25	1°14'31
max. Earth dist.	48 Feb 23 j 07:15	1°♓32'41	30.89196 AU
morning rise	48 Mar 09 j 01:15	2°♓05'54	
retrograde	48 Jun 08 j 09:35	4°♓04'50	
min. Earth dist.	48 Aug 27 j 04:16	2°♓41'10	28.88976 AU
opposition	48 Aug 28 j 02:54	2°♓39'36	-1°21'27
direct	48 Nov 13 j 20:52	1°♓16'28	
evening set	49 Feb 08 j 04:11	3°♓09'22	
conjunction	49 Feb 23 j 19:06	3°♓44'31	-1°17'46
minimum elong	49 Feb 23 j 19:06	3°♓44'31	1°17'45
max. Earth dist.	49 Feb 24 j 18:39	3°♓46'45	30.88631 AU
morning rise	49 Mar 11 j 13:46	4°♓20'02	
retrograde	49 Jun 11 j 00:16	6°♓19'03	
opposition	49 Aug 30 j 15:15	4°♓53'49	-1°24'52
min. Earth dist.	49 Aug 29 j 16:01	4°♓55'25	28.88471 AU
direct	49 Nov 16 j 06:32	3°♓30'41	
evening set	50 Feb 10 j 15:55	5°♓23'39	
conjunction	50 Feb 26 j 07:17	5°♓58'50	-1°20'54
minimum elong	50 Feb 26 j 07:16	5°♓58'50	1°20'54
max. Earth dist.	50 Feb 27 j 07:44	6°♓01'09	30.88155 AU
morning rise	50 Mar 14 j 02:16	6°♓34'23	
retrograde	50 Jun 13 j 13:36	8°♓33'28	
min. Earth dist.	50 Sep 01 j 04:58	7°♓09'49	28.88031 AU
opposition	50 Sep 02 j 03:44	7°♓08'14	-1°28'09
direct	50 Nov 18 j 18:28	5°♓45'08	
evening set	51 Feb 13 j 03:41	7°♓38'09	
conjunction	51 Feb 28 j 19:25	8°♓13'22	-1°23'54
minimum elong	51 Feb 28 j 19:25	8°♓13'22	1°23'54
max. Earth dist.	51 Mar 01 j 19:47	8°♓15'40	30.87742 AU
morning rise	51 Mar 16 j 14:50	8°♓48'56	
retrograde	51 Jun 16 j 05:28	10°♓48'06	
opposition	51 Sep 04 j 16:09	9°♓22'53	-1°31'18
min. Earth dist.	51 Sep 03 j 16:32	9°♓24'31	28.87628 AU
direct	51 Nov 21 j 07:05	7°♓59'47	
evening set	52 Feb 15 j 15:48	9°♓52'52	
conjunction	52 Mar 02 j 07:52	10°♓28'07	-1°26'47
minimum elong	52 Mar 02 j 07:52	10°♓28'07	1°26'48
max. Earth dist.	52 Mar 03 j 08:12	10°♓30'25	30.87319 AU
morning rise	52 Mar 18 j 03:44	11°♓03'44	
retrograde	52 Jun 17 j 18:37	13°♓02'57	
min. Earth dist.	52 Sep 05 j 06:16	11°♓39'18	28.87196 AU
opposition	52 Sep 06 j 04:39	11°♓37'44	-1°34'19
direct	52 Nov 22 j 18:19	10°♓14'39	
evening set	53 Feb 17 j 03:59	12°♓07'47	
conjunction	53 Mar 04 j 20:36	12°♓43'04	-1°29'33
minimum elong	53 Mar 04 j 20:35	12°♓43'04	1°29'32
max. Earth dist.	53 Mar 05 j 21:05	12°♓45'23	30.86852 AU
morning rise	53 Mar 20 j 16:47	13°♓18'42	
retrograde	53 Jun 20 j 08:47	15°♓17'58	
opposition	53 Sep 08 j 17:02	13°♓52'44	-1°37'12
min. Earth dist.	53 Sep 07 j 17:57	13°♓54'21	28.86679 AU
direct	53 Nov 25 j 07:04	12°♓29'38	
evening set	54 Feb 19 j 16:28	14°♓22'48	
conjunction	54 Mar 07 j 09:19	14°♓58'06	-1°32'10
minimum elong	54 Mar 07 j 09:19	14°♓58'06	1°32'10
max. Earth dist.	54 Mar 08 j 08:40	15°♓00'19	30.86270 AU
morning rise	54 Mar 23 j 06:02	15°♓33'46	
retrograde	54 Jun 22 j 22:49	17°♓33'03	
min. Earth dist.	54 Sep 10 j 07:36	16°♓09'19	28.86052 AU
opposition	54 Sep 11 j 05:27	16°♓07'48	-1°39'55
direct	54 Nov 27 j 18:01	14°♓44'39	
evening set	55 Feb 22 j 04:47	16°♓37'50	
conjunction	55 Mar 09 j 22:14	17°♓13'11	-1°34'39
minimum elong	55 Mar 09 j 22:14	17°♓13'10	1°34'38
max. Earth dist.	55 Mar 10 j 22:14	17°♓15'27	30.85592 AU
morning rise	55 Mar 25 j 19:11	17°♓48'52	
retrograde	55 Jun 25 j 11:07	19°♓48'08	
opposition	55 Sep 13 j 17:44	18°♓22'50	-1°42'30
min. Earth dist.	55 Sep 12 j 19:25	18°♓24'23	28.85328 AU
direct	55 Nov 30 j 06:36	16°♓59'38	
evening set	56 Feb 24 j 17:10	18°♓52'49	
conjunction	56 Mar 11 j 10:55	19°♓28'10	-1°36'59
minimum elong	56 Mar 11 j 10:55	19°♓28'10	1°36'59
max. Earth dist.	56 Mar 12 j 09:42	19°♓30'19	30.84842 AU
morning rise	56 Mar 27 j 08:29	20°♓03'53	
retrograde	56 Jun 26 j 23:39	22°♓03'08	
min. Earth dist.	56 Sep 14 j 08:26	20°♓39'17	28.84570 AU
opposition	56 Sep 15 j 06:03	20°♓37'46	-1°44'55
direct	56 Dec 01 j 17:09	19°♓14'29	
evening set	57 Feb 26 j 05:37	21°♓07'40	
conjunction	57 Mar 13 j 23:56	21°♓43'03	-1°39'10
minimum elong	57 Mar 13 j 23:56	21°♓43'03	1°39'10
max. Earth dist.	57 Mar 14 j 23:42	21°♓45'18	30.84075 AU
morning rise	57 Mar 29 j 21:46	22°♓18'47	
retrograde	57 Jun 29 j 11:00	24°♓18'01	
opposition	57 Sep 17 j 18:02	22°♓52'35	-1°47'10
min. Earth dist.	57 Sep 16 j 20:31	22°♓54'05	28.83818 AU
direct	57 Dec 04 j 04:43	21°♓29'13	
evening set	58 Feb 28 j 18:12	23°♓22'26	
conjunction	58 Mar 16 j 12:50	23°♓57'49	-1°41'13
minimum elong	58 Mar 16 j 12:50	23°♓57'49	1°41'13
max. Earth dist.	58 Mar 17 j 11:35	23°♓59'58	30.83356 AU
morning rise	58 Apr 01 j 11:12	24°♓33'34	
retrograde	58 Jul 02 j 01:07	26°♓32'46	
min. Earth dist.	58 Sep 19 j 08:19	25°♓08'49	28.83150 AU
opposition	58 Sep 20 j 06:04	25°♓07'17	-1°49'16
direct	58 Dec 06 j 14:55	23°♓43'51	
evening set	59 Mar 03 j 06:35	25°♓37'05	
conjunction	59 Mar 19 j 01:42	26°♓12'30	-1°43'06
minimum elong	59 Mar 19 j 01:42	26°♓12'30	1°43'05
max. Earth dist.	59 Mar 20 j 01:14	26°♓14'43	30.82726 AU
morning rise	59 Apr 04 j 00:21	26°♓48'16	
retrograde	59 Jul 04 j 12:52	28°♓47'27	
opposition	59 Sep 22 j 18:06	27°♓21'55	-1°51'12
min. Earth dist.	59 Sep 21 j 20:51	27°♓23'25	28.82585 AU
direct	59 Dec 09 j 03:01	25°♓58'26	
evening set	60 Mar 04 j 19:12	27°♓51'42	
conjunction	60 Mar 20 j 14:45	28°♓27'08	-1°44'49
minimum elong	60 Mar 20 j 14:45	28°♓27'08	1°44'50
max. Earth dist.	60 Mar 21 j 13:57	28°♓29'19	30.82236 AU
morning rise	60 Apr 05 j 13:51	29°♓02'56	
	60 May 03 j 14:56	0°♈	

retrograde	60 Jul 06 j 03:36	1°♈02'05	
	60 Sep 10 j 03:42	30°♓℞	
min. Earth dist.	60 Sep 23 j 07:51	29°♓38'05	28.82170 AU
opposition	60 Sep 24 j 05:54	29°♓36'32	-1°52'58
direct	60 Dec 10 j 15:09	28°♓13'00	
	61 Mar 04 j 10:41	0°♈	
evening set	61 Mar 07 j 07:56	0°♈06'19	
conjunction	61 Mar 23 j 03:54	0°♈41'48	-1°46'23
minimum elong	61 Mar 23 j 03:53	0°♈41'48	1°46'23
max. Earth dist.	61 Mar 24 j 03:09	0°♈43'59	30.81880 AU
morning rise	61 Apr 08 j 03:25	1°♈17'37	
retrograde	61 Jul 08 j 16:18	3°♈16'45	
opposition	61 Sep 26 j 17:50	1°♈51'12	-1°54'33
min. Earth dist.	61 Sep 25 j 20:50	1°♈52'41	28.81888 AU
direct	61 Dec 13 j 02:11	0°♈27'39	
evening set	62 Mar 09 j 20:38	2°♈21'01	
conjunction	62 Mar 25 j 17:07	2°♈56'32	-1°47'48
minimum elong	62 Mar 25 j 17:07	2°♈56'32	1°47'48
max. Earth dist.	62 Mar 26 j 16:40	2°♈58'45	30.81667 AU
morning rise	62 Apr 10 j 16:57	3°♈32'22	
retrograde	62 Jul 11 j 06:57	5°♈31'30	
min. Earth dist.	62 Sep 28 j 07:38	4°♈07'31	28.81731 AU
opposition	62 Sep 29 j 05:30	4°♈05'58	-1°55'58
direct	62 Dec 15 j 15:00	2°♈42'25	
evening set	63 Mar 12 j 09:36	4°♈35'52	
conjunction	63 Mar 28 j 06:23	5°♈11'24	-1°49'02
minimum elong	63 Mar 28 j 06:23	5°♈11'24	1°49'02
max. Earth dist.	63 Mar 29 j 05:05	5°♈13'32	30.81558 AU
morning rise	63 Apr 13 j 06:44	5°♈47'16	
retrograde	63 Jul 13 j 21:22	7°♈46'24	
opposition	63 Oct 01 j 17:22	6°♈20'54	-1°57'12
min. Earth dist.	63 Sep 30 j 20:40	6°♈22'22	28.81671 AU
direct	63 Dec 18 j 01:54	4°♈57'22	
evening set	64 Mar 13 j 22:28	6°♈50'53	
conjunction	64 Mar 29 j 19:54	7°♈26'27	-1°50'07
minimum elong	64 Mar 29 j 19:54	7°♈26'27	1°50'07
max. Earth dist.	64 Mar 30 j 19:12	7°♈28'39	30.81525 AU
morning rise	64 Apr 14 j 20:30	8°♈02'21	
retrograde	64 Jul 15 j 10:21	10°♈01'28	
min. Earth dist.	64 Oct 02 j 08:06	8°♈37'31	28.81639 AU
opposition	64 Oct 03 j 05:04	8°♈36'02	-1°58'16
direct	64 Dec 19 j 14:29	7°♈12'30	
evening set	65 Mar 16 j 11:52	9°♈06'06	
conjunction	65 Apr 01 j 09:33	9°♈41'42	-1°51'01
minimum elong	65 Apr 01 j 09:33	9°♈41'42	1°51'00
max. Earth dist.	65 Apr 02 j 07:14	9°♈43'44	30.81484 AU
morning rise	65 Apr 17 j 10:42	10°♈17'38	
retrograde	65 Jul 17 j 23:45	12°♈16'43	
opposition	65 Oct 05 j 16:47	10°♈51'20	-1°59'08
min. Earth dist.	65 Oct 04 j 20:57	10°♈52'44	28.81584 AU
direct	65 Dec 22 j 00:46	9°♈27'47	
evening set	66 Mar 19 j 01:10	11°♈21'27	
conjunction	66 Apr 03 j 23:28	11°♈57'06	-1°51'45
minimum elong	66 Apr 03 j 23:28	11°♈57'06	1°51'45
max. Earth dist.	66 Apr 04 j 21:34	11°♈59'10	30.81388 AU
morning rise	66 Apr 20 j 00:48	12°♈33'02	
retrograde	66 Jul 20 j 11:58	14°♈32'06	
min. Earth dist.	66 Oct 07 j 09:16	13°♈08'06	28.81444 AU
opposition	66 Oct 08 j 04:33	13°♈06'45	-1°59'50
direct	66 Dec 24 j 12:16	11°♈43'10	
evening set	67 Mar 21 j 14:29	13°♈36'54	
conjunction	67 Apr 06 j 13:07	14°♈12'33	-1°52'19
minimum elong	67 Apr 06 j 13:07	14°♈12'33	1°52'18
max. Earth dist.	67 Apr 07 j 09:29	14°♈14'28	30.81214 AU
morning rise	67 Apr 22 j 14:59	14°♈48'31	
retrograde	67 Jul 23 j 01:50	16°♈47'32	
opposition	67 Oct 10 j 16:18	15°♈22'11	-2°00'20
min. Earth dist.	67 Oct 09 j 21:26	15°♈23'31	28.81233 AU
direct	67 Dec 26 j 22:38	13°♈58'33	
evening set	68 Mar 23 j 03:55	15°♈52'19	
conjunction	68 Apr 08 j 03:06	16°♈28'00	-1°52'42
minimum elong	68 Apr 08 j 03:06	16°♈28'00	1°52'43
max. Earth dist.	68 Apr 08 j 23:33	16°♈29'56	30.80964 AU
morning rise	68 Apr 24 j 05:15	17°♈04'00	
retrograde	68 Jul 24 j 12:49	19°♈02'56	
min. Earth dist.	68 Oct 11 j 10:10	17°♈38'49	28.80960 AU
opposition	68 Oct 12 j 03:51	17°♈37'34	-2°00'40
direct	68 Dec 28 j 10:50	16°♈13'52	
evening set	69 Mar 25 j 17:24	18°♈07'41	
conjunction	69 Apr 10 j 17:02	18°♈43'23	-1°52'56
minimum elong	69 Apr 10 j 17:02	18°♈43'23	1°52'56
max. Earth dist.	69 Apr 11 j 12:19	18°♈45'12	30.80694 AU
morning rise	69 Apr 26 j 19:39	19°♈19'23	
retrograde	69 Jul 27 j 02:45	21°♈18'14	
opposition	69 Oct 14 j 15:18	19°♈52'52	-2°00'49
min. Earth dist.	69 Oct 13 j 21:22	19°♈54'08	28.80690 AU
direct	69 Dec 30 j 22:58	18°♈29'04	
evening set	70 Mar 28 j 06:51	20°♈22'56	
conjunction	70 Apr 13 j 06:52	20°♈58'40	-1°52'59
minimum elong	70 Apr 13 j 06:52	20°♈58'40	1°52'59
max. Earth dist.	70 Apr 14 j 01:52	21°♈00'26	30.80432 AU
morning rise	70 Apr 29 j 09:48	21°♈34'41	
retrograde	70 Jul 29 j 14:34	23°♈33'25	
min. Earth dist.	70 Oct 16 j 10:14	22°♈09'12	28.80465 AU
opposition	70 Oct 17 j 02:44	22°♈08'02	-2°00'47
direct	71 Jan 02 j 09:54	20°♈44'10	
evening set	71 Mar 30 j 20:14	22°♈38'04	
conjunction	71 Apr 15 j 20:47	23°♈13'49	-1°52'52
minimum elong	71 Apr 15 j 20:47	23°♈13'49	1°52'52
max. Earth dist.	71 Apr 16 j 15:38	23°♈15'35	30.80262 AU
morning rise	71 May 02 j 00:02	23°♈49'51	
retrograde	71 Aug 01 j 04:52	25°♈48'29	
opposition	71 Oct 19 j 13:56	24°♈23'06	-2°00'34
min. Earth dist.	71 Oct 18 j 20:50	24°♈24'18	28.80346 AU
direct	72 Jan 04 j 23:38	22°♈59'10	
evening set	72 Apr 01 j 09:43	24°♈53'06	
conjunction	72 Apr 17 j 10:37	25°♈28'53	-1°52'35
minimum elong	72 Apr 17 j 10:37	25°♈28'53	1°52'34
max. Earth dist.	72 Apr 18 j 04:29	25°♈30'33	30.80202 AU
morning rise	72 May 03 j 14:20	26°♈04'56	
retrograde	72 Aug 02 j 18:23	28°♈03'28	
min. Earth dist.	72 Oct 20 j 09:24	26°♈39'12	28.80361 AU
opposition	72 Oct 21 j 01:17	26°♈38'05	-2°00'09
direct	73 Jan 06 j 11:32	25°♈14'06	
evening set	73 Apr 03 j 23:12	27°♈08'04	
conjunction	73 Apr 20 j 00:42	27°♈43'53	-1°52'07
minimum elong	73 Apr 20 j 00:42	27°♈43'53	1°52'06
max. Earth dist.	73 Apr 20 j 18:59	27°♈45'36	30.80291 AU
morning rise	73 May 06 j 04:36	28°♈19'56	
	73 Jul 02 j 18:56	0°♉	
retrograde	73 Aug 05 j 07:04	0°♉18'22	
	73 Sep 08 j 02:41	30°℞♈	

opposition	73 Oct 23 j 12:19	28°♈53'01	-1°59'34
min. Earth dist.	73 Oct 22 j 20:02	28°♈54'10	28.80518 AU
direct	74 Jan 09 j 00:35	27°♈29'00	
evening set	74 Apr 06 j 12:51	29°♈23'01	
conjunction	74 Apr 22 j 14:37	29°♈58'51	-1°51'29
minimum elong	74 Apr 22 j 14:37	29°♈58'51	1°51'29
max. Earth dist.	74 Apr 23 j 07:30	0°♉00'26	30.80532 AU
	74 Apr 23 j 02:50	0°♉	
morning rise	74 May 08 j 19:01	0°♉34'56	
retrograde	74 Aug 07 j 20:57	2°♉33'16	
opposition	74 Oct 25 j 23:34	1°♉07'57	-1°58'48
min. Earth dist.	74 Oct 25 j 08:06	1°♉09'03	28.80838 AU
	74 Dec 11 j 10:47	30°℞♈	
direct	75 Jan 11 j 11:21	29°♈43'55	
	75 Feb 11 j 02:04	0°♉	
evening set	75 Apr 09 j 02:15	1°♉38'00	
conjunction	75 Apr 25 j 04:37	2°♉13'52	-1°50'40
minimum elong	75 Apr 25 j 04:37	2°♉13'52	1°50'40
max. Earth dist.	75 Apr 25 j 22:16	2°♉15'31	30.80921 AU
morning rise	75 May 11 j 09:11	2°♉49'58	
retrograde	75 Aug 10 j 09:33	4°♉48'12	
opposition	75 Oct 28 j 10:45	3°♉22'58	-1°57'50
min. Earth dist.	75 Oct 27 j 19:40	3°♉24'02	28.81275 AU
direct	76 Jan 13 j 23:30	1°♉58'55	
evening set	76 Apr 10 j 16:05	3°♉53'04	
conjunction	76 Apr 26 j 18:45	4°♉28'58	-1°49'42
minimum elong	76 Apr 26 j 18:45	4°♉28'58	1°49'41
max. Earth dist.	76 Apr 27 j 10:44	4°♉30'27	30.81416 AU
morning rise	76 May 12 j 23:49	5°♉05'05	
retrograde	76 Aug 11 j 22:42	7°♉03'13	
opposition	76 Oct 29 j 21:45	5°♉38'04	-1°56'42
min. Earth dist.	76 Oct 29 j 07:10	5°♉39'06	28.81801 AU
direct	77 Jan 15 j 10:08	4°♉14'00	
evening set	77 Apr 13 j 05:59	6°♉08'15	
conjunction	77 Apr 29 j 09:10	6°♉44'09	-1°48'33
minimum elong	77 Apr 29 j 09:11	6°♉44'09	1°48'33
max. Earth dist.	77 Apr 30 j 01:12	6°♉45'39	30.81947 AU
morning rise	77 May 15 j 14:23	7°♉20'18	
retrograde	77 Aug 14 j 09:40	9°♉18'20	
opposition	77 Nov 01 j 08:56	7°♉53'16	-1°55'23
min. Earth dist.	77 Oct 31 j 19:42	7°♉54'12	28.82323 AU
direct	78 Jan 17 j 21:37	6°♉29'12	
evening set	78 Apr 15 j 19:57	8°♉23'31	
conjunction	78 May 01 j 23:27	8°♉59'27	-1°47'14
minimum elong	78 May 01 j 23:28	8°♉59'27	1°47'13
max. Earth dist.	78 May 02 j 13:50	9°♉00'48	30.82459 AU
morning rise	78 May 18 j 05:01	9°♉35'35	
retrograde	78 Aug 16 j 23:34	11°♉33'32	
opposition	78 Nov 03 j 20:00	10°♉08'32	-1°53'53
min. Earth dist.	78 Nov 03 j 06:51	10°♉09'28	28.82801 AU
direct	79 Jan 20 j 09:01	8°♉44'26	
evening set	79 Apr 18 j 10:02	10°♉38'49	
conjunction	79 May 04 j 13:56	11°♉14'46	-1°45'45
minimum elong	79 May 04 j 13:56	11°♉14'46	1°45'45
max. Earth dist.	79 May 05 j 03:33	11°♉16'02	30.82891 AU
morning rise	79 May 20 j 19:43	11°♉50'55	
retrograde	79 Aug 19 j 10:49	13°♉48'45	
opposition	79 Nov 06 j 07:08	12°♉23'48	-1°52'13
min. Earth dist.	79 Nov 05 j 19:56	12°♉24'35	28.83191 AU
direct	80 Jan 22 j 19:48	10°♉59'39	
evening set	80 Apr 20 j 00:05	12°♉54'05	

conjunction	80 May 06 j 04:29	13°♉30'03	-1°44'06
minimum elong	80 May 06 j 04:29	13°♉30'03	1°44'06
max. Earth dist.	80 May 06 j 17:04	13°♉31'14	30.83252 AU
morning rise	80 May 22 j 10:33	14°♉06'13	
	80 Jun 17 j 21:26	15°♉	
retrograde	80 Aug 21 j 00:16	16°♉03'54	
	80 Oct 26 j 07:04	15°℞♉	
opposition	80 Nov 07 j 18:06	14°♉38'59	-1°50'22
min. Earth dist.	80 Nov 07 j 06:54	14°♉39'47	28.83499 AU
direct	81 Jan 24 j 09:43	13°♉14'47	
	81 Apr 18 j 07:30	15°♉	
evening set	81 Apr 22 j 14:17	15°♉09'16	
conjunction	81 May 08 j 18:57	15°♉45'15	-1°42'19
minimum elong	81 May 08 j 18:57	15°♉45'15	1°42'19
max. Earth dist.	81 May 09 j 06:00	15°♉46'17	30.83529 AU
morning rise	81 May 25 j 01:20	16°♉21'26	
retrograde	81 Aug 23 j 12:37	18°♉18'58	
opposition	81 Nov 10 j 05:02	16°♉54'04	-1°48'22
min. Earth dist.	81 Nov 09 j 19:39	16°♉54'44	28.83760 AU
direct	82 Jan 26 j 21:39	15°♉29'47	
evening set	82 Apr 25 j 04:16	17°♉24'19	
conjunction	82 May 11 j 09:27	18°♉00'20	-1°40'22
minimum elong	82 May 11 j 09:27	18°♉00'20	1°40'21
max. Earth dist.	82 May 11 j 20:18	18°♉01'21	30.83792 AU
morning rise	82 May 27 j 15:57	18°♉36'30	
retrograde	82 Aug 26 j 01:24	20°♉33'53	
opposition	82 Nov 12 j 15:51	19°♉09'01	-1°46'12
min. Earth dist.	82 Nov 12 j 06:28	19°♉09'41	28.84017 AU
direct	83 Jan 29 j 11:07	17°♉44'40	
evening set	83 Apr 27 j 18:14	19°♉39'14	
conjunction	83 May 13 j 23:38	20°♉15'16	-1°38'16
minimum elong	83 May 13 j 23:38	20°♉15'16	1°38'16
max. Earth dist.	83 May 14 j 08:43	20°♉16'07	30.84074 AU
morning rise	83 May 30 j 06:32	20°♉51'27	
retrograde	83 Aug 28 j 15:02	22°♉48'40	
opposition	83 Nov 15 j 02:42	21°♉23'49	-1°43'53
min. Earth dist.	83 Nov 14 j 18:30	21°♉24'24	28.84330 AU
direct	84 Jan 31 j 22:47	19°♉59'25	
evening set	84 Apr 29 j 08:12	21°♉54'01	
conjunction	84 May 15 j 14:08	22°♉30'04	-1°36'01
minimum elong	84 May 15 j 14:08	22°♉30'05	1°36'00
max. Earth dist.	84 May 15 j 23:37	22°♉30'58	30.84424 AU
morning rise	84 May 31 j 21:05	23°♉06'15	
retrograde	84 Aug 30 j 03:11	25°♉03'19	
opposition	84 Nov 16 j 13:19	23°♉38'31	-1°41'24
min. Earth dist.	84 Nov 16 j 05:42	23°♉39'04	28.84718 AU
direct	85 Feb 02 j 11:49	22°♉14'04	
evening set	85 May 01 j 22:21	24°♉08'43	
conjunction	85 May 18 j 04:26	24°♉44'47	-1°33'38
minimum elong	85 May 18 j 04:26	24°♉44'47	1°33'38
max. Earth dist.	85 May 18 j 12:06	24°♉45'30	30.84879 AU
morning rise	85 Jun 03 j 11:44	25°♉20'59	
retrograde	85 Sep 01 j 15:45	27°♉17'53	
opposition	85 Nov 19 j 00:01	25°♉53'09	-1°38'46
min. Earth dist.	85 Nov 18 j 16:44	25°♉53'40	28.85237 AU
direct	86 Feb 04 j 23:07	24°♉28'38	
evening set	86 May 04 j 12:10	26°♉23'21	
conjunction	86 May 20 j 18:41	26°♉59'26	-1°31'06
minimum elong	86 May 20 j 18:41	26°♉59'26	1°31'05
max. Earth dist.	86 May 21 j 02:43	27°♉00'11	30.85459 AU
morning rise	86 Jun 06 j 01:58	27°♉35'38	

retrograde	86 Sep 04 j 02:18	29°♉32'24	
opposition	86 Nov 21 j 10:45	28°♉07'44	-1°35'59
min. Earth dist.	86 Nov 21 j 04:28	28°♉08'11	28.85881 AU
direct	87 Feb 07 j 10:38	26°♉43'13	
evening set	87 May 07 j 02:12	28°♉37'59	
conjunction	87 May 23 j 08:56	29°♉14'05	-1°28'25
minimum elong	87 May 23 j 08:56	29°♉14'05	1°28'26
max. Earth dist.	87 May 23 j 15:28	29°♉14'42	30.86188 AU
morning rise	87 Jun 08 j 16:31	29°♉50'17	
	87 Jun 13 j 04:27	0°♊	
retrograde	87 Sep 06 j 15:56	1°♊46'55	
opposition	87 Nov 23 j 21:15	0°♊22'21	-1°33'03
min. Earth dist.	87 Nov 23 j 14:47	0°♊22'49	28.86667 AU
	87 Dec 07 j 03:42	30°℞♉	
direct	88 Feb 09 j 21:20	28°♉57'49	
	88 Apr 12 j 15:15	0°♊	
evening set	88 May 08 j 16:16	0°♊52'40	
conjunction	88 May 24 j 23:20	1°♊28'48	-1°25'37
minimum elong	88 May 24 j 23:21	1°♊28'48	1°25'36
max. Earth dist.	88 May 25 j 05:34	1°♊29'22	30.87025 AU
morning rise	88 Jun 10 j 06:59	2°♊05'00	
retrograde	88 Sep 08 j 02:06	4°♊01'30	
opposition	88 Nov 25 j 07:56	2°♊37'03	-1°29'59
min. Earth dist.	88 Nov 25 j 03:14	2°♊37'23	28.87538 AU
direct	89 Feb 11 j 07:32	1°♊12'31	
evening set	89 May 11 j 06:25	3°♊07'27	
conjunction	89 May 27 j 13:44	3°♊43'35	-1°22'40
minimum elong	89 May 27 j 13:45	3°♊43'35	1°22'40
max. Earth dist.	89 May 27 j 18:58	3°♊44'04	30.87931 AU
morning rise	89 Jun 12 j 21:30	4°♊19'47	
retrograde	89 Sep 10 j 14:29	6°♊16'10	
opposition	89 Nov 27 j 18:25	4°♊51'50	-1°26'46
min. Earth dist.	89 Nov 27 j 13:41	4°♊52'10	28.88439 AU
direct	90 Feb 13 j 20:53	3°♊27'17	
evening set	90 May 13 j 20:41	5°♊22'19	
conjunction	90 May 30 j 04:09	5°♊58'27	-1°19'36
minimum elong	90 May 30 j 04:10	5°♊58'27	1°19'35
max. Earth dist.	90 May 30 j 08:01	5°♊58'49	30.88822 AU
morning rise	90 Jun 15 j 12:01	6°♊34'39	
retrograde	90 Sep 13 j 02:16	8°♊30'55	
opposition	90 Nov 30 j 05:08	7°♊06'40	-1°23'25
min. Earth dist.	90 Nov 30 j 02:17	7°♊06'52	28.89312 AU
direct	91 Feb 16 j 07:50	5°♊42'06	
evening set	91 May 16 j 10:46	7°♊37'12	
conjunction	91 Jun 01 j 18:36	8°♊13'21	-1°16'25
minimum elong	91 Jun 01 j 18:36	8°♊13'21	1°16'25
max. Earth dist.	91 Jun 01 j 21:50	8°♊13'39	30.89661 AU
morning rise	91 Jun 18 j 02:29	8°♊49'33	
retrograde	91 Sep 15 j 14:51	10°♊45'40	
opposition	91 Dec 02 j 15:44	9°♊21'30	-1°19'57
min. Earth dist.	91 Dec 02 j 13:15	9°♊21'40	28.90088 AU
direct	92 Feb 18 j 21:08	7°♊56'53	
evening set	92 May 18 j 01:11	9°♊52'03	
conjunction	92 Jun 03 j 09:04	10°♊28'12	-1°13'07
minimum elong	92 Jun 03 j 09:04	10°♊28'12	1°13'06
max. Earth dist.	92 Jun 03 j 10:02	10°♊28'18	30.90390 AU
morning rise	92 Jun 19 j 17:07	11°♊04'24	
retrograde	92 Sep 17 j 04:07	13°♊00'21	
opposition	92 Dec 04 j 02:20	11°♊36'13	-1°16'21
min. Earth dist.	92 Dec 04 j 01:24	11°♊36'17	28.90769 AU
direct	93 Feb 20 j 09:34	10°♊11'33	
evening set	93 May 20 j 15:23	12°♊06'46	
conjunction	93 Jun 05 j 23:37	12°♊42'56	-1°09'42
minimum elong	93 Jun 05 j 23:37	12°♊42'56	1°09'43
max. Earth dist.	93 Jun 06 j 00:26	12°♊43'00	30.91025 AU
morning rise	93 Jun 22 j 07:31	13°♊19'06	
retrograde	93 Sep 19 j 15:44	15°♊14'52	
opposition	93 Dec 06 j 12:54	13°♊50'47	-1°12'40
min. Earth dist.	93 Dec 06 j 12:56	13°♊50'47	28.91352 AU
direct	94 Feb 22 j 23:40	12°♊26'04	
evening set	94 May 23 j 05:29	14°♊21'17	
conjunction	94 Jun 08 j 13:41	14°♊57'27	-1°06'12
minimum elong	94 Jun 08 j 13:42	14°♊57'27	1°06'11
max. Earth dist.	94 Jun 08 j 12:20	14°♊57'19	30.91589 AU
morning rise	94 Jun 24 j 21:46	15°♊33'37	
retrograde	94 Sep 22 j 04:11	17°♊29'11	
opposition	94 Dec 08 j 23:23	16°♊05'08	-1°08'52
min. Earth dist.	94 Dec 09 j 00:04	16°♊05'05	28.91897 AU
direct	95 Feb 25 j 11:41	14°♊40'20	
evening set	95 May 25 j 19:32	16°♊35'34	
conjunction	95 Jun 11 j 04:01	17°♊11'44	-1°02'36
minimum elong	95 Jun 11 j 04:01	17°♊11'44	1°02'37
max. Earth dist.	95 Jun 11 j 02:43	17°♊11'37	30.92125 AU
morning rise	95 Jun 27 j 11:54	17°♊47'53	
retrograde	95 Sep 24 j 14:58	19°♊43'16	
opposition	95 Dec 11 j 09:43	18°♊19'15	-1°04'58
min. Earth dist.	95 Dec 11 j 11:51	18°♊19'06	28.92431 AU
direct	96 Feb 28 j 00:18	16°♊54'21	
evening set	96 May 27 j 09:38	18°♊49'37	
conjunction	96 Jun 12 j 18:08	19°♊25'47	-0°58'55
minimum elong	96 Jun 12 j 18:08	19°♊25'47	0°58'54
max. Earth dist.	96 Jun 12 j 14:59	19°♊25'29	30.92687 AU
morning rise	96 Jun 29 j 02:08	20°♊01'55	
retrograde	96 Sep 26 j 03:38	21°♊57'06	
opposition	96 Dec 12 j 20:00	20°♊33'07	-1°00'59
min. Earth dist.	96 Dec 12 j 22:02	20°♊32'58	28.93016 AU
direct	97 Mar 01 j 12:14	19°♊08'09	
evening set	97 May 29 j 23:35	21°♊03'26	
conjunction	97 Jun 15 j 08:11	21°♊39'36	-0°55'08
minimum elong	97 Jun 15 j 08:11	21°♊39'36	0°55'08
max. Earth dist.	97 Jun 15 j 04:51	21°♊39'17	30.93303 AU
morning rise	97 Jul 01 j 15:58	22°♊15'43	
retrograde	97 Sep 28 j 12:45	24°♊10'43	
opposition	97 Dec 15 j 06:22	22°♊46'47	-0°56'54
min. Earth dist.	97 Dec 15 j 10:00	22°♊46'31	28.93684 AU
direct	98 Mar 03 j 23:11	21°♊21'45	
evening set	98 Jun 01 j 13:27	23°♊17'04	
conjunction	98 Jun 17 j 22:05	23°♊53'13	-0°51'17
minimum elong	98 Jun 17 j 22:05	23°♊53'13	0°51'16
max. Earth dist.	98 Jun 17 j 17:53	23°♊52'50	30.94042 AU
morning rise	98 Jul 04 j 05:50	24°♊29'19	
retrograde	98 Oct 01 j 00:03	26°♊24'09	
opposition	98 Dec 17 j 16:33	25°♊00'17	-0°52'44
min. Earth dist.	98 Dec 17 j 19:46	25°♊00'03	28.94484 AU
direct	99 Mar 06 j 11:49	23°♊35'13	
evening set	99 Jun 04 j 03:16	25°♊30'35	
conjunction	99 Jun 20 j 11:54	26°♊06'44	-0°47'21
minimum elong	99 Jun 20 j 11:55	26°♊06'44	0°47'22
max. Earth dist.	99 Jun 20 j 06:55	26°♊06'16	30.94911 AU
morning rise	99 Jul 06 j 19:33	26°♊42'49	
retrograde	99 Oct 03 j 10:42	28°♊37'30	

opposition	99 Dec 20 j 02:56	27°♊13'43	-0°48'30
min. Earth dist.	99 Dec 20 j 07:33	27°♊13'23	28.95424 AU
direct	100 Mar 07 j 22:00	25°♊48'37	
evening set	100 Jun 05 j 17:07	27°♊44'03	
conjunction	100 Jun 22 j 01:51	28°♊20'12	-0°43'21
minimum elong	100 Jun 22 j 01:51	28°♊20'12	0°43'21
max. Earth dist.	100 Jun 21 j 20:39	28°♊19'43	30.95923 AU
morning rise	100 Jul 08 j 09:18	28°♊56'16	
	100 Aug 09 j 18:44	0°♋	
retrograde	100 Oct 04 j 22:07	0°♋50'49	
	100 Dec 01 j 15:45	30°℞♊	
opposition	100 Dec 21 j 13:04	29°♊27'08	-0°44'11
min. Earth dist.	100 Dec 21 j 17:39	29°♊26'49	28.96477 AU
direct	101 Mar 10 j 10:49	28°♊02'03	
evening set	101 Jun 08 j 07:06	29°♊57'35	
	101 Jun 09 j 09:54	0°♋	
conjunction	101 Jun 24 j 15:39	0°♋33'43	-0°39'18
minimum elong	101 Jun 24 j 15:40	0°♋33'43	0°39'18
max. Earth dist.	101 Jun 24 j 08:50	0°♋33'05	30.97026 AU
morning rise	101 Jul 10 j 23:01	1°♋09'45	
retrograde	101 Oct 07 j 10:40	3°♋04'12	
opposition	101 Dec 23 j 23:25	1°♋40'38	-0°39'49
min. Earth dist.	101 Dec 24 j 05:07	1°♋40'14	28.97616 AU