

Attention, astronomical year style is used: The year -2400 in astronomical counting style is the year 2401 BCE in historical counting style.

evening set	-2400 Mar 16 j 05:35	20° ✕ 48'37		conjunction	-2394 Apr 15 j 21:27	4° Ÿ 53'29	-2°03'12
				minimum elong	-2394 Apr 15 j 21:27	4° Ÿ 53'29	2°03'12
conjunction	-2400 Apr 01 j 07:43	21° ✕ 24'25	-2°05'25	max. Earth dist.	-2394 Apr 16 j 09:30	4° Ÿ 54'36	30.85127 AU
minimum elong	-2400 Apr 01 j 07:43	21° ✕ 24'25	2°05'25	morning rise	-2394 May 02 j 03:21	5° Ÿ 29'32	
max. Earth dist.	-2400 Apr 02 j 00:53	21° ✕ 26'01	30.84171 AU	retrograde	-2394 Jul 31 j 16:02	7° Ÿ 26'59	
morning rise	-2400 Apr 17 j 12:06	22° ✕ 00'26		opposition	-2394 Oct 18 j 07:50	6° Ÿ 02'01	-2°11'12
retrograde	-2400 Jul 17 j 15:35	23° ✕ 58'42		min. Earth dist.	-2394 Oct 17 j 21:55	6° Ÿ 02'43	28.85511 AU
opposition	-2400 Oct 04 j 14:53	22° ✕ 33'36	-2°14'11	direct	-2393 Jan 03 j 23:33	4° Ÿ 37'37	
min. Earth dist.	-2400 Oct 04 j 00:06	22° ✕ 34'39	28.84381 AU	evening set	-2393 Apr 02 j 07:09	6° Ÿ 32'07	
direct	-2400 Dec 21 j 02:17	21° ✕ 09'37					
evening set	-2399 Mar 18 j 19:37	23° ✕ 03'48		conjunction	-2393 Apr 18 j 11:51	7° Ÿ 08'02	-2°02'11
				minimum elong	-2393 Apr 18 j 11:51	7° Ÿ 08'02	2°02'10
conjunction	-2399 Apr 03 j 21:58	23° ✕ 39'37	-2°05'31	max. Earth dist.	-2393 Apr 18 j 23:11	7° Ÿ 09'05	30.85642 AU
minimum elong	-2399 Apr 03 j 21:59	23° ✕ 39'37	2°05'31	morning rise	-2393 May 04 j 17:57	7° Ÿ 44'05	
max. Earth dist.	-2399 Apr 04 j 13:05	23° ✕ 41'02	30.84271 AU	retrograde	-2393 Aug 03 j 05:46	9° Ÿ 41'25	
morning rise	-2399 Apr 20 j 02:47	24° ✕ 15'39		opposition	-2393 Oct 20 j 18:26	8° Ÿ 16'32	-2°10'00
retrograde	-2399 Jul 20 j 04:19	26° ✕ 13'47		min. Earth dist.	-2393 Oct 20 j 08:06	8° Ÿ 17'16	28.86083 AU
opposition	-2399 Oct 07 j 01:57	24° ✕ 48'41	-2°14'11	direct	-2392 Jan 06 j 12:49	6° Ÿ 52'07	
min. Earth dist.	-2399 Oct 06 j 12:28	24° ✕ 49'39	28.84463 AU	evening set	-2392 Apr 03 j 21:13	8° Ÿ 46'43	
direct	-2399 Dec 23 j 12:24	23° ✕ 24'37					
evening set	-2398 Mar 21 j 09:23	25° ✕ 18'50		conjunction	-2392 Apr 20 j 02:07	9° Ÿ 22'38	-2°00'58
				minimum elong	-2392 Apr 20 j 02:07	9° Ÿ 22'38	2°00'57
conjunction	-2398 Apr 06 j 12:19	25° ✕ 54'40	-2°05'26	max. Earth dist.	-2392 Apr 20 j 12:23	9° Ÿ 23'36	30.86274 AU
minimum elong	-2398 Apr 06 j 12:19	25° ✕ 54'40	2°05'26	morning rise	-2392 May 06 j 08:27	9° Ÿ 58'42	
max. Earth dist.	-2398 Apr 07 j 03:37	25° ✕ 56'06	30.84337 AU	retrograde	-2392 Aug 04 j 18:17	11° Ÿ 55'56	
morning rise	-2398 Apr 22 j 17:14	26° ✕ 30'43		opposition	-2392 Oct 22 j 05:07	10° Ÿ 31'08	-2°08'36
retrograde	-2398 Jul 22 j 14:59	28° ✕ 28'42		min. Earth dist.	-2392 Oct 21 j 20:24	10° Ÿ 31'45	28.86771 AU
opposition	-2398 Oct 09 j 12:52	27° ✕ 03'37	-2°14'00	direct	-2391 Jan 07 j 23:26	9° Ÿ 06'43	
min. Earth dist.	-2398 Oct 09 j 00:01	27° ✕ 04'32	28.84516 AU	evening set	-2391 Apr 06 j 11:13	11° Ÿ 01'25	
direct	-2398 Dec 26 j 00:59	25° ✕ 39'28					
evening set	-2397 Mar 23 j 23:28	27° ✕ 33'44		conjunction	-2391 Apr 22 j 16:35	11° Ÿ 37'22	-1°59'33
				minimum elong	-2391 Apr 22 j 16:35	11° Ÿ 37'22	1°59'32
conjunction	-2397 Apr 09 j 02:38	28° ✕ 09'34	-2°05'09	max. Earth dist.	-2391 Apr 23 j 02:47	11° Ÿ 38'19	30.87013 AU
minimum elong	-2397 Apr 09 j 02:39	28° ✕ 09'34	2°05'09	morning rise	-2391 May 08 j 22:59	12° Ÿ 13'27	
max. Earth dist.	-2397 Apr 09 j 15:59	28° ✕ 10'49	30.84410 AU	retrograde	-2391 Aug 07 j 08:10	14° Ÿ 10'33	
morning rise	-2397 Apr 25 j 07:58	28° ✕ 45'37		opposition	-2391 Oct 24 j 15:38	12° Ÿ 45'52	-2°07'00
	-2397 Jun 02 j 21:29	0° Ÿ		min. Earth dist.	-2391 Oct 24 j 07:04	12° Ÿ 46'28	28.87524 AU
retrograde	-2397 Jul 25 j 03:31	0° Ÿ 43'27		direct	-2390 Jan 10 j 12:18	11° Ÿ 21'28	
	-2397 Sep 16 j 11:05	30° ✕		evening set	-2390 Apr 09 j 01:26	13° Ÿ 16'15	
opposition	-2397 Oct 11 j 23:36	29° ✕ 18'23	-2°13'36				
min. Earth dist.	-2397 Oct 11 j 11:19	29° ✕ 19'16	28.84613 AU	conjunction	-2390 Apr 25 j 06:58	13° Ÿ 52'14	-1°57'58
direct	-2397 Dec 28 j 11:58	27° ✕ 54'09		minimum elong	-2390 Apr 25 j 06:58	13° Ÿ 52'14	1°57'57
evening set	-2396 Mar 25 j 13:24	29° ✕ 48'28		max. Earth dist.	-2390 Apr 25 j 15:11	13° Ÿ 53'00	30.87778 AU
	-2396 Mar 30 j 19:29	0° Ÿ		morning rise	-2390 May 11 j 13:43	14° Ÿ 28'19	
				retrograde	-2390 Aug 09 j 20:59	16° Ÿ 25'20	
conjunction	-2396 Apr 10 j 17:02	0° Ÿ 24'19	-2°04'42	opposition	-2390 Oct 27 j 02:20	15° Ÿ 00'44	-2°05'12
minimum elong	-2396 Apr 10 j 17:02	0° Ÿ 24'19	2°04'42	min. Earth dist.	-2390 Oct 26 j 19:13	15° Ÿ 01'15	28.88280 AU
max. Earth dist.	-2396 Apr 11 j 06:39	0° Ÿ 25'35	30.84534 AU	direct	-2389 Jan 12 j 22:31	13° Ÿ 36'21	
morning rise	-2396 Apr 26 j 22:27	1° Ÿ 00'22		evening set	-2389 Apr 11 j 15:43	15° Ÿ 31'13	
retrograde	-2396 Jul 26 j 14:36	2° Ÿ 58'04					
opposition	-2396 Oct 13 j 10:26	1° Ÿ 33'01	-2°13'00	conjunction	-2389 Apr 27 j 21:43	16° Ÿ 07'13	-1°56'12
min. Earth dist.	-2396 Oct 12 j 23:19	1° Ÿ 33'48	28.84781 AU	minimum elong	-2389 Apr 27 j 21:43	16° Ÿ 07'13	1°56'10
direct	-2396 Dec 29 j 23:17	0° Ÿ 08'42		max. Earth dist.	-2389 Apr 28 j 05:44	16° Ÿ 07'58	30.88504 AU
evening set	-2395 Mar 28 j 03:12	2° Ÿ 03'04		morning rise	-2389 May 14 j 04:25	16° Ÿ 43'19	
				retrograde	-2389 Aug 12 j 07:58	18° Ÿ 40'11	
conjunction	-2395 Apr 13 j 07:07	2° Ÿ 38'56	-2°04'03	opposition	-2389 Oct 29 j 12:54	17° Ÿ 15'42	-2°03'13
minimum elong	-2395 Apr 13 j 07:08	2° Ÿ 38'56	2°04'02	min. Earth dist.	-2389 Oct 29 j 06:46	17° Ÿ 16'08	28.88955 AU
max. Earth dist.	-2395 Apr 13 j 19:28	2° Ÿ 40'05	30.84769 AU	direct	-2388 Jan 15 j 11:06	15° Ÿ 51'18	
morning rise	-2395 Apr 29 j 12:52	3° Ÿ 14'59		evening set	-2388 Apr 13 j 06:09	17° Ÿ 46'15	
retrograde	-2395 Jul 29 j 03:59	5° Ÿ 12'33					
opposition	-2395 Oct 15 j 21:08	3° Ÿ 47'32	-2°12'13	conjunction	-2388 Apr 29 j 12:16	18° Ÿ 22'15	-1°54'15
min. Earth dist.	-2395 Oct 15 j 09:45	3° Ÿ 48'21	28.85078 AU	minimum elong	-2388 Apr 29 j 12:17	18° Ÿ 22'15	1°54'14
direct	-2394 Jan 01 j 11:28	2° Ÿ 23'10		max. Earth dist.	-2388 Apr 29 j 17:49	18° Ÿ 22'46	30.89140 AU
evening set	-2394 Mar 30 j 17:10	4° Ÿ 17'36		morning rise	-2388 May 15 j 19:16	18° Ÿ 58'21	
				retrograde	-2388 Aug 13 j 20:36	20° Ÿ 55'05	

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -2388 in astronomical counting style is the year 2389 BCE in historical counting style.

opposition	-2388 Oct 30 j 23:35	19° Υ 30'40	-2°01'02	conjunction	-2381 May 16 j 16:52	4° \mathcal{B} 03'42	-1°36'05
min. Earth dist.	-2388 Oct 30 j 18:19	19° Υ 31'03	28.89541 AU	minimum elong	-2381 May 16 j 16:52	4° \mathcal{B} 03'42	1°36'02
direct	-2387 Jan 16 j 21:47	18° Υ 06'13		max. Earth dist.	-2381 May 16 j 15:25	4° \mathcal{B} 03'34	30.92541 AU
evening set	-2387 Apr 15 j 20:16	20° Υ 01'14		morning rise	-2381 Jun 02 j 00:20	4° \mathcal{B} 39'45	
				retrograde	-2381 Aug 30 j 06:38	6° \mathcal{B} 35'16	
conjunction	-2387 May 02 j 02:48	20° Υ 37'15	-1°52'08	opposition	-2381 Nov 16 j 00:15	5° \mathcal{B} 11'07	-1°41'02
minimum elong	-2387 May 02 j 02:48	20° Υ 37'15	1°52'06	min. Earth dist.	-2381 Nov 16 j 01:16	5° \mathcal{B} 11'03	28.93009 AU
max. Earth dist.	-2387 May 02 j 08:09	20° Υ 37'45	30.89672 AU	direct	-2380 Feb 02 j 12:13	3° \mathcal{B} 46'12	
morning rise	-2387 May 18 j 09:46	21° Υ 13'21		evening set	-2380 May 01 j 23:05	5° \mathcal{B} 41'29	
retrograde	-2387 Aug 16 j 07:22	23° Υ 09'56					
opposition	-2387 Nov 02 j 10:17	21° Υ 45'34	-1°58'41	conjunction	-2380 May 18 j 07:06	6° \mathcal{B} 17'33	-1°32'53
min. Earth dist.	-2387 Nov 02 j 06:40	21° Υ 45'50	28.90016 AU	minimum elong	-2380 May 18 j 07:07	6° \mathcal{B} 17'33	1°32'52
direct	-2386 Jan 19 j 08:44	20° Υ 21'04		max. Earth dist.	-2380 May 18 j 05:58	6° \mathcal{B} 17'27	30.93339 AU
evening set	-2386 Apr 18 j 10:35	22° Υ 16'07		morning rise	-2380 Jun 03 j 14:26	6° \mathcal{B} 53'36	
				retrograde	-2380 Aug 31 j 17:39	8° \mathcal{B} 48'57	
conjunction	-2386 May 04 j 17:19	22° Υ 52'09	-1°49'51	opposition	-2380 Nov 17 j 10:32	7° \mathcal{B} 24'53	-1°37'32
minimum elong	-2386 May 04 j 17:19	22° Υ 52'09	1°49'50	min. Earth dist.	-2380 Nov 17 j 12:03	7° \mathcal{B} 24'47	28.93858 AU
max. Earth dist.	-2386 May 04 j 20:38	22° Υ 52'27	30.90122 AU	direct	-2379 Feb 04 j 00:51	5° \mathcal{B} 59'57	
morning rise	-2386 May 21 j 00:33	23° Υ 28'15		evening set	-2379 May 04 j 13:01	7° \mathcal{B} 55'18	
retrograde	-2386 Aug 18 j 19:21	25° Υ 24'39					
opposition	-2386 Nov 04 j 20:37	24° Υ 00'19	-1°56'10	conjunction	-2379 May 20 j 21:01	8° \mathcal{B} 31'22	-1°29'33
min. Earth dist.	-2386 Nov 04 j 17:19	24° Υ 00'33	28.90429 AU	minimum elong	-2379 May 20 j 21:01	8° \mathcal{B} 31'22	1°29'30
direct	-2385 Jan 21 j 21:19	22° Υ 35'44		max. Earth dist.	-2379 May 20 j 17:58	8° \mathcal{B} 31'05	30.94258 AU
evening set	-2385 Apr 21 j 00:52	24° Υ 30'50		morning rise	-2379 Jun 06 j 04:31	9° \mathcal{B} 07'25	
				retrograde	-2379 Sep 03 j 06:17	11° \mathcal{B} 02'37	
conjunction	-2385 May 07 j 07:53	25° Υ 06'52	-1°47'25	opposition	-2379 Nov 19 j 20:46	9° \mathcal{B} 38'39	-1°33'53
minimum elong	-2385 May 07 j 07:54	25° Υ 06'52	1°47'23	min. Earth dist.	-2379 Nov 19 j 22:47	9° \mathcal{B} 38'31	28.94816 AU
max. Earth dist.	-2385 May 07 j 10:32	25° Υ 07'06	30.90512 AU	direct	-2378 Feb 06 j 11:35	8° \mathcal{B} 13'43	
morning rise	-2385 May 23 j 15:07	25° Υ 42'57		evening set	-2378 May 07 j 03:02	10° \mathcal{B} 09'08	
retrograde	-2385 Aug 21 j 05:56	27° Υ 39'11					
opposition	-2385 Nov 07 j 07:11	26° Υ 14'53	-1°53'28	conjunction	-2378 May 23 j 11:19	10° \mathcal{B} 45'13	-1°26'04
min. Earth dist.	-2385 Nov 07 j 05:44	26° Υ 14'59	28.90809 AU	minimum elong	-2378 May 23 j 11:19	10° \mathcal{B} 45'13	1°26'02
direct	-2384 Jan 24 j 09:49	24° Υ 50'12		max. Earth dist.	-2378 May 23 j 08:24	10° \mathcal{B} 44'57	30.95241 AU
evening set	-2384 Apr 22 j 14:57	26° Υ 45'20		morning rise	-2378 Jun 08 j 18:35	11° \mathcal{B} 21'15	
				retrograde	-2378 Sep 05 j 16:27	13° \mathcal{B} 16'19	
conjunction	-2384 May 08 j 22:11	27° Υ 21'22	-1°44'49	opposition	-2378 Nov 22 j 06:59	11° \mathcal{B} 52'29	-1°30'06
minimum elong	-2384 May 08 j 22:11	27° Υ 21'22	1°44'47	min. Earth dist.	-2378 Nov 22 j 10:36	11° \mathcal{B} 52'13	28.95799 AU
max. Earth dist.	-2384 May 08 j 23:41	27° Υ 21'31	30.90908 AU	direct	-2377 Feb 08 j 22:28	10° \mathcal{B} 27'33	
morning rise	-2384 May 25 j 05:30	27° Υ 57'27		evening set	-2377 May 09 j 17:16	12° \mathcal{B} 23'02	
retrograde	-2384 Aug 22 j 18:23	29° Υ 53'30					
opposition	-2384 Nov 08 j 17:27	28° Υ 29'13	-1°50'36	conjunction	-2377 May 26 j 01:29	12° \mathcal{B} 59'07	-1°22'27
min. Earth dist.	-2384 Nov 08 j 15:48	28° Υ 29'20	28.91213 AU	minimum elong	-2377 May 26 j 01:30	12° \mathcal{B} 59'07	1°22'24
direct	-2383 Jan 25 j 23:18	27° Υ 04'28		max. Earth dist.	-2377 May 25 j 20:35	12° \mathcal{B} 58'40	30.96228 AU
evening set	-2383 Apr 25 j 05:03	28° Υ 59'37		morning rise	-2377 Jun 11 j 08:50	13° \mathcal{B} 35'09	
					-2377 Jul 27 j 13:08	15° \mathcal{B}	
conjunction	-2383 May 11 j 12:25	29° Υ 35'40	-1°42'03	retrograde	-2377 Sep 08 j 04:11	15° \mathcal{B} 30'05	
minimum elong	-2383 May 11 j 12:26	29° Υ 35'40	1°42'01		-2377 Oct 21 j 10:42	15° \mathcal{R} \mathcal{B}	
max. Earth dist.	-2383 May 11 j 12:49	29° Υ 35'42	30.91344 AU	opposition	-2377 Nov 24 j 17:15	14° \mathcal{B} 06'20	-1°26'10
	-2383 May 22 j 11:07	0° \mathcal{B}		min. Earth dist.	-2377 Nov 24 j 21:06	14° \mathcal{B} 06'04	28.96758 AU
morning rise	-2383 May 27 j 19:49	0° \mathcal{B} 11'44		direct	-2376 Feb 11 j 10:31	12° \mathcal{B} 41'24	
retrograde	-2383 Aug 25 j 06:04	2° \mathcal{B} 07'36		evening set	-2376 May 11 j 07:17	14° \mathcal{B} 36'58	
opposition	-2383 Nov 11 j 03:46	0° \mathcal{B} 43'21	-1°47'34		-2376 May 21 j 18:53	15° \mathcal{B}	
min. Earth dist.	-2383 Nov 11 j 03:47	0° \mathcal{B} 43'21	28.91697 AU				
	-2383 Dec 07 j 19:38	30° \mathcal{R} Υ		conjunction	-2376 May 27 j 15:36	15° \mathcal{B} 13'03	-1°18'44
direct	-2382 Jan 28 j 10:40	29° Υ 18'31		minimum elong	-2376 May 27 j 15:37	15° \mathcal{B} 13'03	1°18'41
	-2382 Mar 20 j 04:46	0° \mathcal{B}		max. Earth dist.	-2376 May 27 j 10:08	15° \mathcal{B} 12'32	30.97144 AU
evening set	-2382 Apr 27 j 19:00	1° \mathcal{B} 13'43		morning rise	-2376 Jun 12 j 22:42	15° \mathcal{B} 49'03	
				retrograde	-2376 Sep 09 j 14:17	17° \mathcal{B} 43'51	
conjunction	-2382 May 14 j 02:43	1° \mathcal{B} 49'46	-1°39'09	opposition	-2376 Nov 26 j 03:41	16° \mathcal{B} 20'12	-1°22'07
minimum elong	-2382 May 14 j 02:43	1° \mathcal{B} 49'46	1°39'07	min. Earth dist.	-2376 Nov 26 j 09:29	16° \mathcal{B} 19'47	28.97631 AU
max. Earth dist.	-2382 May 14 j 02:56	1° \mathcal{B} 49'47	30.91887 AU		-2375 Jan 27 j 00:20	15° \mathcal{R} \mathcal{B}	
morning rise	-2382 May 30 j 10:05	2° \mathcal{B} 25'49		direct	-2375 Feb 12 j 22:00	14° \mathcal{B} 55'14	
retrograde	-2382 Aug 27 j 18:56	4° \mathcal{B} 21'30			-2375 Mar 01 j 20:23	15° \mathcal{B}	
opposition	-2382 Nov 13 j 14:01	2° \mathcal{B} 57'18	-1°44'23	evening set	-2375 May 13 j 21:21	16° \mathcal{B} 50'52	
min. Earth dist.	-2382 Nov 13 j 14:00	2° \mathcal{B} 57'18	28.92283 AU				
direct	-2381 Jan 31 j 00:56	1° \mathcal{B} 32'25		conjunction	-2375 May 30 j 05:42	17° \mathcal{B} 26'57	-1°14'53
evening set	-2381 Apr 30 j 09:09	3° \mathcal{B} 27'39		minimum elong	-2375 May 30 j 05:42	17° \mathcal{B} 26'57	1°14'50

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 3

Attention, astronomical year style is used: The year -2375 in astronomical counting style is the year 2376 BCE in historical counting style.

max. Earth dist.	-2375 May 29 j 22:39	17° 8 26'17	30.97980 AU	min. Earth dist.	-2369 Dec 12 j 14:21	1° II 52'52	29.02548 AU
morning rise	-2375 Jun 15 j 12:47	18° 8 02'57		direct	-2368 Feb 29 j 13:17	0° II 28'24	
retrograde	-2375 Sep 12 j 02:23	19° 8 57'35		evening set	-2368 May 29 j 21:35	2° II 24'16	
opposition	-2375 Nov 28 j 13:50	18° 8 34'00	-1°17'57				
min. Earth dist.	-2375 Nov 28 j 19:44	18° 8 33'35	28.98408 AU	conjunction	-2368 Jun 15 j 05:25	3° II 00'16	-0°45'20
direct	-2374 Feb 15 j 10:53	17° 8 09'00		minimum elong	-2368 Jun 15 j 05:25	3° II 00'17	0°45'17
evening set	-2374 May 16 j 11:27	19° 8 04'41		max. Earth dist.	-2368 Jun 14 j 15:59	2° II 59'02	31.02998 AU
				morning rise	-2368 Jul 01 j 11:07	3° II 36'07	
conjunction	-2374 Jun 01 j 19:48	19° 8 40'46	-1°10'56	retrograde	-2368 Sep 27 j 07:34	5° II 29'39	
minimum elong	-2374 Jun 01 j 19:48	19° 8 40'46	1°10'54	opposition	-2368 Dec 13 j 13:03	4° II 06'28	-0°46'03
max. Earth dist.	-2374 Jun 01 j 11:20	19° 8 39'59	30.98708 AU	min. Earth dist.	-2368 Dec 14 j 00:01	4° II 05'42	29.03533 AU
morning rise	-2374 Jun 18 j 02:44	20° 8 16'45		direct	-2367 Mar 03 j 01:05	2° II 41'11	
retrograde	-2374 Sep 14 j 13:32	22° 8 11'14		evening set	-2367 Jun 01 j 11:01	4° II 37'06	
opposition	-2374 Dec 01 j 00:12	20° 8 47'42	-1°13'41				
min. Earth dist.	-2374 Dec 01 j 08:02	20° 8 47'09	28.99095 AU	conjunction	-2367 Jun 17 j 18:47	5° II 13'07	-0°40'48
direct	-2373 Feb 17 j 22:34	19° 8 22'39		minimum elong	-2367 Jun 17 j 18:47	5° II 13'07	0°40'45
evening set	-2373 May 19 j 01:23	21° 8 18'22		max. Earth dist.	-2367 Jun 17 j 05:30	5° II 11'53	31.04044 AU
				morning rise	-2367 Jul 04 j 00:03	5° II 48'55	
conjunction	-2373 Jun 04 j 09:48	21° 8 54'27	-1°06'53	retrograde	-2367 Sep 29 j 16:59	7° II 42'21	
minimum elong	-2373 Jun 04 j 09:48	21° 8 54'27	1°06'49	opposition	-2367 Dec 15 j 23:09	6° II 19'15	-0°41'11
max. Earth dist.	-2373 Jun 04 j 00:43	21° 8 53'36	30.99367 AU	min. Earth dist.	-2367 Dec 16 j 11:39	6° II 18'23	29.04634 AU
morning rise	-2373 Jun 20 j 16:31	22° 8 30'24		direct	-2366 Mar 05 j 11:20	4° II 53'59	
retrograde	-2373 Sep 17 j 01:38	24° 8 24'43		evening set	-2366 Jun 04 j 00:31	6° II 49'58	
opposition	-2373 Dec 03 j 10:20	23° 8 01'15	-1°09'18				
min. Earth dist.	-2373 Dec 03 j 18:30	23° 8 00'40	28.99714 AU	conjunction	-2366 Jun 20 j 08:03	7° II 25'57	-0°36'12
direct	-2372 Feb 20 j 13:10	21° 8 36'09		minimum elong	-2366 Jun 20 j 08:03	7° II 25'57	0°36'10
evening set	-2372 May 20 j 15:19	23° 8 31'54		max. Earth dist.	-2366 Jun 19 j 17:42	7° II 24'37	31.05198 AU
				morning rise	-2366 Jul 06 j 13:06	8° II 01'45	
conjunction	-2372 Jun 05 j 23:34	24° 8 07'57	-1°02'44	retrograde	-2366 Oct 02 j 04:19	9° II 55'03	
minimum elong	-2372 Jun 05 j 23:34	24° 8 07'57	1°02'41	opposition	-2366 Dec 18 j 09:16	8° II 32'05	-0°36'15
max. Earth dist.	-2372 Jun 05 j 12:44	24° 8 06'57	30.99981 AU	min. Earth dist.	-2366 Dec 18 j 21:27	8° II 31'13	29.05801 AU
morning rise	-2372 Jun 22 j 06:12	24° 8 43'54		direct	-2365 Mar 07 j 22:59	7° II 06'49	
retrograde	-2372 Sep 18 j 12:56	26° 8 38'03		evening set	-2365 Jun 06 j 14:02	9° II 02'52	
opposition	-2372 Dec 04 j 20:32	25° 8 14'37	-1°04'49				
min. Earth dist.	-2372 Dec 05 j 05:52	25° 8 13'57	29.00334 AU	conjunction	-2365 Jun 22 j 21:17	9° II 38'50	-0°31'34
direct	-2371 Feb 22 j 00:52	23° 8 49'27		minimum elong	-2365 Jun 22 j 21:18	9° II 38'50	0°31'30
evening set	-2371 May 23 j 04:50	25° 8 45'14		max. Earth dist.	-2365 Jun 22 j 06:07	9° II 37'26	31.06370 AU
				morning rise	-2365 Jul 09 j 01:55	10° II 14'36	
conjunction	-2371 Jun 08 j 13:12	26° 8 21'17	-0°58'30	retrograde	-2365 Oct 04 j 14:34	12° II 07'49	
minimum elong	-2371 Jun 08 j 13:13	26° 8 21'17	0°58'26	opposition	-2365 Dec 20 j 19:34	10° II 44'57	-0°31'15
max. Earth dist.	-2371 Jun 08 j 02:35	26° 8 20'18	31.00613 AU	min. Earth dist.	-2365 Dec 21 j 09:25	10° II 43'58	29.06973 AU
morning rise	-2371 Jun 24 j 19:32	26° 8 57'12		direct	-2364 Mar 09 j 10:27	9° II 19'43	
retrograde	-2371 Sep 20 j 23:34	28° 8 51'11		evening set	-2364 Jun 08 j 03:30	11° II 15'49	
opposition	-2371 Dec 07 j 06:41	27° 8 27'47	-1°00'15				
min. Earth dist.	-2371 Dec 07 j 16:40	27° 8 27'05	29.00975 AU	conjunction	-2364 Jun 24 j 10:32	11° II 51'46	-0°26'52
direct	-2370 Feb 24 j 14:13	26° 8 02'35		minimum elong	-2364 Jun 24 j 10:32	11° II 51'46	0°26'49
evening set	-2370 May 25 j 18:37	27° 8 58'23		max. Earth dist.	-2364 Jun 23 j 18:54	11° II 50'19	31.07522 AU
				morning rise	-2364 Jul 10 j 14:46	12° II 27'29	
conjunction	-2370 Jun 11 j 02:43	28° 8 34'25	-0°54'11	retrograde	-2364 Oct 06 j 01:55	14° II 20'36	
minimum elong	-2370 Jun 11 j 02:44	28° 8 34'25	0°54'08	opposition	-2364 Dec 22 j 05:50	12° II 57'49	-0°26'13
max. Earth dist.	-2370 Jun 10 j 14:11	28° 8 33'16	31.01296 AU	min. Earth dist.	-2364 Dec 22 j 19:57	12° II 56'49	29.08082 AU
morning rise	-2370 Jun 27 j 08:59	29° 8 10'19		direct	-2363 Mar 12 j 00:17	11° II 32'35	
	-2370 Jul 21 j 20:47	0° II		evening set	-2363 Jun 10 j 16:57	13° II 28'44	
retrograde	-2370 Sep 23 j 11:50	1° II 04'08					
	-2370 Nov 28 j 06:29	30° 8		conjunction	-2363 Jun 26 j 23:37	14° II 04'40	-0°22'09
opposition	-2370 Dec 09 j 16:43	29° 8 40'48	-0°55'36	minimum elong	-2363 Jun 26 j 23:37	14° II 04'40	0°22'04
min. Earth dist.	-2370 Dec 10 j 02:59	29° 8 40'04	29.01708 AU	max. Earth dist.	-2363 Jun 26 j 06:17	14° II 03'04	31.08583 AU
direct	-2369 Feb 27 j 01:46	28° 8 15'32		morning rise	-2363 Jul 13 j 03:33	14° II 40'22	
	-2369 May 23 j 00:45	0° II		retrograde	-2363 Oct 08 j 13:20	16° II 33'22	
evening set	-2369 May 28 j 08:10	0° II 11'22		opposition	-2363 Dec 24 j 16:13	15° II 10'38	-0°21'08
				min. Earth dist.	-2363 Dec 25 j 07:32	15° II 09'34	29.09098 AU
conjunction	-2369 Jun 13 j 16:18	0° II 47'24	-0°49'48	direct	-2362 Mar 14 j 11:44	13° II 45'24	
minimum elong	-2369 Jun 13 j 16:18	0° II 47'24	0°49'44	evening set	-2362 Jun 13 j 06:22	15° II 41'35	
max. Earth dist.	-2369 Jun 13 j 04:15	0° II 46'18	31.02079 AU				
morning rise	-2369 Jun 29 j 22:06	1° II 23'16		conjunction	-2362 Jun 29 j 12:52	16° II 17'29	-0°17'23
retrograde	-2369 Sep 25 j 21:03	3° II 16'57		minimum elong	-2362 Jun 29 j 12:52	16° II 17'29	0°17'20
opposition	-2369 Dec 12 j 02:57	1° II 53'40	-0°50'52	max. Earth dist.	-2362 Jun 28 j 19:29	16° II 15'53	31.09539 AU

Attention, astronomical year style is used: The year -2362 in astronomical counting style is the year 2363 BCE in historical counting style.

morning rise	-2362 Jul 15 j 16:14	16°II53'09		conjunction	-2356 Jul 12 j 16:40	29°II30'47	0°11'25
retrograde	-2362 Oct 11 j 00:06	18°II46'01		minimum elong	-2356 Jul 12 j 16:41	29°II30'47	0°11'28
opposition	-2362 Dec 27 j 02:33	17°II23'22	-0°16'03	behind sun begin	-2356 Jul 12 j 11:59	29°II30'22	
min. Earth dist.	-2362 Dec 27 j 18:46	17°II22'13	29.09988 AU	behind sun end	-2356 Jul 12 j 21:22	29°II31'12	
direct	-2361 Mar 17 j 01:35	15°II58'06		max. Earth dist.	-2356 Jul 11 j 19:08	29°II28'47	31.14136 AU
evening set	-2361 Jun 15 j 19:52	17°II54'18			-2356 Jul 25 j 21:04	0°00'00	
max. Earth dist.	-2361 Jul 01 j 06:23	18°II28'23	31.10384 AU	morning rise	-2356 Jul 28 j 17:11	0°00'06'12	
				retrograde	-2356 Oct 23 j 12:38	1°00'58'23	
conjunction	-2361 Jul 02 j 01:51	18°II30'10	-0°12'37	opposition	-2355 Jan 08 j 16:41	0°00'35'58	0°14'39
minimum elong	-2361 Jul 02 j 01:51	18°II30'10	0°12'33	min. Earth dist.	-2355 Jan 09 j 12:12	0°00'34'37	29.14628 AU
behind sun begin	-2361 Jul 01 j 21:43	18°II29'48			-2355 Jan 30 j 20:30	30°00'00'00	
behind sun end	-2361 Jul 02 j 06:00	18°II30'32		direct	-2355 Mar 30 j 00:50	29°II10'33	
morning rise	-2361 Jul 18 j 04:56	19°II05'48			-2355 May 25 j 16:54	0°00'00'00	
retrograde	-2361 Oct 13 j 12:25	20°II58'32		evening set	-2355 Jun 29 j 01:17	1°00'06'51	
opposition	-2361 Dec 29 j 12:56	19°II35'55	-0°10'56	max. Earth dist.	-2355 Jul 14 j 07:30	1°00'40'32	31.15091 AU
min. Earth dist.	-2361 Dec 30 j 05:32	19°II34'46	29.10792 AU				
direct	-2360 Mar 18 j 14:12	18°II10'37		conjunction	-2355 Jul 15 j 04:53	1°00'42'31	0°16'10
evening set	-2360 Jun 17 j 08:53	20°II06'51		minimum elong	-2355 Jul 15 j 04:53	1°00'42'31	0°16'14
				morning rise	-2355 Jul 31 j 04:52	2°00'17'53	
conjunction	-2360 Jul 03 j 14:41	20°II42'41	-0°07'51	retrograde	-2355 Oct 25 j 23:07	4°00'10'01	
minimum elong	-2360 Jul 03 j 14:41	20°II42'41	0°07'48	opposition	-2354 Jan 11 j 03:06	2°00'47'41	0°19'44
behind sun begin	-2360 Jul 03 j 08:47	20°II42'09		min. Earth dist.	-2354 Jan 11 j 22:19	2°00'46'20	29.15619 AU
behind sun end	-2360 Jul 03 j 20:35	20°II43'12		direct	-2354 Apr 01 j 13:47	1°00'22'17	
max. Earth dist.	-2360 Jul 02 j 19:34	20°II40'55	31.11143 AU	evening set	-2354 Jul 01 j 14:02	3°00'18'38	
morning rise	-2360 Jul 19 j 17:09	21°II18'15					
retrograde	-2360 Oct 14 j 21:19	23°II10'53		conjunction	-2354 Jul 17 j 17:01	3°00'54'16	0°20'54
opposition	-2360 Dec 30 j 23:22	21°II48'18	-0°05'48	minimum elong	-2354 Jul 17 j 17:01	3°00'54'16	0°20'57
min. Earth dist.	-2360 Dec 31 j 17:23	21°II47'02	29.11518 AU	max. Earth dist.	-2354 Jul 16 j 18:40	3°00'52'12	31.16121 AU
direct	-2359 Mar 21 j 02:50	20°II22'58		morning rise	-2354 Aug 02 j 16:29	4°00'29'36	
evening set	-2359 Jun 19 j 22:04	22°II19'11		retrograde	-2354 Oct 28 j 10:17	6°00'21'42	
max. Earth dist.	-2359 Jul 05 j 06:37	22°II53'04	31.11856 AU	opposition	-2353 Jan 13 j 13:31	4°00'59'27	0°24'47
				min. Earth dist.	-2353 Jan 14 j 09:19	4°00'58'05	29.16689 AU
conjunction	-2359 Jul 06 j 03:22	22°II54'59	-0°03'04	direct	-2353 Apr 04 j 00:14	3°00'34'06	
minimum elong	-2359 Jul 06 j 03:21	22°II54'59	0°03'00	evening set	-2353 Jul 04 j 02:37	5°00'30'32	
behind sun begin	-2359 Jul 05 j 20:48	22°II54'24		max. Earth dist.	-2353 Jul 19 j 07:30	6°00'04'06	31.17203 AU
behind sun end	-2359 Jul 06 j 09:53	22°II55'34					
morning rise	-2359 Jul 22 j 05:31	23°II30'31		conjunction	-2353 Jul 20 j 05:12	6°00'06'07	0°25'36
retrograde	-2359 Oct 17 j 07:53	25°II23'00		minimum elong	-2353 Jul 20 j 05:11	6°00'06'07	0°25'40
opposition	-2358 Jan 02 j 09:29	24°II00'28	-0°00'41	morning rise	-2353 Aug 05 j 03:58	6°00'41'24	
min. Earth dist.	-2358 Jan 03 j 03:16	23°II59'13	29.12222 AU	retrograde	-2353 Oct 30 j 21:09	8°00'33'28	
asc. node	-2358 Feb 19 j 20:16	22°II50'58		opposition	-2352 Jan 16 j 00:11	7°00'11'20	0°29'47
direct	-2358 Mar 23 j 15:02	22°II35'05		min. Earth dist.	-2352 Jan 16 j 20:29	7°00'09'55	29.17763 AU
evening set	-2358 Jun 22 j 11:04	24°II31'18		direct	-2352 Apr 05 j 13:43	5°00'46'02	
				evening set	-2352 Jul 05 j 15:09	7°00'42'30	
conjunction	-2358 Jul 08 j 16:03	25°II07'05	0°01'52				
minimum elong	-2358 Jul 08 j 16:03	25°II07'05	0°01'55	conjunction	-2352 Jul 21 j 17:01	8°00'18'03	0°30'16
behind sun begin	-2358 Jul 08 j 09:29	25°II06'30		minimum elong	-2352 Jul 21 j 17:01	8°00'18'03	0°30'19
behind sun end	-2358 Jul 08 j 22:37	25°II07'40		max. Earth dist.	-2352 Jul 20 j 17:47	8°00'15'54	31.18259 AU
max. Earth dist.	-2358 Jul 07 j 19:31	25°II05'11	31.12555 AU	morning rise	-2352 Aug 06 j 15:21	8°00'53'18	
morning rise	-2358 Jul 24 j 17:35	25°II42'35		retrograde	-2352 Nov 01 j 09:49	10°00'45'21	
retrograde	-2358 Oct 19 j 16:55	27°II34'57		opposition	-2351 Jan 17 j 10:46	9°00'23'17	0°34'45
opposition	-2357 Jan 04 j 19:57	26°II12'26	0°04'27	min. Earth dist.	-2351 Jan 18 j 07:08	9°00'21'52	29.18796 AU
min. Earth dist.	-2357 Jan 05 j 15:09	26°II11'06	29.12943 AU	direct	-2351 Apr 08 j 02:15	7°00'58'02	
direct	-2357 Mar 26 j 01:54	24°II47'01		evening set	-2351 Jul 08 j 03:39	9°00'54'33	
evening set	-2357 Jun 24 j 23:55	26°II43'16		max. Earth dist.	-2351 Jul 23 j 06:23	10°00'27'58	31.19232 AU
max. Earth dist.	-2357 Jul 10 j 07:07	27°II17'02	31.13306 AU				
				conjunction	-2351 Jul 24 j 05:08	10°00'30'04	0°34'53
conjunction	-2357 Jul 11 j 04:23	27°II19'00	0°06'40	minimum elong	-2351 Jul 24 j 05:08	10°00'30'04	0°34'57
minimum elong	-2357 Jul 11 j 04:22	27°II19'00	0°06'44	morning rise	-2351 Aug 09 j 02:41	11°00'05'17	
behind sun begin	-2357 Jul 10 j 22:15	27°II18'27		retrograde	-2351 Nov 03 j 19:00	12°00'57'17	
behind sun end	-2357 Jul 11 j 10:29	27°II19'32		opposition	-2350 Jan 19 j 21:27	11°00'35'18	0°39'40
morning rise	-2357 Jul 27 j 05:28	27°II54'27		min. Earth dist.	-2350 Jan 20 j 19:14	11°00'33'47	29.19713 AU
retrograde	-2357 Oct 22 j 03:08	29°II46'43		direct	-2350 Apr 10 j 14:48	10°00'10'04	
opposition	-2356 Jan 07 j 06:16	28°II24'15	0°09'34	evening set	-2350 Jul 10 j 16:21	12°00'06'38	
min. Earth dist.	-2356 Jan 08 j 00:44	28°II22'58	29.13730 AU				
direct	-2356 Mar 27 j 13:51	26°II58'49		conjunction	-2350 Jul 26 j 17:04	12°00'42'06	0°39'28
evening set	-2356 Jun 26 j 12:41	28°II55'05		minimum elong	-2350 Jul 26 j 17:04	12°00'42'06	0°39'30

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 5

Attention, astronomical year style is used: The year -2350 in astronomical counting style is the year 2351 BCE in historical counting style.

max. Earth dist.	-2350 Jul 25 j 16:46	12° $\overline{53}$ '51	31.20087 AU	max. Earth dist.	-2343 Aug 09 j 23:18	27° $\overline{59}$ '51	31.23740 AU
morning rise	-2350 Aug 11 j 14:10	13° $\overline{51}$ '16					
retrograde	-2350 Nov 06 j 06:02	15° $\overline{50}$ '13		conjunction	-2343 Aug 11 j 00:59	28° $\overline{50}$ '14	1°09'22
opposition	-2349 Jan 22 j 08:12	13° $\overline{54}$ '17	0°44'31	minimum elong	-2343 Aug 11 j 00:59	28° $\overline{50}$ '14	1°09'25
min. Earth dist.	-2349 Jan 23 j 05:38	13° $\overline{54}$ '48	29.20504 AU	morning rise	-2343 Aug 26 j 17:35	28° $\overline{53}$ '03	
direct	-2349 Apr 13 j 03:21	12° $\overline{52}$ '04			-2343 Oct 10 j 20:15	0° Ω	
evening set	-2349 Jul 13 j 04:42	14° $\overline{51}$ '39		retrograde	-2343 Nov 21 j 03:20	0° Ω 28'42	
max. Earth dist.	-2349 Jul 28 j 04:49	14° $\overline{51}$ '50	31.20796 AU		-2342 Jan 02 j 12:43	30° \overline{R} $\overline{5}$	
				opposition	-2342 Feb 06 j 12:06	29° $\overline{50}$ '48	1°16'10
conjunction	-2349 Jul 29 j 04:56	14° $\overline{54}$ '05	0°43'58	min. Earth dist.	-2342 Feb 07 j 10:49	29° $\overline{50}$ '14	29.24138 AU
minimum elong	-2349 Jul 29 j 04:55	14° $\overline{54}$ '05	0°44'01	direct	-2342 Apr 28 j 14:55	27° $\overline{54}$ '29	
morning rise	-2349 Aug 14 j 01:13	15° $\overline{52}$ '11		evening set	-2342 Jul 28 j 16:15	29° $\overline{53}$ '58	
retrograde	-2349 Nov 08 j 15:36	17° $\overline{52}$ '06			-2342 Aug 07 j 15:47	0° Ω	
opposition	-2348 Jan 24 j 19:08	15° $\overline{59}$ '12	0°49'18	max. Earth dist.	-2342 Aug 12 j 11:38	0° Ω 10'47	31.24401 AU
min. Earth dist.	-2348 Jan 25 j 18:03	15° $\overline{57}$ '37	29.21157 AU				
direct	-2348 Apr 14 j 14:41	14° $\overline{53}$ '59		conjunction	-2342 Aug 13 j 12:03	0° Ω 13'03	1°13'17
evening set	-2348 Jul 14 j 17:05	16° $\overline{53}$ '33		minimum elong	-2342 Aug 13 j 12:03	0° Ω 13'03	1°13'19
				morning rise	-2342 Aug 29 j 03:50	0° Ω 47'49	
conjunction	-2348 Jul 30 j 16:38	17° $\overline{50}$ '56	0°48'24	retrograde	-2342 Nov 23 j 12:30	2° Ω 39'29	
minimum elong	-2348 Jul 30 j 16:38	17° $\overline{50}$ '56	0°48'27	opposition	-2341 Feb 08 j 23:12	1° Ω 17'37	1°20'17
max. Earth dist.	-2348 Jul 29 j 15:39	17° $\overline{50}$ '37	31.21390 AU	min. Earth dist.	-2341 Feb 09 j 22:36	1° Ω 16'01	29.24841 AU
morning rise	-2348 Aug 15 j 12:25	17° $\overline{54}$ '00			-2341 Apr 09 j 02:12	30° \overline{R} $\overline{5}$	
retrograde	-2348 Nov 10 j 01:17	19° $\overline{53}$ '51		direct	-2341 May 01 j 03:05	29° $\overline{52}$ '22	
opposition	-2347 Jan 26 j 05:48	18° $\overline{51}$ '58	0°54'00		-2341 May 22 j 22:31	0° Ω	
min. Earth dist.	-2347 Jan 27 j 04:12	18° $\overline{50}$ '25	29.21693 AU	evening set	-2341 Jul 31 j 03:46	1° Ω 48'51	
direct	-2347 Apr 17 j 03:06	16° $\overline{54}$ '44					
evening set	-2347 Jul 17 j 05:16	18° $\overline{54}$ '17		conjunction	-2341 Aug 15 j 22:44	2° Ω 23'53	1°17'05
max. Earth dist.	-2347 Aug 01 j 02:49	19° $\overline{51}$ '15	31.21871 AU	minimum elong	-2341 Aug 15 j 22:44	2° Ω 23'53	1°17'08
				max. Earth dist.	-2341 Aug 14 j 21:41	2° Ω 21'33	31.25139 AU
conjunction	-2347 Aug 02 j 04:16	19° $\overline{51}$ '37	0°52'46	morning rise	-2341 Aug 31 j 14:01	2° Ω 58'36	
minimum elong	-2347 Aug 02 j 04:15	19° $\overline{51}$ '37	0°52'50	retrograde	-2341 Nov 25 j 23:51	4° Ω 50'18	
morning rise	-2347 Aug 17 j 23:22	19° $\overline{52}$ '38		opposition	-2340 Feb 11 j 10:13	3° Ω 28'29	1°24'17
retrograde	-2347 Nov 12 j 09:58	21° $\overline{54}$ '26		min. Earth dist.	-2340 Feb 12 j 08:34	3° Ω 26'57	29.25598 AU
opposition	-2346 Jan 28 j 16:41	20° $\overline{52}$ '32	0°58'37	direct	-2340 May 02 j 15:40	2° Ω 03'17	
min. Earth dist.	-2346 Jan 29 j 16:15	20° $\overline{52}$ '55	29.22148 AU	evening set	-2340 Aug 01 j 15:12	3° Ω 59'48	
direct	-2346 Apr 19 j 14:15	18° $\overline{57}$ '16		max. Earth dist.	-2340 Aug 16 j 09:21	4° Ω 32'32	31.25887 AU
evening set	-2346 Jul 19 j 17:20	20° $\overline{53}$ '48					
				conjunction	-2340 Aug 17 j 09:38	4° Ω 34'48	1°20'46
conjunction	-2346 Aug 04 j 15:43	21° $\overline{52}$ '05	0°57'03	minimum elong	-2340 Aug 17 j 09:37	4° Ω 34'48	1°20'49
minimum elong	-2346 Aug 04 j 15:42	21° $\overline{52}$ '05	0°57'07	morning rise	-2340 Sep 02 j 00:08	5° Ω 09'28	
max. Earth dist.	-2346 Aug 03 j 14:30	21° $\overline{52}$ '44	31.22297 AU	retrograde	-2340 Nov 27 j 09:50	7° Ω 01'11	
morning rise	-2346 Aug 20 j 10:10	22° $\overline{50}$ '03		opposition	-2339 Feb 12 j 21:19	5° Ω 39'26	1°28'10
retrograde	-2346 Nov 14 j 19:09	23° $\overline{55}$ '47		min. Earth dist.	-2339 Feb 13 j 20:46	5° Ω 37'49	29.26345 AU
opposition	-2345 Jan 31 j 03:30	22° $\overline{53}$ '53	1°03'09	direct	-2339 May 05 j 03:02	4° Ω 14'17	
min. Earth dist.	-2345 Feb 01 j 02:45	22° $\overline{53}$ '17	29.22557 AU	evening set	-2339 Aug 04 j 02:41	6° Ω 10'49	
direct	-2345 Apr 22 j 02:42	21° $\overline{50}$ '35					
evening set	-2345 Jul 22 j 05:19	23° $\overline{50}$ '05		conjunction	-2339 Aug 19 j 20:23	6° Ω 45'46	1°24'21
max. Earth dist.	-2345 Aug 06 j 01:03	23° $\overline{53}$ '55	31.22709 AU	minimum elong	-2339 Aug 19 j 20:22	6° Ω 45'46	1°24'24
				max. Earth dist.	-2339 Aug 18 j 19:44	6° Ω 43'28	31.26603 AU
conjunction	-2345 Aug 07 j 02:57	23° $\overline{54}$ '19	1°01'15	morning rise	-2339 Sep 04 j 10:20	7° Ω 20'24	
minimum elong	-2345 Aug 07 j 02:57	23° $\overline{54}$ '19	1°01'19	retrograde	-2339 Nov 29 j 19:49	9° Ω 12'10	
morning rise	-2345 Aug 22 j 20:49	24° $\overline{51}$ '14		opposition	-2338 Feb 15 j 08:30	7° Ω 50'27	1°31'56
retrograde	-2345 Nov 17 j 05:48	26° $\overline{50}$ '56		min. Earth dist.	-2338 Feb 16 j 07:06	7° Ω 48'54	29.27016 AU
opposition	-2344 Feb 02 j 14:24	24° $\overline{54}$ '01	1°07'36	direct	-2338 May 07 j 15:32	6° Ω 25'22	
min. Earth dist.	-2344 Feb 03 j 13:49	24° $\overline{54}$ '24	29.23007 AU	evening set	-2338 Aug 06 j 14:06	8° Ω 21'55	
direct	-2344 Apr 23 j 13:10	23° $\overline{51}$ '41		max. Earth dist.	-2338 Aug 21 j 06:16	8° Ω 54'30	31.27210 AU
evening set	-2344 Jul 23 j 16:53	25° $\overline{51}$ '10					
				conjunction	-2338 Aug 22 j 07:06	8° Ω 56'49	1°27'48
conjunction	-2344 Aug 08 j 14:01	25° $\overline{51}$ '21	1°05'22	minimum elong	-2338 Aug 22 j 07:06	8° Ω 56'49	1°27'51
minimum elong	-2344 Aug 08 j 14:00	25° $\overline{51}$ '21	1°05'24	morning rise	-2338 Sep 06 j 20:22	9° Ω 31'24	
max. Earth dist.	-2344 Aug 07 j 13:17	25° $\overline{54}$ '03	31.23181 AU	retrograde	-2338 Dec 02 j 05:10	11° Ω 23'13	
morning rise	-2344 Aug 24 j 07:07	26° $\overline{52}$ '13		opposition	-2337 Feb 17 j 19:56	10° Ω 01'32	1°35'33
retrograde	-2344 Nov 18 j 15:29	28° $\overline{51}$ '53		min. Earth dist.	-2337 Feb 18 j 19:26	9° Ω 59'55	29.27582 AU
opposition	-2343 Feb 04 j 01:20	26° $\overline{55}$ '58	1°11'56	direct	-2337 May 10 j 02:03	8° Ω 36'29	
min. Earth dist.	-2343 Feb 05 j 00:44	26° $\overline{54}$ '21	29.23518 AU	evening set	-2337 Aug 09 j 01:26	10° Ω 33'02	
direct	-2343 Apr 26 j 02:53	25° $\overline{53}$ '38					
evening set	-2343 Jul 26 j 04:41	27° $\overline{52}$ '06		conjunction	-2337 Aug 24 j 17:49	11° Ω 07'54	1°31'08

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 6

Attention, astronomical year style is used: The year -2337 in astronomical counting style is the year 2338 BCE in historical counting style.

minimum elong	-2337 Aug 24 j 17:48	11°Ω07'54	1°31'10	opposition	-2330 Mar 05 j 04:20	25°Ω17'11	1°56'46
max. Earth dist.	-2337 Aug 23 j 17:22	11°Ω05'36	31.27709 AU	min. Earth dist.	-2330 Mar 06 j 02:35	25°Ω15'39	29.29139 AU
morning rise	-2337 Sep 09 j 06:24	11°Ω42'26		direct	-2330 May 25 j 14:57	23°Ω52'15	
retrograde	-2337 Dec 04 j 14:35	13°Ω34'17		evening set	-2330 Aug 24 j 05:21	25°Ω48'34	
opposition	-2336 Feb 20 j 07:21	12°Ω12'37	1°39'02				
min. Earth dist.	-2336 Feb 21 j 06:29	12°Ω11'02	29.28012 AU	conjunction	-2330 Sep 08 j 17:12	26°Ω23'06	1°50'28
direct	-2336 May 11 j 13:54	10°Ω47'36		minimum elong	-2330 Sep 08 j 17:11	26°Ω23'06	1°50'30
evening set	-2336 Aug 10 j 12:38	12°Ω44'08		max. Earth dist.	-2330 Sep 07 j 18:47	26°Ω21'00	31.29167 AU
max. Earth dist.	-2336 Aug 25 j 03:01	13°Ω16'35	31.28068 AU	morning rise	-2330 Sep 24 j 01:46	26°Ω57'21	
				retrograde	-2330 Dec 19 j 15:18	28°Ω49'28	
conjunction	-2336 Aug 26 j 04:16	13°Ω18'57	1°34'19	opposition	-2329 Mar 07 j 15:58	27°Ω27'39	1°59'09
minimum elong	-2336 Aug 26 j 04:16	13°Ω18'57	1°34'21	min. Earth dist.	-2329 Mar 08 j 12:34	27°Ω26'15	29.29486 AU
morning rise	-2336 Sep 10 j 16:20	13°Ω53'27		direct	-2329 May 28 j 03:40	26°Ω02'47	
	-2336 Oct 14 j 16:28	15°Ω		evening set	-2329 Aug 26 j 15:48	27°Ω59'04	
retrograde	-2336 Dec 06 j 01:31	15°Ω45'20		max. Earth dist.	-2329 Sep 10 j 05:05	28°Ω31'31	31.29555 AU
	-2335 Jan 29 j 20:30	15°RΩ					
opposition	-2335 Feb 21 j 18:47	14°Ω23'40	1°42'22	conjunction	-2329 Sep 11 j 03:03	28°Ω33'34	1°52'38
min. Earth dist.	-2335 Feb 22 j 18:08	14°Ω22'04	29.28319 AU	minimum elong	-2329 Sep 11 j 03:03	28°Ω33'34	1°52'40
direct	-2335 May 14 j 00:08	12°Ω58'40		morning rise	-2329 Sep 26 j 11:05	29°Ω07'48	
evening set	-2335 Aug 12 j 23:44	14°Ω55'10			-2329 Oct 22 j 02:23	0°൬	
	-2335 Aug 15 j 04:36	15°Ω		retrograde	-2329 Dec 22 j 00:40	0°൬59'59	
					-2328 Feb 24 j 15:33	30°RΩ	
conjunction	-2335 Aug 28 j 14:51	15°Ω29'56	1°37'23	opposition	-2328 Mar 09 j 03:43	29°Ω38'12	2°01'22
minimum elong	-2335 Aug 28 j 14:51	15°Ω29'56	1°37'25	min. Earth dist.	-2328 Mar 10 j 00:30	29°Ω36'47	29.29922 AU
max. Earth dist.	-2335 Aug 27 j 14:36	15°Ω27'40	31.28306 AU	direct	-2328 May 29 j 13:58	28°Ω13'24	
morning rise	-2335 Sep 13 j 02:11	16°Ω04'24			-2328 Aug 23 j 15:16	0°൬	
retrograde	-2335 Dec 08 j 11:13	17°Ω56'19		evening set	-2328 Aug 28 j 02:03	0°൬09'40	
opposition	-2334 Feb 24 j 06:11	16°Ω34'37	1°45'34				
min. Earth dist.	-2334 Feb 25 j 05:45	16°Ω33'00	29.28500 AU	conjunction	-2328 Sep 12 j 12:49	0°൬44'08	1°54'37
direct	-2334 May 16 j 13:32	15°Ω09'38		minimum elong	-2328 Sep 12 j 12:49	0°൬44'08	1°54'39
evening set	-2334 Aug 15 j 10:51	17°Ω06'06		max. Earth dist.	-2328 Sep 11 j 16:01	0°൬42'11	31.30009 AU
max. Earth dist.	-2334 Aug 29 j 23:57	17°Ω38'28	31.28450 AU	morning rise	-2328 Sep 27 j 20:20	1°൬18'20	
				retrograde	-2328 Dec 23 j 09:54	3°൬10'36	
conjunction	-2334 Aug 31 j 01:09	17°Ω40'49	1°40'17	opposition	-2327 Mar 11 j 15:29	1°൬48'50	2°03'25
minimum elong	-2334 Aug 31 j 01:09	17°Ω40'49	1°40'20	min. Earth dist.	-2327 Mar 12 j 11:27	1°൬47'29	29.30368 AU
morning rise	-2334 Sep 15 j 12:03	18°Ω15'14		direct	-2327 Jun 01 j 01:42	0°൬24'07	
retrograde	-2334 Dec 10 j 23:12	20°Ω07'11		evening set	-2327 Aug 30 j 12:30	2°൬20'21	
opposition	-2333 Feb 26 j 17:40	18°Ω45'27	1°48'36				
min. Earth dist.	-2333 Feb 27 j 16:29	18°Ω43'53	29.28625 AU	conjunction	-2327 Sep 14 j 22:34	2°൬54'47	1°56'27
direct	-2333 May 19 j 01:20	17°Ω20'28		minimum elong	-2327 Sep 14 j 22:33	2°൬54'47	1°56'29
evening set	-2333 Aug 17 j 21:29	19°Ω16'53		max. Earth dist.	-2327 Sep 14 j 01:24	2°൬52'48	31.30441 AU
max. Earth dist.	-2333 Sep 01 j 11:33	19°Ω49'20	31.28550 AU	morning rise	-2327 Sep 30 j 05:40	3°൬28'58	
				retrograde	-2327 Dec 25 j 21:05	5°൬21'20	
conjunction	-2333 Sep 02 j 11:20	19°Ω51'34	1°43'04	opposition	-2326 Mar 14 j 03:19	3°൬59'35	2°05'17
minimum elong	-2333 Sep 02 j 11:19	19°Ω51'34	1°43'06	min. Earth dist.	-2326 Mar 14 j 23:03	3°൬58'14	29.30787 AU
morning rise	-2333 Sep 17 j 21:28	20°Ω25'56		direct	-2326 Jun 03 j 11:45	2°൬34'56	
retrograde	-2333 Dec 13 j 08:16	22°Ω17'54		evening set	-2326 Sep 01 j 22:48	4°൬31'09	
opposition	-2332 Feb 29 j 05:19	20°Ω56'08	1°51'29				
min. Earth dist.	-2332 Mar 01 j 04:37	20°Ω54'33	29.28730 AU	conjunction	-2326 Sep 17 j 08:27	5°൬05'32	1°58'07
direct	-2332 May 20 j 13:25	19°Ω31'10		minimum elong	-2326 Sep 17 j 08:27	5°൬05'32	1°58'08
evening set	-2332 Aug 19 j 08:16	21°Ω27'32		max. Earth dist.	-2326 Sep 16 j 12:43	5°൬03'41	31.30816 AU
				morning rise	-2326 Oct 02 j 14:56	5°൬39'41	
conjunction	-2332 Sep 03 j 21:19	22°Ω02'09	1°45'41	retrograde	-2326 Dec 28 j 06:40	7°൬32'09	
minimum elong	-2332 Sep 03 j 21:18	22°Ω02'09	1°45'43	opposition	-2325 Mar 16 j 15:28	6°൬10'24	2°06'59
max. Earth dist.	-2332 Sep 02 j 21:14	21°Ω59'54	31.28675 AU	min. Earth dist.	-2325 Mar 17 j 11:06	6°൬09'04	29.31112 AU
morning rise	-2332 Sep 19 j 07:03	22°Ω36'29		direct	-2325 Jun 06 j 00:00	4°൬45'50	
retrograde	-2332 Dec 14 j 19:31	24°Ω28'29		evening set	-2325 Sep 04 j 09:07	6°൬41'59	
opposition	-2331 Mar 02 j 16:38	23°Ω06'42	1°54'12				
min. Earth dist.	-2331 Mar 03 j 14:30	23°Ω05'12	29.28891 AU	conjunction	-2325 Sep 19 j 18:03	7°൬16'21	1°59'37
direct	-2331 May 23 j 02:46	21°Ω41'43		minimum elong	-2325 Sep 19 j 18:03	7°൬16'21	1°59'38
evening set	-2331 Aug 21 j 18:50	23°Ω38'04		max. Earth dist.	-2325 Sep 18 j 21:35	7°൬14'26	31.31085 AU
max. Earth dist.	-2331 Sep 05 j 08:29	24°Ω10'31	31.28865 AU	morning rise	-2325 Oct 05 j 00:16	7°൬50'28	
				retrograde	-2325 Dec 30 j 18:48	9°൬43'02	
conjunction	-2331 Sep 06 j 07:23	24°Ω12'39	1°48'09	opposition	-2324 Mar 18 j 03:32	8°൬21'16	2°08'29
minimum elong	-2331 Sep 06 j 07:23	24°Ω12'39	1°48'11	min. Earth dist.	-2324 Mar 18 j 22:16	8°൬19'59	29.31323 AU
morning rise	-2331 Sep 21 j 16:26	24°Ω46'56		direct	-2324 Jun 07 j 10:32	6°൬56'44	
retrograde	-2331 Dec 17 j 05:54	26°Ω38'59		evening set	-2324 Sep 05 j 19:19	8°൬52'51	

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 7

Attention, astronomical year style is used: The year -2324 in astronomical counting style is the year 2325 BCE in historical counting style.

max. Earth dist.	-2324 Sep 20 j 08:39	9° \mathring{M} 25'22	31.31214 AU	min. Earth dist.	-2317 Apr 04 j 08:11	23° \mathring{M} 34'29	29.30151 AU
				direct	-2317 Jun 23 j 22:55	22° \mathring{M} 11'11	
conjunction	-2324 Sep 21 j 03:55	9° \mathring{M} 27'11	2°00'56	evening set	-2317 Sep 21 j 16:08	24° \mathring{M} 06'46	
minimum elong	-2324 Sep 21 j 03:55	9° \mathring{M} 27'11	2°00'57				
morning rise	-2324 Oct 06 j 09:33	10° \mathring{M} 01'16		conjunction	-2317 Oct 06 j 21:47	24° \mathring{M} 40'55	2°05'19
retrograde	-2323 Jan 01 j 04:34	11° \mathring{M} 53'55		minimum elong	-2317 Oct 06 j 21:48	24° \mathring{M} 40'55	2°05'19
opposition	-2323 Mar 20 j 15:38	10° \mathring{M} 32'07	2°09'48	max. Earth dist.	-2317 Oct 06 j 07:31	24° \mathring{M} 39'34	31.29949 AU
min. Earth dist.	-2323 Mar 21 j 11:03	10° \mathring{M} 30'48	29.31380 AU	morning rise	-2317 Oct 22 j 01:12	25° \mathring{M} 14'53	
direct	-2323 Jun 09 j 22:20	9° \mathring{M} 07'38		retrograde	-2316 Jan 17 j 04:41	27° \mathring{M} 08'07	
evening set	-2323 Sep 08 j 05:40	11° \mathring{M} 03'42		opposition	-2316 Apr 05 j 05:46	25° \mathring{M} 45'59	2°13'50
				min. Earth dist.	-2316 Apr 05 j 19:58	25° \mathring{M} 45'01	29.30073 AU
conjunction	-2323 Sep 23 j 13:38	11° \mathring{M} 37'59	2°02'05	direct	-2316 Jun 25 j 10:32	24° \mathring{M} 21'46	
minimum elong	-2323 Sep 23 j 13:38	11° \mathring{M} 37'59	2°02'06	evening set	-2316 Sep 23 j 01:46	26° \mathring{M} 17'18	
max. Earth dist.	-2323 Sep 22 j 17:54	11° \mathring{M} 36'08	31.31203 AU				
morning rise	-2323 Oct 08 j 19:00	12° \mathring{M} 12'03		conjunction	-2316 Oct 08 j 06:56	26° \mathring{M} 51'25	2°05'13
retrograde	-2322 Jan 03 j 16:37	14° \mathring{M} 04'45		minimum elong	-2316 Oct 08 j 06:56	26° \mathring{M} 51'25	2°05'13
opposition	-2322 Mar 23 j 03:47	12° \mathring{M} 42'55	2°10'57	max. Earth dist.	-2316 Oct 07 j 16:28	26° \mathring{M} 50'03	31.29907 AU
min. Earth dist.	-2322 Mar 23 j 21:54	12° \mathring{M} 41'42	29.31295 AU	morning rise	-2316 Oct 23 j 10:18	27° \mathring{M} 25'23	
direct	-2322 Jun 12 j 11:37	11° \mathring{M} 18'28		retrograde	-2315 Jan 18 j 16:54	29° \mathring{M} 18'46	
evening set	-2322 Sep 10 j 15:39	13° \mathring{M} 14'27		opposition	-2315 Apr 07 j 18:01	27° \mathring{M} 56'37	2°13'39
				min. Earth dist.	-2315 Apr 08 j 06:47	27° \mathring{M} 55'45	29.30045 AU
conjunction	-2322 Sep 25 j 23:14	13° \mathring{M} 48'42	2°03'04	direct	-2315 Jun 27 j 19:59	26° \mathring{M} 32'29	
minimum elong	-2322 Sep 25 j 23:14	13° \mathring{M} 48'42	2°03'05	evening set	-2315 Sep 25 j 11:15	28° \mathring{M} 27'59	
max. Earth dist.	-2322 Sep 25 j 04:24	13° \mathring{M} 46'56	31.31046 AU				
morning rise	-2322 Oct 11 j 04:08	14° \mathring{M} 22'45		conjunction	-2315 Oct 10 j 16:15	29° \mathring{M} 02'05	2°04'57
retrograde	-2321 Jan 06 j 03:25	16° \mathring{M} 15'32		minimum elong	-2315 Oct 10 j 16:15	29° \mathring{M} 02'05	2°04'57
opposition	-2321 Mar 25 j 16:10	14° \mathring{M} 53'38	2°11'54	max. Earth dist.	-2315 Oct 10 j 03:29	29° \mathring{M} 00'53	31.29877 AU
min. Earth dist.	-2321 Mar 26 j 10:51	14° \mathring{M} 52'22	29.31089 AU	morning rise	-2315 Oct 25 j 19:17	29° \mathring{M} 36'04	
direct	-2321 Jun 14 j 23:55	13° \mathring{M} 29'12			-2315 Nov 05 j 22:25	0° \mathring{A}	
evening set	-2321 Sep 13 j 01:36	15° \mathring{M} 25'05		retrograde	-2314 Jan 21 j 03:21	1° \mathring{A} 29'34	
				opposition	-2314 Apr 10 j 06:42	0° \mathring{A} 07'25	2°13'16
conjunction	-2321 Sep 28 j 08:44	15° \mathring{M} 59'19	2°03'52	min. Earth dist.	-2314 Apr 10 j 19:38	0° \mathring{A} 06'33	29.30002 AU
minimum elong	-2321 Sep 28 j 08:44	15° \mathring{M} 59'19	2°03'53		-2314 Apr 14 j 20:41	30° \mathring{R} \mathring{M}	
max. Earth dist.	-2321 Sep 27 j 14:25	15° \mathring{M} 57'36	31.30805 AU	direct	-2314 Jun 30 j 07:01	28° \mathring{M} 43'23	
morning rise	-2321 Oct 13 j 13:21	16° \mathring{M} 33'20			-2314 Sep 09 j 09:04	0° \mathring{A}	
retrograde	-2320 Jan 08 j 13:12	18° \mathring{M} 26'11		evening set	-2314 Sep 27 j 20:45	0° \mathring{A} 38'50	
opposition	-2320 Mar 27 j 04:19	17° \mathring{M} 04'13	2°12'40				
min. Earth dist.	-2320 Mar 27 j 21:27	17° \mathring{M} 03'03	29.30814 AU	conjunction	-2314 Oct 13 j 01:20	1° \mathring{A} 12'56	2°04'30
direct	-2320 Jun 16 j 13:03	15° \mathring{M} 39'47		minimum elong	-2314 Oct 13 j 01:20	1° \mathring{A} 12'56	2°04'30
evening set	-2320 Sep 14 j 11:22	17° \mathring{M} 35'36		max. Earth dist.	-2314 Oct 12 j 12:45	1° \mathring{A} 11'44	31.29820 AU
				morning rise	-2314 Oct 28 j 04:19	1° \mathring{A} 46'54	
conjunction	-2320 Sep 29 j 18:04	18° \mathring{M} 09'48	2°04'30	retrograde	-2313 Jan 23 j 16:16	3° \mathring{A} 40'33	
minimum elong	-2320 Sep 29 j 18:04	18° \mathring{M} 09'48	2°04'31	opposition	-2313 Apr 12 j 19:20	2° \mathring{A} 18'23	2°12'41
max. Earth dist.	-2320 Sep 29 j 00:06	18° \mathring{M} 08'06	31.30513 AU	min. Earth dist.	-2313 Apr 13 j 06:36	2° \mathring{A} 17'38	29.29906 AU
morning rise	-2320 Oct 14 j 22:24	18° \mathring{M} 43'48		direct	-2313 Jul 02 j 19:39	0° \mathring{A} 54'26	
retrograde	-2319 Jan 09 j 22:58	20° \mathring{M} 36'43		evening set	-2313 Sep 30 j 06:17	2° \mathring{A} 49'50	
opposition	-2319 Mar 29 j 16:38	19° \mathring{M} 14'41	2°13'15				
min. Earth dist.	-2319 Mar 30 j 09:46	19° \mathring{M} 13'31	29.30535 AU	conjunction	-2313 Oct 15 j 10:40	3° \mathring{A} 23'55	2°03'52
direct	-2319 Jun 19 j 00:16	17° \mathring{M} 50'17		minimum elong	-2313 Oct 15 j 10:40	3° \mathring{A} 23'55	2°03'52
evening set	-2319 Sep 16 j 21:01	19° \mathring{M} 46'00		max. Earth dist.	-2313 Oct 14 j 23:02	3° \mathring{A} 22'49	31.29672 AU
max. Earth dist.	-2319 Oct 01 j 10:58	20° \mathring{M} 18'38	31.30250 AU	morning rise	-2313 Oct 30 j 13:26	3° \mathring{A} 57'54	
				retrograde	-2312 Jan 26 j 04:22	5° \mathring{A} 51'41	
conjunction	-2319 Oct 02 j 03:22	20° \mathring{M} 20'10	2°04'57	opposition	-2312 Apr 14 j 08:04	4° \mathring{A} 29'29	2°11'55
minimum elong	-2319 Oct 02 j 03:22	20° \mathring{M} 20'10	2°04'57	min. Earth dist.	-2312 Apr 14 j 19:49	4° \mathring{A} 28'41	29.29709 AU
morning rise	-2319 Oct 17 j 07:19	20° \mathring{M} 54'10		direct	-2312 Jul 04 j 06:59	3° \mathring{A} 05'36	
retrograde	-2318 Jan 12 j 08:00	22° \mathring{M} 47'10		evening set	-2312 Oct 01 j 15:47	5° \mathring{A} 00'56	
opposition	-2318 Apr 01 j 04:54	21° \mathring{M} 25'05	2°13'38				
min. Earth dist.	-2318 Apr 01 j 20:43	21° \mathring{M} 24'00	29.30293 AU	conjunction	-2312 Oct 16 j 19:57	5° \mathring{A} 35'01	2°03'03
direct	-2318 Jun 21 j 12:47	20° \mathring{M} 00'43		minimum elong	-2312 Oct 16 j 19:57	5° \mathring{A} 35'01	2°03'03
evening set	-2318 Sep 19 j 06:46	21° \mathring{M} 56'22		max. Earth dist.	-2312 Oct 16 j 08:55	5° \mathring{A} 33'59	31.29416 AU
				morning rise	-2312 Oct 31 j 22:38	6° \mathring{A} 09'00	
conjunction	-2318 Oct 04 j 12:35	22° \mathring{M} 30'31	2°05'13	retrograde	-2311 Jan 27 j 14:53	8° \mathring{A} 02'54	
minimum elong	-2318 Oct 04 j 12:35	22° \mathring{M} 30'31	2°05'13	opposition	-2311 Apr 16 j 20:46	6° \mathring{A} 40'40	2°10'57
max. Earth dist.	-2318 Oct 03 j 20:16	22° \mathring{M} 28'59	31.30053 AU	min. Earth dist.	-2311 Apr 17 j 06:59	6° \mathring{A} 39'59	29.29369 AU
morning rise	-2318 Oct 19 j 16:22	23° \mathring{M} 04'30		direct	-2311 Jul 06 j 19:57	5° \mathring{A} 16'50	
retrograde	-2317 Jan 14 j 19:14	24° \mathring{M} 57'37		evening set	-2311 Oct 04 j 01:19	7° \mathring{A} 12'06	
opposition	-2317 Apr 03 j 17:19	23° \mathring{M} 35'29	2°13'50				

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 8

Attention, astronomical year style is used: The year -2311 in astronomical counting style is the year 2312 BCE in historical counting style.

conjunction	-2311 Oct 19 j 05:12	7° <u>46</u> '10	2°02'04	direct	-2304 Jul 22 j 05:20	20° <u>33</u> '20	
minimum elong	-2311 Oct 19 j 05:12	7° <u>46</u> '10	2°02'04	evening set	-2304 Oct 18 j 17:34	22° <u>27</u> '49	
max. Earth dist.	-2311 Oct 18 j 18:11	7° <u>45</u> '08	31.28997 AU				
morning rise	-2311 Nov 03 j 07:50	8° <u>20</u> '09		conjunction	-2304 Nov 02 j 20:50	23° <u>01</u> '53	1°50'26
retrograde	-2310 Jan 30 j 01:56	10° <u>14</u> '10		minimum elong	-2304 Nov 02 j 20:51	23° <u>01</u> '53	1°50'25
opposition	-2310 Apr 19 j 09:41	8° <u>51</u> '52	2°09'49	max. Earth dist.	-2304 Nov 02 j 16:42	23° <u>01</u> '29	31.24362 AU
min. Earth dist.	-2310 Apr 19 j 20:04	8° <u>51</u> '10	29.28880 AU	morning rise	-2304 Nov 17 j 23:42	23° <u>35</u> '57	
direct	-2310 Jul 09 j 07:53	7° <u>28</u> '05		retrograde	-2303 Feb 14 j 05:56	25° <u>30</u> '39	
evening set	-2310 Oct 06 j 10:43	9° <u>23</u> '14		opposition	-2303 May 05 j 03:29	24° <u>07</u> '46	1°56'46
				min. Earth dist.	-2303 May 05 j 07:20	24° <u>07</u> '30	29.24237 AU
conjunction	-2310 Oct 21 j 14:33	9° <u>57</u> '18	2°00'55	direct	-2303 Jul 24 j 15:38	22° <u>44</u> '09	
minimum elong	-2310 Oct 21 j 14:33	9° <u>57</u> '18	2°00'55	evening set	-2303 Oct 21 j 02:31	24° <u>38</u> '33	
max. Earth dist.	-2310 Oct 21 j 04:54	9° <u>56</u> '24	31.28441 AU				
morning rise	-2310 Nov 05 j 17:02	10° <u>31</u> '17		conjunction	-2303 Nov 05 j 05:48	25° <u>12</u> '38	1°48'07
retrograde	-2309 Feb 01 j 11:54	12° <u>25</u> '23		minimum elong	-2303 Nov 05 j 05:49	25° <u>12</u> '38	1°48'05
opposition	-2309 Apr 21 j 22:33	11° <u>03</u> '01	2°08'29	max. Earth dist.	-2303 Nov 05 j 03:00	25° <u>12</u> '22	31.23904 AU
min. Earth dist.	-2309 Apr 22 j 07:51	11° <u>02</u> '23	29.28243 AU	morning rise	-2303 Nov 20 j 08:46	25° <u>46</u> '43	
direct	-2309 Jul 11 j 21:28	9° <u>39</u> '15		retrograde	-2302 Feb 16 j 17:18	27° <u>41</u> '34	
evening set	-2309 Oct 08 j 20:03	11° <u>34</u> '17		opposition	-2302 May 07 j 16:23	26° <u>18</u> '39	1°54'12
				min. Earth dist.	-2302 May 07 j 18:11	26° <u>18</u> '31	29.23782 AU
conjunction	-2309 Oct 23 j 23:37	12° <u>08</u> '21	1°59'35	direct	-2302 Jul 27 j 04:08	24° <u>55</u> '06	
minimum elong	-2309 Oct 23 j 23:37	12° <u>08</u> '21	1°59'34	evening set	-2302 Oct 23 j 11:37	26° <u>49</u> '27	
max. Earth dist.	-2309 Oct 23 j 13:45	12° <u>07</u> '25	31.27755 AU				
morning rise	-2309 Nov 08 j 02:16	12° <u>42</u> '21		conjunction	-2302 Nov 07 j 14:50	27° <u>23</u> '32	1°45'38
retrograde	-2308 Feb 03 j 22:56	14° <u>36</u> '32		minimum elong	-2302 Nov 07 j 14:50	27° <u>23</u> '33	1°45'37
opposition	-2308 Apr 23 j 11:23	13° <u>14</u> '03	2°06'59	max. Earth dist.	-2302 Nov 07 j 12:23	27° <u>23</u> '19	31.23461 AU
min. Earth dist.	-2308 Apr 23 j 20:05	13° <u>13</u> '28	29.27513 AU	morning rise	-2302 Nov 22 j 18:03	27° <u>57</u> '39	
direct	-2308 Jul 13 j 08:13	11° <u>50</u> '17		retrograde	-2301 Feb 19 j 05:45	29° <u>52</u> '39	
evening set	-2308 Oct 10 j 05:14	13° <u>45</u> '11		opposition	-2301 May 10 j 05:28	28° <u>29</u> '42	1°51'28
				min. Earth dist.	-2301 May 10 j 07:05	28° <u>29</u> '35	29.23340 AU
conjunction	-2308 Oct 25 j 08:51	14° <u>19</u> '15	1°58'05	direct	-2301 Jul 29 j 15:20	27° <u>06</u> '14	
minimum elong	-2308 Oct 25 j 08:51	14° <u>19</u> '15	1°58'04	evening set	-2301 Oct 25 j 20:35	29° <u>00</u> '31	
max. Earth dist.	-2308 Oct 25 j 00:50	14° <u>18</u> '29	31.26992 AU				
morning rise	-2308 Nov 09 j 11:20	14° <u>53</u> '15		conjunction	-2301 Nov 10 j 00:00	29° <u>34</u> '38	1°43'00
retrograde	-2307 Feb 05 j 07:26	16° <u>47</u> '31		minimum elong	-2301 Nov 10 j 00:01	29° <u>34</u> '38	1°42'58
opposition	-2307 Apr 26 j 00:05	15° <u>24</u> '56	2°05'17	max. Earth dist.	-2301 Nov 09 j 23:20	29° <u>34</u> '34	31.23006 AU
min. Earth dist.	-2307 Apr 26 j 08:12	15° <u>24</u> '23	29.26727 AU		-2301 Nov 21 j 04:53	0° <u>00</u> '00	
direct	-2307 Jul 15 j 20:35	14° <u>01</u> '10		morning rise	-2301 Nov 25 j 03:17	0° <u>08</u> '46	
evening set	-2307 Oct 12 j 14:29	15° <u>55</u> '56		retrograde	-2300 Feb 21 j 16:46	2° <u>03</u> '54	
				opposition	-2300 May 11 j 18:30	0° <u>40</u> '56	1°48'34
conjunction	-2307 Oct 27 j 17:49	16° <u>30</u> '00	1°56'26	min. Earth dist.	-2300 May 11 j 18:53	0° <u>40</u> '54	29.22840 AU
minimum elong	-2307 Oct 27 j 17:49	16° <u>30</u> '00	1°56'24		-2300 Jun 07 j 04:19	30° <u>00</u> '00	
max. Earth dist.	-2307 Oct 27 j 09:49	16° <u>29</u> '15	31.26223 AU	direct	-2300 Jul 31 j 04:26	29° <u>17</u> '33	
morning rise	-2307 Nov 11 j 20:29	17° <u>04</u> '01			-2300 Sep 20 j 10:36	0° <u>00</u> '00	
retrograde	-2306 Feb 07 j 19:16	18° <u>58</u> '22		evening set	-2300 Oct 27 j 05:52	1° <u>11</u> '46	
opposition	-2306 Apr 28 j 12:54	17° <u>35</u> '41	2°03'25				
min. Earth dist.	-2306 Apr 28 j 19:16	17° <u>35</u> '15	29.25981 AU	conjunction	-2300 Nov 11 j 09:10	1° <u>45</u> '53	1°40'12
direct	-2306 Jul 18 j 06:39	16° <u>11</u> '55		minimum elong	-2300 Nov 11 j 09:10	1° <u>45</u> '53	1°40'10
evening set	-2306 Oct 14 j 23:26	18° <u>06</u> '35		max. Earth dist.	-2300 Nov 11 j 08:14	1° <u>45</u> '48	31.22471 AU
				morning rise	-2300 Nov 26 j 12:46	2° <u>20</u> '04	
conjunction	-2306 Oct 30 j 02:49	18° <u>40</u> '38	1°54'36	retrograde	-2299 Feb 23 j 04:45	4° <u>15</u> '21	
minimum elong	-2306 Oct 30 j 02:49	18° <u>40</u> '38	1°54'34	opposition	-2299 May 14 j 07:31	2° <u>52</u> '20	1°45'30
max. Earth dist.	-2306 Oct 29 j 20:45	18° <u>40</u> '04	31.25507 AU	min. Earth dist.	-2299 May 14 j 07:20	2° <u>52</u> '20	29.22259 AU
morning rise	-2306 Nov 14 j 05:24	19° <u>14</u> '40		direct	-2299 Aug 02 j 14:46	1° <u>29</u> '01	
retrograde	-2305 Feb 10 j 05:24	21° <u>09</u> '08		evening set	-2299 Oct 29 j 15:03	3° <u>23</u> '09	
opposition	-2305 May 01 j 01:53	19° <u>46</u> '21	2°01'23				
min. Earth dist.	-2305 May 01 j 07:55	19° <u>45</u> '57	29.25306 AU	conjunction	-2299 Nov 13 j 18:35	3° <u>57</u> '18	1°37'16
direct	-2305 Jul 20 j 18:02	18° <u>22</u> '37		minimum elong	-2299 Nov 13 j 18:35	3° <u>57</u> '18	1°37'14
evening set	-2305 Oct 17 j 08:33	20° <u>17</u> '11		max. Earth dist.	-2299 Nov 13 j 19:22	3° <u>57</u> '23	31.21831 AU
				morning rise	-2299 Nov 28 j 22:14	4° <u>31</u> '31	
conjunction	-2305 Nov 01 j 11:49	20° <u>51</u> '14	1°52'36	retrograde	-2298 Feb 25 j 14:22	6° <u>26</u> '56	
minimum elong	-2305 Nov 01 j 11:49	20° <u>51</u> '14	1°52'35	opposition	-2298 May 16 j 20:47	5° <u>03</u> '52	1°42'18
max. Earth dist.	-2305 Nov 01 j 06:26	20° <u>50</u> '44	31.24893 AU	min. Earth dist.	-2298 May 16 j 20:06	5° <u>03</u> '54	29.21547 AU
morning rise	-2305 Nov 16 j 14:35	21° <u>25</u> '17		direct	-2298 Aug 05 j 03:07	3° <u>40</u> '36	
retrograde	-2304 Feb 12 j 17:56	23° <u>19</u> '51		evening set	-2298 Nov 01 j 00:17	5° <u>34</u> '39	
opposition	-2304 May 02 j 14:31	21° <u>57</u> '01	1°59'10				
min. Earth dist.	-2304 May 02 j 18:25	21° <u>56</u> '45	29.24733 AU	conjunction	-2298 Nov 16 j 03:47	6° <u>08</u> '49	1°34'12

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 9

Attention, astronomical year style is used: The year -2298 in astronomical counting style is the year 2299 BCE in historical counting style.

minimum elong	-2298 Nov 16 j 03:48	6°M.08'49	1°34'10	morning rise	-2292 Dec 13 j 17:27	19°M.52'05	
max. Earth dist.	-2298 Nov 16 j 04:18	6°M.08'52	31.21069 AU	retrograde	-2291 Mar 13 j 03:02	21°M.48'17	
morning rise	-2298 Dec 01 j 07:51	6°M.43'03		opposition	-2291 Jun 01 j 16:20	20°M.24'37	1°16'00
retrograde	-2297 Feb 28 j 03:05	8°M.38'36		min. Earth dist.	-2291 Jun 01 j 08:28	20°M.25'09	29.15239 AU
opposition	-2297 May 19 j 09:58	7°M.15'28	1°38'56	direct	-2291 Aug 20 j 10:32	19°M.01'30	
min. Earth dist.	-2297 May 19 j 07:57	7°M.15'36	29.20716 AU	evening set	-2291 Nov 15 j 16:11	20°M.54'54	
direct	-2297 Aug 07 j 13:20	5°M.52'14					
evening set	-2297 Nov 03 j 09:29	7°M.46'11		conjunction	-2291 Nov 30 j 20:59	21°M.29'13	1°09'10
				minimum elong	-2291 Nov 30 j 21:00	21°M.29'13	1°09'07
conjunction	-2297 Nov 18 j 13:15	8°M.20'22	1°31'00	max. Earth dist.	-2291 Dec 01 j 04:24	21°M.29'55	31.14862 AU
minimum elong	-2297 Nov 18 j 13:16	8°M.20'23	1°30'58	morning rise	-2291 Dec 16 j 03:19	22°M.03'41	
max. Earth dist.	-2297 Nov 18 j 15:07	8°M.20'33	31.20175 AU	retrograde	-2290 Mar 15 j 15:29	24°M.00'01	
morning rise	-2297 Dec 03 j 17:29	8°M.54'39		opposition	-2290 Jun 04 j 05:29	22°M.36'18	1°11'45
retrograde	-2296 Mar 01 j 13:29	10°M.50'18		min. Earth dist.	-2290 Jun 03 j 20:41	22°M.36'54	29.14595 AU
opposition	-2296 May 20 j 23:03	9°M.27'04	1°35'27	direct	-2290 Aug 22 j 20:40	21°M.13'14	
min. Earth dist.	-2296 May 20 j 21:13	9°M.27'12	29.19764 AU	evening set	-2290 Nov 18 j 01:13	23°M.06'34	
direct	-2296 Aug 09 j 00:45	8°M.03'52					
evening set	-2296 Nov 04 j 18:41	9°M.57'42		conjunction	-2290 Dec 03 j 06:27	23°M.40'55	1°05'08
				minimum elong	-2290 Dec 03 j 06:27	23°M.40'55	1°05'05
conjunction	-2296 Nov 19 j 22:34	10°M.31'54	1°27'39	max. Earth dist.	-2290 Dec 03 j 15:56	23°M.41'49	31.14243 AU
minimum elong	-2296 Nov 19 j 22:34	10°M.31'54	1°27'37	morning rise	-2290 Dec 18 j 13:02	24°M.15'26	
max. Earth dist.	-2296 Nov 20 j 00:53	10°M.32'07	31.19199 AU	retrograde	-2289 Mar 18 j 01:51	26°M.11'53	
morning rise	-2296 Dec 05 j 03:10	11°M.06'12		opposition	-2289 Jun 06 j 18:39	24°M.48'09	1°07'23
retrograde	-2295 Mar 04 j 02:12	13°M.01'58		min. Earth dist.	-2289 Jun 06 j 09:08	24°M.48'47	29.13983 AU
opposition	-2295 May 23 j 12:06	11°M.38'38	1°31'49	direct	-2289 Aug 25 j 09:30	23°M.25'09	
min. Earth dist.	-2295 May 23 j 08:25	11°M.38'53	29.18755 AU	evening set	-2289 Nov 20 j 10:39	25°M.18'25	
direct	-2295 Aug 11 j 11:58	10°M.15'25					
evening set	-2295 Nov 07 j 03:42	12°M.09'09		conjunction	-2289 Dec 05 j 16:02	25°M.52'48	1°01'00
				minimum elong	-2289 Dec 05 j 16:02	25°M.52'48	1°00'57
conjunction	-2295 Nov 22 j 07:44	12°M.43'22	1°24'12	max. Earth dist.	-2289 Dec 06 j 01:29	25°M.53'42	31.13649 AU
minimum elong	-2295 Nov 22 j 07:44	12°M.43'22	1°24'09	morning rise	-2289 Dec 20 j 23:09	26°M.27'21	
max. Earth dist.	-2295 Nov 22 j 11:05	12°M.43'41	31.18180 AU	retrograde	-2288 Mar 19 j 15:28	28°M.23'57	
morning rise	-2295 Dec 07 j 12:37	13°M.17'42		opposition	-2288 Jun 08 j 07:37	27°M.00'10	1°02'54
	-2294 Feb 05 j 20:32	15°M.		min. Earth dist.	-2288 Jun 07 j 20:46	27°M.00'54	29.13378 AU
retrograde	-2294 Mar 06 j 14:10	15°M.13'34		direct	-2288 Aug 26 j 19:57	25°M.37'13	
	-2294 Apr 05 j 00:55	15°K.M.		evening set	-2288 Nov 21 j 20:05	27°M.30'27	
opposition	-2294 May 26 j 01:20	13°M.50'08	1°28'03				
min. Earth dist.	-2294 May 25 j 21:39	13°M.50'23	29.17750 AU	conjunction	-2288 Dec 07 j 01:48	28°M.04'51	0°56'46
direct	-2294 Aug 13 j 21:45	12°M.26'55		minimum elong	-2288 Dec 07 j 01:48	28°M.04'51	0°56'43
evening set	-2294 Nov 09 j 12:46	14°M.20'33		max. Earth dist.	-2288 Dec 07 j 12:35	28°M.05'53	31.13016 AU
				morning rise	-2288 Dec 22 j 09:13	28°M.39'27	
conjunction	-2294 Nov 24 j 17:03	14°M.54'47	1°20'37		-2287 Feb 02 j 13:51	0°Z	
minimum elong	-2294 Nov 24 j 17:03	14°M.54'47	1°20'34	retrograde	-2287 Mar 22 j 01:56	0°Z36'11	
max. Earth dist.	-2294 Nov 24 j 21:53	14°M.55'15	31.17213 AU		-2287 May 10 j 16:50	30°K.M.	
	-2294 Nov 26 j 23:59	15°M.		opposition	-2287 Jun 10 j 20:54	29°M.12'22	0°58'20
morning rise	-2294 Dec 09 j 22:12	15°M.29'09		min. Earth dist.	-2287 Jun 10 j 10:13	29°M.13'05	29.12710 AU
retrograde	-2293 Mar 09 j 02:02	17°M.25'07		direct	-2287 Aug 29 j 07:08	27°M.49'29	
opposition	-2293 May 28 j 14:18	16°M.01'35	1°24'09	evening set	-2287 Nov 24 j 05:33	29°M.42'38	
min. Earth dist.	-2293 May 28 j 08:27	16°M.01'59	29.16814 AU		-2287 Dec 01 j 23:21	0°Z	
	-2293 Jul 10 j 05:24	15°K.M.					
direct	-2293 Aug 16 j 10:23	14°M.38'23		conjunction	-2287 Dec 09 j 11:32	0°Z17'04	0°52'27
	-2293 Sep 21 j 13:12	15°M.		minimum elong	-2287 Dec 09 j 11:32	0°Z17'04	0°52'24
evening set	-2293 Nov 11 j 21:53	16°M.31'56		max. Earth dist.	-2287 Dec 09 j 22:47	0°Z18'08	31.12317 AU
				morning rise	-2287 Dec 24 j 19:23	0°Z51'43	
conjunction	-2293 Nov 27 j 02:16	17°M.06'12	1°16'55	retrograde	-2286 Mar 24 j 14:47	2°Z48'34	
minimum elong	-2293 Nov 27 j 02:16	17°M.06'12	1°16'52	opposition	-2286 Jun 13 j 10:08	1°Z24'42	0°53'41
max. Earth dist.	-2293 Nov 27 j 07:30	17°M.06'42	31.16326 AU	min. Earth dist.	-2286 Jun 12 j 21:52	1°Z25'32	29.11951 AU
morning rise	-2293 Dec 12 j 07:53	17°M.40'36		direct	-2286 Aug 31 j 17:56	0°Z01'51	
retrograde	-2292 Mar 10 j 15:28	19°M.36'40		evening set	-2286 Nov 26 j 15:17	1°Z54'57	
opposition	-2292 May 30 j 03:23	18°M.13'04	1°20'08				
min. Earth dist.	-2292 May 29 j 21:07	18°M.13'29	29.15982 AU	conjunction	-2286 Dec 11 j 21:31	2°Z29'25	0°48'04
direct	-2292 Aug 17 j 21:35	16°M.49'54		minimum elong	-2286 Dec 11 j 21:31	2°Z29'25	0°48'01
evening set	-2292 Nov 13 j 06:55	18°M.43'22		max. Earth dist.	-2286 Dec 12 j 09:10	2°Z30'31	31.11492 AU
				morning rise	-2286 Dec 27 j 05:50	3°Z04'06	
conjunction	-2292 Nov 28 j 11:39	19°M.17'39	1°13'06	retrograde	-2285 Mar 27 j 03:07	5°Z01'05	
minimum elong	-2292 Nov 28 j 11:39	19°M.17'39	1°13'03	opposition	-2285 Jun 15 j 23:26	3°Z37'08	0°48'56
max. Earth dist.	-2292 Nov 28 j 18:58	19°M.18'21	31.15547 AU	min. Earth dist.	-2285 Jun 15 j 11:44	3°Z37'56	29.11066 AU

Attention, astronomical year style is used: The year -2285 in astronomical counting style is the year 2286 BCE in historical counting style.

direct	-2285 Sep 03 j 03:29	2°♂14'18		max. Earth dist.	-2279 Dec 27 j 13:35	17°♂57'48	31.04250 AU
evening set	-2285 Nov 29 j 00:55	4°♂07'20		morning rise	-2278 Jan 11 j 07:38	18°♂31'07	
				retrograde	-2278 Apr 11 j 18:52	20°♂28'46	
conjunction	-2285 Dec 14 j 07:37	4°♂41'50	0°43'36	opposition	-2278 Jul 01 j 19:00	19°♂04'17	0°14'10
minimum elong	-2285 Dec 14 j 07:37	4°♂41'50	0°43'33	min. Earth dist.	-2278 Jul 01 j 01:42	19°♂05'28	29.03868 AU
max. Earth dist.	-2285 Dec 14 j 20:13	4°♂43'01	31.10547 AU	direct	-2278 Sep 18 j 13:38	17°♂41'27	
morning rise	-2285 Dec 29 j 16:18	5°♂16'33		evening set	-2278 Dec 13 j 21:25	19°♂34'06	
retrograde	-2284 Mar 28 j 15:58	7°♂13'37					
opposition	-2284 Jun 17 j 12:35	5°♂49'36	0°44'08	conjunction	-2278 Dec 29 j 06:33	20°♂08'49	0°10'57
min. Earth dist.	-2284 Jun 16 j 23:20	5°♂50'30	29.10043 AU	minimum elong	-2278 Dec 29 j 06:32	20°♂08'49	0°10'54
direct	-2284 Sep 04 j 16:10	4°♂26'45		behind sun begin	-2278 Dec 29 j 01:38	20°♂08'22	
evening set	-2284 Nov 30 j 10:41	6°♂19'43		behind sun end	-2278 Dec 29 j 11:27	20°♂09'16	
				max. Earth dist.	-2278 Dec 30 j 00:42	20°♂10'32	31.03475 AU
conjunction	-2284 Dec 15 j 17:33	6°♂54'14	0°39'04	morning rise	-2277 Jan 13 j 18:30	20°♂43'49	
minimum elong	-2284 Dec 15 j 17:33	6°♂54'14	0°39'01	retrograde	-2277 Apr 14 j 07:45	22°♂41'36	
max. Earth dist.	-2284 Dec 16 j 05:54	6°♂55'24	31.09470 AU	opposition	-2277 Jul 04 j 07:48	21°♂17'06	0°09'02
morning rise	-2284 Dec 31 j 02:48	7°♂29'00		min. Earth dist.	-2277 Jul 03 j 12:51	21°♂18'23	29.03126 AU
retrograde	-2283 Mar 31 j 05:49	9°♂26'10		direct	-2277 Sep 21 j 00:03	19°♂54'17	
opposition	-2283 Jun 20 j 01:49	8°♂02'03	0°39'16	evening set	-2277 Dec 16 j 07:34	21°♂46'56	
min. Earth dist.	-2283 Jun 19 j 12:45	8°♂02'56	29.08927 AU				
direct	-2283 Sep 07 j 03:03	6°♂39'11		conjunction	-2277 Dec 31 j 16:59	22°♂21'41	0°06'10
evening set	-2283 Dec 02 j 20:19	8°♂32'04		minimum elong	-2277 Dec 31 j 17:00	22°♂21'41	0°06'06
				behind sun begin	-2277 Dec 31 j 10:53	22°♂21'08	
conjunction	-2283 Dec 18 j 03:41	9°♂06'37	0°34'29	behind sun end	-2277 Dec 31 j 23:06	22°♂22'14	
minimum elong	-2283 Dec 18 j 03:41	9°♂06'37	0°34'25	max. Earth dist.	-2276 Jan 01 j 11:41	22°♂23'27	31.02751 AU
max. Earth dist.	-2283 Dec 18 j 17:48	9°♂07'57	31.08333 AU	morning rise	-2276 Jan 16 j 05:30	22°♂56'44	
morning rise	-2282 Jan 02 j 13:14	9°♂41'25		retrograde	-2276 Apr 15 j 20:13	24°♂54'39	
retrograde	-2282 Apr 02 j 17:53	11°♂38'40		opposition	-2276 Jul 05 j 20:51	23°♂30'07	0°03'54
opposition	-2282 Jun 22 j 14:56	10°♂14'27	0°34'20	min. Earth dist.	-2276 Jul 05 j 02:22	23°♂31'23	29.02422 AU
min. Earth dist.	-2282 Jun 22 j 00:35	10°♂15'25	29.07774 AU	direct	-2276 Sep 22 j 08:53	22°♂07'21	
direct	-2282 Sep 09 j 15:58	8°♂51'33		evening set	-2276 Dec 17 j 17:41	24°♂00'00	
evening set	-2282 Dec 05 j 06:03	10°♂44'22					
				conjunction	-2275 Jan 02 j 03:36	24°♂34'47	0°01'19
conjunction	-2282 Dec 20 j 13:37	11°♂18'57	0°29'51	minimum elong	-2275 Jan 02 j 03:35	24°♂34'47	0°01'16
minimum elong	-2282 Dec 20 j 13:37	11°♂18'57	0°29'48	behind sun begin	-2275 Jan 01 j 21:10	24°♂34'12	
max. Earth dist.	-2282 Dec 21 j 03:36	11°♂20'16	31.07196 AU	behind sun end	-2275 Jan 02 j 10:00	24°♂35'22	
morning rise	-2281 Jan 04 j 23:49	11°♂53'47		max. Earth dist.	-2275 Jan 02 j 23:27	24°♂36'39	31.02054 AU
retrograde	-2281 Apr 05 j 07:08	13°♂51'08		morning rise	-2275 Jan 17 j 16:25	25°♂09'52	
opposition	-2281 Jun 25 j 04:03	12°♂26'49	0°29'21	desc. node	-2275 Apr 09 j 13:09	27°♂06'37	
min. Earth dist.	-2281 Jun 24 j 13:04	12°♂27'50	29.06665 AU	retrograde	-2275 Apr 18 j 09:22	27°♂07'54	
direct	-2281 Sep 12 j 02:35	11°♂03'55		opposition	-2275 Jul 08 j 09:44	25°♂43'22	-0°01'16
evening set	-2281 Dec 07 j 15:49	12°♂56'40		min. Earth dist.	-2275 Jul 07 j 13:45	25°♂44'44	29.01711 AU
				direct	-2275 Sep 24 j 21:05	24°♂20'38	
conjunction	-2281 Dec 22 j 23:52	13°♂31'17	0°25'11	evening set	-2275 Dec 20 j 04:10	26°♂13'17	
minimum elong	-2281 Dec 22 j 23:52	13°♂31'17	0°25'07				
max. Earth dist.	-2281 Dec 23 j 15:44	13°♂32'47	31.06112 AU	conjunction	-2274 Jan 04 j 14:17	26°♂48'05	-0°03'37
morning rise	-2280 Jan 07 j 10:21	14°♂06'09		minimum elong	-2274 Jan 04 j 14:17	26°♂48'05	0°03'41
retrograde	-2280 Apr 06 j 18:20	16°♂03'35		behind sun begin	-2274 Jan 04 j 07:54	26°♂47'31	
opposition	-2280 Jun 26 j 16:55	14°♂39'12	0°24'20	behind sun end	-2274 Jan 04 j 20:39	26°♂48'40	
min. Earth dist.	-2280 Jun 26 j 01:14	14°♂40'16	29.05623 AU	max. Earth dist.	-2274 Jan 05 j 09:45	26°♂49'56	31.01321 AU
direct	-2280 Sep 13 j 15:38	13°♂16'18		morning rise	-2274 Jan 20 j 03:44	27°♂23'13	
evening set	-2280 Dec 09 j 01:42	15°♂09'01		retrograde	-2274 Apr 20 j 23:48	29°♂21'23	
				opposition	-2274 Jul 10 j 22:49	27°♂56'48	-0°06'25
conjunction	-2280 Dec 24 j 10:00	15°♂43'40	0°20'28	min. Earth dist.	-2274 Jul 10 j 03:17	27°♂58'08	29.00957 AU
minimum elong	-2280 Dec 24 j 10:00	15°♂43'40	0°20'25	direct	-2274 Sep 27 j 06:49	26°♂34'05	
max. Earth dist.	-2280 Dec 25 j 01:56	15°♂45'10	31.05131 AU	evening set	-2274 Dec 22 j 14:38	28°♂26'44	
morning rise	-2279 Jan 08 j 21:03	16°♂18'35					
retrograde	-2279 Apr 09 j 08:28	18°♂16'07		conjunction	-2273 Jan 07 j 01:20	29°♂01'35	-0°08'25
opposition	-2279 Jun 29 j 05:54	16°♂51'40	0°19'16	minimum elong	-2273 Jan 07 j 01:20	29°♂01'35	0°08'28
min. Earth dist.	-2279 Jun 28 j 12:42	16°♂52'50	29.04698 AU	behind sun begin	-2273 Jan 06 j 19:40	29°♂01'04	
direct	-2279 Sep 16 j 02:28	15°♂28'47		behind sun end	-2273 Jan 07 j 06:59	29°♂02'06	
evening set	-2279 Dec 11 j 11:27	17°♂21'28		max. Earth dist.	-2273 Jan 07 j 22:09	29°♂03'33	31.00518 AU
				morning rise	-2273 Jan 22 j 15:06	29°♂36'45	
conjunction	-2279 Dec 26 j 20:09	17°♂56'09	0°15'43				
minimum elong	-2279 Dec 26 j 20:10	17°♂56'09	0°15'40	retrograde	-2273 Feb 02 j 08:53	0°♂	
behind sun begin	-2279 Dec 26 j 18:28	17°♂56'00		opposition	-2273 Jul 13 j 11:46	0°♂10'23	-0°11'34
behind sun end	-2279 Dec 26 j 21:51	17°♂56'18		min. Earth dist.	-2273 Jul 12 j 15:28	0°♂11'46	29.00093 AU

Attention, astronomical year style is used: The year -2273 in astronomical counting style is the year 2274 BCE in historical counting style.

	-2273 Jul 19 j 19:33	30° RX	conjunction	-2266 Jan 22 j 07:42	14° Z 35'48	-0°41'23
direct	-2273 Sep 29 j 18:58	28° X 47'39	minimum elong	-2266 Jan 22 j 07:42	14° Z 35'48	0°41'26
	-2273 Dec 05 j 22:04	0° Z	max. Earth dist.	-2266 Jan 23 j 07:31	14° Z 38'03	30.93365 AU
evening set	-2273 Dec 25 j 01:26	0° Z 40'18	morning rise	-2266 Feb 07 j 00:45	15° Z 11'12	
			retrograde	-2266 May 09 j 06:41	17° Z 09'50	
conjunction	-2272 Jan 09 j 12:22	1° Z 15'10 -0°13'13	min. Earth dist.	-2266 Jul 28 j 05:27	15° Z 46'16	28.93031 AU
minimum elong	-2272 Jan 09 j 12:22	1° Z 15'10 0°13'16	opposition	-2266 Jul 29 j 04:49	15° Z 44'39	-0°46'43
behind sun begin	-2272 Jan 09 j 08:34	1° Z 14'50	direct	-2266 Oct 15 j 04:19	14° Z 21'38	
behind sun end	-2272 Jan 09 j 16:10	1° Z 15'31	evening set	-2265 Jan 09 j 05:19	16° Z 14'07	
max. Earth dist.	-2272 Jan 10 j 08:20	1° Z 17'04 30.99597 AU				
morning rise	-2272 Jan 25 j 02:46	1° Z 50'23	conjunction	-2265 Jan 24 j 19:06	16° Z 49'12	-0°45'54
retrograde	-2272 Apr 25 j 03:05	3° Z 48'43	minimum elong	-2265 Jan 24 j 19:06	16° Z 49'12	0°45'57
min. Earth dist.	-2272 Jul 14 j 04:27	2° Z 25'24 28.99118 AU	max. Earth dist.	-2265 Jan 25 j 18:35	16° Z 51'25	30.92640 AU
opposition	-2272 Jul 15 j 00:39	2° Z 24'01 -0°16'42	morning rise	-2265 Feb 09 j 12:47	17° Z 24'38	
direct	-2272 Oct 01 j 05:48	1° Z 01'16	retrograde	-2265 May 11 j 20:04	19° Z 23'20	
evening set	-2272 Dec 26 j 12:07	2° Z 53'53	opposition	-2265 Jul 31 j 17:26	17° Z 58'08	-0°51'31
			min. Earth dist.	-2265 Jul 30 j 18:23	17° Z 59'43	28.92378 AU
conjunction	-2271 Jan 10 j 23:35	3° Z 28'48 -0°18'00	direct	-2265 Oct 17 j 13:31	16° Z 35'07	
minimum elong	-2271 Jan 10 j 23:35	3° Z 28'48 0°18'03	evening set	-2264 Jan 11 j 16:27	18° Z 27'38	
max. Earth dist.	-2271 Jan 11 j 20:46	3° Z 30'48 30.98558 AU				
morning rise	-2271 Jan 26 j 14:19	4° Z 04'02	conjunction	-2264 Jan 27 j 06:48	19° Z 02'44	-0°50'22
retrograde	-2271 Apr 27 j 16:02	6° Z 02'25	minimum elong	-2264 Jan 27 j 06:48	19° Z 02'44	0°50'26
opposition	-2271 Jul 17 j 13:37	4° Z 37'38 -0°21'49	max. Earth dist.	-2264 Jan 28 j 07:49	19° Z 05'06	30.92037 AU
min. Earth dist.	-2271 Jul 16 j 17:16	4° Z 39'02 28.98029 AU	morning rise	-2264 Feb 12 j 00:44	19° Z 38'12	
direct	-2271 Oct 03 j 19:28	3° Z 14'51	retrograde	-2264 May 13 j 08:50	21° Z 36'59	
evening set	-2271 Dec 28 j 22:47	5° Z 07'24	min. Earth dist.	-2264 Aug 01 j 05:47	20° Z 13'26	28.91821 AU
			opposition	-2264 Aug 02 j 05:45	20° Z 11'46	-0°56'15
conjunction	-2270 Jan 13 j 10:35	5° Z 42'21 -0°22'45	direct	-2264 Oct 19 j 00:55	18° Z 48'46	
minimum elong	-2270 Jan 13 j 10:35	5° Z 42'21 0°22'49	evening set	-2263 Jan 13 j 03:51	20° Z 41'20	
max. Earth dist.	-2270 Jan 14 j 07:21	5° Z 44'19 30.97446 AU				
morning rise	-2270 Jan 29 j 01:55	6° Z 17'38	conjunction	-2263 Jan 28 j 18:27	21° Z 16'28	-0°54'45
retrograde	-2270 Apr 30 j 06:12	8° Z 16'04	minimum elong	-2263 Jan 28 j 18:26	21° Z 16'28	0°54'48
min. Earth dist.	-2270 Jul 19 j 05:17	6° Z 52'38 28.96901 AU	max. Earth dist.	-2263 Jan 29 j 18:49	21° Z 18'46	30.91523 AU
opposition	-2270 Jul 20 j 02:27	6° Z 51'11 -0°26'53	morning rise	-2263 Feb 13 j 12:59	21° Z 51'58	
direct	-2270 Oct 06 j 07:02	5° Z 28'19	retrograde	-2263 May 15 j 23:51	23° Z 50'50	
evening set	-2270 Dec 31 j 09:36	7° Z 20'51	opposition	-2263 Aug 04 j 18:18	22° Z 25'38	-1°00'54
			min. Earth dist.	-2263 Aug 03 j 18:23	22° Z 27'17	28.91347 AU
conjunction	-2269 Jan 15 j 21:50	7° Z 55'49 -0°27'28	direct	-2263 Oct 21 j 11:05	21° Z 02'39	
minimum elong	-2269 Jan 15 j 21:50	7° Z 55'49 0°27'31	evening set	-2262 Jan 15 j 15:12	22° Z 55'16	
max. Earth dist.	-2269 Jan 16 j 19:34	7° Z 57'52 30.96304 AU				
morning rise	-2269 Jan 31 j 13:36	8° Z 31'08	conjunction	-2262 Jan 31 j 06:20	23° Z 30'26	-0°59'04
retrograde	-2269 May 02 j 17:06	10° Z 29'35	minimum elong	-2262 Jan 31 j 06:19	23° Z 30'26	0°59'07
opposition	-2269 Jul 22 j 15:07	9° Z 04'37 -0°31'55	max. Earth dist.	-2262 Feb 01 j 08:00	23° Z 32'52	30.91051 AU
min. Earth dist.	-2269 Jul 21 j 18:18	9° Z 06'03 28.95780 AU	morning rise	-2262 Feb 16 j 01:10	24° Z 05'58	
direct	-2269 Oct 08 j 18:57	7° Z 41'42	retrograde	-2262 May 18 j 13:35	26° Z 04'55	
evening set	-2268 Jan 02 j 20:26	9° Z 34'11	min. Earth dist.	-2262 Aug 06 j 06:58	24° Z 41'22	28.90875 AU
			opposition	-2262 Aug 07 j 06:48	24° Z 39'43	-1°05'28
conjunction	-2268 Jan 18 j 09:07	10° Z 09'11 -0°32'09	direct	-2262 Oct 23 j 23:50	23° Z 16'46	
minimum elong	-2268 Jan 18 j 09:07	10° Z 09'11 0°32'13	evening set	-2261 Jan 18 j 02:59	25° Z 09'26	
max. Earth dist.	-2268 Jan 19 j 07:17	10° Z 11'17 30.95219 AU				
morning rise	-2268 Feb 03 j 01:19	10° Z 44'31	conjunction	-2261 Feb 02 j 18:27	25° Z 44'38	-1°03'18
retrograde	-2268 May 04 j 06:24	12° Z 43'01	minimum elong	-2261 Feb 02 j 18:27	25° Z 44'38	1°03'20
min. Earth dist.	-2268 Jul 23 j 05:25	11° Z 19'30 28.94742 AU	max. Earth dist.	-2261 Feb 03 j 19:17	25° Z 46'59	30.90569 AU
opposition	-2268 Jul 24 j 03:41	11° Z 17'57 -0°36'54	morning rise	-2261 Feb 18 j 13:49	26° Z 20'12	
direct	-2268 Oct 10 j 06:35	9° Z 55'00	retrograde	-2261 May 21 j 04:31	28° Z 19'13	
evening set	-2267 Jan 04 j 07:17	11° Z 47'28	opposition	-2261 Aug 09 j 19:07	26° Z 54'02	-1°09'57
			min. Earth dist.	-2261 Aug 08 j 18:59	26° Z 55'42	28.90374 AU
conjunction	-2267 Jan 19 j 20:15	12° Z 22'29 -0°36'48	direct	-2261 Oct 26 j 10:50	25° Z 31'04	
minimum elong	-2267 Jan 19 j 20:15	12° Z 22'29 0°36'51	evening set	-2260 Jan 20 j 14:53	27° Z 23'47	
max. Earth dist.	-2267 Jan 20 j 18:51	12° Z 24'37 30.94220 AU				
morning rise	-2267 Feb 04 j 12:57	12° Z 57'51	conjunction	-2260 Feb 05 j 06:46	27° Z 59'02	-1°07'26
retrograde	-2267 May 06 j 18:19	14° Z 56'26	minimum elong	-2260 Feb 05 j 06:46	27° Z 59'02	1°07'29
opposition	-2267 Jul 26 j 16:23	13° Z 31'17 -0°41'50	max. Earth dist.	-2260 Feb 06 j 07:56	28° Z 01'24	30.90010 AU
min. Earth dist.	-2267 Jul 25 j 18:34	13° Z 32'48 28.93816 AU	morning rise	-2260 Feb 21 j 02:30	28° Z 34'38	
direct	-2267 Oct 12 j 16:29	12° Z 08'18		-2260 Apr 06 j 13:24	0° Z	
evening set	-2266 Jan 06 j 18:11	14° Z 00'45	retrograde	-2260 May 22 j 17:10	0° Z 33'42	
				-2260 Jul 09 j 01:52	30° RZ	

Attention, astronomical year style is used: The year -2260 in astronomical counting style is the year 2261 BCE in historical counting style.

min. Earth dist.	-2260 Aug 10 j 08:22	29° \approx 10'07	28.89775 AU	minimum elong	-2253 Feb 20 j 22:26	13° \approx 40'18	1°33'13
opposition	-2260 Aug 11 j 07:37	29° \approx 08'30	-1°14'18	max. Earth dist.	-2253 Feb 22 j 00:09	13° \approx 42'43	30.85474 AU
direct	-2260 Oct 27 j 22:47	27° \approx 45'31		morning rise	-2253 Mar 08 j 20:57	14° \approx 16'03	
evening set	-2259 Jan 22 j 02:42	29° \approx 38'17			-2253 Mar 29 j 22:16	15° \approx	
	-2259 Jan 31 j 19:44	0° \approx		retrograde	-2253 Jun 08 j 11:33	16° \approx 15'10	
					-2253 Aug 21 j 16:58	15° \approx	
conjunction	-2259 Feb 06 j 19:01	0° \approx 13'32	-1°11'28	opposition	-2253 Aug 27 j 20:22	14° \approx 49'42	-1°41'23
minimum elong	-2259 Feb 06 j 19:01	0° \approx 13'32	1°11'30	min. Earth dist.	-2253 Aug 26 j 21:02	14° \approx 51'20	28.85431 AU
max. Earth dist.	-2259 Feb 07 j 19:55	0° \approx 15'54	30.89368 AU	direct	-2253 Nov 13 j 05:14	13° \approx 26'22	
morning rise	-2259 Feb 22 j 15:09	0° \approx 49'10			-2252 Jan 29 j 16:53	15° \approx	
retrograde	-2259 May 25 j 08:06	2° \approx 48'17		evening set	-2252 Feb 07 j 16:04	15° \approx 19'21	
opposition	-2259 Aug 13 j 20:01	1° \approx 23'02	-1°18'34				
min. Earth dist.	-2259 Aug 12 j 20:00	1° \approx 24'42	28.89088 AU	conjunction	-2252 Feb 23 j 11:14	15° \approx 54'46	-1°36'21
direct	-2259 Oct 30 j 11:03	0° \approx 00'01		minimum elong	-2252 Feb 23 j 11:14	15° \approx 54'46	1°36'23
evening set	-2258 Jan 24 j 14:47	1° \approx 52'48		max. Earth dist.	-2252 Feb 24 j 12:07	15° \approx 57'07	30.85203 AU
				morning rise	-2252 Mar 10 j 10:14	16° \approx 30'32	
conjunction	-2258 Feb 09 j 07:27	2° \approx 28'06	-1°15'23	retrograde	-2252 Jun 10 j 02:13	18° \approx 29'40	
minimum elong	-2258 Feb 09 j 07:26	2° \approx 28'06	1°15'26	min. Earth dist.	-2252 Aug 28 j 08:30	17° \approx 05'52	28.85231 AU
max. Earth dist.	-2258 Feb 10 j 08:00	2° \approx 30'25	30.88633 AU	opposition	-2252 Aug 29 j 08:16	17° \approx 04'12	-1°44'41
morning rise	-2258 Feb 25 j 04:04	3° \approx 03'45		direct	-2252 Nov 14 j 15:47	15° \approx 40'51	
retrograde	-2258 May 27 j 20:15	5° \approx 02'53		evening set	-2251 Feb 09 j 04:28	17° \approx 33'54	
min. Earth dist.	-2258 Aug 15 j 09:35	3° \approx 39'10	28.88336 AU				
opposition	-2258 Aug 16 j 08:21	3° \approx 37'35	-1°22'42	conjunction	-2251 Feb 25 j 00:03	18° \approx 09'20	-1°39'22
direct	-2258 Nov 01 j 21:31	2° \approx 14'31		minimum elong	-2251 Feb 25 j 00:03	18° \approx 09'20	1°39'23
evening set	-2257 Jan 27 j 02:46	4° \approx 07'19		max. Earth dist.	-2251 Feb 26 j 01:34	18° \approx 11'44	30.85047 AU
				morning rise	-2251 Mar 12 j 23:22	18° \approx 45'08	
conjunction	-2257 Feb 11 j 20:00	4° \approx 42'37	-1°19'12	retrograde	-2251 Jun 12 j 15:34	20° \approx 44'16	
minimum elong	-2257 Feb 11 j 20:00	4° \approx 42'37	1°19'14	opposition	-2251 Aug 31 j 20:14	19° \approx 18'50	-1°47'50
max. Earth dist.	-2257 Feb 12 j 21:04	4° \approx 44'59	30.87870 AU	min. Earth dist.	-2251 Aug 30 j 21:13	19° \approx 20'26	28.85127 AU
morning rise	-2257 Feb 27 j 16:57	5° \approx 18'18		direct	-2251 Nov 17 j 03:58	17° \approx 55'29	
retrograde	-2257 May 30 j 08:17	7° \approx 17'25		evening set	-2250 Feb 11 j 17:10	19° \approx 48'35	
opposition	-2257 Aug 18 j 20:27	5° \approx 52'05	-1°26'42				
min. Earth dist.	-2257 Aug 17 j 20:47	5° \approx 53'44	28.87572 AU	conjunction	-2250 Feb 27 j 13:12	20° \approx 24'03	-1°42'14
direct	-2257 Nov 04 j 09:54	4° \approx 28'57		minimum elong	-2250 Feb 27 j 13:12	20° \approx 24'03	1°42'16
evening set	-2256 Jan 29 j 14:59	6° \approx 21'46		max. Earth dist.	-2250 Feb 28 j 14:22	20° \approx 26'26	30.84986 AU
				morning rise	-2250 Mar 15 j 12:54	20° \approx 59'52	
conjunction	-2256 Feb 14 j 08:26	6° \approx 57'05	-1°22'53	retrograde	-2250 Jun 15 j 07:08	22° \approx 59'00	
minimum elong	-2256 Feb 14 j 08:26	6° \approx 57'05	1°22'56	min. Earth dist.	-2250 Sep 02 j 08:24	21° \approx 35'15	28.85089 AU
max. Earth dist.	-2256 Feb 15 j 08:39	6° \approx 59'22	30.87114 AU	opposition	-2250 Sep 03 j 07:56	21° \approx 33'36	-1°50'49
morning rise	-2256 Mar 01 j 05:54	7° \approx 32'47		direct	-2250 Nov 19 j 16:25	20° \approx 10'15	
retrograde	-2256 May 31 j 20:44	9° \approx 31'55		evening set	-2249 Feb 14 j 06:09	22° \approx 03'26	
min. Earth dist.	-2256 Aug 19 j 09:42	8° \approx 08'07	28.86861 AU				
opposition	-2256 Aug 20 j 08:34	8° \approx 06'31	-1°30'35	conjunction	-2249 Mar 02 j 02:31	22° \approx 38'56	-1°44'56
direct	-2256 Nov 05 j 19:08	6° \approx 43'19		minimum elong	-2249 Mar 02 j 02:31	22° \approx 38'56	1°44'58
evening set	-2255 Jan 31 j 03:03	8° \approx 36'10		max. Earth dist.	-2249 Mar 03 j 03:12	22° \approx 41'16	30.84939 AU
				morning rise	-2249 Mar 18 j 02:37	23° \approx 14'47	
conjunction	-2255 Feb 15 j 21:05	9° \approx 11'31	-1°26'27	retrograde	-2249 Jun 17 j 19:49	25° \approx 13'55	
minimum elong	-2255 Feb 15 j 21:04	9° \approx 11'31	1°26'29	opposition	-2249 Sep 05 j 19:52	23° \approx 48'32	-1°53'37
max. Earth dist.	-2255 Feb 16 j 22:30	9° \approx 13'54	30.86443 AU	min. Earth dist.	-2249 Sep 04 j 21:52	23° \approx 50'05	28.85040 AU
morning rise	-2255 Mar 03 j 18:46	9° \approx 47'13		direct	-2249 Nov 22 j 03:14	22° \approx 25'11	
retrograde	-2255 Jun 03 j 09:07	11° \approx 46'21		evening set	-2248 Feb 16 j 19:07	24° \approx 18'27	
opposition	-2255 Aug 22 j 20:32	10° \approx 20'55	-1°34'20				
min. Earth dist.	-2255 Aug 21 j 20:55	10° \approx 22'34	28.86248 AU	conjunction	-2248 Mar 03 j 15:59	24° \approx 53'58	-1°47'30
direct	-2255 Nov 08 j 06:36	8° \approx 57'39		minimum elong	-2248 Mar 03 j 15:59	24° \approx 53'58	1°47'32
evening set	-2254 Feb 02 j 15:17	10° \approx 50'32		max. Earth dist.	-2248 Mar 04 j 16:37	24° \approx 56'17	30.84862 AU
				morning rise	-2248 Mar 19 j 16:19	25° \approx 29'49	
conjunction	-2254 Feb 18 j 09:35	11° \approx 25'54	-1°29'53	retrograde	-2248 Jun 19 j 09:24	27° \approx 28'57	
minimum elong	-2254 Feb 18 j 09:34	11° \approx 25'54	1°29'56	min. Earth dist.	-2248 Sep 06 j 09:12	26° \approx 05'10	28.84925 AU
max. Earth dist.	-2254 Feb 19 j 10:07	11° \approx 28'12	30.85891 AU	opposition	-2248 Sep 07 j 07:36	26° \approx 03'36	-1°56'16
morning rise	-2254 Mar 06 j 07:51	12° \approx 01'38		direct	-2248 Nov 23 j 15:38	24° \approx 40'13	
retrograde	-2254 Jun 05 j 22:53	14° \approx 00'45		evening set	-2247 Feb 18 j 08:22	26° \approx 33'33	
min. Earth dist.	-2254 Aug 24 j 09:12	12° \approx 36'56	28.85775 AU				
opposition	-2254 Aug 25 j 08:35	12° \approx 35'17	-1°37'56	conjunction	-2247 Mar 06 j 05:30	27° \approx 09'05	-1°49'53
direct	-2254 Nov 10 j 17:05	11° \approx 11'59		minimum elong	-2247 Mar 06 j 05:30	27° \approx 09'05	1°49'54
evening set	-2253 Feb 05 j 03:36	13° \approx 04'55		max. Earth dist.	-2247 Mar 07 j 04:36	27° \approx 11'16	30.84696 AU
				morning rise	-2247 Mar 22 j 06:18	27° \approx 44'58	
conjunction	-2253 Feb 20 j 22:27	13° \approx 40'18	-1°33'11	retrograde	-2247 Jun 21 j 22:49	29° \approx 44'04	

Attention, astronomical year style is used: The year -2247 in astronomical counting style is the year 2248 BCE in historical counting style.

opposition	-2247 Sep 09 j 19:30	28° \approx 18'43	-1°58'44	conjunction	-2240 Mar 22 j 05:30	12° \mathbb{H} 53'57	-2°01'45
min. Earth dist.	-2247 Sep 08 j 22:33	28° \approx 20'12	28.84722 AU	minimum elong	-2240 Mar 22 j 05:30	12° \mathbb{H} 53'57	2°01'46
direct	-2247 Nov 26 j 01:29	26° \approx 55'17		max. Earth dist.	-2240 Mar 23 j 01:42	12° \mathbb{H} 55'51	30.83008 AU
evening set	-2246 Feb 20 j 21:28	28° \approx 48'40		morning rise	-2240 Apr 07 j 08:33	13° \mathbb{H} 29'55	
				retrograde	-2240 Jul 07 j 17:33	15° \mathbb{H} 28'34	
conjunction	-2246 Mar 08 j 19:13	29° \approx 24'14	-1°52'06	min. Earth dist.	-2240 Sep 24 j 09:54	14° \mathbb{H} 04'28	28.83217 AU
minimum elong	-2246 Mar 08 j 19:13	29° \approx 24'14	1°52'08	opposition	-2240 Sep 25 j 03:35	14° \mathbb{H} 03'13	-2°10'44
max. Earth dist.	-2246 Mar 09 j 18:39	29° \approx 26'26	30.84442 AU	direct	-2240 Dec 11 j 11:41	12° \mathbb{H} 39'22	
morning rise	-2246 Mar 24 j 20:15	0° \mathbb{H} 00'08		evening set	-2239 Mar 08 j 18:53	14° \mathbb{H} 33'10	
	-2246 Mar 24 j 18:51	0° \mathbb{H}					
retrograde	-2246 Jun 24 j 11:03	1° \mathbb{H} 59'11		conjunction	-2239 Mar 24 j 19:27	15° \mathbb{H} 08'53	-2°02'43
min. Earth dist.	-2246 Sep 11 j 10:15	0° \mathbb{H} 35'18	28.84417 AU	minimum elong	-2239 Mar 24 j 19:27	15° \mathbb{H} 08'53	2°02'43
opposition	-2246 Sep 12 j 07:12	0° \mathbb{H} 33'50	-2°01'01	max. Earth dist.	-2239 Mar 25 j 15:41	15° \mathbb{H} 10'47	30.83148 AU
	-2246 Oct 02 j 21:20	30° \mathbb{R} \approx		morning rise	-2239 Apr 09 j 22:44	15° \mathbb{H} 44'52	
direct	-2246 Nov 28 j 13:40	29° \approx 10'20		retrograde	-2239 Jul 10 j 07:47	17° \mathbb{H} 43'26	
	-2245 Jan 22 j 07:58	0° \mathbb{H}		opposition	-2239 Sep 27 j 14:41	16° \mathbb{H} 18'09	-2°11'40
evening set	-2245 Feb 23 j 10:53	1° \mathbb{H} 03'46		min. Earth dist.	-2239 Sep 26 j 20:28	16° \mathbb{H} 19'26	28.83412 AU
				direct	-2239 Dec 14 j 00:14	14° \mathbb{H} 54'17	
conjunction	-2245 Mar 11 j 08:52	1° \mathbb{H} 39'21	-1°54'09	evening set	-2238 Mar 11 j 08:33	16° \mathbb{H} 48'11	
minimum elong	-2245 Mar 11 j 08:52	1° \mathbb{H} 39'21	1°54'10				
max. Earth dist.	-2245 Mar 12 j 06:33	1° \mathbb{H} 41'23	30.84106 AU	conjunction	-2238 Mar 27 j 09:23	17° \mathbb{H} 23'55	-2°03'29
morning rise	-2245 Mar 27 j 10:24	2° \mathbb{H} 15'15		minimum elong	-2238 Mar 27 j 09:23	17° \mathbb{H} 23'55	2°03'31
retrograde	-2245 Jun 26 j 23:53	4° \mathbb{H} 14'14		max. Earth dist.	-2238 Mar 28 j 04:21	17° \mathbb{H} 25'41	30.83393 AU
opposition	-2245 Sep 14 j 18:45	2° \mathbb{H} 48'52	-2°03'07	morning rise	-2238 Apr 12 j 13:07	17° \mathbb{H} 59'55	
min. Earth dist.	-2245 Sep 13 j 22:47	2° \mathbb{H} 50'17	28.84068 AU	retrograde	-2238 Jul 12 j 21:45	19° \mathbb{H} 58'26	
direct	-2245 Dec 01 j 00:14	1° \mathbb{H} 25'18		min. Earth dist.	-2238 Sep 29 j 09:08	18° \mathbb{H} 34'23	28.83703 AU
evening set	-2244 Feb 26 j 00:06	3° \mathbb{H} 18'47		opposition	-2238 Sep 30 j 01:56	18° \mathbb{H} 33'12	-2°12'24
				direct	-2238 Dec 16 j 10:21	17° \mathbb{H} 09'20	
conjunction	-2244 Mar 12 j 22:38	3° \mathbb{H} 54'23	-1°56'02	evening set	-2237 Mar 13 j 22:15	19° \mathbb{H} 03'19	
minimum elong	-2244 Mar 12 j 22:38	3° \mathbb{H} 54'23	1°56'04				
max. Earth dist.	-2244 Mar 13 j 20:56	3° \mathbb{H} 56'29	30.83742 AU	conjunction	-2237 Mar 29 j 23:38	19° \mathbb{H} 39'05	-2°04'05
morning rise	-2244 Mar 29 j 00:20	4° \mathbb{H} 30'18		minimum elong	-2237 Mar 29 j 23:38	19° \mathbb{H} 39'05	2°04'05
retrograde	-2244 Jun 28 j 11:42	6° \mathbb{H} 29'13		max. Earth dist.	-2237 Mar 30 j 18:51	19° \mathbb{H} 40'53	30.83708 AU
min. Earth dist.	-2244 Sep 15 j 10:49	5° \mathbb{H} 05'13	28.83711 AU	morning rise	-2237 Apr 15 j 03:29	20° \mathbb{H} 15'05	
opposition	-2244 Sep 16 j 06:17	5° \mathbb{H} 03'50	-2°05'01	retrograde	-2237 Jul 15 j 09:33	22° \mathbb{H} 13'32	
direct	-2244 Dec 02 j 12:20	3° \mathbb{H} 40'11		opposition	-2237 Oct 02 j 12:56	20° \mathbb{H} 48'23	-2°12'55
evening set	-2243 Feb 27 j 13:17	5° \mathbb{H} 33'43		min. Earth dist.	-2237 Oct 01 j 20:15	20° \mathbb{H} 49'34	28.84021 AU
				direct	-2237 Dec 18 j 22:32	19° \mathbb{H} 24'31	
conjunction	-2243 Mar 15 j 12:08	6° \mathbb{H} 09'20	-1°57'44	evening set	-2236 Mar 15 j 12:12	21° \mathbb{H} 18'35	
minimum elong	-2243 Mar 15 j 12:07	6° \mathbb{H} 09'20	1°57'44				
max. Earth dist.	-2243 Mar 16 j 09:07	6° \mathbb{H} 11'18	30.83413 AU	conjunction	-2236 Mar 31 j 13:47	21° \mathbb{H} 54'22	-2°04'28
morning rise	-2243 Mar 31 j 14:18	6° \mathbb{H} 45'16		minimum elong	-2236 Mar 31 j 13:48	21° \mathbb{H} 54'22	2°04'29
retrograde	-2243 Jul 01 j 01:48	8° \mathbb{H} 44'07		max. Earth dist.	-2236 Apr 01 j 07:05	21° \mathbb{H} 55'59	30.84026 AU
opposition	-2243 Sep 18 j 17:43	7° \mathbb{H} 18'43	-2°06'45	morning rise	-2236 Apr 16 j 18:05	22° \mathbb{H} 30'24	
min. Earth dist.	-2243 Sep 17 j 22:16	7° \mathbb{H} 20'05	28.83422 AU	retrograde	-2236 Jul 16 j 22:16	24° \mathbb{H} 28'46	
direct	-2243 Dec 04 j 23:07	5° \mathbb{H} 55'00		min. Earth dist.	-2236 Oct 03 j 08:38	23° \mathbb{H} 04'46	28.84328 AU
evening set	-2242 Mar 02 j 02:37	7° \mathbb{H} 48'35		opposition	-2236 Oct 04 j 00:09	23° \mathbb{H} 03'40	-2°13'14
				direct	-2236 Dec 20 j 08:42	21° \mathbb{H} 39'46	
conjunction	-2242 Mar 18 j 01:56	8° \mathbb{H} 24'14	-1°59'15	evening set	-2235 Mar 18 j 01:58	23° \mathbb{H} 33'55	
minimum elong	-2242 Mar 18 j 01:56	8° \mathbb{H} 24'14	1°59'16				
max. Earth dist.	-2242 Mar 18 j 23:11	8° \mathbb{H} 26'13	30.83155 AU	conjunction	-2235 Apr 03 j 04:07	24° \mathbb{H} 09'43	-2°04'41
morning rise	-2242 Apr 03 j 04:20	9° \mathbb{H} 00'10		minimum elong	-2235 Apr 03 j 04:07	24° \mathbb{H} 09'43	2°04'40
retrograde	-2242 Jul 03 j 14:25	10° \mathbb{H} 58'57		max. Earth dist.	-2235 Apr 03 j 21:35	24° \mathbb{H} 11'22	30.84293 AU
min. Earth dist.	-2242 Sep 20 j 10:35	9° \mathbb{H} 34'51	28.83222 AU	morning rise	-2235 Apr 19 j 08:31	24° \mathbb{H} 45'46	
opposition	-2242 Sep 21 j 05:01	9° \mathbb{H} 33'33	-2°08'16	retrograde	-2235 Jul 19 j 09:58	26° \mathbb{H} 44'03	
direct	-2242 Dec 07 j 11:40	8° \mathbb{H} 09'46		opposition	-2235 Oct 06 j 11:19	25° \mathbb{H} 19'00	-2°13'21
evening set	-2241 Mar 04 j 16:04	10° \mathbb{H} 03'25		min. Earth dist.	-2235 Oct 05 j 20:47	25° \mathbb{H} 20'02	28.84547 AU
				direct	-2235 Dec 22 j 20:12	23° \mathbb{H} 55'03	
conjunction	-2241 Mar 20 j 15:47	10° \mathbb{H} 39'05	-2°00'35	evening set	-2234 Mar 20 j 16:05	25° \mathbb{H} 49'16	
minimum elong	-2241 Mar 20 j 15:47	10° \mathbb{H} 39'05	2°00'36				
max. Earth dist.	-2241 Mar 21 j 12:18	10° \mathbb{H} 41'01	30.83022 AU	conjunction	-2234 Apr 05 j 18:31	26° \mathbb{H} 25'05	-2°04'42
morning rise	-2241 Apr 05 j 18:32	11° \mathbb{H} 15'02		minimum elong	-2234 Apr 05 j 18:31	26° \mathbb{H} 25'05	2°04'42
retrograde	-2241 Jul 06 j 05:17	13° \mathbb{H} 13'45		max. Earth dist.	-2234 Apr 06 j 09:50	26° \mathbb{H} 26'31	30.84477 AU
opposition	-2241 Sep 23 j 16:15	11° \mathbb{H} 48'21	-2°09'36	morning rise	-2234 Apr 21 j 23:21	27° \mathbb{H} 01'08	
min. Earth dist.	-2241 Sep 22 j 21:15	11° \mathbb{H} 49'42	28.83153 AU	retrograde	-2234 Jul 21 j 23:22	28° \mathbb{H} 59'18	
direct	-2241 Dec 10 j 00:36	10° \mathbb{H} 24'32		opposition	-2234 Oct 08 j 22:19	27° \mathbb{H} 34'16	-2°13'16
evening set	-2240 Mar 06 j 05:27	12° \mathbb{H} 18'16		min. Earth dist.	-2234 Oct 08 j 08:24	27° \mathbb{H} 35'15	28.84688 AU

Attention, astronomical year style is used: The year -2234 in astronomical counting style is the year 2235 BCE in historical counting style.

direct	-2234 Dec 25 j 06:59	26° H 10'15		minimum elong	-2227 Apr 21 j 22:37	12° Y 08'32	1°59'34
evening set	-2233 Mar 23 j 06:08	28° H 04'31		max. Earth dist.	-2227 Apr 22 j 08:17	12° Y 09'26	30.85814 AU
				morning rise	-2227 May 08 j 05:04	12° Y 44'37	
conjunction	-2233 Apr 08 j 09:02	28° H 40'21	-2°04'32	retrograde	-2227 Aug 06 j 14:46	14° Y 41'46	
minimum elong	-2233 Apr 08 j 09:02	28° H 40'21	2°04'31	opposition	-2227 Oct 24 j 01:36	13° Y 16'53	-2°07'06
max. Earth dist.	-2233 Apr 09 j 00:02	28° H 41'45	30.84571 AU	min. Earth dist.	-2227 Oct 23 j 16:42	13° Y 17'31	28.86252 AU
morning rise	-2233 Apr 24 j 14:00	29° H 16'24		direct	-2226 Jan 09 j 20:20	11° Y 52'24	
	-2233 May 15 j 15:02	0° Y		evening set	-2226 Apr 08 j 07:38	13° Y 47'01	
retrograde	-2233 Jul 24 j 10:32	1° Y 14'26					
	-2233 Oct 05 j 03:51	30° R H		conjunction	-2226 Apr 24 j 13:04	14° Y 22'58	-1°58'07
opposition	-2233 Oct 11 j 09:23	29° H 49'25	-2°12'59	minimum elong	-2226 Apr 24 j 13:05	14° Y 22'58	1°58'07
min. Earth dist.	-2233 Oct 10 j 21:00	29° H 50'18	28.84747 AU	max. Earth dist.	-2226 Apr 24 j 23:11	14° Y 23'55	30.86451 AU
direct	-2233 Dec 27 j 19:51	28° H 25'19		morning rise	-2226 May 10 j 19:32	14° Y 59'03	
	-2232 Mar 15 j 15:53	0° Y		retrograde	-2226 Aug 09 j 02:05	16° Y 56'04	
evening set	-2232 Mar 24 j 20:02	0° Y 19'37		opposition	-2226 Oct 26 j 12:03	15° Y 31'18	-2°05'26
				min. Earth dist.	-2226 Oct 26 j 03:57	15° Y 31'52	28.86937 AU
conjunction	-2232 Apr 09 j 23:16	0° Y 55'28	-2°04'10	direct	-2225 Jan 12 j 07:29	14° Y 06'48	
minimum elong	-2232 Apr 09 j 23:16	0° Y 55'28	2°04'11	evening set	-2225 Apr 10 j 21:47	16° Y 01'30	
max. Earth dist.	-2232 Apr 10 j 12:51	0° Y 56'44	30.84624 AU				
morning rise	-2232 Apr 26 j 04:32	1° Y 31'31		conjunction	-2225 Apr 27 j 03:23	16° Y 37'28	-1°56'28
retrograde	-2232 Jul 26 j 00:07	3° Y 29'24		minimum elong	-2225 Apr 27 j 03:24	16° Y 37'28	1°56'27
opposition	-2232 Oct 12 j 20:14	2° Y 04'23	-2°12'30	max. Earth dist.	-2225 Apr 27 j 11:39	16° Y 38'15	30.87199 AU
min. Earth dist.	-2232 Oct 12 j 07:46	2° Y 05'16	28.84791 AU	morning rise	-2225 May 13 j 10:10	17° Y 13'34	
direct	-2232 Dec 29 j 08:55	0° Y 40'11		retrograde	-2225 Aug 11 j 14:50	19° Y 10'29	
evening set	-2231 Mar 27 j 10:02	2° Y 34'32		opposition	-2225 Oct 28 j 22:36	17° Y 45'49	-2°03'34
				min. Earth dist.	-2225 Oct 28 j 14:53	17° Y 46'22	28.87719 AU
conjunction	-2231 Apr 12 j 13:37	3° Y 10'24	-2°03'37	direct	-2224 Jan 14 j 17:49	16° Y 21'20	
minimum elong	-2231 Apr 12 j 13:37	3° Y 10'24	2°03'37	evening set	-2224 Apr 12 j 11:46	18° Y 16'07	
max. Earth dist.	-2231 Apr 13 j 02:31	3° Y 11'36	30.84671 AU				
morning rise	-2231 Apr 28 j 19:07	3° Y 46'27		conjunction	-2224 Apr 28 j 17:45	18° Y 52'06	-1°54'38
retrograde	-2231 Jul 28 j 11:53	5° Y 44'11		minimum elong	-2224 Apr 28 j 17:46	18° Y 52'06	1°54'38
opposition	-2231 Oct 15 j 07:03	4° Y 19'09	-2°11'49	max. Earth dist.	-2224 Apr 29 j 01:58	18° Y 52'52	30.87994 AU
min. Earth dist.	-2231 Oct 14 j 20:21	4° Y 19'55	28.84863 AU	morning rise	-2224 May 15 j 00:31	19° Y 28'12	
direct	-2231 Dec 31 j 20:25	2° Y 54'52		retrograde	-2224 Aug 13 j 01:27	21° Y 25'01	
evening set	-2230 Mar 29 j 23:56	4° Y 49'15		opposition	-2224 Oct 30 j 09:14	20° Y 00'27	-2°01'31
				min. Earth dist.	-2224 Oct 30 j 03:06	20° Y 00'53	28.88511 AU
conjunction	-2230 Apr 15 j 04:00	5° Y 25'08	-2°02'54	direct	-2223 Jan 16 j 05:48	18° Y 35'58	
minimum elong	-2230 Apr 15 j 04:00	5° Y 25'08	2°02'54	evening set	-2223 Apr 15 j 02:01	20° Y 30'52	
max. Earth dist.	-2230 Apr 15 j 16:25	5° Y 26'17	30.84785 AU				
morning rise	-2230 May 01 j 09:43	6° Y 01'11		conjunction	-2223 May 01 j 08:14	21° Y 06'52	-1°52'38
retrograde	-2230 Jul 31 j 01:43	7° Y 58'45		minimum elong	-2223 May 01 j 08:15	21° Y 06'52	1°52'37
opposition	-2230 Oct 17 j 17:42	6° Y 33'44	-2°10'56	max. Earth dist.	-2223 May 01 j 14:38	21° Y 07'27	30.88784 AU
min. Earth dist.	-2230 Oct 17 j 06:43	6° Y 34'31	28.85010 AU	morning rise	-2223 May 17 j 15:15	21° Y 42'57	
direct	-2229 Jan 03 j 10:05	5° Y 09'23		retrograde	-2223 Aug 15 j 14:54	23° Y 39'39	
evening set	-2229 Apr 01 j 13:59	7° Y 03'48		opposition	-2223 Nov 01 j 19:39	22° Y 15'11	-1°59'17
				min. Earth dist.	-2223 Nov 01 j 13:43	22° Y 15'36	28.89267 AU
conjunction	-2229 Apr 17 j 18:14	7° Y 39'42	-2°01'59	direct	-2222 Jan 18 j 18:02	20° Y 50'41	
minimum elong	-2229 Apr 17 j 18:14	7° Y 39'42	2°01'57	evening set	-2222 Apr 17 j 16:22	22° Y 45'40	
max. Earth dist.	-2229 Apr 18 j 05:20	7° Y 40'44	30.84981 AU				
morning rise	-2229 May 04 j 00:14	8° Y 15'45		conjunction	-2222 May 03 j 22:53	23° Y 21'41	-1°50'28
retrograde	-2229 Aug 02 j 14:26	10° Y 13'11		minimum elong	-2222 May 03 j 22:54	23° Y 21'41	1°50'27
opposition	-2229 Oct 20 j 04:23	8° Y 48'11	-2°09'51	max. Earth dist.	-2222 May 04 j 04:14	23° Y 22'11	30.89495 AU
min. Earth dist.	-2229 Oct 19 j 18:46	8° Y 48'52	28.85276 AU	morning rise	-2222 May 20 j 05:58	23° Y 57'47	
direct	-2228 Jan 05 j 21:18	7° Y 23'46		retrograde	-2222 Aug 18 j 02:26	25° Y 54'20	
evening set	-2228 Apr 03 j 03:47	9° Y 18'14		opposition	-2222 Nov 04 j 06:20	24° Y 29'57	-1°56'52
				min. Earth dist.	-2222 Nov 04 j 02:31	24° Y 30'13	28.89933 AU
conjunction	-2228 Apr 19 j 08:32	9° Y 54'09	-2°00'53	direct	-2221 Jan 21 j 05:20	23° Y 05'24	
minimum elong	-2228 Apr 19 j 08:33	9° Y 54'09	2°00'52	evening set	-2221 Apr 20 j 06:37	25° Y 00'27	
max. Earth dist.	-2228 Apr 19 j 19:52	9° Y 55'12	30.85322 AU				
morning rise	-2228 May 05 j 14:36	10° Y 30'13		conjunction	-2221 May 06 j 13:25	25° Y 36'29	-1°48'07
retrograde	-2228 Aug 04 j 02:08	12° Y 27'29		minimum elong	-2221 May 06 j 13:26	25° Y 36'29	1°48'05
opposition	-2228 Oct 21 j 14:56	11° Y 02'33	-2°08'35	max. Earth dist.	-2221 May 06 j 17:37	25° Y 36'52	30.90125 AU
min. Earth dist.	-2228 Oct 21 j 05:11	11° Y 03'14	28.85684 AU	morning rise	-2221 May 22 j 20:35	26° Y 12'34	
direct	-2227 Jan 07 j 10:01	9° Y 38'05		retrograde	-2221 Aug 20 j 15:57	28° Y 08'58	
evening set	-2227 Apr 05 j 17:40	11° Y 32'37		opposition	-2221 Nov 06 j 16:45	26° Y 44'38	-1°54'17
				min. Earth dist.	-2221 Nov 06 j 13:04	26° Y 44'54	28.90509 AU
conjunction	-2227 Apr 21 j 22:37	12° Y 08'32	-1°59'35	direct	-2220 Jan 23 j 19:33	25° Y 20'03	

Attention, astronomical year style is used: The year -2220 in astronomical counting style is the year 2221 BCE in historical counting style.

evening set	-2220 Apr 21 j 20:54	27° Υ 15'09		conjunction	-2214 May 22 j 17:09	11° \mathcal{B} 15'55	-1°27'30
				minimum elong	-2214 May 22 j 17:10	11° \mathcal{B} 15'55	1°27'28
conjunction	-2220 May 08 j 03:51	27° Υ 51'11	-1°45'37	max. Earth dist.	-2214 May 22 j 14:24	11° \mathcal{B} 15'40	30.94625 AU
minimum elong	-2220 May 08 j 03:52	27° Υ 51'11	1°45'36	morning rise	-2214 Jun 08 j 00:40	11° \mathcal{B} 51'58	
max. Earth dist.	-2220 May 08 j 06:22	27° Υ 51'25	30.90671 AU	retrograde	-2214 Sep 05 j 00:45	13° \mathcal{B} 47'07	
morning rise	-2220 May 24 j 11:10	28° Υ 27'17		opposition	-2214 Nov 21 j 16:46	12° \mathcal{B} 23'10	-1°31'41
	-2220 Jul 15 j 11:26	0° \mathcal{B}		min. Earth dist.	-2214 Nov 21 j 18:24	12° \mathcal{B} 23'03	28.95196 AU
retrograde	-2220 Aug 22 j 04:14	0° \mathcal{B} 23'31		direct	-2213 Feb 08 j 06:33	10° \mathcal{B} 58'13	
	-2220 Sep 29 j 06:04	30° \mathcal{K} Υ		evening set	-2213 May 08 j 22:57	12° \mathcal{B} 53'35	
opposition	-2220 Nov 08 j 03:14	28° Υ 59'13	-1°51'31				
min. Earth dist.	-2220 Nov 08 j 01:22	28° Υ 59'21	28.91034 AU	conjunction	-2213 May 25 j 07:11	13° \mathcal{B} 29'40	-1°24'00
direct	-2219 Jan 25 j 07:37	27° Υ 34'34		minimum elong	-2213 May 25 j 07:11	13° \mathcal{B} 29'40	1°23'58
evening set	-2219 Apr 24 j 10:54	29° Υ 29'42		max. Earth dist.	-2213 May 25 j 04:05	13° \mathcal{B} 29'22	30.95656 AU
	-2219 May 08 j 04:26	0° \mathcal{B}		morning rise	-2213 Jun 10 j 14:32	14° \mathcal{B} 05'42	
					-2213 Jul 07 j 14:07	15° \mathcal{B}	
conjunction	-2219 May 10 j 18:16	0° \mathcal{B} 05'45	-1°42'58	retrograde	-2213 Sep 07 j 10:42	16° \mathcal{B} 00'43	
minimum elong	-2219 May 10 j 18:17	0° \mathcal{B} 05'45	1°42'56		-2213 Nov 10 j 08:24	15° \mathcal{K} \mathcal{B}	
max. Earth dist.	-2219 May 10 j 20:26	0° \mathcal{B} 05'57	30.91189 AU	opposition	-2213 Nov 24 j 03:04	14° \mathcal{B} 36'52	-1°27'52
morning rise	-2219 May 27 j 01:36	0° \mathcal{B} 41'50		min. Earth dist.	-2213 Nov 24 j 06:26	14° \mathcal{B} 36'37	28.96268 AU
retrograde	-2219 Aug 24 j 15:55	2° \mathcal{B} 37'53		direct	-2212 Feb 10 j 17:22	13° \mathcal{B} 11'55	
opposition	-2219 Nov 10 j 13:34	1° \mathcal{B} 13'37	-1°48'36		-2212 May 07 j 02:41	15° \mathcal{B}	
min. Earth dist.	-2219 Nov 10 j 12:01	1° \mathcal{B} 13'44	28.91530 AU	evening set	-2212 May 10 j 12:54	15° \mathcal{B} 07'22	
	-2218 Jan 01 j 22:55	30° \mathcal{K} Υ					
direct	-2218 Jan 27 j 21:06	29° Υ 48'55		conjunction	-2212 May 26 j 21:13	15° \mathcal{B} 43'26	-1°20'21
	-2218 Feb 22 j 11:42	0° \mathcal{B}		minimum elong	-2212 May 26 j 21:14	15° \mathcal{B} 43'26	1°20'20
evening set	-2218 Apr 27 j 01:10	1° \mathcal{B} 44'04		max. Earth dist.	-2212 May 26 j 17:14	15° \mathcal{B} 43'04	30.96771 AU
				morning rise	-2212 Jun 12 j 04:33	16° \mathcal{B} 19'27	
conjunction	-2218 May 13 j 08:35	2° \mathcal{B} 20'07	-1°40'10	retrograde	-2212 Sep 08 j 23:06	18° \mathcal{B} 14'21	
minimum elong	-2218 May 13 j 08:35	2° \mathcal{B} 20'08	1°40'08	opposition	-2212 Nov 25 j 13:10	16° \mathcal{B} 50'36	-1°23'55
max. Earth dist.	-2218 May 13 j 08:41	2° \mathcal{B} 20'08	30.91699 AU	min. Earth dist.	-2212 Nov 25 j 16:34	16° \mathcal{B} 50'22	28.97383 AU
morning rise	-2218 May 29 j 16:06	2° \mathcal{B} 56'12		direct	-2211 Feb 12 j 07:01	15° \mathcal{B} 25'40	
retrograde	-2218 Aug 27 j 04:43	4° \mathcal{B} 52'03		evening set	-2211 May 13 j 02:56	17° \mathcal{B} 21'11	
opposition	-2218 Nov 12 j 23:50	3° \mathcal{B} 27'50	-1°45'31				
min. Earth dist.	-2218 Nov 12 j 23:26	3° \mathcal{B} 27'52	28.92061 AU	conjunction	-2211 May 29 j 11:16	17° \mathcal{B} 57'16	-1°16'36
direct	-2217 Jan 30 j 08:28	2° \mathcal{B} 03'03		minimum elong	-2211 May 29 j 11:16	17° \mathcal{B} 57'16	1°16'33
evening set	-2217 Apr 29 j 15:11	3° \mathcal{B} 58'14		max. Earth dist.	-2211 May 29 j 05:50	17° \mathcal{B} 56'45	30.97877 AU
				morning rise	-2211 Jun 14 j 18:32	18° \mathcal{B} 33'16	
conjunction	-2217 May 15 j 22:56	4° \mathcal{B} 34'19	-1°37'13	retrograde	-2211 Sep 11 j 10:52	20° \mathcal{B} 28'02	
minimum elong	-2217 May 15 j 22:57	4° \mathcal{B} 34'19	1°37'10	opposition	-2211 Nov 27 j 23:31	19° \mathcal{B} 04'23	-1°19'50
max. Earth dist.	-2217 May 15 j 23:19	4° \mathcal{B} 34'21	30.92262 AU	min. Earth dist.	-2211 Nov 28 j 04:44	19° \mathcal{B} 04'01	28.98467 AU
morning rise	-2217 Jun 01 j 06:19	5° \mathcal{B} 10'22		direct	-2210 Feb 14 j 18:40	17° \mathcal{B} 39'27	
retrograde	-2217 Aug 29 j 15:27	7° \mathcal{B} 06'02		evening set	-2210 May 15 j 17:00	19° \mathcal{B} 35'02	
opposition	-2217 Nov 15 j 10:09	5° \mathcal{B} 41'52	-1°42'17				
min. Earth dist.	-2217 Nov 15 j 10:34	5° \mathcal{B} 41'50	28.92656 AU	conjunction	-2210 Jun 01 j 01:28	20° \mathcal{B} 11'07	-1°12'44
direct	-2216 Feb 01 j 20:37	4° \mathcal{B} 17'02		minimum elong	-2210 Jun 01 j 01:28	20° \mathcal{B} 11'07	1°12'41
evening set	-2216 May 01 j 05:05	6° \mathcal{B} 12'14		max. Earth dist.	-2210 May 31 j 19:25	20° \mathcal{B} 10'33	30.98922 AU
				morning rise	-2210 Jun 17 j 08:31	20° \mathcal{B} 47'06	
conjunction	-2216 May 17 j 12:51	6° \mathcal{B} 48'18	-1°34'07	retrograde	-2210 Sep 13 j 22:44	22° \mathcal{B} 41'43	
minimum elong	-2216 May 17 j 12:52	6° \mathcal{B} 48'18	1°34'05	opposition	-2210 Nov 30 j 09:45	21° \mathcal{B} 18'10	-1°15'38
max. Earth dist.	-2216 May 17 j 11:27	6° \mathcal{B} 48'10	30.92919 AU	min. Earth dist.	-2210 Nov 30 j 15:31	21° \mathcal{B} 17'46	28.99448 AU
morning rise	-2216 Jun 02 j 20:25	7° \mathcal{B} 24'22		direct	-2209 Feb 17 j 08:06	19° \mathcal{B} 53'14	
retrograde	-2216 Aug 31 j 02:47	9° \mathcal{B} 19'51		evening set	-2209 May 18 j 07:12	21° \mathcal{B} 48'52	
opposition	-2216 Nov 16 j 20:23	7° \mathcal{B} 55'44	-1°38'54				
min. Earth dist.	-2216 Nov 16 j 20:59	7° \mathcal{B} 55'41	28.93374 AU	conjunction	-2209 Jun 03 j 15:30	22° \mathcal{B} 24'57	-1°08'45
direct	-2215 Feb 03 j 07:50	6° \mathcal{B} 30'50		minimum elong	-2209 Jun 03 j 15:30	22° \mathcal{B} 24'57	1°08'42
evening set	-2215 May 03 j 19:00	8° \mathcal{B} 26'05		max. Earth dist.	-2209 Jun 03 j 07:11	22° \mathcal{B} 24'10	30.99854 AU
				morning rise	-2209 Jun 19 j 22:31	23° \mathcal{B} 00'55	
conjunction	-2215 May 20 j 03:04	9° \mathcal{B} 02'09	-1°30'53	retrograde	-2209 Sep 16 j 11:40	24° \mathcal{B} 55'23	
minimum elong	-2215 May 20 j 03:04	9° \mathcal{B} 02'09	1°30'51	opposition	-2209 Dec 02 j 20:09	23° \mathcal{B} 31'54	-1°11'20
max. Earth dist.	-2215 May 20 j 01:53	9° \mathcal{B} 02'03	30.93700 AU	min. Earth dist.	-2209 Dec 03 j 03:10	23° \mathcal{B} 31'25	29.00329 AU
morning rise	-2215 Jun 05 j 10:28	9° \mathcal{B} 38'12		direct	-2208 Feb 19 j 20:01	22° \mathcal{B} 06'56	
retrograde	-2215 Sep 02 j 12:06	11° \mathcal{B} 33'31		evening set	-2208 May 19 j 20:58	24° \mathcal{B} 02'37	
opposition	-2215 Nov 19 j 06:36	10° \mathcal{B} 09'28	-1°35'22				
min. Earth dist.	-2215 Nov 19 j 08:30	10° \mathcal{B} 09'20	28.94217 AU	conjunction	-2208 Jun 05 j 05:26	24° \mathcal{B} 38'41	-1°04'40
direct	-2214 Feb 05 j 19:14	8° \mathcal{B} 44'33		minimum elong	-2208 Jun 05 j 05:27	24° \mathcal{B} 38'41	1°04'38
evening set	-2214 May 06 j 09:03	10° \mathcal{B} 39'51		max. Earth dist.	-2208 Jun 04 j 21:02	24° \mathcal{B} 37'54	31.00679 AU
				morning rise	-2208 Jun 21 j 12:09	25° \mathcal{B} 14'38	

Attention, astronomical year style is used: The year -2208 in astronomical counting style is the year 2209 BCE in historical counting style.

retrograde	-2208 Sep 17 j 22:11	27° 8 08'56		evening set	-2201 Jun 05 j 20:38	9° II 34'30	
opposition	-2208 Dec 04 j 06:29	25° 8 45'32	-1°06'55				
min. Earth dist.	-2208 Dec 04 j 14:44	25° 8 44'57	29.01089 AU	conjunction	-2201 Jun 22 j 04:12	10° II 10'28	-0°33'57
direct	-2207 Feb 21 j 09:02	24° 8 20'31		minimum elong	-2201 Jun 22 j 04:12	10° II 10'28	0°33'55
evening set	-2207 May 22 j 11:02	26° 8 16'14		max. Earth dist.	-2201 Jun 21 j 14:04	10° II 09'09	31.06042 AU
				morning rise	-2201 Jul 08 j 09:09	10° II 46'14	
conjunction	-2207 Jun 07 j 19:18	26° 8 52'17	-1°00'30	retrograde	-2201 Oct 04 j 00:06	12° II 39'30	
minimum elong	-2207 Jun 07 j 19:19	26° 8 52'17	1°00'28	opposition	-2201 Dec 20 j 05:32	11° II 16'31	-0°33'50
max. Earth dist.	-2207 Jun 07 j 08:38	26° 8 51'18	31.01406 AU	min. Earth dist.	-2201 Dec 20 j 18:07	11° II 15'38	29.06595 AU
morning rise	-2207 Jun 24 j 02:01	27° 8 28'14		direct	-2200 Mar 08 j 20:29	9° II 51'16	
retrograde	-2207 Sep 20 j 09:36	29° 8 22'21		evening set	-2200 Jun 07 j 09:57	11° II 47'15	
opposition	-2207 Dec 06 j 16:35	27° 8 59'00	-1°02'26				
min. Earth dist.	-2207 Dec 07 j 01:23	27° 8 58'23	29.01778 AU	conjunction	-2200 Jun 23 j 17:11	12° II 23'13	-0°29'19
direct	-2206 Feb 23 j 20:50	26° 8 33'56		minimum elong	-2200 Jun 23 j 17:11	12° II 23'13	0°29'16
evening set	-2206 May 25 j 00:53	28° 8 29'41		max. Earth dist.	-2200 Jun 23 j 01:33	12° II 21'46	31.07136 AU
				morning rise	-2200 Jul 09 j 21:55	12° II 58'58	
conjunction	-2206 Jun 10 j 09:15	29° 8 05'44	-0°56'15	retrograde	-2200 Oct 05 j 13:01	14° II 52'08	
minimum elong	-2206 Jun 10 j 09:15	29° 8 05'44	0°56'13	opposition	-2200 Dec 21 j 15:44	13° II 29'14	-0°28'52
max. Earth dist.	-2206 Jun 09 j 22:32	29° 8 04'45	31.02066 AU	min. Earth dist.	-2200 Dec 22 j 05:07	13° II 28'18	29.07719 AU
morning rise	-2206 Jun 26 j 15:34	29° 8 41'39		direct	-2199 Mar 11 j 08:43	12° II 04'01	
	-2206 Jul 05 j 06:38	0° II		evening set	-2199 Jun 09 j 23:19	14° II 00'04	
retrograde	-2206 Sep 22 j 18:43	1° II 35'36					
opposition	-2206 Dec 09 j 02:53	0° II 12'18	-0°57'50	conjunction	-2199 Jun 26 j 06:27	14° II 36'00	-0°24'39
min. Earth dist.	-2206 Dec 09 j 13:16	0° II 11'34	29.02419 AU	minimum elong	-2199 Jun 26 j 06:27	14° II 36'00	0°24'36
	-2206 Dec 16 j 09:30	30° 8 8		max. Earth dist.	-2199 Jun 25 j 15:07	14° II 34'35	31.08265 AU
direct	-2205 Feb 26 j 08:35	28° 8 47'11		morning rise	-2199 Jul 12 j 10:40	15° II 11'43	
	-2205 May 06 j 15:47	0° II		retrograde	-2199 Oct 07 j 23:11	17° II 04'47	
evening set	-2205 May 27 j 14:35	0° II 42'56		opposition	-2199 Dec 24 j 01:54	15° II 42'00	-0°23'51
				min. Earth dist.	-2199 Dec 24 j 16:23	15° II 40'59	29.08831 AU
conjunction	-2205 Jun 12 j 22:43	1° II 18'59	-0°51'56	direct	-2198 Mar 13 j 21:58	14° II 16'48	
minimum elong	-2205 Jun 12 j 22:43	1° II 18'59	0°51'53	evening set	-2198 Jun 12 j 12:53	16° II 12'55	
max. Earth dist.	-2205 Jun 12 j 10:20	1° II 17'50	31.02716 AU				
morning rise	-2205 Jun 29 j 04:57	1° II 54'52		conjunction	-2198 Jun 28 j 19:32	16° II 48'49	-0°19'56
retrograde	-2205 Sep 25 j 06:29	3° II 48'40		minimum elong	-2198 Jun 28 j 19:32	16° II 48'49	0°19'53
opposition	-2205 Dec 11 j 12:58	2° II 25'24	-0°53'11	max. Earth dist.	-2198 Jun 28 j 02:13	16° II 47'14	31.09357 AU
min. Earth dist.	-2205 Dec 11 j 23:08	2° II 24'41	29.03076 AU	morning rise	-2198 Jul 14 j 23:30	17° II 24'31	
direct	-2204 Feb 28 j 19:55	1° II 00'13		retrograde	-2198 Oct 10 j 11:01	19° II 17'28	
evening set	-2204 May 29 j 04:10	2° II 56'01		opposition	-2198 Dec 26 j 12:12	17° II 54'47	-0°18'48
				min. Earth dist.	-2198 Dec 27 j 02:59	17° II 53'45	29.09891 AU
conjunction	-2204 Jun 14 j 12:15	3° II 32'02	-0°47'32	direct	-2197 Mar 16 j 09:45	16° II 29'34	
minimum elong	-2204 Jun 14 j 12:15	3° II 32'02	0°47'29	evening set	-2197 Jun 15 j 02:06	18° II 25'44	
max. Earth dist.	-2204 Jun 13 j 23:37	3° II 30'52	31.03393 AU				
morning rise	-2204 Jun 30 j 18:07	4° II 07'54		conjunction	-2197 Jul 01 j 08:34	19° II 01'38	-0°15'12
retrograde	-2204 Sep 26 j 15:11	6° II 01'33		minimum elong	-2197 Jul 01 j 08:34	19° II 01'38	0°15'10
opposition	-2204 Dec 12 j 23:07	4° II 38'20	-0°48'26	behind sun begin	-2197 Jul 01 j 06:38	19° II 01'27	
min. Earth dist.	-2204 Dec 13 j 10:55	4° II 37'30	29.03795 AU	behind sun end	-2197 Jul 01 j 10:29	19° II 01'48	
direct	-2203 Mar 02 j 06:53	3° II 13'07		max. Earth dist.	-2197 Jun 30 j 15:25	19° II 00'03	31.10360 AU
evening set	-2203 May 31 j 17:42	5° II 08'56		morning rise	-2197 Jul 17 j 11:55	19° II 37'17	
				retrograde	-2197 Oct 12 j 20:37	21° II 30'08	
conjunction	-2203 Jun 17 j 01:37	5° II 44'56	-0°43'04	opposition	-2197 Dec 28 j 22:40	20° II 07'31	-0°13'43
minimum elong	-2203 Jun 17 j 01:38	5° II 44'56	0°43'01	min. Earth dist.	-2197 Dec 29 j 15:02	20° II 06'22	29.10841 AU
max. Earth dist.	-2203 Jun 16 j 12:15	5° II 43'42	31.04166 AU	direct	-2196 Mar 17 j 21:50	18° II 42'18	
morning rise	-2203 Jul 03 j 07:18	6° II 20'46		evening set	-2196 Jun 16 j 15:27	20° II 38'29	
retrograde	-2203 Sep 29 j 02:13	8° II 14'16					
opposition	-2203 Dec 15 j 09:12	6° II 51'07	-0°43'38	conjunction	-2196 Jul 02 j 21:27	21° II 14'21	-0°10'28
min. Earth dist.	-2203 Dec 15 j 20:36	6° II 50'19	29.04609 AU	minimum elong	-2196 Jul 02 j 21:27	21° II 14'21	0°10'25
direct	-2202 Mar 04 j 20:28	5° II 25'52		behind sun begin	-2196 Jul 02 j 16:20	21° II 13'53	
evening set	-2202 Jun 03 j 07:15	7° II 21'44		behind sun end	-2196 Jul 03 j 02:34	21° II 14'48	
				max. Earth dist.	-2196 Jul 02 j 02:27	21° II 12'35	31.11260 AU
conjunction	-2202 Jun 19 j 14:56	7° II 57'44	-0°38'32	morning rise	-2196 Jul 19 j 00:32	21° II 49'58	
minimum elong	-2202 Jun 19 j 14:56	7° II 57'44	0°38'29	retrograde	-2196 Oct 14 j 08:13	23° II 42'41	
max. Earth dist.	-2202 Jun 19 j 00:44	7° II 56'25	31.05036 AU	opposition	-2196 Dec 30 j 08:50	22° II 20'08	-0°08'38
morning rise	-2202 Jul 05 j 20:15	8° II 33'32		min. Earth dist.	-2196 Dec 31 j 01:06	22° II 18'59	29.11683 AU
retrograde	-2202 Oct 01 j 12:52	10° II 26'55		direct	-2195 Mar 20 j 09:34	20° II 54'52	
opposition	-2202 Dec 17 j 19:23	9° II 03'50	-0°38'46	evening set	-2195 Jun 19 j 04:41	22° II 51'05	
min. Earth dist.	-2202 Dec 18 j 08:00	9° II 02'57	29.05549 AU				
direct	-2201 Mar 07 j 07:32	7° II 38'34		conjunction	-2195 Jul 05 j 10:25	23° II 26'55	-0°05'43

Attention, astronomical year style is used: The year -2195 in astronomical counting style is the year 2196 BCE in historical counting style.

minimum elong	-2195 Jul 05 j 10:25	23°II26'55	0°05'40	minimum elong	-2190 Jul 17 j 00:35	4°☾26'33	0°18'10
behind sun begin	-2195 Jul 05 j 04:07	23°II26'21		morning rise	-2190 Aug 02 j 00:28	5°☾01'54	
behind sun end	-2195 Jul 05 j 16:43	23°II27'28		retrograde	-2190 Oct 27 j 19:22	6°☾53'58	
max. Earth dist.	-2195 Jul 04 j 14:59	23°II25'07	31.12039 AU	opposition	-2189 Jan 12 j 23:00	5°☾31'34	0°21'47
morning rise	-2195 Jul 21 j 12:55	24°II02'29		min. Earth dist.	-2189 Jan 13 j 18:56	5°☾30'11	29.15886 AU
retrograde	-2195 Oct 16 j 16:21	25°II55'06		direct	-2189 Apr 03 j 11:19	4°☾06'07	
opposition	-2194 Jan 01 j 19:18	24°II32'34	-0°03'32	evening set	-2189 Jul 03 j 09:31	6°☾02'23	
min. Earth dist.	-2194 Jan 02 j 13:24	24°II31'18	29.12415 AU				
direct	-2194 Mar 22 j 20:55	23°II07'17		conjunction	-2189 Jul 19 j 12:25	6°☾37'59	0°22'47
evening set	-2194 Jun 21 j 17:50	25°II03'29		minimum elong	-2189 Jul 19 j 12:24	6°☾37'59	0°22'49
				max. Earth dist.	-2189 Jul 18 j 13:48	6°☾35'53	31.16321 AU
conjunction	-2194 Jul 07 j 23:06	25°II39'17	-0°00'55	morning rise	-2189 Aug 04 j 11:53	7°☾13'18	
minimum elong	-2194 Jul 07 j 23:07	25°II39'17	0°00'51	retrograde	-2189 Oct 30 j 06:57	9°☾05'18	
behind sun begin	-2194 Jul 07 j 16:34	25°II38'42		opposition	-2188 Jan 15 j 09:21	7°☾42'59	0°26'46
behind sun end	-2194 Jul 08 j 05:41	25°II39'52		min. Earth dist.	-2188 Jan 16 j 04:48	7°☾41'38	29.16839 AU
max. Earth dist.	-2194 Jul 07 j 02:45	25°II37'24	31.12733 AU	direct	-2188 Apr 04 j 22:58	6°☾17'33	
morning rise	-2194 Jul 24 j 01:12	26°II14'49		evening set	-2188 Jul 04 j 21:55	8°☾13'52	
asc. node	-2194 Sep 13 j 18:51	27°II46'05		max. Earth dist.	-2188 Jul 20 j 02:45	8°☾47'25	31.17319 AU
retrograde	-2194 Oct 19 j 02:20	28°II07'17					
opposition	-2193 Jan 04 j 05:34	26°II44'48	0°01'34	conjunction	-2188 Jul 21 j 00:28	8°☾49'26	0°27'26
min. Earth dist.	-2193 Jan 04 j 23:28	26°II43'33	29.13068 AU	minimum elong	-2188 Jul 21 j 00:28	8°☾49'26	0°27'29
direct	-2193 Mar 25 j 09:54	25°II19'28		morning rise	-2188 Aug 05 j 23:13	9°☾24'42	
evening set	-2193 Jun 24 j 06:51	27°II15'40		retrograde	-2188 Oct 31 j 16:30	11°☾16'40	
				opposition	-2187 Jan 16 j 19:44	9°☾54'26	0°31'43
conjunction	-2193 Jul 10 j 11:43	27°II51'26	0°03'57	min. Earth dist.	-2187 Jan 17 j 16:18	9°☾53'00	29.17877 AU
minimum elong	-2193 Jul 10 j 11:43	27°II51'26	0°04'00	direct	-2187 Apr 07 j 11:00	8°☾29'04	
behind sun begin	-2193 Jul 10 j 05:14	27°II50'51		evening set	-2187 Jul 07 j 10:30	10°☾25'25	
behind sun end	-2193 Jul 10 j 18:11	27°II52'00					
max. Earth dist.	-2193 Jul 09 j 14:32	27°II49'28	31.13363 AU	conjunction	-2187 Jul 23 j 12:22	11°☾00'58	0°32'03
morning rise	-2193 Jul 26 j 13:16	28°II26'55		minimum elong	-2187 Jul 23 j 12:22	11°☾00'58	0°32'05
	-2193 Sep 17 j 21:40	0°☾		max. Earth dist.	-2187 Jul 22 j 13:29	10°☾58'50	31.18388 AU
retrograde	-2193 Oct 21 j 12:15	0°☾19'17		morning rise	-2187 Aug 08 j 10:41	11°☾36'11	
	-2193 Nov 24 j 17:54	30°☾II		retrograde	-2187 Nov 03 j 04:13	13°☾28'07	
opposition	-2192 Jan 06 j 15:57	28°II56'48	0°06'39	opposition	-2186 Jan 19 j 06:11	12°☾06'00	0°36'37
min. Earth dist.	-2192 Jan 07 j 11:05	28°II55'27	29.13702 AU	min. Earth dist.	-2186 Jan 20 j 02:07	12°☾04'36	29.18953 AU
direct	-2192 Mar 26 j 20:24	27°II31'24		direct	-2186 Apr 09 j 22:41	10°☾40'40	
evening set	-2192 Jun 25 j 19:32	29°II27'36		evening set	-2186 Jul 09 j 22:54	12°☾37'05	
	-2192 Jul 10 j 12:11	0°☾		max. Earth dist.	-2186 Jul 25 j 01:32	13°☾10'29	31.19444 AU
max. Earth dist.	-2192 Jul 11 j 03:01	0°☾01'23	31.13999 AU				
				conjunction	-2186 Jul 26 j 00:16	13°☾12'35	0°36'36
conjunction	-2192 Jul 12 j 00:04	0°☾03'20	0°08'41	minimum elong	-2186 Jul 26 j 00:16	13°☾12'35	0°36'40
minimum elong	-2192 Jul 12 j 00:04	0°☾03'20	0°08'45	morning rise	-2186 Aug 10 j 21:49	13°☾47'46	
behind sun begin	-2192 Jul 11 j 18:25	0°☾02'50		retrograde	-2186 Nov 05 j 12:33	15°☾39'42	
behind sun end	-2192 Jul 12 j 05:43	0°☾03'50		opposition	-2185 Jan 21 j 16:54	14°☾17'39	0°41'28
morning rise	-2192 Jul 28 j 01:07	0°☾38'47		min. Earth dist.	-2185 Jan 22 j 14:18	14°☾16'10	29.19998 AU
retrograde	-2192 Oct 22 j 22:14	2°☾31'01		direct	-2185 Apr 12 j 09:28	12°☾52'23	
opposition	-2191 Jan 08 j 02:15	1°☾08'34	0°11'43	evening set	-2185 Jul 12 j 11:21	14°☾48'51	
min. Earth dist.	-2191 Jan 08 j 21:21	1°☾07'13	29.14344 AU				
	-2191 Feb 24 j 15:27	30°☾II		conjunction	-2185 Jul 28 j 12:05	15°☾24'18	0°41'07
direct	-2191 Mar 29 j 10:02	29°II43'08		minimum elong	-2185 Jul 28 j 12:04	15°☾24'18	0°41'09
	-2191 Apr 30 j 20:37	0°☾		max. Earth dist.	-2185 Jul 27 j 12:44	15°☾22'08	31.20454 AU
evening set	-2191 Jun 28 j 08:24	1°☾39'20		morning rise	-2185 Aug 13 j 09:05	15°☾59'27	
				retrograde	-2185 Nov 07 j 22:36	17°☾51'20	
conjunction	-2191 Jul 14 j 12:19	2°☾15'01	0°13'24	opposition	-2184 Jan 24 j 03:30	16°☾29'23	0°46'15
minimum elong	-2191 Jul 14 j 12:19	2°☾15'01	0°13'27	min. Earth dist.	-2184 Jan 25 j 00:33	16°☾27'55	29.20961 AU
behind sun begin	-2191 Jul 14 j 08:43	2°☾14'42		direct	-2184 Apr 13 j 21:25	15°☾04'09	
behind sun end	-2191 Jul 14 j 15:55	2°☾15'20		evening set	-2184 Jul 13 j 23:41	17°☾00'38	
max. Earth dist.	-2191 Jul 13 j 14:01	2°☾12'57	31.14668 AU				
morning rise	-2191 Jul 30 j 12:54	2°☾50'25		conjunction	-2184 Jul 29 j 23:49	17°☾36'04	0°45'34
retrograde	-2191 Oct 25 j 09:55	4°☾42'34		minimum elong	-2184 Jul 29 j 23:49	17°☾36'04	0°45'37
opposition	-2190 Jan 10 j 12:31	3°☾20'07	0°16'46	max. Earth dist.	-2184 Jul 28 j 23:45	17°☾33'50	31.21352 AU
min. Earth dist.	-2190 Jan 11 j 07:59	3°☾18'46	29.15065 AU	morning rise	-2184 Aug 14 j 20:12	18°☾11'10	
direct	-2190 Mar 31 j 22:06	1°☾54'40		retrograde	-2184 Nov 09 j 08:47	20°☾03'02	
evening set	-2190 Jun 30 j 21:00	3°☾50'54		opposition	-2183 Jan 25 j 14:18	18°☾41'08	0°50'58
max. Earth dist.	-2190 Jul 16 j 03:08	4°☾24'34	31.15434 AU	min. Earth dist.	-2183 Jan 26 j 12:32	18°☾39'35	29.21812 AU
				direct	-2183 Apr 16 j 06:57	17°☾15'55	
conjunction	-2190 Jul 17 j 00:35	4°☾26'33	0°18'06	evening set	-2183 Jul 16 j 12:00	19°☾12'26	

Attention, astronomical year style is used: The year -2183 in astronomical counting style is the year 2184 BCE in historical counting style.

max. Earth dist.	-2183 Jul 31 j 11:33	19° $\overline{045}$ '34	31.22133 AU	morning rise	-2177 Aug 30 j 22:38	3° Ω 30'04	
				retrograde	-2177 Nov 25 j 07:49	5° Ω 21'42	
conjunction	-2183 Aug 01 j 11:36	19° $\overline{047}$ '48	0°49'57	opposition	-2176 Feb 10 j 18:20	3° Ω 59'52	1°21'28
minimum elong	-2183 Aug 01 j 11:36	19° $\overline{047}$ '48	0°49'59	min. Earth dist.	-2176 Feb 11 j 17:45	3° Ω 58'15	29.25826 AU
morning rise	-2183 Aug 17 j 07:17	20° $\overline{022}$ '52		direct	-2176 May 01 j 22:52	2° Ω 34'37	
retrograde	-2183 Nov 11 j 18:33	22° $\overline{014}$ '42		evening set	-2176 Jul 31 j 22:35	4° Ω 31'04	
opposition	-2182 Jan 28 j 01:03	20° $\overline{052}$ '50	0°55'37				
min. Earth dist.	-2182 Jan 28 j 23:24	20° $\overline{051}$ '17	29.22523 AU	conjunction	-2176 Aug 16 j 17:38	5° Ω 06'05	1°18'10
direct	-2182 Apr 18 j 20:33	19° $\overline{027}$ '37		minimum elong	-2176 Aug 16 j 17:37	5° Ω 06'05	1°18'13
evening set	-2182 Jul 19 j 00:20	21° $\overline{024}$ '09		max. Earth dist.	-2176 Aug 15 j 17:00	5° Ω 03'48	31.26101 AU
				morning rise	-2176 Sep 01 j 08:52	5° Ω 40'47	
conjunction	-2182 Aug 03 j 23:11	21° $\overline{059}$ '28	0°54'15	retrograde	-2176 Nov 26 j 17:30	7° Ω 32'26	
minimum elong	-2182 Aug 03 j 23:11	21° $\overline{059}$ '28	0°54'18	opposition	-2175 Feb 12 j 05:18	6° Ω 10'38	1°25'24
max. Earth dist.	-2182 Aug 02 j 21:47	21° $\overline{057}$ '07	31.22784 AU	min. Earth dist.	-2175 Feb 13 j 03:43	6° Ω 09'05	29.26556 AU
morning rise	-2182 Aug 19 j 18:19	22° $\overline{034}$ '29		direct	-2175 May 04 j 11:02	4° Ω 45'26	
retrograde	-2182 Nov 14 j 06:23	24° $\overline{026}$ '17		evening set	-2175 Aug 03 j 10:04	6° Ω 41'53	
opposition	-2181 Jan 30 j 11:55	23° $\overline{004}$ '25	1°00'10	max. Earth dist.	-2175 Aug 18 j 03:44	7° Ω 14'34	31.26852 AU
min. Earth dist.	-2181 Jan 31 j 10:39	23° $\overline{002}$ '51	29.23134 AU				
direct	-2181 Apr 21 j 08:17	21° $\overline{039}$ '12		conjunction	-2175 Aug 19 j 04:24	7° Ω 16'52	1°21'47
evening set	-2181 Jul 21 j 12:11	23° $\overline{035}$ '44		minimum elong	-2175 Aug 19 j 04:24	7° Ω 16'52	1°21'49
max. Earth dist.	-2181 Aug 05 j 09:57	24° $\overline{008}$ '43	31.23339 AU	morning rise	-2175 Sep 03 j 18:58	7° Ω 51'32	
				retrograde	-2175 Nov 29 j 03:33	9° Ω 43'12	
conjunction	-2181 Aug 06 j 10:35	24° $\overline{011}$ '00	0°58'28	opposition	-2174 Feb 14 j 16:24	8° Ω 21'27	1°29'12
minimum elong	-2181 Aug 06 j 10:34	24° $\overline{011}$ '00	0°58'30	min. Earth dist.	-2174 Feb 15 j 15:23	8° Ω 19'52	29.27334 AU
morning rise	-2181 Aug 22 j 04:57	24° $\overline{045}$ '57		direct	-2174 May 06 j 20:30	6° Ω 56'19	
retrograde	-2181 Nov 16 j 15:26	26° $\overline{037}$ '43		evening set	-2174 Aug 05 j 21:26	8° Ω 52'47	
opposition	-2180 Feb 01 j 22:47	25° $\overline{015}$ '52	1°04'38				
min. Earth dist.	-2180 Feb 02 j 22:14	25° $\overline{014}$ '15	29.23647 AU	conjunction	-2174 Aug 21 j 15:11	9° Ω 27'43	1°25'17
direct	-2180 Apr 22 j 21:17	23° $\overline{050}$ '38		minimum elong	-2174 Aug 21 j 15:10	9° Ω 27'43	1°25'20
evening set	-2180 Jul 23 j 00:12	25° $\overline{047}$ '08		max. Earth dist.	-2174 Aug 20 j 15:16	9° Ω 25'29	31.27628 AU
				morning rise	-2174 Sep 06 j 05:02	10° Ω 02'20	
conjunction	-2180 Aug 07 j 21:48	26° $\overline{022}$ '21	1°02'36	retrograde	-2174 Dec 01 j 12:57	11° Ω 54'03	
minimum elong	-2180 Aug 07 j 21:48	26° $\overline{022}$ '21	1°02'39	opposition	-2173 Feb 17 j 03:39	10° Ω 32'21	1°32'53
max. Earth dist.	-2180 Aug 06 j 19:56	26° $\overline{019}$ '57	31.23828 AU	min. Earth dist.	-2173 Feb 18 j 02:17	10° Ω 30'47	29.28091 AU
morning rise	-2180 Aug 23 j 15:42	26° $\overline{057}$ '16		direct	-2173 May 09 j 09:21	9° Ω 07'16	
retrograde	-2180 Nov 18 j 03:01	28° $\overline{048}$ '59		evening set	-2173 Aug 08 j 08:44	11° Ω 03'45	
opposition	-2179 Feb 03 j 09:26	27° $\overline{027}$ '07	1°09'00	max. Earth dist.	-2173 Aug 23 j 00:54	11° Ω 36'19	31.28349 AU
min. Earth dist.	-2179 Feb 04 j 08:26	27° $\overline{025}$ '32	29.24130 AU				
direct	-2179 Apr 25 j 09:33	26° $\overline{001}$ '51		conjunction	-2173 Aug 24 j 01:41	11° Ω 38'38	1°28'39
evening set	-2179 Jul 25 j 11:57	27° $\overline{058}$ '21		minimum elong	-2173 Aug 24 j 01:40	11° Ω 38'38	1°28'41
max. Earth dist.	-2179 Aug 09 j 08:13	28° $\overline{031}$ '12	31.24297 AU	morning rise	-2173 Sep 08 j 15:01	12° Ω 13'12	
				retrograde	-2173 Dec 04 j 00:34	14° Ω 04'59	
conjunction	-2179 Aug 10 j 09:04	28° $\overline{033}$ '31	1°06'39	opposition	-2172 Feb 19 j 14:56	12° Ω 43'18	1°36'25
minimum elong	-2179 Aug 10 j 09:03	28° $\overline{033}$ '31	1°06'41	min. Earth dist.	-2172 Feb 20 j 13:36	12° Ω 41'45	29.28783 AU
morning rise	-2179 Aug 26 j 02:08	29° $\overline{008}$ '22		direct	-2172 May 10 j 19:41	11° Ω 18'17	
	-2179 Sep 20 j 14:16	0° Ω		evening set	-2172 Aug 09 j 20:00	13° Ω 14'47	
retrograde	-2179 Nov 20 j 12:42	1° Ω 00'02					
	-2178 Jan 23 j 11:56	30° $\overline{008}$		conjunction	-2172 Aug 25 j 12:26	13° Ω 49'37	1°31'54
opposition	-2178 Feb 05 j 20:26	29° $\overline{038}$ '10	1°13'16	minimum elong	-2172 Aug 25 j 12:26	13° Ω 49'37	1°31'57
min. Earth dist.	-2178 Feb 06 j 20:17	29° $\overline{036}$ '32	29.24618 AU	max. Earth dist.	-2172 Aug 24 j 12:36	13° Ω 47'24	31.28974 AU
direct	-2178 Apr 27 j 23:04	28° $\overline{012}$ '54		morning rise	-2172 Sep 10 j 01:00	14° Ω 24'09	
	-2178 Jul 23 j 15:19	0° Ω			-2172 Sep 27 j 04:15	15° Ω	
evening set	-2178 Jul 27 j 23:36	0° Ω 09'22		retrograde	-2172 Dec 05 j 09:58	16° Ω 15'58	
					-2171 Feb 17 j 15:16	15° $\overline{008}$	
conjunction	-2178 Aug 12 j 19:53	0° Ω 44'29	1°10'35	opposition	-2171 Feb 21 j 02:16	14° Ω 54'20	1°39'49
minimum elong	-2178 Aug 12 j 19:53	0° Ω 44'29	1°10'38	min. Earth dist.	-2171 Feb 22 j 01:34	14° Ω 52'44	29.29343 AU
max. Earth dist.	-2178 Aug 11 j 18:25	0° Ω 42'07	31.24810 AU	direct	-2171 May 13 j 07:51	13° Ω 29'22	
morning rise	-2178 Aug 28 j 12:27	1° Ω 19'17			-2171 Jul 31 j 02:59	15° Ω	
retrograde	-2178 Nov 22 j 23:39	3° Ω 10'56		evening set	-2171 Aug 12 j 07:26	15° Ω 25'51	
opposition	-2177 Feb 08 j 07:20	1° Ω 49'04	1°17'26				
min. Earth dist.	-2177 Feb 09 j 05:57	1° Ω 47'30	29.25172 AU	conjunction	-2171 Aug 27 j 23:01	16° Ω 00'39	1°35'01
direct	-2177 Apr 30 j 11:54	0° Ω 23'48		minimum elong	-2171 Aug 27 j 23:00	16° Ω 00'38	1°35'03
evening set	-2177 Jul 30 j 11:08	2° Ω 20'15		max. Earth dist.	-2171 Aug 26 j 22:01	15° Ω 58'19	31.29464 AU
max. Earth dist.	-2177 Aug 14 j 06:05	2° Ω 53'01	31.25400 AU	morning rise	-2171 Sep 12 j 11:06	16° Ω 35'08	
				retrograde	-2171 Dec 07 j 22:07	18° Ω 26'59	
conjunction	-2177 Aug 15 j 06:51	2° Ω 55'19	1°14'26	opposition	-2170 Feb 23 j 13:43	17° Ω 05'22	1°43'05
minimum elong	-2177 Aug 15 j 06:51	2° Ω 55'19	1°14'27	min. Earth dist.	-2170 Feb 24 j 12:25	17° Ω 03'49	29.29768 AU

Attention, astronomical year style is used: The year -2170 in astronomical counting style is the year 2171 BCE in historical counting style.

direct	-2170 May 15 j 19:57	15°Ω40'26		minimum elong	-2164 Sep 11 j 22:01	1°♊15'41	1°52'48
evening set	-2170 Aug 14 j 18:28	17°Ω36'54		max. Earth dist.	-2164 Sep 10 j 23:15	1°♊13'32	31.30353 AU
max. Earth dist.	-2170 Aug 29 j 09:31	18°Ω09'25	31.29801 AU	morning rise	-2164 Sep 27 j 06:09	1°♊49'54	
				retrograde	-2164 Dec 22 j 19:02	3°♊42'03	
conjunction	-2170 Aug 30 j 09:33	18°Ω11'39	1°38'00	opposition	-2163 Mar 10 j 22:42	2°♊20'16	2°01'29
minimum elong	-2170 Aug 30 j 09:33	18°Ω11'39	1°38'02	min. Earth dist.	-2163 Mar 11 j 19:30	2°♊18'51	29.30612 AU
morning rise	-2170 Sep 14 j 20:51	18°Ω46'06		direct	-2163 May 31 j 07:01	0°♊55'28	
retrograde	-2170 Dec 10 j 08:18	20°Ω38'00		evening set	-2163 Aug 29 j 21:05	2°♊51'40	
opposition	-2169 Feb 26 j 01:22	19°Ω16'22	1°46'11	max. Earth dist.	-2163 Sep 13 j 10:51	3°♊24'09	31.30599 AU
min. Earth dist.	-2169 Feb 27 j 01:00	19°Ω14'45	29.30039 AU				
direct	-2169 May 18 j 09:18	17°Ω51'28		conjunction	-2163 Sep 14 j 07:54	3°♊26'08	1°54'41
evening set	-2169 Aug 17 j 05:37	19°Ω47'55		minimum elong	-2163 Sep 14 j 07:54	3°♊26'08	1°54'41
				morning rise	-2163 Sep 29 j 15:22	4°♊00'19	
conjunction	-2169 Sep 01 j 19:56	20°Ω22'37	1°40'50	retrograde	-2163 Dec 25 j 04:21	5°♊52'34	
minimum elong	-2169 Sep 01 j 19:56	20°Ω22'37	1°40'52	opposition	-2162 Mar 13 j 10:35	4°♊30'47	2°03'26
max. Earth dist.	-2169 Aug 31 j 19:10	20°Ω20'18	31.30007 AU	min. Earth dist.	-2162 Mar 14 j 07:16	4°♊29'22	29.30883 AU
morning rise	-2169 Sep 17 j 06:48	20°Ω57'01		direct	-2162 Jun 02 j 18:15	3°♊06'03	
retrograde	-2169 Dec 12 j 19:33	22°Ω48'57		evening set	-2162 Sep 01 j 07:21	5°♊02'14	
opposition	-2168 Feb 28 j 12:42	21°Ω27'18	1°49'09				
min. Earth dist.	-2168 Feb 29 j 11:19	21°Ω25'45	29.30185 AU	conjunction	-2162 Sep 16 j 17:26	5°♊36'39	1°56'26
direct	-2168 May 19 j 22:14	20°Ω02'23		minimum elong	-2162 Sep 16 j 17:25	5°♊36'39	1°56'28
evening set	-2168 Aug 18 j 16:30	21°Ω58'49		max. Earth dist.	-2162 Sep 15 j 20:03	5°♊34'38	31.30896 AU
max. Earth dist.	-2168 Sep 02 j 05:59	22°Ω31'12	31.30090 AU	morning rise	-2162 Oct 02 j 00:36	6°♊10'49	
				retrograde	-2162 Dec 27 j 16:44	8°♊03'09	
conjunction	-2168 Sep 03 j 06:18	22°Ω33'28	1°43'32	opposition	-2161 Mar 15 j 22:24	6°♊41'23	2°05'13
minimum elong	-2168 Sep 03 j 06:18	22°Ω33'28	1°43'35	min. Earth dist.	-2161 Mar 16 j 17:50	6°♊40'04	29.31190 AU
morning rise	-2168 Sep 18 j 16:30	23°Ω07'50		direct	-2161 Jun 05 j 05:48	5°♊16'44	
retrograde	-2168 Dec 14 j 04:06	24°Ω59'47		evening set	-2161 Sep 03 j 17:31	7°♊12'53	
opposition	-2167 Mar 02 j 00:20	23°Ω38'07	1°51'56	max. Earth dist.	-2161 Sep 18 j 07:17	7°♊45'24	31.31184 AU
min. Earth dist.	-2167 Mar 02 j 23:52	23°Ω36'30	29.30235 AU				
direct	-2167 May 22 j 09:56	22°Ω13'13		conjunction	-2161 Sep 19 j 03:13	7°♊47'17	1°58'01
evening set	-2167 Aug 21 j 03:18	24°Ω09'35		minimum elong	-2161 Sep 19 j 03:13	7°♊47'17	1°58'01
				morning rise	-2161 Oct 04 j 09:47	8°♊21'25	
conjunction	-2167 Sep 05 j 16:25	24°Ω44'12	1°46'04	retrograde	-2161 Dec 30 j 03:33	10°♊13'51	
minimum elong	-2167 Sep 05 j 16:25	24°Ω44'12	1°46'06	opposition	-2160 Mar 17 j 10:19	8°♊52'05	2°06'49
max. Earth dist.	-2167 Sep 04 j 16:26	24°Ω41'57	31.30114 AU	min. Earth dist.	-2160 Mar 18 j 06:19	8°♊50'43	29.31461 AU
morning rise	-2167 Sep 21 j 02:05	25°Ω18'31		direct	-2160 Jun 06 j 18:12	7°♊27'30	
retrograde	-2167 Dec 16 j 13:29	27°Ω10'30		evening set	-2160 Sep 05 j 03:49	9°♊23'38	
opposition	-2166 Mar 04 j 11:51	25°Ω48'47	1°54'35				
min. Earth dist.	-2166 Mar 05 j 10:15	25°Ω47'15	29.30243 AU	conjunction	-2160 Sep 20 j 12:53	9°♊57'59	1°59'25
direct	-2166 May 24 j 22:53	24°Ω23'53		minimum elong	-2160 Sep 20 j 12:53	9°♊57'59	1°59'27
evening set	-2166 Aug 23 j 13:57	26°Ω20'12		max. Earth dist.	-2160 Sep 19 j 16:41	9°♊56'06	31.31423 AU
max. Earth dist.	-2166 Sep 07 j 02:37	26°Ω52'33	31.30122 AU	morning rise	-2160 Oct 05 j 19:08	10°♊32'06	
				retrograde	-2160 Dec 31 j 15:10	12°♊24'38	
conjunction	-2166 Sep 08 j 02:25	26°Ω54'47	1°48'28	opposition	-2159 Mar 19 j 22:17	11°♊02'51	2°08'14
minimum elong	-2166 Sep 08 j 02:24	26°Ω54'47	1°48'30	min. Earth dist.	-2159 Mar 20 j 16:54	11°♊01'36	29.31651 AU
morning rise	-2166 Sep 23 j 11:32	27°Ω29'04		direct	-2159 Jun 09 j 06:28	9°♊38'20	
retrograde	-2166 Dec 18 j 23:23	29°Ω21'06		evening set	-2159 Sep 07 j 13:59	11°♊34'26	
opposition	-2165 Mar 06 j 23:33	27°Ω59'20	1°57'03				
min. Earth dist.	-2165 Mar 07 j 21:59	27°Ω57'48	29.30291 AU	conjunction	-2159 Sep 22 j 22:34	12°♊08'45	2°00'40
direct	-2165 May 27 j 08:50	26°Ω34'27		minimum elong	-2159 Sep 22 j 22:34	12°♊08'45	2°00'40
evening set	-2165 Aug 26 j 00:18	28°Ω30'43		max. Earth dist.	-2159 Sep 22 j 02:59	12°♊06'55	31.31547 AU
				morning rise	-2159 Oct 08 j 04:18	12°♊42'51	
conjunction	-2165 Sep 10 j 12:16	29°Ω05'15	1°50'42	retrograde	-2158 Jan 03 j 00:57	14°♊35'28	
minimum elong	-2165 Sep 10 j 12:15	29°Ω05'15	1°50'43	opposition	-2158 Mar 22 j 10:33	13°♊13'41	2°09'28
max. Earth dist.	-2165 Sep 09 j 13:50	29°Ω03'09	31.30198 AU	min. Earth dist.	-2158 Mar 23 j 05:51	13°♊12'22	29.31723 AU
morning rise	-2165 Sep 25 j 20:48	29°Ω39'30		direct	-2158 Jun 11 j 18:30	11°♊49'13	
	-2165 Oct 05 j 10:18	0°♊		evening set	-2158 Sep 10 j 00:10	13°♊45'15	
retrograde	-2165 Dec 21 j 07:56	1°♊31'35					
opposition	-2164 Mar 08 j 11:10	0°♊09'48	1°59'21	conjunction	-2158 Sep 25 j 08:15	14°♊19'32	2°01'44
min. Earth dist.	-2164 Mar 09 j 08:41	0°♊08'20	29.30401 AU	minimum elong	-2158 Sep 25 j 08:15	14°♊19'32	2°01'45
	-2164 Mar 14 j 11:09	30°♊		max. Earth dist.	-2158 Sep 24 j 13:09	14°♊17'45	31.31556 AU
direct	-2164 May 28 j 21:41	28°Ω44'57		morning rise	-2158 Oct 10 j 13:37	14°♊53'36	
	-2164 Aug 07 j 15:07	0°♊		retrograde	-2157 Oct 05 j 11:25	16°♊46'18	
evening set	-2164 Aug 27 j 10:48	0°♊41'11		opposition	-2157 Mar 24 j 22:42	15°♊24'29	2°10'31
				min. Earth dist.	-2157 Mar 25 j 16:51	15°♊23'15	29.31657 AU
conjunction	-2164 Sep 11 j 22:02	1°♊15'41	1°52'46	direct	-2157 Jun 14 j 08:05	14°♊00'03	

Attention, astronomical year style is used: The year -2157 in astronomical counting style is the year 2158 BCE in historical counting style.

evening set	-2157 Sep 12 j 10:13	15° \mathring{M} 56'01		retrograde	-2150 Jan 20 j 12:31	1° \mathring{A} 59'42	
				opposition	-2150 Apr 09 j 12:39	0° \mathring{A} 37'28	2°12'39
conjunction	-2157 Sep 27 j 17:48	16° \mathring{M} 30'17	2°02'38	min. Earth dist.	-2150 Apr 10 j 01:23	0° \mathring{A} 36'37	29.29705 AU
minimum elong	-2157 Sep 27 j 17:48	16° \mathring{M} 30'17	2°02'38		-2150 May 03 j 10:39	30° \mathring{R} \mathring{M}	
max. Earth dist.	-2157 Sep 26 j 22:35	16° \mathring{M} 28'28	31.31417 AU	direct	-2150 Jun 29 j 15:58	29° \mathring{M} 13'15	
morning rise	-2157 Oct 12 j 22:51	17° \mathring{M} 04'19			-2150 Aug 23 j 05:54	0° \mathring{A}	
retrograde	-2156 Jan 07 j 21:45	18° \mathring{M} 57'06		evening set	-2150 Sep 27 j 05:43	1° \mathring{A} 08'41	
opposition	-2156 Mar 26 j 10:57	17° \mathring{M} 35'13	2°11'23				
min. Earth dist.	-2156 Mar 27 j 05:20	17° \mathring{M} 33'58	29.31460 AU	conjunction	-2150 Oct 12 j 10:44	1° \mathring{A} 42'47	2°03'59
direct	-2156 Jun 15 j 18:56	16° \mathring{M} 10'48		minimum elong	-2150 Oct 12 j 10:44	1° \mathring{A} 42'47	2°04'00
evening set	-2156 Sep 13 j 20:09	18° \mathring{M} 06'41		max. Earth dist.	-2150 Oct 11 j 21:30	1° \mathring{A} 41'32	31.29518 AU
max. Earth dist.	-2156 Sep 28 j 09:23	18° \mathring{M} 39'13	31.31155 AU	morning rise	-2150 Oct 27 j 13:54	2° \mathring{A} 16'45	
				retrograde	-2149 Jan 22 j 23:10	4° \mathring{A} 10'11	
conjunction	-2156 Sep 29 j 03:25	18° \mathring{M} 40'55	2°03'21	opposition	-2149 Apr 12 j 01:08	2° \mathring{A} 47'57	2°12'12
minimum elong	-2156 Sep 29 j 03:25	18° \mathring{M} 40'55	2°03'22	min. Earth dist.	-2149 Apr 12 j 14:00	2° \mathring{A} 47'04	29.29646 AU
morning rise	-2156 Oct 14 j 08:01	19° \mathring{M} 14'57		direct	-2149 Jul 02 j 03:28	1° \mathring{A} 23'50	
retrograde	-2155 Jan 09 j 06:07	21° \mathring{M} 07'47		evening set	-2149 Sep 29 j 15:01	3° \mathring{A} 19'12	
opposition	-2155 Mar 28 j 23:06	19° \mathring{M} 45'50	2°12'04				
min. Earth dist.	-2155 Mar 29 j 16:47	19° \mathring{M} 44'38	29.31134 AU	conjunction	-2149 Oct 14 j 19:49	3° \mathring{A} 53'18	2°03'28
direct	-2155 Jun 18 j 07:58	18° \mathring{M} 21'26		minimum elong	-2149 Oct 14 j 19:49	3° \mathring{A} 53'18	2°03'28
evening set	-2155 Sep 16 j 06:07	20° \mathring{M} 17'13		max. Earth dist.	-2149 Oct 14 j 07:45	3° \mathring{A} 52'10	31.29480 AU
				morning rise	-2149 Oct 29 j 22:50	4° \mathring{A} 27'16	
conjunction	-2155 Oct 01 j 12:48	20° \mathring{M} 51'26	2°03'54	retrograde	-2148 Jan 25 j 10:22	6° \mathring{A} 20'50	
minimum elong	-2155 Oct 01 j 12:48	20° \mathring{M} 51'26	2°03'54	opposition	-2148 Apr 13 j 13:35	4° \mathring{A} 58'36	2°11'33
max. Earth dist.	-2155 Sep 30 j 18:20	20° \mathring{M} 49'41	31.30797 AU	min. Earth dist.	-2148 Apr 14 j 00:51	4° \mathring{A} 57'50	29.29592 AU
morning rise	-2155 Oct 16 j 17:14	21° \mathring{M} 25'26		direct	-2148 Jul 03 j 16:43	3° \mathring{A} 34'35	
retrograde	-2154 Jan 11 j 17:01	23° \mathring{M} 18'21		evening set	-2148 Oct 01 j 00:29	5° \mathring{A} 29'55	
opposition	-2154 Mar 31 j 11:24	21° \mathring{M} 56'19	2°12'34				
min. Earth dist.	-2154 Apr 01 j 04:18	21° \mathring{M} 55'10	29.30759 AU	conjunction	-2148 Oct 16 j 04:55	6° \mathring{A} 04'01	2°02'46
direct	-2154 Jun 20 j 17:57	20° \mathring{M} 31'55		minimum elong	-2148 Oct 16 j 04:55	6° \mathring{A} 04'01	2°02'46
evening set	-2154 Sep 18 j 15:37	22° \mathring{M} 27'36		max. Earth dist.	-2148 Oct 15 j 17:02	6° \mathring{A} 02'53	31.29411 AU
				morning rise	-2148 Oct 31 j 07:52	6° \mathring{A} 37'59	
conjunction	-2154 Oct 03 j 22:05	23° \mathring{M} 01'47	2°04'16	retrograde	-2147 Jan 26 j 21:35	8° \mathring{A} 31'42	
minimum elong	-2154 Oct 03 j 22:05	23° \mathring{M} 01'47	2°04'17	opposition	-2147 Apr 16 j 02:12	7° \mathring{A} 09'27	2°10'42
max. Earth dist.	-2154 Oct 03 j 05:31	23° \mathring{M} 00'13	31.30408 AU	min. Earth dist.	-2147 Apr 16 j 13:23	7° \mathring{A} 08'42	29.29504 AU
morning rise	-2154 Oct 19 j 02:05	23° \mathring{M} 35'47		direct	-2147 Jul 06 j 03:11	5° \mathring{A} 45'32	
retrograde	-2153 Jan 14 j 02:08	25° \mathring{M} 28'46		evening set	-2147 Oct 03 j 09:52	7° \mathring{A} 40'48	
opposition	-2153 Apr 02 j 23:46	24° \mathring{M} 06'39	2°12'52				
min. Earth dist.	-2153 Apr 03 j 16:22	24° \mathring{M} 05'32	29.30374 AU	conjunction	-2147 Oct 18 j 14:12	8° \mathring{A} 14'54	2°01'54
direct	-2153 Jun 23 j 05:47	22° \mathring{M} 42'17		minimum elong	-2147 Oct 18 j 14:12	8° \mathring{A} 14'54	2°01'53
evening set	-2153 Sep 21 j 01:19	24° \mathring{M} 37'52		max. Earth dist.	-2147 Oct 18 j 03:53	8° \mathring{A} 13'55	31.29287 AU
				morning rise	-2147 Nov 02 j 16:54	8° \mathring{A} 48'53	
conjunction	-2153 Oct 06 j 07:15	25° \mathring{M} 12'01	2°04'28	retrograde	-2146 Jan 29 j 06:41	10° \mathring{A} 42'44	
minimum elong	-2153 Oct 06 j 07:15	25° \mathring{M} 12'01	2°04'27	opposition	-2146 Apr 18 j 14:59	9° \mathring{A} 20'28	2°09'41
max. Earth dist.	-2153 Oct 05 j 14:38	25° \mathring{M} 10'27	31.30054 AU	min. Earth dist.	-2146 Apr 19 j 01:12	9° \mathring{A} 19'47	29.29322 AU
morning rise	-2153 Oct 21 j 11:09	25° \mathring{M} 46'00		direct	-2146 Jul 08 j 15:52	7° \mathring{A} 56'38	
retrograde	-2152 Jan 16 j 14:01	27° \mathring{M} 39'04		evening set	-2146 Oct 05 j 19:17	9° \mathring{A} 51'50	
opposition	-2152 Apr 04 j 11:51	26° \mathring{M} 16'54	2°12'59				
min. Earth dist.	-2152 Apr 05 j 02:48	26° \mathring{M} 15'54	29.30060 AU	conjunction	-2146 Oct 20 j 23:16	10° \mathring{A} 25'56	2°00'51
direct	-2152 Jun 24 j 16:48	24° \mathring{M} 52'33		minimum elong	-2146 Oct 20 j 23:16	10° \mathring{A} 25'56	2°00'50
evening set	-2152 Sep 22 j 10:50	26° \mathring{M} 48'05		max. Earth dist.	-2146 Oct 20 j 12:32	10° \mathring{A} 24'55	31.29053 AU
				morning rise	-2146 Nov 05 j 02:04	10° \mathring{A} 59'55	
conjunction	-2152 Oct 07 j 16:32	27° \mathring{M} 22'13	2°04'29	retrograde	-2145 Jan 31 j 18:15	12° \mathring{A} 53'54	
minimum elong	-2152 Oct 07 j 16:32	27° \mathring{M} 22'13	2°04'30	opposition	-2145 Apr 21 j 03:48	11° \mathring{A} 31'37	2°08'28
max. Earth dist.	-2152 Oct 07 j 01:42	27° \mathring{M} 20'49	31.29777 AU	min. Earth dist.	-2145 Apr 21 j 13:17	11° \mathring{A} 30'58	29.29027 AU
morning rise	-2152 Oct 22 j 20:03	27° \mathring{M} 56'11		direct	-2145 Jul 11 j 01:46	10° \mathring{A} 07'50	
retrograde	-2151 Jan 18 j 00:46	29° \mathring{M} 49'22		evening set	-2145 Oct 08 j 04:42	12° \mathring{A} 02'58	
opposition	-2151 Apr 07 j 00:17	28° \mathring{M} 27'09	2°12'55				
min. Earth dist.	-2151 Apr 07 j 15:09	28° \mathring{M} 26'08	29.29833 AU	conjunction	-2145 Oct 23 j 08:40	12° \mathring{A} 37'03	1°59'37
direct	-2151 Jun 27 j 04:25	27° \mathring{M} 02'51		minimum elong	-2145 Oct 23 j 08:40	12° \mathring{A} 37'03	1°59'36
evening set	-2151 Sep 24 j 20:17	28° \mathring{M} 58'19		max. Earth dist.	-2145 Oct 22 j 23:29	12° \mathring{A} 36'11	31.28683 AU
max. Earth dist.	-2151 Oct 09 j 11:15	29° \mathring{M} 31'05	31.29610 AU	morning rise	-2145 Nov 07 j 11:15	13° \mathring{A} 11'03	
				retrograde	-2144 Feb 03 j 04:03	15° \mathring{A} 05'09	
conjunction	-2151 Oct 10 j 01:33	29° \mathring{M} 32'26	2°04'20	opposition	-2144 Apr 22 j 16:33	13° \mathring{A} 42'49	2°07'04
minimum elong	-2151 Oct 10 j 01:34	29° \mathring{M} 32'26	2°04'19	min. Earth dist.	-2144 Apr 23 j 02:01	13° \mathring{A} 42'10	29.28574 AU
	-2151 Oct 22 j 07:31	0° \mathring{A}		direct	-2144 Jul 12 j 13:39	12° \mathring{A} 19'05	
morning rise	-2151 Oct 25 j 04:57	0° \mathring{A} 06'24		evening set	-2144 Oct 09 j 14:13	14° \mathring{A} 14'07	

Attention, astronomical year style is used: The year -2144 in astronomical counting style is the year 2145 BCE in historical counting style.

conjunction	-2144 Oct 24 j 17:54	14° <u>♂</u> 48'12	1°58'14	opposition	-2137 May 09 j 10:49	28° <u>♂</u> 59'26	1°52'22
minimum elong	-2144 Oct 24 j 17:54	14° <u>♂</u> 48'12	1°58'14	min. Earth dist.	-2137 May 09 j 13:07	28° <u>♂</u> 59'17	29.24057 AU
max. Earth dist.	-2144 Oct 24 j 08:23	14° <u>♂</u> 47'18	31.28168 AU	direct	-2137 Jul 29 j 00:10	27° <u>♂</u> 35'54	
morning rise	-2144 Nov 08 j 20:37	15° <u>♂</u> 22'12		evening set	-2137 Oct 25 j 05:59	29° <u>♂</u> 30'13	
retrograde	-2143 Feb 04 j 16:12	17° <u>♂</u> 16'25			-2137 Nov 07 j 11:43	0° <u>♂</u>	
opposition	-2143 Apr 25 j 05:24	15° <u>♂</u> 54'00	2°05'30				
min. Earth dist.	-2143 Apr 25 j 13:30	15° <u>♂</u> 53'27	29.27986 AU	conjunction	-2137 Nov 09 j 09:19	0° <u>♂</u> 04'19	1°43'54
direct	-2143 Jul 15 j 00:34	14° <u>♂</u> 30'17		minimum elong	-2137 Nov 09 j 09:19	0° <u>♂</u> 04'19	1°43'52
evening set	-2143 Oct 11 j 23:25	16° <u>♂</u> 25'13		max. Earth dist.	-2137 Nov 09 j 06:38	0° <u>♂</u> 04'04	31.23730 AU
				morning rise	-2137 Nov 24 j 12:40	0° <u>♂</u> 38'26	
conjunction	-2143 Oct 27 j 03:05	16° <u>♂</u> 59'18	1°56'40	retrograde	-2136 Feb 20 j 23:05	2° <u>♂</u> 33'23	
minimum elong	-2143 Oct 27 j 03:05	16° <u>♂</u> 59'18	1°56'39	opposition	-2136 May 10 j 23:38	1° <u>♂</u> 10'26	1°49'35
max. Earth dist.	-2143 Oct 26 j 18:59	16° <u>♂</u> 58'32	31.27517 AU	min. Earth dist.	-2136 May 11 j 00:50	1° <u>♂</u> 10'22	29.23601 AU
morning rise	-2143 Nov 11 j 05:42	17° <u>♂</u> 33'19			-2136 Jul 01 j 15:38	30° <u>♂</u>	
retrograde	-2142 Feb 07 j 03:06	19° <u>♂</u> 27'37		direct	-2136 Jul 30 j 10:30	29° <u>♂</u> 46'59	
opposition	-2142 Apr 27 j 18:27	18° <u>♂</u> 05'06	2°03'44		-2136 Aug 27 j 12:01	0° <u>♂</u>	
min. Earth dist.	-2142 Apr 28 j 02:44	18° <u>♂</u> 04'33	29.27283 AU	evening set	-2136 Oct 26 j 15:02	1° <u>♂</u> 41'13	
direct	-2142 Jul 17 j 11:41	16° <u>♂</u> 41'25					
evening set	-2142 Oct 14 j 08:40	18° <u>♂</u> 36'13		conjunction	-2136 Nov 10 j 18:33	2° <u>♂</u> 15'21	1°41'13
				minimum elong	-2136 Nov 10 j 18:33	2° <u>♂</u> 15'21	1°41'12
conjunction	-2142 Oct 29 j 12:11	19° <u>♂</u> 10'17	1°54'57	max. Earth dist.	-2136 Nov 10 j 17:50	2° <u>♂</u> 15'17	31.23277 AU
minimum elong	-2142 Oct 29 j 12:12	19° <u>♂</u> 10'17	1°54'57	morning rise	-2136 Nov 25 j 21:55	2° <u>♂</u> 49'30	
max. Earth dist.	-2142 Oct 29 j 04:35	19° <u>♂</u> 09'34	31.26794 AU	retrograde	-2135 Feb 22 j 09:21	4° <u>♂</u> 44'36	
morning rise	-2142 Nov 13 j 14:56	19° <u>♂</u> 44'19		opposition	-2135 May 13 j 12:46	3° <u>♂</u> 21'37	1°46'39
retrograde	-2141 Feb 09 j 14:54	21° <u>♂</u> 38'43		min. Earth dist.	-2135 May 13 j 13:34	3° <u>♂</u> 21'34	29.23130 AU
opposition	-2141 Apr 30 j 07:10	20° <u>♂</u> 16'06	2°01'49	direct	-2135 Aug 01 j 22:20	1° <u>♂</u> 58'15	
min. Earth dist.	-2141 Apr 30 j 13:30	20° <u>♂</u> 15'40	29.26537 AU	evening set	-2135 Oct 29 j 00:10	3° <u>♂</u> 52'25	
direct	-2141 Jul 19 j 23:05	18° <u>♂</u> 52'24					
evening set	-2141 Oct 16 j 17:46	20° <u>♂</u> 47'05		conjunction	-2135 Nov 13 j 03:36	4° <u>♂</u> 26'33	1°38'23
				minimum elong	-2135 Nov 13 j 03:36	4° <u>♂</u> 26'33	1°38'21
conjunction	-2141 Oct 31 j 21:14	21° <u>♂</u> 21'09	1°53'04	max. Earth dist.	-2135 Nov 13 j 03:00	4° <u>♂</u> 26'29	31.22800 AU
minimum elong	-2141 Oct 31 j 21:14	21° <u>♂</u> 21'09	1°53'02	morning rise	-2135 Nov 28 j 07:18	5° <u>♂</u> 00'44	
max. Earth dist.	-2141 Oct 31 j 14:32	21° <u>♂</u> 20'32	31.26044 AU	retrograde	-2134 Feb 24 j 21:46	6° <u>♂</u> 55'59	
morning rise	-2141 Nov 16 j 00:02	21° <u>♂</u> 55'12		opposition	-2134 May 16 j 01:53	5° <u>♂</u> 32'58	1°43'32
retrograde	-2140 Feb 12 j 02:16	23° <u>♂</u> 49'41		min. Earth dist.	-2134 May 16 j 01:07	5° <u>♂</u> 33'01	29.22618 AU
opposition	-2140 May 01 j 20:06	22° <u>♂</u> 26'58	1°59'43	direct	-2134 Aug 04 j 08:37	4° <u>♂</u> 09'40	
min. Earth dist.	-2140 May 02 j 02:24	22° <u>♂</u> 26'32	29.25804 AU	evening set	-2134 Oct 31 j 09:21	6° <u>♂</u> 03'46	
direct	-2140 Jul 21 j 11:16	21° <u>♂</u> 03'17					
evening set	-2140 Oct 18 j 02:48	22° <u>♂</u> 57'52		conjunction	-2134 Nov 15 j 12:58	6° <u>♂</u> 37'56	1°35'25
				minimum elong	-2134 Nov 15 j 12:58	6° <u>♂</u> 37'56	1°35'24
conjunction	-2140 Nov 02 j 06:15	23° <u>♂</u> 31'56	1°51'01	max. Earth dist.	-2134 Nov 15 j 13:41	6° <u>♂</u> 38'00	31.22239 AU
minimum elong	-2140 Nov 02 j 06:15	23° <u>♂</u> 31'56	1°50'59	morning rise	-2134 Nov 30 j 16:48	7° <u>♂</u> 12'08	
max. Earth dist.	-2140 Nov 02 j 01:06	23° <u>♂</u> 31'27	31.25345 AU	retrograde	-2133 Feb 27 j 09:08	9° <u>♂</u> 07'32	
morning rise	-2140 Nov 17 j 09:03	24° <u>♂</u> 05'59		opposition	-2133 May 18 j 15:02	7° <u>♂</u> 44'29	1°40'17
retrograde	-2139 Feb 13 j 14:00	26° <u>♂</u> 00'34		min. Earth dist.	-2133 May 18 j 14:34	7° <u>♂</u> 44'31	29.22004 AU
opposition	-2139 May 04 j 08:54	24° <u>♂</u> 37'45	1°57'26	direct	-2133 Aug 06 j 18:53	6° <u>♂</u> 21'15	
min. Earth dist.	-2139 May 04 j 13:12	24° <u>♂</u> 37'28	29.25132 AU	evening set	-2133 Nov 02 j 18:39	8° <u>♂</u> 15'17	
direct	-2139 Jul 24 j 00:38	23° <u>♂</u> 14'06					
evening set	-2139 Oct 20 j 11:57	25° <u>♂</u> 08'35		conjunction	-2133 Nov 17 j 22:21	8° <u>♂</u> 49'27	1°32'18
				minimum elong	-2133 Nov 17 j 22:22	8° <u>♂</u> 49'28	1°32'15
conjunction	-2139 Nov 04 j 15:14	25° <u>♂</u> 42'40	1°48'48	max. Earth dist.	-2133 Nov 17 j 23:26	8° <u>♂</u> 49'34	31.21572 AU
minimum elong	-2139 Nov 04 j 15:15	25° <u>♂</u> 42'40	1°48'46	morning rise	-2133 Dec 03 j 02:28	9° <u>♂</u> 23'42	
max. Earth dist.	-2139 Nov 04 j 10:32	25° <u>♂</u> 42'13	31.24723 AU	retrograde	-2132 Feb 29 j 21:51	11° <u>♂</u> 19'14	
morning rise	-2139 Nov 19 j 18:16	26° <u>♂</u> 16'44		opposition	-2132 May 20 j 04:07	9° <u>♂</u> 56'08	1°36'53
retrograde	-2138 Feb 16 j 01:23	28° <u>♂</u> 11'26		min. Earth dist.	-2132 May 20 j 01:55	9° <u>♂</u> 56'17	29.21256 AU
opposition	-2138 May 06 j 21:54	26° <u>♂</u> 48'34	1°54'59	direct	-2132 Aug 08 j 05:56	8° <u>♂</u> 32'56	
min. Earth dist.	-2138 May 07 j 01:35	26° <u>♂</u> 48'19	29.24562 AU	evening set	-2132 Nov 04 j 03:55	10° <u>♂</u> 26'54	
direct	-2138 Jul 26 j 11:10	25° <u>♂</u> 24'58					
evening set	-2138 Oct 22 j 20:49	27° <u>♂</u> 19'21		conjunction	-2132 Nov 19 j 07:41	11° <u>♂</u> 01'06	1°29'03
				minimum elong	-2132 Nov 19 j 07:42	11° <u>♂</u> 01'06	1°29'01
conjunction	-2138 Nov 07 j 00:18	27° <u>♂</u> 53'26	1°46'26	max. Earth dist.	-2132 Nov 19 j 09:09	11° <u>♂</u> 01'14	31.20748 AU
minimum elong	-2138 Nov 07 j 00:18	27° <u>♂</u> 53'26	1°46'25	morning rise	-2132 Dec 04 j 12:04	11° <u>♂</u> 35'22	
max. Earth dist.	-2138 Nov 06 j 21:40	27° <u>♂</u> 53'12	31.24199 AU	retrograde	-2131 Mar 03 j 10:19	13° <u>♂</u> 31'03	
morning rise	-2138 Nov 22 j 03:20	28° <u>♂</u> 27'32		opposition	-2131 May 22 j 17:27	12° <u>♂</u> 07'52	1°33'20
	-2137 Jan 12 j 14:42	0° <u>♂</u>		min. Earth dist.	-2131 May 22 j 15:35	12° <u>♂</u> 07'59	29.20359 AU
retrograde	-2137 Feb 18 j 11:02	0° <u>♂</u> 22'21		direct	-2131 Aug 10 j 17:37	10° <u>♂</u> 44'42	
	-2137 Mar 28 j 13:05	30° <u>♂</u>		evening set	-2131 Nov 06 j 13:09	12° <u>♂</u> 38'35	

Attention, astronomical year style is used: The year -2131 in astronomical counting style is the year 2132 BCE in historical counting style.

conjunction	-2131 Nov 21 j 17:11	13° ℳ 12'47	1°25'40	retrograde	-2124 Mar 18 j 19:00	28° ℳ 53'20	
minimum elong	-2131 Nov 21 j 17:12	13° ℳ 12'47	1°25'38	opposition	-2124 Jun 07 j 13:12	27° ℳ 29'34	1°05'06
max. Earth dist.	-2131 Nov 21 j 19:53	13° ℳ 13'03	31.19796 AU	min. Earth dist.	-2124 Jun 07 j 04:28	27° ℳ 30'09	29.13424 AU
morning rise	-2131 Dec 06 j 21:47	13° ℳ 47'06		direct	-2124 Aug 26 j 02:41	26° ℳ 06'31	
	-2130 Jan 13 j 04:32	15° ℳ		evening set	-2124 Nov 21 j 05:22	27° ℳ 59'47	
retrograde	-2130 Mar 05 j 23:11	15° ℳ 42'52					
	-2130 Apr 29 j 05:38	15° ℳ		conjunction	-2124 Dec 06 j 10:54	28° ℳ 34'10	0°58'52
opposition	-2130 May 25 j 06:37	14° ℳ 19'36	1°29'40	minimum elong	-2124 Dec 06 j 10:54	28° ℳ 34'10	0°58'50
min. Earth dist.	-2130 May 25 j 03:12	14° ℳ 19'50	29.19333 AU	max. Earth dist.	-2124 Dec 06 j 20:28	28° ℳ 35'04	31.13024 AU
direct	-2130 Aug 13 j 06:43	12° ℳ 56'27		morning rise	-2124 Dec 21 j 18:00	29° ℳ 08'44	
evening set	-2130 Nov 08 j 22:23	14° ℳ 50'13			-2123 Jan 15 j 12:36	0° ♂	
	-2130 Nov 13 j 07:37	15° ℳ		retrograde	-2123 Mar 21 j 07:51	1° ♂ 05'18	
					-2123 May 29 j 14:49	30° ℳ	
conjunction	-2130 Nov 24 j 02:29	15° ℳ 24'27	1°22'10	opposition	-2123 Jun 10 j 02:17	29° ℳ 41'30	1°00'38
minimum elong	-2130 Nov 24 j 02:29	15° ℳ 24'28	1°22'09	min. Earth dist.	-2123 Jun 09 j 15:28	29° ℳ 42'14	29.12698 AU
max. Earth dist.	-2130 Nov 24 j 05:09	15° ℳ 24'43	31.18728 AU	direct	-2123 Aug 28 j 13:27	28° ℳ 18'30	
morning rise	-2130 Dec 09 j 07:33	15° ℳ 58'48			-2123 Nov 18 j 06:27	0° ♂	
retrograde	-2129 Mar 08 j 11:08	17° ℳ 54'41		evening set	-2123 Nov 23 j 14:46	0° ♂ 11'43	
opposition	-2129 May 27 j 19:50	16° ℳ 31'18	1°25'52				
min. Earth dist.	-2129 May 27 j 16:16	16° ℳ 31'32	29.18232 AU	conjunction	-2123 Dec 08 j 20:30	0° ♂ 46'07	0°54'38
direct	-2129 Aug 15 j 17:25	15° ℳ 08'08		minimum elong	-2123 Dec 08 j 20:30	0° ♂ 46'08	0°54'35
evening set	-2129 Nov 11 j 07:29	17° ℳ 01'49		max. Earth dist.	-2123 Dec 09 j 06:40	0° ♂ 47'05	31.12310 AU
				morning rise	-2123 Dec 24 j 04:04	1° ♂ 20'44	
conjunction	-2129 Nov 26 j 11:56	17° ℳ 36'04	1°18'34	retrograde	-2122 Mar 23 j 20:48	3° ♂ 17'27	
minimum elong	-2129 Nov 26 j 11:56	17° ℳ 36'04	1°18'30	opposition	-2122 Jun 12 j 15:31	1° ♂ 53'35	0°56'04
max. Earth dist.	-2129 Nov 26 j 16:30	17° ℳ 36'30	31.17610 AU	min. Earth dist.	-2122 Jun 12 j 04:53	1° ♂ 54'19	29.11990 AU
morning rise	-2129 Dec 11 j 17:09	18° ℳ 10'26		direct	-2122 Aug 30 j 23:54	0° ♂ 30'39	
retrograde	-2128 Mar 09 j 21:23	20° ℳ 06'24		evening set	-2122 Nov 26 j 00:08	2° ♂ 23'49	
opposition	-2128 May 29 j 08:49	18° ℳ 42'56	1°21'57				
min. Earth dist.	-2128 May 29 j 03:59	18° ℳ 43'15	29.17104 AU	conjunction	-2122 Dec 11 j 06:17	2° ♂ 58'15	0°50'19
direct	-2128 Aug 17 j 07:04	17° ℳ 19'46		minimum elong	-2122 Dec 11 j 06:18	2° ♂ 58'15	0°50'17
evening set	-2128 Nov 12 j 16:45	19° ℳ 13'20		max. Earth dist.	-2122 Dec 11 j 17:56	2° ♂ 59'21	31.11597 AU
				morning rise	-2122 Dec 26 j 14:11	3° ♂ 32'54	
conjunction	-2128 Nov 27 j 21:13	19° ℳ 47'37	1°14'50	retrograde	-2121 Mar 26 j 10:05	5° ♂ 29'45	
minimum elong	-2128 Nov 27 j 21:13	19° ℳ 47'37	1°14'48	opposition	-2121 Jun 15 j 04:36	4° ♂ 05'51	0°51'24
max. Earth dist.	-2128 Nov 28 j 01:46	19° ℳ 48'03	31.16514 AU	min. Earth dist.	-2121 Jun 14 j 16:27	4° ♂ 06'40	29.11241 AU
morning rise	-2128 Dec 13 j 02:56	20° ℳ 22'02		direct	-2121 Sep 02 j 11:39	2° ♂ 42'56	
retrograde	-2127 Mar 12 j 10:06	22° ℳ 18'06		evening set	-2121 Nov 28 j 09:51	4° ♂ 36'04	
opposition	-2127 May 31 j 21:59	20° ℳ 54'31	1°17'54				
min. Earth dist.	-2127 May 31 j 15:53	20° ℳ 54'56	29.16045 AU	conjunction	-2121 Dec 13 j 16:07	5° ♂ 10'32	0°45'56
direct	-2127 Aug 19 j 18:17	19° ℳ 31'22		minimum elong	-2121 Dec 13 j 16:07	5° ♂ 10'32	0°45'52
evening set	-2127 Nov 15 j 01:45	21° ℳ 24'50		max. Earth dist.	-2121 Dec 14 j 03:30	5° ♂ 11'37	31.10811 AU
				morning rise	-2121 Dec 29 j 00:32	5° ♂ 45'13	
conjunction	-2127 Nov 30 j 06:34	21° ℳ 59'09	1°11'00	retrograde	-2120 Mar 27 j 23:10	7° ♂ 42'12	
minimum elong	-2127 Nov 30 j 06:35	21° ℳ 59'09	1°10'57	opposition	-2120 Jun 16 j 17:47	6° ♂ 18'15	0°46'40
max. Earth dist.	-2127 Nov 30 j 13:16	21° ℳ 59'47	31.15494 AU	min. Earth dist.	-2120 Jun 16 j 05:45	6° ♂ 19'04	29.10416 AU
morning rise	-2127 Dec 15 j 12:29	22° ℳ 33'36		direct	-2120 Sep 03 j 21:52	4° ♂ 55'22	
retrograde	-2126 Mar 14 j 20:15	24° ℳ 29'47		evening set	-2120 Nov 29 j 19:30	6° ♂ 48'26	
opposition	-2126 Jun 03 j 11:09	23° ℳ 06'07	1°13'45				
min. Earth dist.	-2126 Jun 03 j 04:19	23° ℳ 06'35	29.15069 AU	conjunction	-2120 Dec 15 j 02:14	7° ♂ 22'56	0°41'28
direct	-2126 Aug 22 j 06:27	21° ℳ 43'00		minimum elong	-2120 Dec 15 j 02:14	7° ♂ 22'56	0°41'26
evening set	-2126 Nov 17 j 11:01	23° ℳ 36'23		max. Earth dist.	-2120 Dec 15 j 15:12	7° ♂ 24'10	31.09933 AU
				morning rise	-2120 Dec 30 j 10:54	7° ♂ 57'40	
conjunction	-2126 Dec 02 j 15:58	24° ℳ 10'43	1°07'03	retrograde	-2119 Mar 30 j 11:30	9° ♂ 54'45	
minimum elong	-2126 Dec 02 j 15:59	24° ℳ 10'43	1°07'02	opposition	-2119 Jun 19 j 07:02	8° ♂ 30'43	0°41'52
max. Earth dist.	-2126 Dec 02 j 23:05	24° ℳ 11'23	31.14585 AU	min. Earth dist.	-2119 Jun 18 j 18:03	8° ♂ 31'36	29.09472 AU
morning rise	-2126 Dec 17 j 22:23	24° ℳ 45'12		direct	-2119 Sep 06 j 11:26	7° ♂ 07'51	
retrograde	-2125 Mar 17 j 07:57	26° ℳ 41'30		evening set	-2119 Dec 02 j 05:16	9° ♂ 00'51	
opposition	-2125 Jun 06 j 00:03	25° ℳ 17'47	1°09'29				
min. Earth dist.	-2125 Jun 05 j 15:25	25° ℳ 18'22	29.14208 AU	conjunction	-2119 Dec 17 j 12:11	9° ♂ 35'24	0°36'57
direct	-2125 Aug 24 j 16:45	23° ℳ 54'41		minimum elong	-2119 Dec 17 j 12:11	9° ♂ 35'24	0°36'54
evening set	-2125 Nov 19 j 20:12	25° ℳ 48'01		max. Earth dist.	-2119 Dec 18 j 00:36	9° ♂ 36'34	31.08940 AU
				morning rise	-2118 Jan 01 j 21:28	10° ♂ 10'10	
conjunction	-2125 Dec 05 j 01:28	26° ℳ 22'22	1°03'01	retrograde	-2118 Apr 02 j 01:36	12° ♂ 07'20	
minimum elong	-2125 Dec 05 j 01:29	26° ℳ 22'22	1°02'58	opposition	-2118 Jun 21 j 20:17	10° ♂ 43'14	0°37'00
max. Earth dist.	-2125 Dec 05 j 10:05	26° ℳ 23'11	31.13763 AU	min. Earth dist.	-2118 Jun 21 j 06:43	10° ♂ 44'09	29.08422 AU
morning rise	-2125 Dec 20 j 08:12	26° ℳ 56'54		direct	-2118 Sep 08 j 22:57	9° ♂ 20'21	

Attention, astronomical year style is used: The year -2118 in astronomical counting style is the year 2119 BCE in historical counting style.

evening set	-2118 Dec 04 j 15:02	11°♏13'16		minimum elong	-2111 Jan 01 j 11:38	25°♏02'25	0°04'09
				behind sun begin	-2111 Jan 01 j 05:18	25°♏01'51	
conjunction	-2118 Dec 19 j 22:26	11°♏47'51	0°32'22	behind sun end	-2111 Jan 01 j 17:58	25°♏02'59	
minimum elong	-2118 Dec 19 j 22:26	11°♏47'51	0°32'20	max. Earth dist.	-2111 Jan 02 j 05:54	25°♏04'08	31.01823 AU
max. Earth dist.	-2118 Dec 20 j 12:20	11°♏49'09	31.07835 AU	morning rise	-2111 Jan 17 j 00:09	25°♏37'28	
morning rise	-2117 Jan 04 j 08:03	12°♏22'39		retrograde	-2111 Apr 17 j 15:35	27°♏35'20	
retrograde	-2117 Apr 04 j 12:08	14°♏19'54		opposition	-2111 Jul 07 j 15:09	26°♏10'44	0°01'48
opposition	-2117 Jun 24 j 09:17	12°♏55'42	0°32'05	min. Earth dist.	-2111 Jul 06 j 20:22	26°♏12'01	29.01503 AU
min. Earth dist.	-2117 Jun 23 j 19:34	12°♏56'38	29.07272 AU	direct	-2111 Sep 24 j 03:01	24°♏47'52	
direct	-2117 Sep 11 j 11:18	11°♏32'48		desc. node	-2111 Nov 13 j 17:18	25°♏30'20	
evening set	-2117 Dec 07 j 00:50	13°♏25'39		evening set	-2111 Dec 19 j 12:15	26°♏40'30	
conjunction	-2117 Dec 22 j 08:30	14°♏00'14	0°27'45	conjunction	-2110 Jan 03 j 22:11	27°♏15'18	-0°00'42
minimum elong	-2117 Dec 22 j 08:30	14°♏00'14	0°27'42	minimum elong	-2110 Jan 03 j 22:12	27°♏15'18	0°00'45
max. Earth dist.	-2117 Dec 22 j 22:27	14°♏01'34	31.06675 AU	behind sun begin	-2110 Jan 03 j 15:47	27°♏14'43	
morning rise	-2116 Jan 06 j 18:41	14°♏35'05		behind sun end	-2110 Jan 04 j 04:37	27°♏15'52	
retrograde	-2116 Apr 06 j 00:29	16°♏32'25		max. Earth dist.	-2110 Jan 04 j 18:19	27°♏17'12	31.01156 AU
opposition	-2116 Jun 25 j 22:18	15°♏08'07	0°27'07	morning rise	-2110 Jan 19 j 11:03	27°♏50'23	
min. Earth dist.	-2116 Jun 25 j 07:13	15°♏09'08	29.06104 AU	retrograde	-2110 Apr 20 j 05:09	29°♏48'23	
direct	-2116 Sep 12 j 22:35	13°♏45'11		min. Earth dist.	-2110 Jul 09 j 08:18	28°♏25'07	29.00854 AU
evening set	-2116 Dec 08 j 10:31	15°♏37'57		opposition	-2110 Jul 10 j 04:05	28°♏23'46	-0°03'19
conjunction	-2116 Dec 23 j 18:32	16°♏12'35	0°23'05	direct	-2110 Sep 26 j 15:58	27°♏00'57	
minimum elong	-2116 Dec 23 j 18:32	16°♏12'35	0°23'03	evening set	-2110 Dec 21 j 22:42	28°♏53'36	
max. Earth dist.	-2116 Dec 24 j 09:44	16°♏14'01	31.05509 AU	conjunction	-2109 Jan 06 j 08:53	29°♏28'25	-0°05'31
morning rise	-2115 Jan 08 j 05:07	16°♏47'28		minimum elong	-2109 Jan 06 j 08:53	29°♏28'25	0°05'34
retrograde	-2115 Apr 08 j 11:36	18°♏44'54		behind sun begin	-2109 Jan 06 j 02:41	29°♏27'52	
opposition	-2115 Jun 28 j 11:26	17°♏20'29	0°22'06	behind sun end	-2109 Jan 06 j 15:05	29°♏28'59	
min. Earth dist.	-2115 Jun 27 j 20:24	17°♏21'31	29.04969 AU	max. Earth dist.	-2109 Jan 07 j 04:31	29°♏30'16	31.00526 AU
direct	-2115 Sep 15 j 09:21	15°♏57'33			-2109 Jan 20 j 08:01	0°♏	
evening set	-2115 Dec 10 j 20:19	17°♏50'15		morning rise	-2109 Jan 21 j 22:21	0°♏03'33	
conjunction	-2115 Dec 26 j 04:44	18°♏24'54	0°18'24	retrograde	-2109 Apr 22 j 20:21	2°♏01'40	
minimum elong	-2115 Dec 26 j 04:44	18°♏24'54	0°18'20	opposition	-2109 Jul 12 j 16:54	0°♏37'02	-0°08'27
max. Earth dist.	-2115 Dec 26 j 20:52	18°♏26'26	31.04424 AU	min. Earth dist.	-2109 Jul 11 j 20:41	0°♏38'25	29.00231 AU
morning rise	-2114 Jan 10 j 15:45	18°♏59'50			-2109 Aug 05 j 00:55	30°♏♏	
retrograde	-2114 Apr 11 j 00:15	20°♏57'21		direct	-2109 Sep 29 j 02:52	29°♏14'15	
min. Earth dist.	-2114 Jun 30 j 07:15	19°♏34'02	29.03934 AU		-2109 Nov 20 j 14:14	0°♏	
opposition	-2114 Jul 01 j 00:16	19°♏32'52	0°17'04	evening set	-2109 Dec 24 j 09:10	1°♏06'55	
direct	-2114 Sep 17 j 20:24	18°♏09'55		conjunction	-2108 Jan 08 j 19:49	1°♏41'47	-0°10'17
evening set	-2114 Dec 13 j 06:14	20°♏02'35		minimum elong	-2108 Jan 08 j 19:49	1°♏41'47	0°10'21
conjunction	-2114 Dec 28 j 14:56	20°♏37'16	0°13'41	behind sun begin	-2108 Jan 08 j 14:43	1°♏41'19	
minimum elong	-2114 Dec 28 j 14:56	20°♏37'16	0°13'38	behind sun end	-2108 Jan 09 j 00:56	1°♏42'15	
behind sun begin	-2114 Dec 28 j 11:21	20°♏36'57		max. Earth dist.	-2108 Jan 09 j 16:49	1°♏43'46	30.99878 AU
behind sun end	-2114 Dec 28 j 18:31	20°♏37'36		morning rise	-2108 Jan 24 j 09:37	2°♏16'58	
max. Earth dist.	-2114 Dec 29 j 07:34	20°♏38'50	31.03438 AU	retrograde	-2108 Apr 24 j 08:08	4°♏15'12	
morning rise	-2113 Jan 13 j 02:31	21°♏12'14		min. Earth dist.	-2108 Jul 13 j 09:41	2°♏51'56	28.99557 AU
retrograde	-2113 Apr 13 j 12:45	23°♏09'52		opposition	-2108 Jul 14 j 05:53	2°♏50'33	-0°13'33
opposition	-2113 Jul 03 j 13:18	21°♏45'19	0°12'00	direct	-2108 Sep 30 j 14:42	1°♏27'48	
min. Earth dist.	-2113 Jul 02 j 20:22	21°♏46'29	29.03014 AU	evening set	-2108 Dec 25 j 19:44	3°♏20'28	
direct	-2113 Sep 20 j 06:24	20°♏22'24		conjunction	-2107 Jan 10 j 06:43	3°♏55'22	-0°15'03
evening set	-2113 Dec 15 j 16:07	22°♏15'02		minimum elong	-2107 Jan 10 j 06:43	3°♏55'22	0°15'05
conjunction	-2113 Dec 31 j 01:18	22°♏49'45	0°08'56	behind sun begin	-2107 Jan 10 j 04:20	3°♏55'09	
minimum elong	-2113 Dec 31 j 01:18	22°♏49'45	0°08'53	behind sun end	-2107 Jan 10 j 09:05	3°♏55'35	
behind sun begin	-2113 Dec 30 j 19:45	22°♏49'15		max. Earth dist.	-2107 Jan 11 j 03:28	3°♏57'20	30.99174 AU
behind sun end	-2113 Dec 31 j 06:50	22°♏50'16		morning rise	-2107 Jan 25 j 21:03	4°♏30'35	
max. Earth dist.	-2113 Dec 31 j 19:35	22°♏51'29	31.02578 AU	retrograde	-2107 Apr 26 j 22:11	6°♏28'55	
morning rise	-2112 Jan 15 j 13:11	23°♏24'45		opposition	-2107 Jul 16 j 18:54	5°♏04'14	-0°18'39
retrograde	-2112 Apr 15 j 01:47	25°♏22'30		min. Earth dist.	-2107 Jul 15 j 21:49	5°♏05'41	28.98808 AU
min. Earth dist.	-2112 Jul 04 j 07:24	23°♏59'12	29.02203 AU	direct	-2107 Oct 03 j 02:35	3°♏41'30	
opposition	-2112 Jul 05 j 02:05	23°♏57'56	0°06'54	evening set	-2107 Dec 28 j 06:33	5°♏34'10	
direct	-2112 Sep 21 j 17:26	22°♏35'01		conjunction	-2106 Jan 12 j 17:56	6°♏09'06	-0°19'48
evening set	-2112 Dec 17 j 02:14	24°♏27'40		minimum elong	-2106 Jan 12 j 17:56	6°♏09'06	0°19'51
conjunction	-2111 Jan 01 j 11:38	25°♏02'25	0°04'11	max. Earth dist.	-2106 Jan 13 j 15:13	6°♏11'06	30.98357 AU
				morning rise	-2106 Jan 28 j 08:43	6°♏44'21	

Attention, astronomical year style is used: The year -2106 in astronomical counting style is the year 2107 BCE in historical counting style.

retrograde	-2106 Apr 29 j 10:48	8° $\overline{3}$ 42'46		minimum elong	-2099 Jan 28 j 01:43	21° $\overline{3}$ 44'46	0°51'53
min. Earth dist.	-2106 Jul 18 j 11:33	7° $\overline{3}$ 19'26	28.97938 AU	max. Earth dist.	-2099 Jan 29 j 02:21	21° $\overline{3}$ 47'06	30.91910 AU
opposition	-2106 Jul 19 j 07:52	7° $\overline{3}$ 18'02	-0°23'43	morning rise	-2099 Feb 12 j 19:38	22° $\overline{3}$ 20'14	
direct	-2106 Oct 05 j 13:53	5° $\overline{3}$ 55'18		retrograde	-2099 May 15 j 04:49	24° $\overline{3}$ 19'02	
evening set	-2106 Dec 30 j 17:24	7° $\overline{3}$ 47'56		min. Earth dist.	-2099 Aug 03 j 01:14	22° $\overline{3}$ 55'26	28.91662 AU
				opposition	-2099 Aug 04 j 00:33	22° $\overline{3}$ 53'49	-0°57'49
conjunction	-2105 Jan 15 j 05:16	8° $\overline{3}$ 22'53	-0°24'31	direct	-2099 Oct 20 j 20:12	21° $\overline{3}$ 30'49	
minimum elong	-2105 Jan 15 j 05:16	8° $\overline{3}$ 22'53	0°24'33	evening set	-2098 Jan 14 j 22:52	23° $\overline{3}$ 23'24	
max. Earth dist.	-2105 Jan 16 j 02:44	8° $\overline{3}$ 24'55	30.97437 AU				
morning rise	-2105 Jan 30 j 20:30	8° $\overline{3}$ 58'10		conjunction	-2098 Jan 30 j 13:30	23° $\overline{3}$ 58'32	-0°56'11
retrograde	-2105 May 01 j 23:19	10° $\overline{3}$ 56'39		minimum elong	-2098 Jan 30 j 13:30	23° $\overline{3}$ 58'32	0°56'14
opposition	-2105 Jul 21 j 20:42	9° $\overline{3}$ 31'52	-0°28'45	max. Earth dist.	-2098 Jan 31 j 13:57	24° $\overline{3}$ 00'50	30.91334 AU
min. Earth dist.	-2105 Jul 20 j 23:10	9° $\overline{3}$ 33'20	28.96963 AU	morning rise	-2098 Feb 15 j 07:57	24° $\overline{3}$ 34'02	
direct	-2105 Oct 08 j 01:44	8° $\overline{3}$ 09'04		retrograde	-2098 May 17 j 20:03	26° $\overline{3}$ 32'53	
evening set	-2104 Jan 02 j 04:18	10° $\overline{3}$ 01'41		opposition	-2098 Aug 06 j 12:55	25° $\overline{3}$ 07'40	-1°02'24
				min. Earth dist.	-2098 Aug 05 j 12:45	25° $\overline{3}$ 09'20	28.91134 AU
conjunction	-2104 Jan 17 j 16:26	10° $\overline{3}$ 36'39	-0°29'12	direct	-2098 Oct 23 j 08:01	23° $\overline{3}$ 44'40	
minimum elong	-2104 Jan 17 j 16:26	10° $\overline{3}$ 36'39	0°29'16	evening set	-2097 Jan 17 j 10:24	25° $\overline{3}$ 37'17	
max. Earth dist.	-2104 Jan 18 j 13:44	10° $\overline{3}$ 38'40	30.96413 AU				
morning rise	-2104 Feb 02 j 08:12	11° $\overline{3}$ 11'59		conjunction	-2097 Feb 02 j 01:26	26° $\overline{3}$ 12'28	-1°00'26
retrograde	-2104 May 03 j 10:52	13° $\overline{3}$ 10'31		minimum elong	-2097 Feb 02 j 01:26	26° $\overline{3}$ 12'28	1°00'28
opposition	-2104 Jul 23 j 09:36	11° $\overline{3}$ 45'38	-0°33'45	max. Earth dist.	-2097 Feb 03 j 02:31	26° $\overline{3}$ 14'50	30.90825 AU
min. Earth dist.	-2104 Jul 22 j 12:47	11° $\overline{3}$ 47'04	28.95922 AU	morning rise	-2097 Feb 17 j 20:18	26° $\overline{3}$ 48'00	
direct	-2104 Oct 09 j 11:58	10° $\overline{3}$ 22'47		retrograde	-2097 May 20 j 09:06	28° $\overline{3}$ 46'56	
evening set	-2103 Jan 03 j 15:09	12° $\overline{3}$ 15'21		min. Earth dist.	-2097 Aug 08 j 02:03	27° $\overline{3}$ 23'20	28.90655 AU
				opposition	-2097 Aug 09 j 01:27	27° $\overline{3}$ 21'43	-1°06'54
conjunction	-2103 Jan 19 j 03:50	12° $\overline{3}$ 50'22	-0°33'51	direct	-2097 Oct 25 j 19:15	25° $\overline{3}$ 58'44	
minimum elong	-2103 Jan 19 j 03:50	12° $\overline{3}$ 50'22	0°33'53	evening set	-2096 Jan 19 j 21:57	27° $\overline{3}$ 51'24	
max. Earth dist.	-2103 Jan 20 j 02:22	12° $\overline{3}$ 52'29	30.95369 AU				
morning rise	-2103 Feb 03 j 19:56	13° $\overline{3}$ 25'42		conjunction	-2096 Feb 04 j 13:25	28° $\overline{3}$ 26'36	-1°04'36
retrograde	-2103 May 05 j 23:24	15° $\overline{3}$ 24'17		minimum elong	-2096 Feb 04 j 13:25	28° $\overline{3}$ 26'36	1°04'39
opposition	-2103 Jul 25 j 22:17	13° $\overline{3}$ 59'19	-0°38'41	max. Earth dist.	-2096 Feb 05 j 14:45	28° $\overline{3}$ 29'00	30.90359 AU
min. Earth dist.	-2103 Jul 25 j 00:10	14° $\overline{3}$ 00'50	28.94887 AU	morning rise	-2096 Feb 20 j 08:39	29° $\overline{3}$ 02'10	
direct	-2103 Oct 11 j 23:10	12° $\overline{3}$ 36'25			-2096 Mar 19 j 18:08	0° \approx	
evening set	-2102 Jan 06 j 02:10	14° $\overline{3}$ 28'57		retrograde	-2096 May 21 j 22:38	1° \approx 01'11	
					-2096 Jul 26 j 22:53	30° \overline{R} $\overline{3}$	
conjunction	-2102 Jan 21 j 15:06	15° $\overline{3}$ 03'59	-0°38'26	opposition	-2096 Aug 10 j 13:53	29° $\overline{3}$ 35'59	-1°11'18
minimum elong	-2102 Jan 21 j 15:06	15° $\overline{3}$ 03'59	0°38'30	min. Earth dist.	-2096 Aug 09 j 13:26	29° $\overline{3}$ 37'41	28.90187 AU
max. Earth dist.	-2102 Jan 22 j 13:14	15° $\overline{3}$ 06'04	30.94354 AU	direct	-2096 Oct 27 j 06:57	28° $\overline{3}$ 13'00	
morning rise	-2102 Feb 06 j 07:50	15° $\overline{3}$ 39'22			-2095 Jan 18 j 19:09	0° \approx	
retrograde	-2102 May 08 j 12:52	17° $\overline{3}$ 38'00		evening set	-2095 Jan 21 j 09:53	0° \approx 05'44	
opposition	-2102 Jul 28 j 11:01	16° $\overline{3}$ 12'55	-0°43'34				
min. Earth dist.	-2102 Jul 27 j 13:12	16° $\overline{3}$ 14'26	28.93919 AU	conjunction	-2095 Feb 06 j 01:39	0° \approx 40'58	-1°08'40
direct	-2102 Oct 14 j 09:23	14° $\overline{3}$ 49'58		minimum elong	-2095 Feb 06 j 01:38	0° \approx 40'58	1°08'42
evening set	-2101 Jan 08 j 13:12	16° $\overline{3}$ 42'30		max. Earth dist.	-2095 Feb 07 j 02:30	0° \approx 43'19	30.89864 AU
				morning rise	-2095 Feb 21 j 21:23	1° \approx 16'34	
conjunction	-2101 Jan 24 j 02:42	17° $\overline{3}$ 17'34	-0°42'58	retrograde	-2095 May 24 j 11:13	3° \approx 15'39	
minimum elong	-2101 Jan 24 j 02:41	17° $\overline{3}$ 17'34	0°43'00	min. Earth dist.	-2095 Aug 12 j 03:08	1° \approx 52'04	28.89676 AU
max. Earth dist.	-2101 Jan 25 j 02:23	17° $\overline{3}$ 19'48	30.93421 AU	opposition	-2095 Aug 13 j 02:26	1° \approx 50'27	-1°15'36
morning rise	-2101 Feb 08 j 19:41	17° $\overline{3}$ 52'58		direct	-2095 Oct 29 j 16:56	0° \approx 27'29	
retrograde	-2101 May 11 j 01:42	19° $\overline{3}$ 51'38		evening set	-2094 Jan 23 j 21:49	2° \approx 20'16	
opposition	-2101 Jul 30 j 23:24	18° $\overline{3}$ 26'30	-0°48'23				
min. Earth dist.	-2101 Jul 30 j 00:44	18° $\overline{3}$ 28'04	28.93041 AU	conjunction	-2094 Feb 08 j 14:10	2° \approx 55'31	-1°12'38
direct	-2101 Oct 16 j 21:53	17° $\overline{3}$ 03'31		minimum elong	-2094 Feb 08 j 14:10	2° \approx 55'31	1°12'41
evening set	-2100 Jan 11 j 00:26	18° $\overline{3}$ 56'03		max. Earth dist.	-2094 Feb 09 j 15:36	2° \approx 57'55	30.89308 AU
				morning rise	-2094 Feb 24 j 10:12	3° \approx 31'09	
conjunction	-2100 Jan 26 j 14:10	19° $\overline{3}$ 31'08	-0°47'27	retrograde	-2094 May 27 j 00:38	5° \approx 30'17	
minimum elong	-2100 Jan 26 j 14:10	19° $\overline{3}$ 31'08	0°47'30	opposition	-2094 Aug 15 j 14:50	4° \approx 05'04	-1°19'47
max. Earth dist.	-2100 Jan 27 j 13:19	19° $\overline{3}$ 33'19	30.92605 AU	min. Earth dist.	-2094 Aug 14 j 14:51	4° \approx 06'44	28.89066 AU
morning rise	-2100 Feb 11 j 07:45	20° $\overline{3}$ 06'34		direct	-2094 Nov 01 j 04:09	2° \approx 42'04	
retrograde	-2100 May 12 j 16:22	22° $\overline{3}$ 05'18		evening set	-2093 Jan 26 j 10:06	4° \approx 34'55	
opposition	-2100 Aug 01 j 11:59	20° $\overline{3}$ 40'07	-0°53'08				
min. Earth dist.	-2100 Jul 31 j 12:49	20° $\overline{3}$ 41'43	28.92297 AU	conjunction	-2093 Feb 11 j 02:40	5° \approx 10'11	-1°16'29
direct	-2100 Oct 18 j 08:23	19° $\overline{3}$ 17'06		minimum elong	-2093 Feb 11 j 02:40	5° \approx 10'11	1°16'31
evening set	-2099 Jan 12 j 11:28	21° $\overline{3}$ 09'40		max. Earth dist.	-2093 Feb 12 j 02:52	5° \approx 12'28	30.88637 AU
				morning rise	-2093 Feb 26 j 23:16	5° \approx 45'51	
conjunction	-2099 Jan 28 j 01:43	21° $\overline{3}$ 44'46	-0°51'51	retrograde	-2093 May 29 j 13:45	7° \approx 45'01	

Attention, astronomical year style is used: The year -2093 in astronomical counting style is the year 2094 BCE in historical counting style.

min. Earth dist.	-2093 Aug 17 j 04:18	6°21'22	28.88355 AU	conjunction	-2086 Feb 26 j 19:37	20°52'18	-1°39'56
opposition	-2093 Aug 18 j 03:13	6°19'46	-1°23'50	minimum elong	-2086 Feb 26 j 19:37	20°52'18	1°39'58
direct	-2093 Nov 03 j 14:23	4°56'44		max. Earth dist.	-2086 Feb 27 j 20:11	20°54'37	30.84112 AU
evening set	-2092 Jan 28 j 22:11	6°49'36		morning rise	-2086 Mar 14 j 18:58	21°28'07	
				retrograde	-2086 Jun 14 j 12:18	23°27'15	
conjunction	-2092 Feb 13 j 15:20	7°24'54	-1°20'14	opposition	-2086 Sep 02 j 15:30	22°01'45	-1°48'24
minimum elong	-2092 Feb 13 j 15:20	7°24'54	1°20'16	min. Earth dist.	-2086 Sep 01 j 16:56	22°03'20	28.84126 AU
max. Earth dist.	-2092 Feb 14 j 16:25	7°27'16	30.87877 AU	direct	-2086 Nov 19 j 00:30	20°38'21	
morning rise	-2092 Feb 29 j 12:11	8°00'34		evening set	-2085 Feb 13 j 12:41	22°31'28	
retrograde	-2092 May 31 j 02:22	9°59'45					
opposition	-2092 Aug 19 j 15:31	8°34'28	-1°27'47	conjunction	-2085 Mar 01 j 08:44	23°06'57	-1°42'43
min. Earth dist.	-2092 Aug 18 j 16:20	8°36'05	28.87559 AU	minimum elong	-2085 Mar 01 j 08:43	23°06'57	1°42'44
direct	-2092 Nov 05 j 02:48	7°11'22		max. Earth dist.	-2085 Mar 02 j 09:58	23°09'20	30.83922 AU
evening set	-2091 Jan 30 j 10:20	9°04'15		morning rise	-2085 Mar 17 j 08:17	23°42'46	
				retrograde	-2085 Jun 17 j 01:45	25°41'54	
conjunction	-2091 Feb 15 j 03:46	9°39'35	-1°23'51	min. Earth dist.	-2085 Sep 04 j 03:46	24°18'05	28.83988 AU
minimum elong	-2091 Feb 15 j 03:46	9°39'35	1°23'53	opposition	-2085 Sep 05 j 03:07	24°16'26	-1°51'17
max. Earth dist.	-2091 Feb 16 j 03:41	9°41'50	30.87068 AU	direct	-2085 Nov 21 j 12:04	22°53'01	
morning rise	-2091 Mar 03 j 01:12	10°15'16		evening set	-2084 Feb 16 j 01:31	24°46'13	
retrograde	-2091 Jun 02 j 16:39	12°14'28					
min. Earth dist.	-2091 Aug 21 j 04:49	10°50'43	28.86756 AU	conjunction	-2084 Mar 02 j 21:47	25°21'43	-1°45'20
opposition	-2091 Aug 22 j 03:47	10°49'07	-1°31'35	minimum elong	-2084 Mar 02 j 21:47	25°21'43	1°45'22
direct	-2091 Nov 07 j 13:19	9°25'56		max. Earth dist.	-2084 Mar 03 j 22:01	25°24'00	30.83826 AU
evening set	-2090 Feb 01 j 22:34	11°18'50		morning rise	-2084 Mar 18 j 21:52	25°57'34	
				retrograde	-2084 Jun 18 j 14:01	27°56'42	
conjunction	-2090 Feb 17 j 16:32	11°54'12	-1°27'20	opposition	-2084 Sep 06 j 14:59	26°31'16	-1°54'00
minimum elong	-2090 Feb 17 j 16:32	11°54'12	1°27'23	min. Earth dist.	-2084 Sep 05 j 16:40	26°32'50	28.83936 AU
max. Earth dist.	-2090 Feb 18 j 17:23	11°56'32	30.86263 AU	direct	-2084 Nov 22 j 21:59	25°07'50	
morning rise	-2090 Mar 05 j 14:15	12°29'55		evening set	-2083 Feb 17 j 14:18	27°01'07	
retrograde	-2090 Jun 05 j 05:11	14°29'05					
opposition	-2090 Aug 24 j 15:45	13°03'41	-1°35'14	conjunction	-2083 Mar 05 j 11:10	27°36'38	-1°47'48
min. Earth dist.	-2090 Aug 23 j 17:06	13°05'16	28.85983 AU	minimum elong	-2083 Mar 05 j 11:09	27°36'38	1°47'49
direct	-2090 Nov 10 j 01:21	11°40'26		max. Earth dist.	-2083 Mar 06 j 12:11	27°38'59	30.83784 AU
evening set	-2089 Feb 04 j 10:55	13°33'22		morning rise	-2083 Mar 21 j 11:26	28°12'30	
					-2083 May 25 j 10:18	0°	
conjunction	-2089 Feb 20 j 05:14	14°08'45	-1°30'42	retrograde	-2083 Jun 21 j 02:12	0°11'38	
minimum elong	-2089 Feb 20 j 05:14	14°08'45	1°30'43		-2083 Jul 18 j 02:52	30°	
max. Earth dist.	-2089 Feb 21 j 05:28	14°11'02	30.85534 AU	min. Earth dist.	-2083 Sep 08 j 04:26	28°47'48	28.83890 AU
morning rise	-2089 Mar 08 j 03:25	14°44'29		opposition	-2083 Sep 09 j 02:42	28°46'14	-1°56'33
	-2089 Mar 15 j 06:56	15°		direct	-2083 Nov 25 j 09:34	27°22'48	
retrograde	-2089 Jun 07 j 20:42	16°43'38		evening set	-2082 Feb 20 j 03:33	29°16'09	
min. Earth dist.	-2089 Aug 26 j 04:29	15°19'49	28.85314 AU				
opposition	-2089 Aug 27 j 03:44	15°18'11	-1°38'45	conjunction	-2082 Mar 08 j 00:40	29°51'41	-1°50'06
	-2089 Sep 07 j 01:34	15°		minimum elong	-2082 Mar 08 j 00:40	29°51'41	1°50'07
direct	-2089 Nov 12 j 14:03	13°54'52		max. Earth dist.	-2082 Mar 08 j 23:59	29°53'53	30.83722 AU
	-2088 Jan 14 j 19:10	15°			-2082 Mar 11 j 17:02	0°	
evening set	-2088 Feb 06 j 23:10	15°47'51		morning rise	-2082 Mar 24 j 01:27	0°27'34	
				retrograde	-2082 Jun 23 j 16:31	2°26'41	
conjunction	-2088 Feb 22 j 17:52	16°23'15	-1°33'55	opposition	-2082 Sep 11 j 14:23	1°01'18	-1°58'55
minimum elong	-2088 Feb 22 j 17:52	16°23'15	1°33'57	min. Earth dist.	-2082 Sep 10 j 16:52	1°02'49	28.83809 AU
max. Earth dist.	-2088 Feb 23 j 18:41	16°25'35	30.84909 AU		-2082 Oct 22 j 06:35	30°	
morning rise	-2088 Mar 09 j 16:22	16°59'01		direct	-2082 Nov 27 j 19:24	29°37'50	
retrograde	-2088 Jun 09 j 09:06	18°58'10			-2081 Jan 02 j 19:05	0°	
opposition	-2088 Aug 28 j 15:46	17°32'40	-1°42'07	evening set	-2081 Feb 22 j 16:47	1°31'16	
min. Earth dist.	-2088 Aug 27 j 17:15	17°34'15	28.84767 AU				
direct	-2088 Nov 14 j 01:51	16°09'19		conjunction	-2081 Mar 10 j 14:26	2°06'49	-1°52'14
evening set	-2087 Feb 08 j 11:32	18°02'20		minimum elong	-2081 Mar 10 j 14:26	2°06'49	1°52'15
				max. Earth dist.	-2081 Mar 11 j 14:00	2°09'02	30.83590 AU
conjunction	-2087 Feb 24 j 06:43	18°37'45	-1°37'00	morning rise	-2081 Mar 26 j 15:25	2°42'43	
minimum elong	-2087 Feb 24 j 06:43	18°37'45	1°37'01	retrograde	-2081 Jun 26 j 04:45	4°41'48	
max. Earth dist.	-2087 Feb 25 j 07:39	18°40'06	30.84441 AU	min. Earth dist.	-2081 Sep 13 j 05:28	3°17'53	28.83634 AU
morning rise	-2087 Mar 12 j 05:35	19°13'32		opposition	-2081 Sep 14 j 02:09	3°16'26	-2°01'07
retrograde	-2087 Jun 11 j 23:07	21°12'41		direct	-2081 Nov 30 j 07:34	1°52'55	
min. Earth dist.	-2087 Aug 30 j 03:59	19°48'50	28.84378 AU	evening set	-2080 Feb 25 j 05:58	3°46'23	
opposition	-2087 Aug 31 j 03:33	19°47'11	-1°45'20				
direct	-2087 Nov 16 j 13:55	18°23'47		conjunction	-2080 Mar 12 j 03:58	4°21'58	-1°54'12
evening set	-2086 Feb 11 j 00:07	20°16'51		minimum elong	-2080 Mar 12 j 03:58	4°21'58	1°54'13

Attention, astronomical year style is used: The year -2080 in astronomical counting style is the year 2081 BCE in historical counting style.

max. Earth dist.	-2080 Mar 13 j 02:07	4° \mathbf{H} 24'03	30.83380 AU	conjunction	-2073 Mar 29 j 04:42	20° \mathbf{H} 06'14	-2°02'58
morning rise	-2080 Mar 28 j 05:23	4° \mathbf{H} 57'53		minimum elong	-2073 Mar 29 j 04:42	20° \mathbf{H} 06'14	2°02'58
retrograde	-2080 Jun 27 j 19:39	6° \mathbf{H} 56'54		max. Earth dist.	-2073 Mar 29 j 23:32	20° \mathbf{H} 08'00	30.82684 AU
opposition	-2080 Sep 15 j 13:50	5° \mathbf{H} 31'31	-2°03'07	morning rise	-2073 Apr 14 j 08:25	20° \mathbf{H} 42'14	
min. Earth dist.	-2080 Sep 14 j 17:13	5° \mathbf{H} 32'58	28.83389 AU	retrograde	-2073 Jul 14 j 14:23	22° \mathbf{H} 40'44	
direct	-2080 Dec 01 j 20:05	4° \mathbf{H} 07'56		opposition	-2073 Oct 01 j 20:58	21° \mathbf{H} 15'26	-2°11'47
evening set	-2079 Feb 26 j 19:19	6° \mathbf{H} 01'27		min. Earth dist.	-2073 Oct 01 j 03:38	21° \mathbf{H} 16'40	28.83017 AU
				direct	-2073 Dec 18 j 03:42	19° \mathbf{H} 51'31	
conjunction	-2079 Mar 14 j 17:45	6° \mathbf{H} 37'04	-1°56'00	evening set	-2072 Mar 14 j 17:16	21° \mathbf{H} 45'28	
minimum elong	-2079 Mar 14 j 17:45	6° \mathbf{H} 37'04	1°56'01				
max. Earth dist.	-2079 Mar 15 j 15:47	6° \mathbf{H} 39'08	30.83098 AU	conjunction	-2072 Mar 30 j 18:38	22° \mathbf{H} 21'13	-2°03'28
morning rise	-2079 Mar 30 j 19:29	7° \mathbf{H} 12'59		minimum elong	-2072 Mar 30 j 18:38	22° \mathbf{H} 21'13	2°03'29
retrograde	-2079 Jun 30 j 07:46	9° \mathbf{H} 11'56		max. Earth dist.	-2072 Mar 31 j 14:05	22° \mathbf{H} 23'03	30.83062 AU
min. Earth dist.	-2079 Sep 17 j 06:15	7° \mathbf{H} 47'53	28.83095 AU	morning rise	-2072 Apr 15 j 22:31	22° \mathbf{H} 57'14	
opposition	-2079 Sep 18 j 01:24	7° \mathbf{H} 46'32	-2°04'56	retrograde	-2072 Jul 16 j 01:40	24° \mathbf{H} 55'40	
direct	-2079 Dec 04 j 07:58	6° \mathbf{H} 22'52		opposition	-2072 Oct 03 j 08:08	23° \mathbf{H} 30'28	-2°12'14
evening set	-2078 Mar 01 j 08:40	8° \mathbf{H} 16'26		min. Earth dist.	-2072 Oct 02 j 15:31	23° \mathbf{H} 31'38	28.83437 AU
				direct	-2072 Dec 19 j 15:27	22° \mathbf{H} 06'32	
conjunction	-2078 Mar 17 j 07:35	8° \mathbf{H} 52'04	-1°57'37	evening set	-2071 Mar 17 j 07:06	24° \mathbf{H} 00'35	
minimum elong	-2078 Mar 17 j 07:35	8° \mathbf{H} 52'04	1°57'38				
max. Earth dist.	-2078 Mar 18 j 04:56	8° \mathbf{H} 54'04	30.82810 AU	conjunction	-2071 Apr 02 j 08:46	24° \mathbf{H} 36'22	-2°03'47
morning rise	-2078 Apr 02 j 09:40	9° \mathbf{H} 28'00		minimum elong	-2071 Apr 02 j 08:46	24° \mathbf{H} 36'22	2°03'48
retrograde	-2078 Jul 02 j 22:24	11° \mathbf{H} 26'52		max. Earth dist.	-2071 Apr 03 j 02:41	24° \mathbf{H} 38'02	30.83528 AU
opposition	-2078 Sep 20 j 12:48	10° \mathbf{H} 01'27	-2°06'34	morning rise	-2071 Apr 18 j 13:04	25° \mathbf{H} 12'23	
min. Earth dist.	-2078 Sep 19 j 17:12	10° \mathbf{H} 02'50	28.82816 AU	retrograde	-2071 Jul 18 j 15:55	27° \mathbf{H} 10'46	
direct	-2078 Dec 06 j 20:50	8° \mathbf{H} 37'42		opposition	-2071 Oct 05 j 19:08	25° \mathbf{H} 45'38	-2°12'28
evening set	-2077 Mar 03 j 22:04	10° \mathbf{H} 31'19		min. Earth dist.	-2071 Oct 05 j 02:45	25° \mathbf{H} 46'48	28.83921 AU
				direct	-2071 Dec 22 j 03:15	24° \mathbf{H} 21'42	
conjunction	-2077 Mar 19 j 21:16	11° \mathbf{H} 06'58	-1°59'03	evening set	-2070 Mar 19 j 21:03	26° \mathbf{H} 15'52	
minimum elong	-2077 Mar 19 j 21:16	11° \mathbf{H} 06'58	1°59'04				
max. Earth dist.	-2077 Mar 20 j 17:53	11° \mathbf{H} 08'54	30.82542 AU	conjunction	-2070 Apr 04 j 23:10	26° \mathbf{H} 51'40	-2°03'55
morning rise	-2077 Apr 04 j 23:43	11° \mathbf{H} 42'55		minimum elong	-2070 Apr 04 j 23:10	26° \mathbf{H} 51'40	2°03'55
retrograde	-2077 Jul 05 j 11:30	13° \mathbf{H} 41'42		max. Earth dist.	-2070 Apr 05 j 16:50	26° \mathbf{H} 53'19	30.84001 AU
min. Earth dist.	-2077 Sep 22 j 05:58	12° \mathbf{H} 17'33	28.82596 AU	morning rise	-2070 Apr 21 j 03:38	27° \mathbf{H} 27'42	
opposition	-2077 Sep 23 j 00:12	12° \mathbf{H} 16'16	-2°08'01	retrograde	-2070 Jul 21 j 04:00	29° \mathbf{H} 26'00	
direct	-2077 Dec 09 j 08:12	10° \mathbf{H} 52'28		opposition	-2070 Oct 08 j 06:19	28° \mathbf{H} 00'57	-2°12'30
evening set	-2076 Mar 05 j 11:22	12° \mathbf{H} 46'07		min. Earth dist.	-2070 Oct 07 j 15:40	28° \mathbf{H} 01'59	28.84378 AU
				direct	-2070 Dec 24 j 14:20	26° \mathbf{H} 37'00	
conjunction	-2076 Mar 21 j 11:06	13° \mathbf{H} 21'47	-2°00'18	evening set	-2069 Mar 22 j 11:00	28° \mathbf{H} 31'15	
minimum elong	-2076 Mar 21 j 11:06	13° \mathbf{H} 21'47	2°00'19				
max. Earth dist.	-2076 Mar 22 j 07:58	13° \mathbf{H} 23'45	30.82377 AU	conjunction	-2069 Apr 07 j 13:29	29° \mathbf{H} 07'04	-2°03'51
morning rise	-2076 Apr 06 j 13:45	13° \mathbf{H} 57'45		minimum elong	-2069 Apr 07 j 13:29	29° \mathbf{H} 07'04	2°03'51
retrograde	-2076 Jul 07 j 00:48	15° \mathbf{H} 56'27		max. Earth dist.	-2069 Apr 08 j 05:52	29° \mathbf{H} 08'36	30.84432 AU
opposition	-2076 Sep 24 j 11:23	14° \mathbf{H} 31'01	-2°09'15	morning rise	-2069 Apr 23 j 18:13	29° \mathbf{H} 43'07	
min. Earth dist.	-2076 Sep 23 j 16:32	14° \mathbf{H} 32'21	28.82487 AU		-2069 May 01 j 14:33	0° \mathbf{Y}	
direct	-2076 Dec 10 j 20:36	13° \mathbf{H} 07'10		retrograde	-2069 Jul 23 j 18:45	1° \mathbf{Y} 41'19	
evening set	-2075 Mar 08 j 00:47	15° \mathbf{H} 00'53		opposition	-2069 Oct 10 j 17:21	0° \mathbf{Y} 16'19	-2°12'20
				min. Earth dist.	-2069 Oct 10 j 02:42	0° \mathbf{Y} 17'22	28.84764 AU
conjunction	-2075 Mar 24 j 00:48	15° \mathbf{H} 36'34	-2°01'23		-2069 Oct 20 j 08:50	30° \mathbf{R} \mathbf{H}	
minimum elong	-2075 Mar 24 j 00:48	15° \mathbf{H} 36'34	2°01'23	direct	-2069 Dec 27 j 03:34	28° \mathbf{H} 52'21	
max. Earth dist.	-2075 Mar 24 j 20:29	15° \mathbf{H} 38'25	30.82331 AU		-2068 Mar 01 j 08:03	0° \mathbf{Y}	
morning rise	-2075 Apr 09 j 03:56	16° \mathbf{H} 12'33		evening set	-2068 Mar 24 j 01:07	0° \mathbf{Y} 46'40	
retrograde	-2075 Jul 09 j 12:50	18° \mathbf{H} 11'11					
opposition	-2075 Sep 26 j 22:43	16° \mathbf{H} 45'46	-2°10'18	conjunction	-2068 Apr 09 j 03:55	1° \mathbf{Y} 22'30	-2°03'36
min. Earth dist.	-2075 Sep 26 j 04:58	16° \mathbf{H} 47'02	28.82521 AU	minimum elong	-2068 Apr 09 j 03:55	1° \mathbf{Y} 22'30	2°03'36
direct	-2075 Dec 13 j 06:54	15° \mathbf{H} 21'53		max. Earth dist.	-2068 Apr 09 j 19:02	1° \mathbf{Y} 23'55	30.84767 AU
evening set	-2074 Mar 10 j 14:14	17° \mathbf{H} 15'40		morning rise	-2068 Apr 25 j 08:56	1° \mathbf{Y} 58'34	
				retrograde	-2068 Jul 25 j 07:57	3° \mathbf{Y} 56'40	
conjunction	-2074 Mar 26 j 14:50	17° \mathbf{H} 51'22	-2°02'16	opposition	-2068 Oct 12 j 04:29	2° \mathbf{Y} 31'41	-2°11'57
minimum elong	-2074 Mar 26 j 14:50	17° \mathbf{H} 51'22	2°02'16	min. Earth dist.	-2068 Oct 11 j 15:45	2° \mathbf{Y} 32'35	28.85058 AU
max. Earth dist.	-2074 Mar 27 j 11:13	17° \mathbf{H} 53'17	30.82434 AU	direct	-2068 Dec 28 j 15:46	1° \mathbf{Y} 07'40	
morning rise	-2074 Apr 11 j 18:05	18° \mathbf{H} 27'21		evening set	-2067 Mar 26 j 15:06	3° \mathbf{Y} 02'01	
retrograde	-2074 Jul 12 j 00:48	20° \mathbf{H} 25'54					
opposition	-2074 Sep 29 j 09:45	19° \mathbf{H} 00'33	-2°11'09	conjunction	-2067 Apr 11 j 18:26	3° \mathbf{Y} 37'53	-2°03'10
min. Earth dist.	-2074 Sep 28 j 15:56	19° \mathbf{H} 01'49	28.82692 AU	minimum elong	-2067 Apr 11 j 18:26	3° \mathbf{Y} 37'53	2°03'10
direct	-2074 Dec 15 j 18:21	17° \mathbf{H} 36'39		max. Earth dist.	-2067 Apr 12 j 08:53	3° \mathbf{Y} 39'14	30.85025 AU
evening set	-2073 Mar 13 j 03:52	19° \mathbf{H} 30'31		morning rise	-2067 Apr 27 j 23:40	4° \mathbf{Y} 13'57	

Attention, astronomical year style is used: The year -2067 in astronomical counting style is the year 2068 BCE in historical counting style.

retrograde	-2067 Jul 27 j 21:14	6°♊11'54		minimum elong	-2060 Apr 27 j 22:58	19°♊21'13	1°54'58
opposition	-2067 Oct 14 j 15:24	4°♊46'57	-2°11'23	max. Earth dist.	-2060 Apr 28 j 07:27	19°♊22'00	30.87398 AU
min. Earth dist.	-2067 Oct 14 j 02:42	4°♊47'51	28.85264 AU	morning rise	-2060 May 14 j 05:43	19°♊57'18	
direct	-2067 Dec 31 j 05:29	3°♊22'51		retrograde	-2060 Aug 12 j 09:35	21°♊54'11	
evening set	-2066 Mar 29 j 05:20	5°♊17'15		opposition	-2060 Oct 29 j 18:09	20°♊29'29	-2°01'56
				min. Earth dist.	-2060 Oct 29 j 10:17	20°♊30'03	28.87887 AU
conjunction	-2066 Apr 14 j 08:53	5°♊53'08	-2°02'33	direct	-2059 Jan 15 j 14:47	19°♊04'59	
minimum elong	-2066 Apr 14 j 08:53	5°♊53'08	2°02'32	evening set	-2059 Apr 14 j 07:22	20°♊59'44	
max. Earth dist.	-2066 Apr 14 j 21:29	5°♊54'18	30.85204 AU				
morning rise	-2066 Apr 30 j 14:28	6°♊29'12		conjunction	-2059 Apr 30 j 13:22	21°♊35'43	-1°53'05
retrograde	-2066 Jul 30 j 09:43	8°♊26'59		minimum elong	-2059 Apr 30 j 13:22	21°♊35'43	1°53'05
opposition	-2066 Oct 17 j 02:17	7°♊02'03	-2°10'37	max. Earth dist.	-2059 Apr 30 j 21:02	21°♊36'26	30.88154 AU
min. Earth dist.	-2066 Oct 16 j 15:16	7°♊02'50	28.85430 AU	morning rise	-2059 May 16 j 20:17	22°♊11'48	
direct	-2065 Jan 02 j 16:27	5°♊37'52		retrograde	-2059 Aug 14 j 21:48	24°♊08'35	
evening set	-2065 Mar 31 j 19:18	7°♊32'18		opposition	-2059 Nov 01 j 04:47	22°♊43'59	-1°59'49
				min. Earth dist.	-2059 Oct 31 j 22:42	22°♊44'25	28.88674 AU
conjunction	-2065 Apr 16 j 23:23	8°♊08'12	-2°01'44	direct	-2058 Jan 18 j 02:32	21°♊19'28	
minimum elong	-2065 Apr 16 j 23:23	8°♊08'12	2°01'44	evening set	-2058 Apr 16 j 21:32	23°♊14'19	
max. Earth dist.	-2065 Apr 17 j 12:08	8°♊09'23	30.85370 AU				
morning rise	-2065 May 03 j 05:03	8°♊44'16		conjunction	-2058 May 03 j 03:53	23°♊50'20	-1°51'01
retrograde	-2065 Aug 01 j 22:14	10°♊41'53		minimum elong	-2058 May 03 j 03:53	23°♊50'20	1°50'59
opposition	-2065 Oct 19 j 13:04	9°♊16'57	-2°09'40	max. Earth dist.	-2058 May 03 j 10:50	23°♊50'58	30.88965 AU
min. Earth dist.	-2065 Oct 19 j 02:22	9°♊17'43	28.85597 AU	morning rise	-2058 May 19 j 10:52	24°♊26'25	
direct	-2064 Jan 05 j 05:11	7°♊52'42		retrograde	-2058 Aug 17 j 11:03	26°♊23'04	
evening set	-2064 Apr 02 j 09:16	9°♊47'09		opposition	-2058 Nov 03 j 15:11	24°♊58'34	-1°57'31
				min. Earth dist.	-2058 Nov 03 j 09:10	24°♊59'00	28.89472 AU
conjunction	-2064 Apr 18 j 13:33	10°♊23'04	-2°00'45	direct	-2057 Jan 20 j 15:53	23°♊34'04	
minimum elong	-2064 Apr 18 j 13:33	10°♊23'04	2°00'44	evening set	-2057 Apr 19 j 11:51	25°♊29'01	
max. Earth dist.	-2064 Apr 19 j 00:25	10°♊24'04	30.85567 AU				
morning rise	-2064 May 04 j 19:37	10°♊59'08		conjunction	-2057 May 05 j 18:20	26°♊05'02	-1°48'47
retrograde	-2064 Aug 03 j 10:20	12°♊56'36		minimum elong	-2057 May 05 j 18:20	26°♊05'02	1°48'46
opposition	-2064 Oct 20 j 23:51	11°♊31'41	-2°08'30	max. Earth dist.	-2057 May 05 j 23:27	26°♊05'30	30.89750 AU
min. Earth dist.	-2064 Oct 20 j 13:58	11°♊32'23	28.85830 AU	morning rise	-2057 May 22 j 01:31	26°♊41'07	
direct	-2063 Jan 06 j 15:44	10°♊07'20		retrograde	-2057 Aug 20 j 00:03	28°♊37'39	
evening set	-2063 Apr 04 j 23:15	12°♊01'50		opposition	-2057 Nov 06 j 01:50	27°♊13'15	-1°55'03
				min. Earth dist.	-2057 Nov 05 j 21:35	27°♊13'33	28.90234 AU
conjunction	-2063 Apr 21 j 04:02	12°♊37'45	-1°59'35	direct	-2056 Jan 23 j 02:48	25°♊48'44	
minimum elong	-2063 Apr 21 j 04:03	12°♊37'45	1°59'34	evening set	-2056 Apr 21 j 01:55	27°♊43'45	
max. Earth dist.	-2063 Apr 21 j 15:13	12°♊38'47	30.85838 AU				
morning rise	-2063 May 07 j 10:09	13°♊13'50		conjunction	-2056 May 07 j 08:50	28°♊19'47	-1°46'23
retrograde	-2063 Aug 05 j 20:29	15°♊11'08		minimum elong	-2056 May 07 j 08:51	28°♊19'47	1°46'21
opposition	-2063 Oct 23 j 10:26	13°♊46'14	-2°07'09	max. Earth dist.	-2056 May 07 j 13:42	28°♊20'14	30.90475 AU
min. Earth dist.	-2063 Oct 23 j 01:25	13°♊46'53	28.86147 AU	morning rise	-2056 May 23 j 16:01	28°♊55'53	
direct	-2062 Jan 09 j 03:51	12°♊21'50			-2056 Jun 25 j 03:36	0°♊	
evening set	-2062 Apr 07 j 13:22	14°♊16'22		retrograde	-2056 Aug 21 j 13:02	0°♊52'15	
					-2056 Oct 19 j 05:19	30°♊	
conjunction	-2062 Apr 23 j 18:23	14°♊52'18	-1°58'13	opposition	-2056 Nov 07 j 12:24	29°♊27'56	-1°52'24
minimum elong	-2062 Apr 23 j 18:23	14°♊52'18	1°58'12	min. Earth dist.	-2056 Nov 07 j 08:51	29°♊28'11	28.90897 AU
max. Earth dist.	-2062 Apr 24 j 03:49	14°♊53'11	30.86226 AU	direct	-2055 Jan 24 j 16:01	28°♊03'24	
morning rise	-2062 May 10 j 00:50	15°♊28'23		evening set	-2055 Apr 23 j 16:20	29°♊58'28	
retrograde	-2062 Aug 08 j 09:21	17°♊25'32			-2055 Apr 24 j 09:19	0°♊	
opposition	-2062 Oct 25 j 21:03	16°♊00'41	-2°05'36				
min. Earth dist.	-2062 Oct 25 j 12:03	16°♊01'19	28.86598 AU	conjunction	-2055 May 09 j 23:20	0°♊34'31	-1°43'50
direct	-2061 Jan 11 j 15:07	14°♊36'13		minimum elong	-2055 May 09 j 23:21	0°♊34'31	1°43'49
evening set	-2061 Apr 10 j 03:15	16°♊30'49		max. Earth dist.	-2055 May 10 j 01:45	0°♊34'44	30.91098 AU
				morning rise	-2055 May 26 j 06:47	1°♊10'37	
conjunction	-2061 Apr 26 j 08:39	17°♊06'46	-1°56'41	retrograde	-2055 Aug 24 j 00:54	3°♊06'50	
minimum elong	-2061 Apr 26 j 08:39	17°♊06'46	1°56'41	opposition	-2055 Nov 09 j 22:50	1°♊42'34	-1°49'35
max. Earth dist.	-2061 Apr 26 j 18:13	17°♊07'39	30.86737 AU	min. Earth dist.	-2055 Nov 09 j 20:30	1°♊42'44	28.91475 AU
morning rise	-2061 May 12 j 15:09	17°♊42'50		direct	-2054 Jan 27 j 03:02	0°♊17'58	
retrograde	-2061 Aug 10 j 20:10	19°♊39'52		evening set	-2054 Apr 26 j 06:33	2°♊13'06	
opposition	-2061 Oct 28 j 07:44	18°♊15'05	-2°03'52				
min. Earth dist.	-2061 Oct 28 j 00:06	18°♊15'37	28.87176 AU	conjunction	-2054 May 12 j 13:57	2°♊49'09	-1°41'07
direct	-2060 Jan 14 j 01:50	16°♊50'35		minimum elong	-2054 May 12 j 13:57	2°♊49'09	1°41'06
evening set	-2060 Apr 11 j 17:16	18°♊45'15		max. Earth dist.	-2054 May 12 j 16:12	2°♊49'22	30.91636 AU
				morning rise	-2054 May 28 j 21:17	3°♊25'15	
conjunction	-2060 Apr 27 j 22:58	19°♊21'13	-1°54'58	retrograde	-2054 Aug 26 j 11:02	5°♊21'17	

Attention, astronomical year style is used: The year -2054 in astronomical counting style is the year 2055 BCE in historical counting style.

opposition	-2054 Nov 12 j 09:21	3° 8 57'05	-1°46'36	conjunction	-2047 May 28 j 16:43	18° 8 26'53	-1°18'16
min. Earth dist.	-2054 Nov 12 j 08:15	3° 8 57'10	28.91971 AU	minimum elong	-2047 May 28 j 16:43	18° 8 26'53	1°18'15
direct	-2053 Jan 29 j 15:29	2° 8 32'26		max. Earth dist.	-2047 May 28 j 12:57	18° 8 26'32	30.96391 AU
evening set	-2053 Apr 28 j 20:39	4° 8 27'34		morning rise	-2047 Jun 14 j 00:02	19° 8 02'54	
				retrograde	-2047 Sep 10 j 19:30	20° 8 57'45	
conjunction	-2053 May 15 j 04:06	5° 8 03'38	-1°38'16	opposition	-2047 Nov 27 j 08:44	19° 8 33'56	-1°21'41
minimum elong	-2053 May 15 j 04:06	5° 8 03'38	1°38'15	min. Earth dist.	-2047 Nov 27 j 12:25	19° 8 33'40	28.96981 AU
max. Earth dist.	-2053 May 15 j 04:12	5° 8 03'39	30.92125 AU	direct	-2046 Feb 14 j 04:38	18° 8 08'57	
morning rise	-2053 May 31 j 11:39	5° 8 39'43		evening set	-2046 May 14 j 22:20	20° 8 04'25	
retrograde	-2053 Aug 28 j 23:21	7° 8 35'35					
opposition	-2053 Nov 14 j 19:39	6° 8 11'25	-1°43'28	conjunction	-2046 May 31 j 06:39	20° 8 40'29	-1°14'30
min. Earth dist.	-2053 Nov 14 j 18:54	6° 8 11'28	28.92449 AU	minimum elong	-2046 May 31 j 06:39	20° 8 40'29	1°14'27
direct	-2052 Feb 01 j 02:35	4° 8 46'41		max. Earth dist.	-2046 May 31 j 01:01	20° 8 39'58	30.97491 AU
evening set	-2052 Apr 30 j 10:40	6° 8 41'52		morning rise	-2046 Jun 16 j 14:00	21° 8 16'29	
				retrograde	-2046 Sep 13 j 07:20	23° 8 11'12	
conjunction	-2052 May 16 j 18:26	7° 8 17'56	-1°35'16	opposition	-2046 Nov 29 j 18:57	21° 8 47'29	-1°17'35
minimum elong	-2052 May 16 j 18:26	7° 8 17'56	1°35'14	min. Earth dist.	-2046 Nov 29 j 23:30	21° 8 47'10	28.98105 AU
max. Earth dist.	-2052 May 16 j 18:24	7° 8 17'56	30.92606 AU	direct	-2045 Feb 16 j 15:45	20° 8 22'30	
morning rise	-2052 Jun 02 j 01:53	7° 8 54'01		evening set	-2045 May 17 j 12:03	22° 8 18'02	
retrograde	-2052 Aug 30 j 08:57	9° 8 49'42					
opposition	-2052 Nov 16 j 05:54	8° 8 25'34	-1°40'12	conjunction	-2045 Jun 02 j 20:33	22° 8 54'07	-1°10'37
min. Earth dist.	-2052 Nov 16 j 06:53	8° 8 25'29	28.92941 AU	minimum elong	-2045 Jun 02 j 20:34	22° 8 54'07	1°10'35
direct	-2051 Feb 02 j 13:02	7° 8 00'45		max. Earth dist.	-2045 Jun 02 j 15:05	22° 8 53'36	30.98615 AU
evening set	-2051 May 03 j 00:45	8° 8 55'57		morning rise	-2045 Jun 19 j 03:37	23° 8 30'06	
				retrograde	-2045 Sep 15 j 18:03	25° 8 24'40	
conjunction	-2051 May 19 j 08:38	9° 8 32'01	-1°32'08	opposition	-2045 Dec 02 j 05:13	24° 8 01'04	-1°13'22
minimum elong	-2051 May 19 j 08:39	9° 8 32'01	1°32'07	min. Earth dist.	-2045 Dec 02 j 11:01	24° 8 00'40	28.99207 AU
max. Earth dist.	-2051 May 19 j 07:11	9° 8 31'53	30.93139 AU	direct	-2044 Feb 19 j 04:09	22° 8 36'06	
morning rise	-2051 Jun 04 j 16:13	10° 8 08'06		evening set	-2044 May 19 j 02:07	24° 8 31'40	
retrograde	-2051 Sep 01 j 20:30	12° 8 03'35					
opposition	-2051 Nov 18 j 16:04	10° 8 39'30	-1°36'46	conjunction	-2044 Jun 04 j 10:28	25° 8 07'45	-1°06'37
min. Earth dist.	-2051 Nov 18 j 16:51	10° 8 39'26	28.93503 AU	minimum elong	-2044 Jun 04 j 10:28	25° 8 07'45	1°06'35
direct	-2050 Feb 05 j 02:38	9° 8 14'36		max. Earth dist.	-2044 Jun 04 j 02:42	25° 8 07'02	30.99699 AU
evening set	-2050 May 05 j 14:43	11° 8 09'51		morning rise	-2044 Jun 20 j 17:34	25° 8 43'43	
				retrograde	-2044 Sep 17 j 06:36	27° 8 38'09	
conjunction	-2050 May 21 j 22:44	11° 8 45'56	-1°28'52	opposition	-2044 Dec 03 j 15:19	26° 8 14'39	-1°09'03
minimum elong	-2050 May 21 j 22:44	11° 8 45'56	1°28'49	min. Earth dist.	-2044 Dec 03 j 21:34	26° 8 14'12	29.00251 AU
max. Earth dist.	-2050 May 21 j 20:41	11° 8 45'44	30.93743 AU	direct	-2043 Feb 20 j 15:19	24° 8 49'38	
morning rise	-2050 Jun 07 j 06:13	12° 8 21'59		evening set	-2043 May 21 j 16:06	26° 8 45'17	
retrograde	-2050 Sep 04 j 06:56	14° 8 17'18					
opposition	-2050 Nov 21 j 02:19	12° 8 53'15	-1°33'12	conjunction	-2043 Jun 07 j 00:34	27° 8 21'21	-1°02'32
min. Earth dist.	-2050 Nov 21 j 04:40	12° 8 53'05	28.94170 AU	minimum elong	-2043 Jun 07 j 00:34	27° 8 21'21	1°02'30
direct	-2049 Feb 07 j 14:13	11° 8 28'19		max. Earth dist.	-2043 Jun 06 j 16:25	27° 8 20'36	31.00690 AU
evening set	-2049 May 08 j 04:34	13° 8 23'36		morning rise	-2043 Jun 23 j 07:20	27° 8 57'19	
				retrograde	-2043 Sep 19 j 15:58	29° 8 51'34	
conjunction	-2049 May 24 j 12:46	13° 8 59'40	-1°25'28	opposition	-2043 Dec 06 j 01:41	28° 8 28'09	-1°04'38
minimum elong	-2049 May 24 j 12:46	13° 8 59'40	1°25'26	min. Earth dist.	-2043 Dec 06 j 09:52	28° 8 27'34	29.01187 AU
max. Earth dist.	-2049 May 24 j 10:10	13° 8 59'26	30.94489 AU	direct	-2042 Feb 23 j 02:16	27° 8 03'07	
morning rise	-2049 Jun 09 j 20:13	14° 8 35'43		evening set	-2042 May 24 j 06:02	28° 8 58'48	
	-2049 Jun 21 j 07:43	15° 8					
retrograde	-2049 Sep 06 j 19:03	16° 8 30'52		conjunction	-2042 Jun 09 j 14:21	29° 8 34'51	-0°58'21
opposition	-2049 Nov 23 j 12:26	15° 8 06'52	-1°29'30	minimum elong	-2042 Jun 09 j 14:21	29° 8 34'51	0°58'19
min. Earth dist.	-2049 Nov 23 j 14:25	15° 8 06'44	28.94976 AU	max. Earth dist.	-2042 Jun 09 j 04:25	29° 8 33'56	31.01586 AU
	-2049 Nov 27 j 13:17	15° 8			-2042 Jun 20 j 22:27	0° II	
direct	-2048 Feb 10 j 03:23	13° 8 41'53		morning rise	-2042 Jun 25 j 21:01	0° II 10'48	
	-2048 Apr 21 j 19:07	15° 8		retrograde	-2042 Sep 22 j 02:59	2° II 04'54	
evening set	-2048 May 09 j 18:24	15° 8 37'14		opposition	-2042 Dec 08 j 11:51	0° II 41'33	-1°00'08
				min. Earth dist.	-2042 Dec 08 j 20:05	0° II 40'58	29.02031 AU
conjunction	-2048 May 26 j 02:37	16° 8 13'18	-1°21'56		-2041 Jan 03 j 02:21	30° R 8	
minimum elong	-2048 May 26 j 02:38	16° 8 13'18	1°21'53	direct	-2041 Feb 25 j 15:18	29° 8 16'28	
max. Earth dist.	-2048 May 25 j 22:45	16° 8 12'56	30.95371 AU		-2041 Apr 19 j 03:04	0° II	
morning rise	-2048 Jun 11 j 10:07	16° 8 49'20		evening set	-2041 May 26 j 19:51	1° II 12'10	
retrograde	-2048 Sep 08 j 07:18	18° 8 44'20					
opposition	-2048 Nov 24 j 22:40	17° 8 20'25	-1°25'39	conjunction	-2041 Jun 12 j 04:09	1° II 48'13	-0°54'06
min. Earth dist.	-2048 Nov 25 j 01:57	17° 8 20'11	28.95928 AU	minimum elong	-2041 Jun 12 j 04:09	1° II 48'13	0°54'04
direct	-2047 Feb 11 j 14:49	15° 8 55'25		max. Earth dist.	-2041 Jun 11 j 17:24	1° II 47'14	31.02390 AU
evening set	-2047 May 12 j 08:16	17° 8 50'49		morning rise	-2041 Jun 28 j 10:32	2° II 24'08	

Attention, astronomical year style is used: The year -2041 in astronomical counting style is the year 2042 BCE in historical counting style.

retrograde	-2041 Sep 24 j 12:52	4°II18'05		conjunction	-2034 Jun 28 j 01:08	17°II17'41	-0°22'33
opposition	-2041 Dec 10 j 22:05	2°II54'47	-0°55'32	minimum elong	-2034 Jun 28 j 01:08	17°II17'41	0°22'30
min. Earth dist.	-2041 Dec 11 j 08:12	2°II54'04	29.02809 AU	morning rise	-2034 Jul 14 j 05:20	17°II53'24	
direct	-2040 Feb 28 j 02:16	1°II29'39		retrograde	-2034 Oct 09 j 17:27	19°II46'24	
evening set	-2040 May 28 j 09:30	3°II25'23		opposition	-2034 Dec 25 j 21:03	18°II23'37	-0°21'37
				min. Earth dist.	-2034 Dec 26 j 11:21	18°II22'36	29.09440 AU
conjunction	-2040 Jun 13 j 17:45	4°II01'25	-0°49'46	direct	-2033 Mar 15 j 15:54	16°II58'24	
minimum elong	-2040 Jun 13 j 17:45	4°II01'25	0°49'43	evening set	-2033 Jun 14 j 07:24	18°II54'26	
max. Earth dist.	-2040 Jun 13 j 06:05	4°II00'20	31.03156 AU				
morning rise	-2040 Jun 29 j 23:58	4°II37'18		conjunction	-2033 Jun 30 j 14:05	19°II30'21	-0°17'52
retrograde	-2040 Sep 26 j 00:07	6°II31'05		minimum elong	-2033 Jun 30 j 14:05	19°II30'21	0°17'50
opposition	-2040 Dec 12 j 08:10	5°II07'50	-0°50'52	max. Earth dist.	-2033 Jun 29 j 21:35	19°II28'49	31.10047 AU
min. Earth dist.	-2040 Dec 12 j 18:15	5°II07'07	29.03547 AU	morning rise	-2033 Jul 16 j 18:02	20°II06'01	
direct	-2039 Mar 01 j 15:32	3°II42'39		retrograde	-2033 Oct 12 j 04:02	21°II58'56	
evening set	-2039 May 30 j 23:14	5°II38'25		opposition	-2033 Dec 28 j 07:07	20°II36'16	-0°16'35
				min. Earth dist.	-2033 Dec 28 j 21:14	20°II35'16	29.10667 AU
conjunction	-2039 Jun 16 j 07:17	6°II14'26	-0°45'22	direct	-2032 Mar 17 j 03:56	19°II11'04	
minimum elong	-2039 Jun 16 j 07:17	6°II14'26	0°45'20	evening set	-2032 Jun 15 j 20:43	21°II07'10	
max. Earth dist.	-2039 Jun 15 j 18:13	6°II13'13	31.03894 AU	max. Earth dist.	-2032 Jul 01 j 10:08	21°II41'30	31.11241 AU
morning rise	-2039 Jul 02 j 13:16	6°II50'17					
retrograde	-2039 Sep 28 j 11:25	8°II43'55		conjunction	-2032 Jul 02 j 03:09	21°II43'04	-0°13'09
opposition	-2039 Dec 14 j 18:18	7°II20'42	-0°46'08	minimum elong	-2032 Jul 02 j 03:08	21°II43'04	0°13'06
min. Earth dist.	-2039 Dec 15 j 05:47	7°II19'53	29.04304 AU	behind sun begin	-2032 Jul 01 j 23:19	21°II42'43	
direct	-2038 Mar 04 j 03:20	5°II55'29		behind sun end	-2032 Jul 02 j 06:57	21°II43'24	
evening set	-2038 Jun 02 j 12:43	7°II51'16		morning rise	-2032 Jul 18 j 06:34	22°II18'43	
				retrograde	-2032 Oct 13 j 13:58	24°II11'32	
conjunction	-2038 Jun 18 j 20:43	8°II27'16	-0°40'55	opposition	-2032 Dec 29 j 17:32	22°II48'57	-0°11'32
minimum elong	-2038 Jun 18 j 20:43	8°II27'16	0°40'51	min. Earth dist.	-2032 Dec 30 j 09:27	22°II47'50	29.11826 AU
max. Earth dist.	-2038 Jun 18 j 07:48	8°II26'05	31.04678 AU	direct	-2031 Mar 19 j 13:44	21°II23'47	
morning rise	-2038 Jul 05 j 02:20	9°II03'05		evening set	-2031 Jun 18 j 10:04	23°II19'56	
retrograde	-2038 Sep 30 j 22:38	10°II56'34					
opposition	-2038 Dec 17 j 04:27	9°II33'24	-0°41'20	conjunction	-2031 Jul 04 j 16:08	23°II55'47	-0°08'26
min. Earth dist.	-2038 Dec 17 j 16:10	9°II32'35	29.05114 AU	minimum elong	-2031 Jul 04 j 16:08	23°II55'47	0°08'23
direct	-2037 Mar 06 j 17:32	8°II08'09		behind sun begin	-2031 Jul 04 j 10:23	23°II55'17	
evening set	-2037 Jun 05 j 02:04	10°II03'58		behind sun end	-2031 Jul 04 j 21:53	23°II56'18	
				max. Earth dist.	-2031 Jul 03 j 22:10	23°II54'08	31.12348 AU
conjunction	-2037 Jun 21 j 09:43	10°II39'57	-0°36'23	morning rise	-2031 Jul 20 j 19:08	24°II31'24	
minimum elong	-2037 Jun 21 j 09:43	10°II39'57	0°36'22	retrograde	-2031 Oct 16 j 00:30	26°II24'07	
max. Earth dist.	-2037 Jun 20 j 19:18	10°II38'37	31.05538 AU	opposition	-2030 Jan 01 j 03:50	25°II01'38	-0°06'28
morning rise	-2037 Jul 07 j 15:09	11°II15'45		min. Earth dist.	-2030 Jan 01 j 19:46	25°II00'31	29.12866 AU
retrograde	-2037 Oct 03 j 09:51	13°II09'05		direct	-2030 Mar 22 j 02:31	23°II36'27	
opposition	-2037 Dec 19 j 14:35	11°II45'59	-0°36'29	evening set	-2030 Jun 20 j 23:25	25°II32'39	
min. Earth dist.	-2037 Dec 20 j 02:44	11°II45'08	29.06037 AU	max. Earth dist.	-2030 Jul 06 j 09:39	26°II06'41	31.13322 AU
direct	-2036 Mar 08 j 04:53	10°II20'43					
evening set	-2036 Jun 06 j 15:22	12°II16'35		conjunction	-2030 Jul 07 j 05:03	26°II08'28	-0°03'43
				minimum elong	-2030 Jul 07 j 05:02	26°II08'28	0°03'39
conjunction	-2036 Jun 22 j 23:00	12°II52'32	-0°31'49	behind sun begin	-2030 Jul 06 j 22:32	26°II07'53	
minimum elong	-2036 Jun 22 j 23:00	12°II52'32	0°31'47	behind sun end	-2030 Jul 07 j 11:33	26°II09'03	
max. Earth dist.	-2036 Jun 22 j 09:09	12°II51'16	31.06518 AU	morning rise	-2030 Jul 23 j 07:35	26°II44'03	
morning rise	-2036 Jul 09 j 03:56	13°II28'18		retrograde	-2030 Oct 18 j 11:17	28°II36'40	
retrograde	-2036 Oct 04 j 20:11	15°II21'30		opposition	-2029 Jan 03 j 14:20	27°II14'13	-0°01'24
opposition	-2036 Dec 21 j 00:39	13°II58'30	-0°31'34	min. Earth dist.	-2029 Jan 04 j 07:40	27°II13'00	29.13788 AU
min. Earth dist.	-2036 Dec 21 j 13:38	13°II57'35	29.07070 AU	direct	-2029 Mar 24 j 14:17	25°II49'01	
direct	-2035 Mar 10 j 17:42	12°II33'14		asc. node	-2029 Apr 14 j 20:02	25°II56'19	
evening set	-2035 Jun 09 j 04:51	14°II29'09		evening set	-2029 Jun 23 j 12:24	27°II45'14	
conjunction	-2035 Jun 25 j 12:04	15°II05'06	-0°27'12	conjunction	-2029 Jul 09 j 17:45	28°II21'01	0°01'09
minimum elong	-2035 Jun 25 j 12:04	15°II05'06	0°27'11	minimum elong	-2029 Jul 09 j 17:45	28°II21'01	0°01'11
max. Earth dist.	-2035 Jun 24 j 20:31	15°II03'40	31.07620 AU	behind sun begin	-2029 Jul 09 j 11:12	28°II20'26	
morning rise	-2035 Jul 11 j 16:50	15°II40'50		behind sun end	-2029 Jul 10 j 00:19	28°II21'36	
retrograde	-2035 Oct 07 j 08:36	17°II33'56		max. Earth dist.	-2029 Jul 08 j 22:16	28°II19'13	31.14180 AU
opposition	-2035 Dec 23 j 10:46	16°II11'02	-0°26'37	morning rise	-2029 Jul 25 j 19:46	28°II56'33	
min. Earth dist.	-2035 Dec 23 j 23:33	16°II10'08	29.08224 AU				
direct	-2034 Mar 13 j 05:02	14°II45'47		retrograde	-2029 Aug 27 j 03:50	0°II49'03	
evening set	-2034 Jun 11 j 18:03	16°II41'45					
max. Earth dist.	-2034 Jun 27 j 09:59	17°II16'17	31.08810 AU	opposition	-2028 Jan 06 j 00:44	29°II26'39	0°03'40
				min. Earth dist.	-2028 Jan 06 j 18:39	29°II25'24	29.14577 AU

Attention, astronomical year style is used: The year -2028 in astronomical counting style is the year 2029 BCE in historical counting style.

direct	-2028 Mar 26 j 04:21	28° Π 01'25		direct	-2022 Apr 09 j 04:21	11° Θ 11'30	
evening set	-2028 Jun 25 j 01:36	29° Π 57'39		evening set	-2022 Jul 09 j 05:26	13° Θ 07'47	
	-2028 Jun 26 j 03:43	0° Θ		max. Earth dist.	-2022 Jul 24 j 08:44	13° Θ 41'12	31.19350 AU
max. Earth dist.	-2028 Jul 10 j 09:07	0° Θ 31'26	31.14918 AU				
conjunction	-2028 Jul 11 j 06:25	0° Θ 33'24	0°05'55	conjunction	-2022 Jul 25 j 07:20	13° Θ 43'18	0°33'45
minimum elong	-2028 Jul 11 j 06:24	0° Θ 33'24	0°05'57	minimum elong	-2022 Jul 25 j 07:20	13° Θ 43'18	0°33'48
behind sun begin	-2028 Jul 11 j 00:09	0° Θ 32'50		morning rise	-2022 Aug 10 j 05:32	14° Θ 18'31	
behind sun end	-2028 Jul 11 j 12:39	0° Θ 33'57		retrograde	-2022 Nov 04 j 20:28	16° Θ 10'22	
morning rise	-2028 Jul 27 j 08:02	1° Θ 08'53		opposition	-2021 Jan 21 j 01:26	14° Θ 48'14	0°38'25
retrograde	-2028 Oct 22 j 08:53	3° Θ 01'16		min. Earth dist.	-2021 Jan 21 j 21:33	14° Θ 46'50	29.19873 AU
opposition	-2027 Jan 07 j 10:58	1° Θ 38'53	0°08'43	direct	-2021 Apr 11 j 16:36	13° Θ 22'53	
min. Earth dist.	-2027 Jan 08 j 05:33	1° Θ 37'35	29.15279 AU	evening set	-2021 Jul 11 j 17:41	15° Θ 19'13	
direct	-2027 Mar 28 j 15:48	0° Θ 13'36		conjunction	-2021 Jul 27 j 19:00	15° Θ 54'41	0°38'16
evening set	-2027 Jun 27 j 14:32	2° Θ 09'50		minimum elong	-2021 Jul 27 j 18:59	15° Θ 54'41	0°38'18
				max. Earth dist.	-2021 Jul 26 j 19:45	15° Θ 52'32	31.20339 AU
conjunction	-2027 Jul 13 j 19:03	2° Θ 45'33	0°10'37	morning rise	-2021 Aug 12 j 16:38	16° Θ 29'52	
minimum elong	-2027 Jul 13 j 19:04	2° Θ 45'33	0°10'39	retrograde	-2021 Nov 07 j 06:59	18° Θ 21'43	
behind sun begin	-2027 Jul 13 j 14:02	2° Θ 45'06		opposition	-2020 Jan 23 j 11:59	16° Θ 59'39	0°43'13
behind sun end	-2027 Jul 14 j 00:05	2° Θ 45'59		min. Earth dist.	-2020 Jan 24 j 08:59	16° Θ 58'11	29.20881 AU
max. Earth dist.	-2027 Jul 12 j 22:13	2° Θ 43'37	31.15580 AU	direct	-2020 Apr 13 j 03:07	15° Θ 34'21	
morning rise	-2027 Jul 29 j 20:01	3° Θ 20'59		evening set	-2020 Jul 13 j 06:00	17° Θ 30'44	
retrograde	-2027 Oct 24 j 19:03	5° Θ 13'15		max. Earth dist.	-2020 Jul 28 j 07:57	18° Θ 04'03	31.21331 AU
opposition	-2026 Jan 09 j 21:26	3° Θ 50'53	0°13'46				
min. Earth dist.	-2026 Jan 10 j 17:01	3° Θ 49'31	29.15914 AU	conjunction	-2020 Jul 29 j 06:49	18° Θ 06'10	0°42'43
direct	-2026 Mar 31 j 05:53	2° Θ 25'34		minimum elong	-2020 Jul 29 j 06:49	18° Θ 06'10	0°42'46
evening set	-2026 Jun 30 j 03:21	4° Θ 21'47		morning rise	-2020 Aug 14 j 03:46	18° Θ 41'18	
max. Earth dist.	-2026 Jul 15 j 08:48	4° Θ 55'23	31.16210 AU	retrograde	-2020 Nov 08 j 17:06	20° Θ 33'08	
				opposition	-2019 Jan 24 j 22:32	19° Θ 11'09	0°47'56
conjunction	-2026 Jul 16 j 07:13	4° Θ 57'27	0°15'18	min. Earth dist.	-2019 Jan 25 j 19:52	19° Θ 09'40	29.21842 AU
minimum elong	-2026 Jul 16 j 07:13	4° Θ 57'27	0°15'21	direct	-2019 Apr 15 j 15:56	17° Θ 45'54	
behind sun begin	-2026 Jul 16 j 05:30	4° Θ 57'18		evening set	-2019 Jul 15 j 18:28	19° Θ 42'20	
behind sun end	-2026 Jul 16 j 08:55	4° Θ 57'36					
morning rise	-2026 Aug 01 j 07:48	5° Θ 32'50		conjunction	-2019 Jul 31 j 18:31	20° Θ 17'44	0°47'07
retrograde	-2026 Oct 27 j 06:39	7° Θ 24'59		minimum elong	-2019 Jul 31 j 18:31	20° Θ 17'44	0°47'09
opposition	-2025 Jan 12 j 07:45	6° Θ 02'38	0°18'46	max. Earth dist.	-2019 Jul 30 j 18:16	20° Θ 15'29	31.22252 AU
min. Earth dist.	-2025 Jan 13 j 02:59	6° Θ 01'18	29.16555 AU	morning rise	-2019 Aug 16 j 14:56	20° Θ 52'49	
direct	-2025 Apr 02 j 18:31	4° Θ 37'16		retrograde	-2019 Nov 11 j 04:43	22° Θ 44'38	
evening set	-2025 Jul 02 j 15:56	6° Θ 33'29		opposition	-2018 Jan 27 j 09:17	21° Θ 22'43	0°52'35
				min. Earth dist.	-2018 Jan 28 j 06:55	21° Θ 21'14	29.22729 AU
conjunction	-2025 Jul 18 j 19:28	7° Θ 09'07	0°19'58	direct	-2018 Apr 18 j 02:38	19° Θ 57'31	
minimum elong	-2025 Jul 18 j 19:28	7° Θ 09'07	0°20'00	evening set	-2018 Jul 18 j 06:33	21° Θ 53'59	
max. Earth dist.	-2025 Jul 17 j 21:40	7° Θ 07'06	31.16860 AU	max. Earth dist.	-2018 Aug 02 j 06:34	22° Θ 27'08	31.23069 AU
morning rise	-2025 Aug 03 j 19:20	7° Θ 44'28					
retrograde	-2025 Oct 29 j 15:03	9° Θ 36'31		conjunction	-2018 Aug 03 j 06:08	22° Θ 29'20	0°51'26
opposition	-2024 Jan 14 j 18:07	8° Θ 14'11	0°23'45	minimum elong	-2018 Aug 03 j 06:08	22° Θ 29'20	0°51'28
min. Earth dist.	-2024 Jan 15 j 14:37	8° Θ 12'45	29.17243 AU	morning rise	-2018 Aug 19 j 01:45	23° Θ 04'22	
direct	-2024 Apr 04 j 06:21	6° Θ 48'47		retrograde	-2018 Nov 13 j 15:13	24° Θ 56'11	
evening set	-2024 Jul 04 j 04:34	8° Θ 45'00		opposition	-2017 Jan 29 j 20:09	23° Θ 34'19	0°57'10
max. Earth dist.	-2024 Jul 19 j 08:46	9° Θ 18'30	31.17592 AU	min. Earth dist.	-2017 Jan 30 j 18:43	23° Θ 32'45	29.23485 AU
				direct	-2017 Apr 20 j 16:39	22° Θ 09'08	
conjunction	-2024 Jul 20 j 07:29	9° Θ 20'36	0°24'36	evening set	-2017 Jul 20 j 18:50	24° Θ 05'37	
minimum elong	-2024 Jul 20 j 07:29	9° Θ 20'36	0°24'39				
morning rise	-2024 Aug 05 j 06:57	9° Θ 55'54		conjunction	-2017 Aug 05 j 17:38	24° Θ 40'55	0°55'40
retrograde	-2024 Oct 31 j 01:14	11° Θ 47'51		minimum elong	-2017 Aug 05 j 17:38	24° Θ 40'55	0°55'42
opposition	-2023 Jan 16 j 04:27	10° Θ 25'34	0°28'41	max. Earth dist.	-2017 Aug 04 j 16:28	24° Θ 38'35	31.23761 AU
min. Earth dist.	-2023 Jan 17 j 00:09	10° Θ 24'12	29.18021 AU	morning rise	-2017 Aug 21 j 12:47	25° Θ 15'54	
direct	-2023 Apr 06 j 18:34	9° Θ 00'10		retrograde	-2017 Nov 16 j 03:13	27° Θ 07'41	
evening set	-2023 Jul 06 j 17:02	10° Θ 56'24		opposition	-2016 Feb 01 j 06:46	25° Θ 45'51	1°01'39
				min. Earth dist.	-2016 Feb 02 j 05:03	25° Θ 44'19	29.24120 AU
conjunction	-2023 Jul 22 j 19:28	11° Θ 31'58	0°29'12	direct	-2016 Apr 22 j 05:23	24° Θ 20'40	
minimum elong	-2023 Jul 22 j 19:28	11° Θ 31'58	0°29'14	evening set	-2016 Jul 22 j 06:54	26° Θ 17'11	
max. Earth dist.	-2023 Jul 21 j 20:59	11° Θ 29'53	31.18413 AU	max. Earth dist.	-2016 Aug 06 j 04:30	26° Θ 50'08	31.24322 AU
morning rise	-2023 Aug 07 j 18:13	12° Θ 07'13					
retrograde	-2023 Nov 02 j 10:34	13° Θ 59'07		conjunction	-2016 Aug 07 j 05:15	26° Θ 52'26	0°59'50
opposition	-2022 Jan 18 j 14:58	12° Θ 36'54	0°33'35	minimum elong	-2016 Aug 07 j 05:15	26° Θ 52'26	0°59'52
min. Earth dist.	-2022 Jan 19 j 11:43	12° Θ 35'27	29.18904 AU	morning rise	-2016 Aug 22 j 23:36	27° Θ 27'22	

Attention, astronomical year style is used: The year -2016 in astronomical counting style is the year 2017 BCE in historical counting style.

retrograde	-2016 Nov 17 j 11:54	29° Ω 19'07		evening set	-2009 Aug 07 j 15:43	11° Ω 33'46	
opposition	-2015 Feb 02 j 17:43	27° Ω 57'19	1°06'03	max. Earth dist.	-2009 Aug 22 j 09:44	12° Ω 06'28	31.27741 AU
min. Earth dist.	-2015 Feb 03 j 17:23	27° Ω 55'40	29.24626 AU				
direct	-2015 Apr 24 j 17:40	26° Ω 32'07		conjunction	-2009 Aug 23 j 09:30	12° Ω 08'41	1°26'07
evening set	-2015 Jul 24 j 18:56	28° Ω 28'37		minimum elong	-2009 Aug 23 j 09:29	12° Ω 08'41	1°26'09
				morning rise	-2009 Sep 07 j 23:19	12° Ω 43'17	
conjunction	-2015 Aug 09 j 16:30	29° Ω 03'49	1°03'54	retrograde	-2009 Dec 03 j 07:48	14° Ω 34'57	
minimum elong	-2015 Aug 09 j 16:30	29° Ω 03'49	1°03'56	opposition	-2008 Feb 18 j 22:06	13° Ω 13'10	1°33'44
max. Earth dist.	-2015 Aug 08 j 14:49	29° Ω 01'26	31.24779 AU	min. Earth dist.	-2008 Feb 19 j 21:06	13° Ω 11'36	29.28201 AU
morning rise	-2015 Aug 25 j 10:19	29° Ω 38'42		direct	-2008 May 10 j 03:31	11° Ω 48'03	
	-2015 Sep 04 j 10:14	0° Ω		evening set	-2008 Aug 09 j 03:04	13° Ω 44'27	
retrograde	-2015 Nov 19 j 22:00	1° Ω 30'25					
opposition	-2014 Feb 05 j 04:30	0° Ω 08'36	1°10'21	conjunction	-2008 Aug 24 j 20:00	14° Ω 19'19	1°29'25
min. Earth dist.	-2014 Feb 06 j 03:28	0° Ω 07'01	29.25042 AU	minimum elong	-2008 Aug 24 j 20:00	14° Ω 19'19	1°29'27
	-2014 Feb 10 j 09:24	30° Ω		max. Earth dist.	-2008 Aug 23 j 19:20	14° Ω 17'01	31.28475 AU
direct	-2014 Apr 27 j 06:35	28° Ω 43'24		morning rise	-2008 Sep 09 j 09:22	14° Ω 53'53	
	-2014 Jul 08 j 00:25	0° Ω			-2008 Sep 12 j 05:02	15° Ω	
evening set	-2014 Jul 27 j 06:44	0° Ω 39'52		retrograde	-2008 Dec 04 j 19:47	16° Ω 45'35	
max. Earth dist.	-2014 Aug 11 j 02:16	1° Ω 12'40	31.25158 AU	opposition	-2007 Feb 20 j 09:13	15° Ω 23'51	1°37'12
				min. Earth dist.	-2007 Feb 21 j 07:19	15° Ω 22'20	29.28937 AU
conjunction	-2014 Aug 12 j 03:44	1° Ω 15'02	1°07'52		-2007 Mar 07 j 01:57	15° Ω	
minimum elong	-2014 Aug 12 j 03:43	1° Ω 15'02	1°07'55	direct	-2007 May 12 j 15:26	13° Ω 58'47	
morning rise	-2014 Aug 27 j 20:49	1° Ω 49'52			-2007 Jul 15 j 04:11	15° Ω	
retrograde	-2014 Nov 22 j 07:24	3° Ω 41'32		evening set	-2007 Aug 11 j 14:09	15° Ω 55'13	
opposition	-2013 Feb 07 j 15:25	2° Ω 19'43	1°14'32	max. Earth dist.	-2007 Aug 26 j 06:52	16° Ω 27'50	31.29178 AU
min. Earth dist.	-2013 Feb 08 j 15:26	2° Ω 18'04	29.25422 AU				
direct	-2013 Apr 29 j 17:00	0° Ω 54'29		conjunction	-2007 Aug 27 j 06:33	16° Ω 30'02	1°32'36
evening set	-2013 Jul 29 j 18:16	2° Ω 50'55		minimum elong	-2007 Aug 27 j 06:33	16° Ω 30'02	1°32'37
				morning rise	-2007 Sep 11 j 19:07	17° Ω 04'33	
conjunction	-2013 Aug 14 j 14:38	3° Ω 26'02	1°11'44	retrograde	-2007 Dec 07 j 05:14	18° Ω 56'19	
minimum elong	-2013 Aug 14 j 14:38	3° Ω 26'02	1°11'46	opposition	-2006 Feb 22 j 20:38	17° Ω 34'37	1°40'31
max. Earth dist.	-2013 Aug 13 j 13:18	3° Ω 23'41	31.25535 AU	min. Earth dist.	-2006 Feb 23 j 19:45	17° Ω 33'02	29.29615 AU
morning rise	-2013 Aug 30 j 07:09	4° Ω 00'49		direct	-2006 May 15 j 03:22	16° Ω 09'37	
retrograde	-2013 Nov 24 j 15:57	5° Ω 52'27		evening set	-2006 Aug 14 j 01:21	18° Ω 06'02	
opposition	-2012 Feb 10 j 02:14	4° Ω 30'38	1°18'37				
min. Earth dist.	-2012 Feb 11 j 01:25	4° Ω 29'02	29.25805 AU	conjunction	-2006 Aug 29 j 16:59	18° Ω 40'49	1°35'38
direct	-2012 May 01 j 06:01	3° Ω 05'22		minimum elong	-2006 Aug 29 j 16:59	18° Ω 40'49	1°35'40
evening set	-2012 Jul 31 j 05:51	5° Ω 01'47		max. Earth dist.	-2006 Aug 28 j 16:46	18° Ω 38'33	31.29814 AU
max. Earth dist.	-2012 Aug 14 j 23:49	5° Ω 34'27	31.25935 AU	morning rise	-2006 Sep 14 j 05:03	19° Ω 15'17	
				retrograde	-2006 Dec 09 j 16:10	21° Ω 07'05	
conjunction	-2012 Aug 16 j 01:30	5° Ω 36'51	1°15'30	opposition	-2005 Feb 25 j 07:52	19° Ω 45'26	1°43'41
minimum elong	-2012 Aug 16 j 01:29	5° Ω 36'51	1°15'32	min. Earth dist.	-2005 Feb 26 j 06:03	19° Ω 43'55	29.30201 AU
morning rise	-2012 Aug 31 j 17:21	6° Ω 11'35		direct	-2005 May 17 j 16:18	18° Ω 20'28	
retrograde	-2012 Nov 26 j 01:19	8° Ω 03'12		evening set	-2005 Aug 16 j 12:22	20° Ω 16'53	
opposition	-2011 Feb 11 j 13:07	6° Ω 41'21	1°22'35	max. Earth dist.	-2005 Aug 31 j 03:25	20° Ω 49'23	31.30326 AU
min. Earth dist.	-2011 Feb 12 j 12:37	6° Ω 39'44	29.26262 AU				
direct	-2011 May 03 j 16:10	5° Ω 16'06		conjunction	-2005 Sep 01 j 03:26	20° Ω 51'38	1°38'32
evening set	-2011 Aug 02 j 17:16	7° Ω 12'30		minimum elong	-2005 Sep 01 j 03:25	20° Ω 51'38	1°38'33
max. Earth dist.	-2011 Aug 17 j 11:44	7° Ω 45'13	31.26436 AU	morning rise	-2005 Sep 16 j 14:50	21° Ω 26'04	
				retrograde	-2005 Dec 12 j 02:16	23° Ω 17'55	
conjunction	-2011 Aug 18 j 12:19	7° Ω 47'31	1°19'10	opposition	-2004 Feb 27 j 19:25	21° Ω 56'16	1°46'42
minimum elong	-2011 Aug 18 j 12:19	7° Ω 47'31	1°19'11	min. Earth dist.	-2004 Feb 28 j 18:34	21° Ω 54'41	29.30658 AU
morning rise	-2011 Sep 03 j 03:26	8° Ω 22'12		direct	-2004 May 19 j 03:20	20° Ω 31'21	
retrograde	-2011 Nov 28 j 10:27	10° Ω 13'49		evening set	-2004 Aug 17 j 23:26	22° Ω 27'45	
opposition	-2010 Feb 14 j 00:09	8° Ω 51'59	1°26'26				
min. Earth dist.	-2010 Feb 14 j 23:14	8° Ω 50'23	29.26812 AU	conjunction	-2004 Sep 02 j 13:50	23° Ω 02'26	1°41'17
direct	-2010 May 06 j 04:01	7° Ω 26'45		minimum elong	-2004 Sep 02 j 13:49	23° Ω 02'26	1°41'19
evening set	-2010 Aug 05 j 04:32	9° Ω 23'08		max. Earth dist.	-2004 Sep 01 j 13:57	23° Ω 00'12	31.30709 AU
				morning rise	-2004 Sep 18 j 00:38	23° Ω 36'50	
conjunction	-2010 Aug 20 j 22:48	9° Ω 58'05	1°22'42	retrograde	-2004 Dec 13 j 11:13	25° Ω 28'43	
minimum elong	-2010 Aug 20 j 22:47	9° Ω 58'05	1°22'44	opposition	-2003 Mar 01 j 06:50	24° Ω 07'05	1°49'35
max. Earth dist.	-2010 Aug 19 j 21:39	9° Ω 55'45	31.27042 AU	min. Earth dist.	-2003 Mar 02 j 05:16	24° Ω 05'32	29.30965 AU
morning rise	-2010 Sep 05 j 13:24	10° Ω 32'44		direct	-2003 May 21 j 16:22	22° Ω 42'11	
retrograde	-2010 Nov 30 j 21:42	12° Ω 24'23		evening set	-2003 Aug 20 j 10:26	24° Ω 38'33	
opposition	-2009 Feb 16 j 11:08	11° Ω 02'34	1°30'09	max. Earth dist.	-2003 Sep 03 j 23:43	25° Ω 10'55	31.30948 AU
min. Earth dist.	-2009 Feb 17 j 09:41	11° Ω 01'01	29.27480 AU				
direct	-2009 May 08 j 14:25	9° Ω 37'22		conjunction	-2003 Sep 05 j 00:08	25° Ω 13'12	1°43'54

Attention, astronomical year style is used: The year -2003 in astronomical counting style is the year 2004 BCE in historical counting style.

minimum elong	-2003 Sep 05 j 00:08	25°Ω13'12	1°43'55	min. Earth dist.	-1996 Mar 17 j 11:39	9°♊19'19	29.32022 AU
morning rise	-2003 Sep 20 j 10:24	25°Ω47'34		direct	-1996 Jun 06 j 02:26	7°♊55'59	
retrograde	-2003 Dec 15 j 21:07	27°Ω39'29		evening set	-1996 Sep 04 j 11:24	9°♊52'06	
opposition	-2002 Mar 03 j 18:29	26°Ω17'50	1°52'18				
min. Earth dist.	-2002 Mar 04 j 17:16	26°Ω16'16	29.31159 AU	conjunction	-1996 Sep 19 j 21:04	10°♊26'28	1°57'51
direct	-2002 May 24 j 02:30	24°Ω52'58		minimum elong	-1996 Sep 19 j 21:04	10°♊26'28	1°57'52
evening set	-2002 Aug 22 j 21:03	26°Ω49'17		max. Earth dist.	-1996 Sep 19 j 00:45	10°♊24'34	31.32031 AU
max. Earth dist.	-2002 Sep 06 j 10:54	27°Ω21'42	31.31085 AU	morning rise	-1996 Oct 05 j 03:44	11°♊00'36	
				retrograde	-1996 Dec 30 j 22:41	12°♊52'59	
conjunction	-2002 Sep 07 j 10:16	27°Ω23'53	1°46'22	opposition	-1995 Mar 19 j 04:17	11°♊31'13	2°06'36
minimum elong	-2002 Sep 07 j 10:15	27°Ω23'53	1°46'23	min. Earth dist.	-1995 Mar 20 j 00:01	11°♊29'53	29.32337 AU
morning rise	-2002 Sep 22 j 19:54	27°Ω58'12		direct	-1995 Jun 08 j 13:43	10°♊06'39	
retrograde	-2002 Dec 18 j 06:05	29°Ω50'10		evening set	-1995 Sep 06 j 21:34	12°♊02'44	
opposition	-2001 Mar 06 j 06:04	28°Ω28'29	1°54'51	max. Earth dist.	-1995 Sep 21 j 11:15	12°♊35'15	31.32340 AU
min. Earth dist.	-2001 Mar 07 j 04:40	28°Ω26'56	29.31248 AU				
direct	-2001 May 26 j 14:25	27°Ω03'37		conjunction	-1995 Sep 22 j 06:44	12°♊37'05	1°59'11
evening set	-2001 Aug 25 j 07:47	28°Ω59'54		minimum elong	-1995 Sep 22 j 06:44	12°♊37'05	1°59'11
				morning rise	-1995 Oct 07 j 12:57	13°♊11'11	
conjunction	-2001 Sep 09 j 20:15	29°Ω34'27	1°48'41	retrograde	-1994 Jan 02 j 07:40	15°♊03'40	
minimum elong	-2001 Sep 09 j 20:14	29°Ω34'27	1°48'42	opposition	-1994 Mar 21 j 16:17	13°♊41'55	2°07'56
max. Earth dist.	-2001 Sep 08 j 20:14	29°Ω32'12	31.31145 AU	min. Earth dist.	-1994 Mar 22 j 10:48	13°♊40'40	29.32616 AU
	-2001 Sep 21 j 06:23	0°♊		direct	-1994 Jun 11 j 02:22	12°♊17'26	
morning rise	-2001 Sep 25 j 05:29	0°♊08'44		evening set	-1994 Sep 09 j 07:39	14°♊13'29	
retrograde	-2001 Dec 20 j 17:11	2°♊00'45					
opposition	-2000 Mar 07 j 17:29	0°♊39'01	1°57'14	conjunction	-1994 Sep 24 j 16:15	14°♊47'48	2°00'20
min. Earth dist.	-2000 Mar 08 j 15:31	0°♊37'31	29.31303 AU	minimum elong	-1994 Sep 24 j 16:15	14°♊47'48	2°00'21
	-2000 Apr 01 j 11:51	30°♊		max. Earth dist.	-1994 Sep 23 j 20:33	14°♊45'57	31.32580 AU
direct	-2000 May 28 j 01:00	29°Ω14'10		morning rise	-1994 Oct 09 j 22:08	15°♊21'53	
	-2000 Jul 21 j 12:20	0°♊		retrograde	-1993 Jan 04 j 17:49	17°♊14'29	
evening set	-2000 Aug 26 j 18:16	1°♊10'23		opposition	-1993 Mar 24 j 04:23	15°♊52'44	2°09'05
max. Earth dist.	-2000 Sep 10 j 07:52	1°♊42'48	31.31191 AU	min. Earth dist.	-1993 Mar 24 j 22:59	15°♊51'28	29.32820 AU
				direct	-1993 Jun 13 j 12:32	14°♊28'19	
conjunction	-2000 Sep 11 j 06:17	1°♊44'54	1°50'50	evening set	-1993 Sep 11 j 17:45	16°♊24'19	
minimum elong	-2000 Sep 11 j 06:17	1°♊44'54	1°50'51	max. Earth dist.	-1993 Sep 26 j 07:30	16°♊56'53	31.32718 AU
morning rise	-2000 Sep 26 j 14:49	2°♊19'09					
retrograde	-2000 Dec 22 j 03:10	4°♊11'12		conjunction	-1993 Sep 27 j 01:58	16°♊58'37	2°01'20
opposition	-1999 Mar 10 j 05:14	2°♊49'26	1°59'27	minimum elong	-1993 Sep 27 j 01:58	16°♊58'37	2°01'20
min. Earth dist.	-1999 Mar 11 j 03:21	2°♊47'56	29.31366 AU	morning rise	-1993 Oct 12 j 07:20	17°♊32'41	
direct	-1999 May 30 j 13:59	1°♊24'37		retrograde	-1992 Jan 07 j 03:04	19°♊25'22	
evening set	-1999 Aug 29 j 04:41	3°♊20'47		opposition	-1992 Mar 25 j 16:26	18°♊03'36	2°10'03
				min. Earth dist.	-1992 Mar 26 j 10:47	18°♊02'21	29.32883 AU
conjunction	-1999 Sep 13 j 15:56	3°♊55'16	1°52'50	direct	-1992 Jun 15 j 00:24	16°♊39'15	
minimum elong	-1999 Sep 13 j 15:55	3°♊55'16	1°52'51	evening set	-1992 Sep 13 j 04:00	18°♊35'12	
max. Earth dist.	-1999 Sep 12 j 17:10	3°♊53'08	31.31285 AU				
morning rise	-1999 Sep 29 j 00:06	4°♊29'28		conjunction	-1992 Sep 28 j 11:35	19°♊09'27	2°02'09
retrograde	-1999 Dec 24 j 14:57	6°♊21'36		minimum elong	-1992 Sep 28 j 11:35	19°♊09'27	2°02'09
opposition	-1998 Mar 12 j 16:54	4°♊59'48	2°01'30	max. Earth dist.	-1992 Sep 27 j 16:25	19°♊07'39	31.32712 AU
min. Earth dist.	-1998 Mar 13 j 13:26	4°♊58'24	29.31505 AU	morning rise	-1992 Oct 13 j 16:44	19°♊43'30	
direct	-1998 Jun 02 j 01:27	3°♊35'01		retrograde	-1991 Jan 08 j 14:31	21°♊36'17	
evening set	-1998 Aug 31 j 14:57	5°♊31'10		opposition	-1991 Mar 28 j 04:42	20°♊14'29	2°10'50
max. Earth dist.	-1998 Sep 15 j 04:28	6°♊03'37	31.31459 AU	min. Earth dist.	-1991 Mar 28 j 22:24	20°♊13'17	29.32809 AU
				direct	-1991 Jun 17 j 11:06	18°♊50'10	
conjunction	-1998 Sep 16 j 01:46	6°♊05'36	1°54'40	evening set	-1991 Sep 15 j 13:51	20°♊46'03	
minimum elong	-1998 Sep 16 j 01:46	6°♊05'36	1°54'41				
morning rise	-1998 Oct 01 j 09:18	6°♊39'47		conjunction	-1991 Sep 30 j 21:10	21°♊20'17	2°02'48
retrograde	-1998 Dec 27 j 00:32	8°♊31'59		minimum elong	-1991 Sep 30 j 21:10	21°♊20'17	2°02'48
opposition	-1997 Mar 15 j 04:39	7°♊10'11	2°03'23	max. Earth dist.	-1991 Sep 30 j 03:27	21°♊18'37	31.32552 AU
min. Earth dist.	-1997 Mar 16 j 01:33	7°♊08'46	29.31731 AU	morning rise	-1991 Oct 16 j 01:48	21°♊54'18	
direct	-1997 Jun 04 j 13:07	5°♊45'28		retrograde	-1990 Jan 11 j 00:19	23°♊47'10	
evening set	-1997 Sep 03 j 01:13	7°♊41'35		opposition	-1990 Mar 30 j 17:06	22°♊25'19	2°11'26
				min. Earth dist.	-1990 Mar 31 j 11:02	22°♊24'06	29.32571 AU
conjunction	-1997 Sep 18 j 11:25	8°♊15'59	1°56'20	direct	-1990 Jun 19 j 23:11	21°♊01'01	
minimum elong	-1997 Sep 18 j 11:24	8°♊15'59	1°56'21	evening set	-1990 Sep 17 j 23:53	22°♊56'49	
max. Earth dist.	-1997 Sep 17 j 14:19	8°♊14'01	31.31730 AU				
morning rise	-1997 Oct 03 j 18:36	8°♊50'08		conjunction	-1990 Oct 03 j 06:39	23°♊31'01	2°03'16
retrograde	-1997 Dec 29 j 11:52	10°♊42'25		minimum elong	-1990 Oct 03 j 06:39	23°♊31'01	2°03'16
opposition	-1996 Mar 16 j 16:21	9°♊20'38	2°05'05	max. Earth dist.	-1990 Oct 02 j 12:23	23°♊29'18	31.32253 AU

Attention, astronomical year style is used: The year -1990 in astronomical counting style is the year 1991 BCE in historical counting style.

morning rise	-1990 Oct 18 j 11:09	24° <u>05</u> '02		opposition	-1983 Apr 15 j 07:39	7° <u>03</u> '22	2°10'23
retrograde	-1989 Jan 13 j 12:04	25° <u>05</u> '58		min. Earth dist.	-1983 Apr 15 j 19:39	7° <u>03</u> '34	29.29964 AU
opposition	-1989 Apr 02 j 05:13	24° <u>03</u> '02	2°11'51	direct	-1983 Jul 05 j 10:39	6° <u>01</u> '19	
min. Earth dist.	-1989 Apr 02 j 21:51	24° <u>03</u> '45	29.32209 AU	evening set	-1983 Oct 02 j 18:21	8° <u>01</u> '34	
direct	-1989 Jun 22 j 10:06	23° <u>07</u> '14					
evening set	-1989 Sep 20 j 09:37	25° <u>07</u> '27		conjunction	-1983 Oct 17 j 22:53	8° <u>01</u> '39	2°01'39
				minimum elong	-1983 Oct 17 j 22:53	8° <u>01</u> '39	2°01'38
conjunction	-1989 Oct 05 j 16:08	25° <u>07</u> '38	2°03'34	max. Earth dist.	-1983 Oct 17 j 10:37	8° <u>01</u> '42	31.29729 AU
minimum elong	-1989 Oct 05 j 16:08	25° <u>07</u> '38	2°03'34	morning rise	-1983 Nov 02 j 01:59	9° <u>01</u> '38	
max. Earth dist.	-1989 Oct 04 j 23:01	25° <u>07</u> '01	31.31832 AU	retrograde	-1982 Jan 28 j 13:29	11° <u>01</u> '16	
morning rise	-1989 Oct 20 j 20:15	26° <u>07</u> '15		opposition	-1982 Apr 17 j 20:14	9° <u>01</u> '48	2°09'28
retrograde	-1988 Jan 15 j 22:08	28° <u>08</u> '38		min. Earth dist.	-1982 Apr 18 j 07:04	9° <u>01</u> '48	29.29769 AU
opposition	-1988 Apr 03 j 17:37	26° <u>07</u> '37	2°12'04	direct	-1982 Jul 07 j 20:45	8° <u>01</u> '25	
min. Earth dist.	-1988 Apr 04 j 10:45	26° <u>07</u> '45	29.31749 AU	evening set	-1982 Oct 05 j 03:39	10° <u>01</u> '20	
direct	-1988 Jun 23 j 22:18	25° <u>07</u> '20					
evening set	-1988 Sep 21 j 19:16	27° <u>07</u> '15		conjunction	-1982 Oct 20 j 08:07	10° <u>01</u> '54	2°00'42
max. Earth dist.	-1988 Oct 06 j 08:41	27° <u>07</u> '31	31.31357 AU	minimum elong	-1982 Oct 20 j 08:07	10° <u>01</u> '54	2°00'42
				max. Earth dist.	-1982 Oct 19 j 21:41	10° <u>01</u> '53	31.29517 AU
conjunction	-1988 Oct 07 j 01:20	27° <u>07</u> '52	2°03'41	morning rise	-1982 Nov 04 j 10:58	11° <u>01</u> '28	
minimum elong	-1988 Oct 07 j 01:20	27° <u>07</u> '52	2°03'41	retrograde	-1981 Jan 30 j 23:41	13° <u>01</u> '22	
morning rise	-1988 Oct 22 j 05:16	28° <u>07</u> '26		opposition	-1981 Apr 20 j 08:49	11° <u>01</u> '59	2°08'22
	-1988 Dec 14 j 14:05	0° <u>01</u> '		min. Earth dist.	-1981 Apr 20 j 19:37	11° <u>01</u> '59	29.29529 AU
retrograde	-1987 Jan 17 j 09:35	0° <u>01</u> '19		direct	-1981 Jul 10 j 07:42	10° <u>01</u> '35	
	-1987 Feb 21 j 02:49	30° <u>08</u> '		evening set	-1981 Oct 07 j 13:07	12° <u>01</u> '31	
opposition	-1987 Apr 06 j 05:55	28° <u>07</u> '57	2°12'07				
min. Earth dist.	-1987 Apr 06 j 21:15	28° <u>07</u> '56	29.31264 AU	conjunction	-1981 Oct 22 j 17:15	13° <u>01</u> '05	1°59'36
direct	-1987 Jun 26 j 11:51	27° <u>07</u> '32		minimum elong	-1981 Oct 22 j 17:15	13° <u>01</u> '05	1°59'35
evening set	-1987 Sep 24 j 04:51	29° <u>07</u> '28		max. Earth dist.	-1981 Oct 22 j 06:37	13° <u>01</u> '04	31.29252 AU
	-1987 Oct 08 j 09:06	0° <u>01</u> '		morning rise	-1981 Nov 06 j 20:09	13° <u>01</u> '39	
				retrograde	-1980 Feb 02 j 12:06	15° <u>01</u> '33	
conjunction	-1987 Oct 09 j 10:34	0° <u>01</u> '02	2°03'38	opposition	-1980 Apr 21 j 21:29	14° <u>01</u> '10	2°07'06
minimum elong	-1987 Oct 09 j 10:34	0° <u>01</u> '02	2°03'38	min. Earth dist.	-1980 Apr 22 j 06:42	14° <u>01</u> '10	29.29213 AU
max. Earth dist.	-1987 Oct 08 j 18:48	0° <u>01</u> '00	31.30882 AU	direct	-1980 Jul 11 j 17:37	12° <u>01</u> '46	
morning rise	-1987 Oct 24 j 14:14	0° <u>01</u> '36		evening set	-1980 Oct 08 j 22:25	14° <u>01</u> '41	
retrograde	-1986 Jan 19 j 20:27	2° <u>01</u> '29					
opposition	-1986 Apr 08 j 18:23	1° <u>01</u> '07	2°11'58	conjunction	-1980 Oct 24 j 02:26	15° <u>01</u> '16	1°58'18
min. Earth dist.	-1986 Apr 09 j 09:41	1° <u>01</u> '06	29.30828 AU	minimum elong	-1980 Oct 24 j 02:26	15° <u>01</u> '16	1°58'18
	-1986 May 26 j 18:45	30° <u>08</u> '		max. Earth dist.	-1980 Oct 23 j 16:59	15° <u>01</u> '15	31.28874 AU
direct	-1986 Jun 28 j 23:19	29° <u>07</u> '43		morning rise	-1980 Nov 08 j 05:10	15° <u>01</u> '50	
	-1986 Jul 31 j 08:19	0° <u>01</u> '		retrograde	-1979 Feb 03 j 23:12	17° <u>01</u> '44	
evening set	-1986 Sep 26 j 14:12	1° <u>01</u> '38		opposition	-1979 Apr 24 j 10:26	16° <u>01</u> '21	2°05'38
				min. Earth dist.	-1979 Apr 24 j 20:04	16° <u>01</u> '21	29.28775 AU
conjunction	-1986 Oct 11 j 19:40	2° <u>01</u> '12	2°03'24	direct	-1979 Jul 14 j 05:20	14° <u>01</u> '58	
minimum elong	-1986 Oct 11 j 19:40	2° <u>01</u> '12	2°03'24	evening set	-1979 Oct 11 j 07:51	16° <u>01</u> '53	
max. Earth dist.	-1986 Oct 11 j 05:19	2° <u>01</u> '11	31.30486 AU				
morning rise	-1986 Oct 26 j 23:06	2° <u>01</u> '46		conjunction	-1979 Oct 26 j 11:41	17° <u>01</u> '27	1°56'51
retrograde	-1985 Jan 22 j 05:37	4° <u>01</u> '39		minimum elong	-1979 Oct 26 j 11:41	17° <u>01</u> '27	1°56'51
opposition	-1985 Apr 11 j 06:44	3° <u>01</u> '17	2°11'37	max. Earth dist.	-1979 Oct 26 j 02:40	17° <u>01</u> '26	31.28381 AU
min. Earth dist.	-1985 Apr 11 j 20:15	3° <u>01</u> '16	29.30462 AU	morning rise	-1979 Nov 10 j 14:26	18° <u>01</u> '01	
direct	-1985 Jul 01 j 12:14	1° <u>01</u> '53		retrograde	-1978 Feb 06 j 11:57	19° <u>01</u> '55	
evening set	-1985 Sep 28 j 23:42	3° <u>01</u> '48		opposition	-1978 Apr 26 j 23:12	18° <u>01</u> '32	2°03'59
				min. Earth dist.	-1978 Apr 27 j 07:11	18° <u>01</u> '32	29.28206 AU
conjunction	-1985 Oct 14 j 04:45	4° <u>01</u> '22	2°03'00	direct	-1978 Jul 16 j 18:21	17° <u>01</u> '09	
minimum elong	-1985 Oct 14 j 04:45	4° <u>01</u> '22	2°02'59	evening set	-1978 Oct 13 j 17:09	19° <u>01</u> '04	
max. Earth dist.	-1985 Oct 13 j 14:34	4° <u>01</u> '21	31.30165 AU				
morning rise	-1985 Oct 29 j 08:06	4° <u>01</u> '56		conjunction	-1978 Oct 28 j 20:52	19° <u>01</u> '38	1°55'14
retrograde	-1984 Jan 24 j 16:08	6° <u>01</u> '50		minimum elong	-1978 Oct 28 j 20:53	19° <u>01</u> '38	1°55'13
opposition	-1984 Apr 12 j 19:04	5° <u>01</u> '27	2°11'06	max. Earth dist.	-1978 Oct 28 j 12:15	19° <u>01</u> '37	31.27742 AU
min. Earth dist.	-1984 Apr 13 j 08:01	5° <u>01</u> '27	29.30188 AU	morning rise	-1978 Nov 12 j 23:41	20° <u>01</u> '12	
direct	-1984 Jul 02 j 22:43	4° <u>01</u> '03		retrograde	-1977 Feb 08 j 23:50	22° <u>01</u> '06	
evening set	-1984 Sep 30 j 09:01	5° <u>01</u> '59		opposition	-1977 Apr 29 j 12:07	20° <u>01</u> '44	2°02'10
				min. Earth dist.	-1977 Apr 29 j 20:26	20° <u>01</u> '43	29.27502 AU
conjunction	-1984 Oct 15 j 13:57	6° <u>01</u> '33	2°02'24	direct	-1977 Jul 19 j 05:38	19° <u>01</u> '20	
minimum elong	-1984 Oct 15 j 13:57	6° <u>01</u> '33	2°02'24	evening set	-1977 Oct 16 j 02:24	21° <u>01</u> '15	
max. Earth dist.	-1984 Oct 15 j 01:44	6° <u>01</u> '32	31.29929 AU				
morning rise	-1984 Oct 30 j 17:00	7° <u>01</u> '07		conjunction	-1977 Oct 31 j 06:06	21° <u>01</u> '49	1°53'27
retrograde	-1983 Jan 26 j 01:43	9° <u>01</u> '00		minimum elong	-1977 Oct 31 j 06:06	21° <u>01</u> '49	1°53'26

Planetary Phenomena of Neptune from -2400 through -1898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 34

Attention, astronomical year style is used: The year -1977 in astronomical counting style is the year 1978 BCE in historical counting style.

max. Earth dist.	-1977 Oct 30 j 22:41	21° <u>♁</u> 48'36	31.26986 AU	min. Earth dist.	-1970 May 15 j 07:10	6° <u>♁</u> 00'16	29.22566 AU
morning rise	-1977 Nov 15 j 08:51	22° <u>♁</u> 23'20		direct	-1970 Aug 03 j 14:07	4° <u>♁</u> 36'53	
retrograde	-1976 Feb 11 j 09:26	24° <u>♁</u> 17'43		evening set	-1970 Oct 30 j 17:35	6° <u>♁</u> 31'01	
opposition	-1976 May 01 j 00:50	22° <u>♁</u> 55'08	2°00'11				
min. Earth dist.	-1976 May 01 j 07:40	22° <u>♁</u> 54'40	29.26683 AU	conjunction	-1970 Nov 14 j 21:16	7° <u>♁</u> 05'09	1°36'37
direct	-1976 Jul 20 j 19:03	21° <u>♁</u> 31'28		minimum elong	-1970 Nov 14 j 21:16	7° <u>♁</u> 05'09	1°36'35
evening set	-1976 Oct 17 j 11:38	23° <u>♁</u> 26'11		max. Earth dist.	-1970 Nov 14 j 21:06	7° <u>♁</u> 05'08	31.22251 AU
				morning rise	-1970 Nov 30 j 01:02	7° <u>♁</u> 39'20	
conjunction	-1976 Nov 01 j 15:08	24° <u>♁</u> 00'16	1°51'31	retrograde	-1969 Feb 26 j 15:31	9° <u>♁</u> 34'32	
minimum elong	-1976 Nov 01 j 15:08	24° <u>♁</u> 00'16	1°51'30	opposition	-1969 May 17 j 19:05	8° <u>♁</u> 11'28	1°41'38
max. Earth dist.	-1976 Nov 01 j 07:42	23° <u>♁</u> 59'34	31.26146 AU	min. Earth dist.	-1969 May 17 j 18:09	8° <u>♁</u> 11'32	29.22093 AU
morning rise	-1976 Nov 16 j 18:05	24° <u>♁</u> 34'19		direct	-1969 Aug 06 j 01:44	6° <u>♁</u> 48'05	
retrograde	-1975 Feb 12 j 20:45	26° <u>♁</u> 28'47		evening set	-1969 Nov 02 j 02:43	8° <u>♁</u> 42'10	
opposition	-1975 May 03 j 13:47	25° <u>♁</u> 06'06	1°58'02				
min. Earth dist.	-1975 May 03 j 20:04	25° <u>♁</u> 05'40	29.25834 AU	conjunction	-1969 Nov 17 j 06:23	9° <u>♁</u> 16'19	1°33'36
direct	-1975 Jul 23 j 06:48	23° <u>♁</u> 42'26		minimum elong	-1969 Nov 17 j 06:23	9° <u>♁</u> 16'19	1°33'34
evening set	-1975 Oct 19 j 20:33	25° <u>♁</u> 37'01		max. Earth dist.	-1969 Nov 17 j 06:45	9° <u>♁</u> 16'21	31.21765 AU
				morning rise	-1969 Dec 02 j 10:24	9° <u>♁</u> 50'32	
conjunction	-1975 Nov 04 j 00:10	26° <u>♁</u> 11'07	1°49'25	retrograde	-1968 Feb 29 j 04:03	11° <u>♁</u> 45'53	
minimum elong	-1975 Nov 04 j 00:10	26° <u>♁</u> 11'07	1°49'23	opposition	-1968 May 19 j 08:13	10° <u>♁</u> 22'47	1°38'20
max. Earth dist.	-1975 Nov 03 j 18:50	26° <u>♁</u> 10'36	31.25301 AU	min. Earth dist.	-1968 May 19 j 07:25	10° <u>♁</u> 22'50	29.21588 AU
morning rise	-1975 Nov 19 j 03:04	26° <u>♁</u> 45'10		direct	-1968 Aug 07 j 11:55	8° <u>♁</u> 59'29	
retrograde	-1974 Feb 15 j 06:24	28° <u>♁</u> 39'45		evening set	-1968 Nov 03 j 11:51	10° <u>♁</u> 53'29	
opposition	-1974 May 06 j 02:40	27° <u>♁</u> 16'57	1°55'43				
min. Earth dist.	-1974 May 06 j 07:51	27° <u>♁</u> 16'36	29.24999 AU	conjunction	-1968 Nov 18 j 15:44	11° <u>♁</u> 27'40	1°30'28
direct	-1974 Jul 25 j 19:48	25° <u>♁</u> 53'18		minimum elong	-1968 Nov 18 j 15:44	11° <u>♁</u> 27'40	1°30'26
evening set	-1974 Oct 22 j 05:41	27° <u>♁</u> 47'46		max. Earth dist.	-1968 Nov 18 j 17:35	11° <u>♁</u> 27'51	31.21235 AU
				morning rise	-1968 Dec 03 j 19:52	12° <u>♁</u> 01'55	
conjunction	-1974 Nov 06 j 09:06	28° <u>♁</u> 21'51	1°47'10	retrograde	-1967 Mar 02 j 15:30	13° <u>♁</u> 57'24	
minimum elong	-1974 Nov 06 j 09:07	28° <u>♁</u> 21'51	1°47'08	opposition	-1967 May 21 j 21:22	12° <u>♁</u> 34'15	1°34'54
max. Earth dist.	-1974 Nov 06 j 03:53	28° <u>♁</u> 21'22	31.24509 AU	min. Earth dist.	-1967 May 21 j 19:02	12° <u>♁</u> 34'25	29.21001 AU
morning rise	-1974 Nov 21 j 12:17	28° <u>♁</u> 55'57		direct	-1967 Aug 10 j 00:59	11° <u>♁</u> 11'02	
	-1974 Dec 23 j 13:00	0° <u>♁</u>		evening set	-1967 Nov 05 j 21:07	13° <u>♁</u> 04'58	
retrograde	-1973 Feb 17 j 17:22	0° <u>♁</u> 50'37					
	-1973 Apr 18 j 04:07	30° <u>♁</u>		conjunction	-1967 Nov 21 j 00:58	13° <u>♁</u> 39'10	1°27'11
opposition	-1973 May 08 j 15:19	29° <u>♁</u> 27'44	1°53'13	minimum elong	-1967 Nov 21 j 00:59	13° <u>♁</u> 39'10	1°27'09
min. Earth dist.	-1973 May 08 j 19:03	29° <u>♁</u> 27'28	29.24254 AU	max. Earth dist.	-1967 Nov 21 j 02:34	13° <u>♁</u> 39'19	31.20599 AU
direct	-1973 Jul 28 j 06:09	28° <u>♁</u> 04'06		morning rise	-1967 Dec 06 j 05:32	14° <u>♁</u> 13'27	
evening set	-1973 Oct 24 j 14:39	29° <u>♁</u> 58'28			-1967 Dec 28 j 12:57	15° <u>♁</u>	
	-1973 Oct 25 j 07:15	0° <u>♁</u>		retrograde	-1966 Mar 05 j 04:35	16° <u>♁</u> 09'05	
					-1966 May 15 j 16:23	15° <u>♁</u>	
conjunction	-1973 Nov 08 j 18:13	0° <u>♁</u> 32'34	1°44'45	opposition	-1966 May 24 j 10:39	14° <u>♁</u> 45'53	1°31'20
minimum elong	-1973 Nov 08 j 18:13	0° <u>♁</u> 32'34	1°44'44	min. Earth dist.	-1966 May 24 j 08:02	14° <u>♁</u> 46'03	29.20306 AU
max. Earth dist.	-1973 Nov 08 j 15:05	0° <u>♁</u> 32'17	31.23811 AU	direct	-1966 Aug 12 j 12:23	13° <u>♁</u> 22'42	
morning rise	-1973 Nov 23 j 21:22	1° <u>♁</u> 06'41			-1966 Oct 31 j 15:51	15° <u>♁</u>	
retrograde	-1972 Feb 20 j 02:51	3° <u>♁</u> 01'28		evening set	-1966 Nov 08 j 06:24	15° <u>♁</u> 16'34	
opposition	-1972 May 10 j 04:16	1° <u>♁</u> 38'30	1°50'34				
min. Earth dist.	-1972 May 10 j 07:25	1° <u>♁</u> 38'18	29.23602 AU	conjunction	-1966 Nov 23 j 10:34	15° <u>♁</u> 50'48	1°23'46
direct	-1972 Jul 29 j 17:21	0° <u>♁</u> 14'56		minimum elong	-1966 Nov 23 j 10:34	15° <u>♁</u> 50'48	1°23'45
evening set	-1972 Oct 25 j 23:37	2° <u>♁</u> 09'12		max. Earth dist.	-1966 Nov 23 j 13:47	15° <u>♁</u> 51'06	31.19834 AU
				morning rise	-1966 Dec 08 j 15:14	16° <u>♁</u> 25'07	
conjunction	-1972 Nov 10 j 03:05	2° <u>♁</u> 43'19	1°42'11	retrograde	-1965 Mar 07 j 15:18	18° <u>♁</u> 20'51	
minimum elong	-1972 Nov 10 j 03:05	2° <u>♁</u> 43'19	1°42'10	opposition	-1965 May 26 j 23:43	16° <u>♁</u> 57'36	1°27'38
max. Earth dist.	-1972 Nov 10 j 00:24	2° <u>♁</u> 43'04	31.23224 AU	min. Earth dist.	-1965 May 26 j 20:28	16° <u>♁</u> 57'49	29.19458 AU
morning rise	-1972 Nov 25 j 06:30	3° <u>♁</u> 17'27		direct	-1965 Aug 15 j 01:21	15° <u>♁</u> 34'28	
retrograde	-1971 Feb 21 j 15:12	5° <u>♁</u> 12'22		evening set	-1965 Nov 10 j 15:49	17° <u>♁</u> 28'15	
opposition	-1971 May 12 j 17:10	3° <u>♁</u> 49'21	1°47'45				
min. Earth dist.	-1971 May 12 j 18:10	3° <u>♁</u> 49'17	29.23052 AU	conjunction	-1965 Nov 25 j 20:00	18° <u>♁</u> 02'29	1°20'15
direct	-1971 Aug 01 j 03:19	2° <u>♁</u> 25'50		minimum elong	-1965 Nov 25 j 20:00	18° <u>♁</u> 02'29	1°20'13
evening set	-1971 Oct 28 j 08:35	4° <u>♁</u> 20'02		max. Earth dist.	-1965 Nov 25 j 22:51	18° <u>♁</u> 02'45	31.18933 AU
				morning rise	-1965 Dec 11 j 01:08	18° <u>♁</u> 36'50	
conjunction	-1971 Nov 12 j 12:10	4° <u>♁</u> 54'10	1°39'28	retrograde	-1964 Mar 09 j 03:16	20° <u>♁</u> 32'42	
minimum elong	-1971 Nov 12 j 12:11	4° <u>♁</u> 54'10	1°39'27	opposition	-1964 May 28 j 12:57	19° <u>♁</u> 09'22	1°23'48
max. Earth dist.	-1971 Nov 12 j 10:59	4° <u>♁</u> 54'03	31.22711 AU	min. Earth dist.	-1964 May 28 j 08:44	19° <u>♁</u> 09'39	29.18493 AU
morning rise	-1971 Nov 27 j 15:43	5° <u>♁</u> 28'19		direct	-1964 Aug 16 j 12:13	17° <u>♁</u> 46'14	
retrograde	-1970 Feb 24 j 02:32	7° <u>♁</u> 23'23		evening set	-1964 Nov 12 j 00:55	19° <u>♁</u> 39'55	
opposition	-1970 May 15 j 06:10	6° <u>♁</u> 00'20	1°44'46				

Attention, astronomical year style is used: The year -1964 in astronomical counting style is the year 1965 BCE in historical counting style.

conjunction	-1964 Nov 27 j 05:25	20° M .14'11	1°16'37	retrograde	-1957 Mar 25 j 17:10	5° 7 55'51	
minimum elong	-1964 Nov 27 j 05:25	20° M .14'11	1°16'35	opposition	-1957 Jun 14 j 08:41	4° 7 32'01	0°53'54
max. Earth dist.	-1964 Nov 27 j 09:56	20° M .14'37	31.17915 AU	min. Earth dist.	-1957 Jun 13 j 21:47	4° 7 32'45	29.12092 AU
morning rise	-1964 Dec 12 j 10:44	20° M .48'34		direct	-1957 Sep 01 j 17:52	3° 7 09'04	
retrograde	-1963 Mar 11 j 13:07	22° M .44'32		evening set	-1957 Nov 27 j 17:50	5° 7 02'15	
opposition	-1963 May 31 j 02:15	21° M .21'06	1°19'51				
min. Earth dist.	-1963 May 30 j 21:49	21° M .21'24	29.17433 AU	conjunction	-1957 Dec 13 j 00:03	5° 7 36'43	0°48'18
direct	-1963 Aug 19 j 00:04	19° M .57'59		minimum elong	-1957 Dec 13 j 00:04	5° 7 36'43	0°48'16
evening set	-1963 Nov 14 j 10:11	21° M .51'33		max. Earth dist.	-1957 Dec 13 j 11:46	5° 7 37'49	31.11716 AU
				morning rise	-1957 Dec 28 j 07:58	6° 7 11'22	
conjunction	-1963 Nov 29 j 14:49	22° M .25'50	1°12'52	retrograde	-1956 Mar 27 j 04:36	8° 7 08'11	
minimum elong	-1963 Nov 29 j 14:49	22° M .25'50	1°12'50	opposition	-1956 Jun 15 j 21:53	6° 7 44'19	0°49'14
max. Earth dist.	-1963 Nov 29 j 19:37	22° M .26'18	31.16853 AU	min. Earth dist.	-1956 Jun 15 j 10:05	6° 7 45'07	29.11388 AU
morning rise	-1963 Dec 14 j 20:35	23° M .00'15		direct	-1956 Sep 03 j 06:18	5° 7 21'25	
retrograde	-1962 Mar 14 j 01:40	24° M .56'20		evening set	-1956 Nov 29 j 03:22	7° 7 14'34	
opposition	-1962 Jun 02 j 15:15	23° M .32'48	1°15'47				
min. Earth dist.	-1962 Jun 02 j 08:59	23° M .33'13	29.16365 AU	conjunction	-1956 Dec 14 j 09:44	7° 7 49'03	0°43'54
direct	-1962 Aug 21 j 10:29	22° M .09'40		minimum elong	-1956 Dec 14 j 09:44	7° 7 49'03	0°43'52
evening set	-1962 Nov 16 j 19:23	24° M .03'09		max. Earth dist.	-1956 Dec 14 j 21:19	7° 7 50'09	31.11009 AU
				morning rise	-1956 Dec 29 j 18:13	8° 7 23'45	
conjunction	-1962 Dec 02 j 00:15	24° M .37'28	1°09'00	retrograde	-1955 Mar 29 j 17:41	10° 7 20'42	
minimum elong	-1962 Dec 02 j 00:15	24° M .37'28	1°08'58	opposition	-1955 Jun 18 j 11:09	8° 7 56'47	0°44'30
max. Earth dist.	-1962 Dec 02 j 06:18	24° M .38'02	31.15793 AU	min. Earth dist.	-1955 Jun 17 j 22:27	8° 7 57'39	29.10656 AU
morning rise	-1962 Dec 17 j 06:19	25° M .11'55		direct	-1955 Sep 05 j 17:16	7° 7 33'57	
retrograde	-1961 Mar 16 j 12:45	27° M .08'06		evening set	-1955 Dec 01 j 13:04	9° 7 27'02	
opposition	-1961 Jun 05 j 04:25	25° M .44'29	1°11'37				
min. Earth dist.	-1961 Jun 04 j 22:06	25° M .44'54	29.15335 AU	conjunction	-1955 Dec 16 j 19:50	10° 7 01'34	0°39'27
direct	-1961 Aug 23 j 21:26	24° M .21'22		minimum elong	-1955 Dec 16 j 19:51	10° 7 01'34	0°39'24
evening set	-1961 Nov 19 j 04:32	26° M .14'46		max. Earth dist.	-1955 Dec 17 j 08:51	10° 7 02'48	31.10230 AU
				morning rise	-1954 Jan 01 j 04:38	10° 7 36'18	
conjunction	-1961 Dec 04 j 09:38	26° M .49'05	1°05'03	retrograde	-1954 Apr 01 j 04:43	12° 7 33'23	
minimum elong	-1961 Dec 04 j 09:38	26° M .49'05	1°05'01	min. Earth dist.	-1954 Jun 20 j 11:43	11° 7 10'17	29.09827 AU
max. Earth dist.	-1961 Dec 04 j 16:57	26° M .49'47	31.14810 AU	opposition	-1954 Jun 21 j 00:19	11° 7 09'25	0°39'42
morning rise	-1961 Dec 19 j 16:01	27° M .23'35		direct	-1954 Sep 08 j 05:32	9° 7 46'37	
retrograde	-1960 Mar 18 j 01:38	29° M .19'53		evening set	-1954 Dec 03 j 22:55	11° 7 39'39	
opposition	-1960 Jun 06 j 17:25	27° M .56'11	1°07'20				
min. Earth dist.	-1960 Jun 06 j 08:56	27° M .56'45	29.14390 AU	conjunction	-1954 Dec 19 j 05:58	12° 7 14'12	0°34'55
direct	-1960 Aug 25 j 08:34	26° M .33'05		minimum elong	-1954 Dec 19 j 05:58	12° 7 14'12	0°34'53
evening set	-1960 Nov 20 j 13:51	28° M .26'25		max. Earth dist.	-1954 Dec 19 j 18:52	12° 7 15'25	31.09351 AU
				morning rise	-1953 Jan 03 j 15:15	12° 7 48'59	
conjunction	-1960 Dec 05 j 19:06	29° M .00'47	1°01'00	retrograde	-1953 Apr 03 j 18:16	14° 7 46'11	
minimum elong	-1960 Dec 05 j 19:06	29° M .00'47	1°00'58	opposition	-1953 Jun 23 j 13:30	13° 7 22'09	0°34'50
max. Earth dist.	-1960 Dec 06 j 03:04	29° M .01'32	31.13918 AU	min. Earth dist.	-1953 Jun 22 j 23:32	13° 7 23'06	29.08878 AU
morning rise	-1960 Dec 21 j 01:56	29° M .35'18		direct	-1953 Sep 10 j 16:43	11° 7 59'21	
	-1959 Jan 01 j 11:56	0° 7		evening set	-1953 Dec 06 j 08:45	13° 7 52'20	
retrograde	-1959 Mar 20 j 14:23	1° 7 31'45					
opposition	-1959 Jun 09 j 06:37	0° 7 07'59	1°02'57	conjunction	-1953 Dec 21 j 16:06	14° 7 26'54	0°30'21
min. Earth dist.	-1959 Jun 08 j 21:58	0° 7 08'34	29.13555 AU	minimum elong	-1953 Dec 21 j 16:06	14° 7 26'54	0°30'18
	-1959 Jun 14 j 04:29	30° R M		max. Earth dist.	-1953 Dec 22 j 05:37	14° 7 28'11	31.08325 AU
direct	-1959 Aug 27 j 17:52	28° M .44'55		morning rise	-1952 Jan 06 j 01:48	15° 7 01'43	
	-1959 Nov 04 j 21:10	0° 7		retrograde	-1952 Apr 05 j 04:57	16° 7 59'02	
evening set	-1959 Nov 22 j 22:59	0° 7 38'12		opposition	-1952 Jun 25 j 02:52	15° 7 34'55	0°29'55
				min. Earth dist.	-1952 Jun 24 j 13:23	15° 7 35'50	29.07786 AU
conjunction	-1959 Dec 08 j 04:39	1° 7 12'35	0°56'51	direct	-1952 Sep 12 j 03:44	14° 7 12'06	
minimum elong	-1959 Dec 08 j 04:39	1° 7 12'35	0°56'49	evening set	-1952 Dec 07 j 18:38	16° 7 05'00	
max. Earth dist.	-1959 Dec 08 j 14:28	1° 7 13'31	31.13134 AU				
morning rise	-1959 Dec 23 j 11:46	1° 7 47'09		conjunction	-1952 Dec 23 j 02:24	16° 7 39'36	0°25'44
retrograde	-1958 Mar 23 j 02:41	3° 7 43'43		minimum elong	-1952 Dec 23 j 02:24	16° 7 39'36	0°25'42
opposition	-1958 Jun 11 j 19:39	2° 7 19'54	0°58'28	max. Earth dist.	-1952 Dec 23 j 16:42	16° 7 40'57	31.07189 AU
min. Earth dist.	-1958 Jun 11 j 09:11	2° 7 20'37	29.12795 AU	morning rise	-1951 Jan 07 j 12:30	17° 7 14'27	
direct	-1958 Aug 30 j 06:52	0° 7 56'55		retrograde	-1951 Apr 07 j 17:32	19° 7 11'51	
evening set	-1958 Nov 25 j 08:27	2° 7 50'08		opposition	-1951 Jun 27 j 15:59	17° 7 47'37	0°24'57
				min. Earth dist.	-1951 Jun 27 j 00:57	17° 7 48'39	29.06594 AU
conjunction	-1958 Dec 10 j 14:14	3° 7 24'34	0°52'37	direct	-1951 Sep 14 j 15:02	16° 7 24'46	
minimum elong	-1958 Dec 10 j 14:15	3° 7 24'34	0°52'35	evening set	-1951 Dec 10 j 04:33	18° 7 17'36	
max. Earth dist.	-1958 Dec 10 j 23:59	3° 7 25'29	31.12409 AU				
morning rise	-1958 Dec 25 j 21:55	3° 7 59'10		conjunction	-1951 Dec 25 j 12:34	18° 7 52'14	0°21'05

Attention, astronomical year style is used: The year -1951 in astronomical counting style is the year 1952 BCE in historical counting style.

minimum elong	-1951 Dec 25 j 12:34	18° \nearrow 52'14	0°21'02	min. Earth dist.	-1945 Jul 11 j 02:56	1° \searrow 04'42	29.00220 AU
max. Earth dist.	-1951 Dec 26 j 02:57	18° \nearrow 53'35	31.05961 AU		-1945 Aug 24 j 16:56	30° \nearrow	
morning rise	-1950 Jan 09 j 23:16	19° \nearrow 27'07		direct	-1945 Sep 28 j 11:40	29° \nearrow 40'32	
retrograde	-1950 Apr 10 j 06:12	21° \nearrow 24'36			-1945 Nov 01 j 04:57	0° \searrow	
opposition	-1950 Jun 30 j 05:11	20° \nearrow 00'15	0°19'58	evening set	-1945 Dec 23 j 16:43	1° \searrow 33'09	
min. Earth dist.	-1950 Jun 29 j 14:32	20° \nearrow 01'15	29.05353 AU				
direct	-1950 Sep 17 j 00:48	18° \nearrow 37'22		conjunction	-1944 Jan 08 j 02:58	2° \searrow 07'58	-0°07'22
evening set	-1950 Dec 12 j 14:25	20° \nearrow 30'07		minimum elong	-1944 Jan 08 j 02:57	2° \searrow 07'58	0°07'24
				behind sun begin	-1944 Jan 07 j 21:04	2° \searrow 07'26	
conjunction	-1950 Dec 27 j 22:55	21° \nearrow 04'47	0°16'24	behind sun end	-1944 Jan 08 j 08:51	2° \searrow 08'30	
minimum elong	-1950 Dec 27 j 22:55	21° \nearrow 04'47	0°16'21	max. Earth dist.	-1944 Jan 08 j 22:38	2° \searrow 09'50	30.99829 AU
max. Earth dist.	-1950 Dec 28 j 14:53	21° \nearrow 06'17	31.04720 AU	morning rise	-1944 Jan 23 j 16:20	2° \searrow 43'06	
morning rise	-1949 Jan 12 j 09:54	21° \nearrow 39'42		retrograde	-1944 Apr 23 j 12:53	4° \searrow 41'10	
retrograde	-1949 Apr 12 j 18:38	23° \nearrow 37'15		opposition	-1944 Jul 13 j 10:42	3° \searrow 16'28	-0°10'24
opposition	-1949 Jul 02 j 18:02	22° \nearrow 12'49	0°14'56	min. Earth dist.	-1944 Jul 12 j 14:18	3° \searrow 17'52	28.99483 AU
min. Earth dist.	-1949 Jul 02 j 01:49	22° \nearrow 13'55	29.04124 AU	direct	-1944 Sep 29 j 22:42	1° \searrow 53'37	
direct	-1949 Sep 19 j 13:47	20° \nearrow 49'53		evening set	-1944 Dec 25 j 03:08	3° \searrow 46'15	
evening set	-1949 Dec 15 j 00:27	22° \nearrow 42'35					
				conjunction	-1943 Jan 09 j 13:43	4° \searrow 21'07	-0°12'05
conjunction	-1949 Dec 30 j 09:08	23° \nearrow 17'17	0°11'42	minimum elong	-1943 Jan 09 j 13:43	4° \searrow 21'07	0°12'08
minimum elong	-1949 Dec 30 j 09:08	23° \nearrow 17'17	0°11'39	behind sun begin	-1943 Jan 09 j 09:19	4° \searrow 20'43	
behind sun begin	-1949 Dec 30 j 04:31	23° \nearrow 16'52		behind sun end	-1943 Jan 09 j 18:07	4° \searrow 21'31	
behind sun end	-1949 Dec 30 j 13:44	23° \nearrow 17'42		max. Earth dist.	-1943 Jan 10 j 10:09	4° \searrow 23'03	30.99103 AU
max. Earth dist.	-1949 Dec 31 j 00:56	23° \nearrow 18'46	31.03526 AU	morning rise	-1943 Jan 25 j 03:35	4° \searrow 56'17	
morning rise	-1948 Jan 14 j 20:44	23° \nearrow 52'14		retrograde	-1943 Apr 25 j 23:57	6° \searrow 54'29	
retrograde	-1948 Apr 14 j 09:09	25° \nearrow 49'52		opposition	-1943 Jul 15 j 23:38	5° \searrow 29'46	-0°15'28
opposition	-1948 Jul 04 j 07:07	24° \nearrow 25'20	0°09'54	min. Earth dist.	-1943 Jul 15 j 03:45	5° \searrow 31'08	28.98774 AU
min. Earth dist.	-1948 Jul 03 j 14:28	24° \nearrow 26'28	29.02985 AU	direct	-1943 Oct 02 j 09:07	4° \searrow 06'58	
direct	-1948 Sep 21 j 00:24	23° \nearrow 02'23		evening set	-1943 Dec 27 j 13:40	5° \searrow 59'36	
evening set	-1948 Dec 16 j 10:17	24° \nearrow 55'03					
				conjunction	-1942 Jan 12 j 00:45	6° \searrow 34'30	-0°16'49
conjunction	-1948 Dec 31 j 19:28	25° \nearrow 29'46	0°07'00	minimum elong	-1942 Jan 12 j 00:44	6° \searrow 34'30	0°16'51
minimum elong	-1948 Dec 31 j 19:29	25° \nearrow 29'47	0°06'57	max. Earth dist.	-1942 Jan 12 j 21:57	6° \searrow 36'30	30.98395 AU
behind sun begin	-1948 Dec 31 j 13:31	25° \nearrow 29'14		morning rise	-1942 Jan 27 j 15:00	7° \searrow 09'43	
behind sun end	-1947 Jan 01 j 01:27	25° \nearrow 30'19		retrograde	-1942 Apr 28 j 13:11	9° \searrow 08'02	
max. Earth dist.	-1947 Jan 01 j 13:19	25° \nearrow 31'27	31.02435 AU	opposition	-1942 Jul 18 j 12:27	7° \searrow 43'18	-0°20'31
morning rise	-1947 Jan 16 j 07:23	26° \nearrow 04'47		min. Earth dist.	-1942 Jul 17 j 15:14	7° \searrow 44'46	28.98044 AU
retrograde	-1947 Apr 16 j 20:48	28° \nearrow 02'30		direct	-1942 Oct 04 j 19:49	6° \searrow 20'31	
opposition	-1947 Jul 06 j 20:05	26° \nearrow 37'54	0°04'50	evening set	-1942 Dec 30 j 00:30	8° \searrow 13'11	
min. Earth dist.	-1947 Jul 06 j 02:23	26° \nearrow 39'07	29.01948 AU				
direct	-1947 Sep 23 j 12:39	25° \nearrow 14'57		conjunction	-1941 Jan 14 j 11:47	8° \searrow 48'06	-0°21'31
evening set	-1947 Dec 18 j 20:27	27° \nearrow 07'36		minimum elong	-1941 Jan 14 j 11:47	8° \searrow 48'06	0°21'34
				max. Earth dist.	-1941 Jan 15 j 08:41	8° \searrow 50'05	30.97623 AU
conjunction	-1946 Jan 03 j 05:54	27° \nearrow 42'21	0°02'15	morning rise	-1941 Jan 30 j 02:35	9° \searrow 23'21	
minimum elong	-1946 Jan 03 j 05:54	27° \nearrow 42'21	0°02'13	retrograde	-1941 May 01 j 02:11	11° \searrow 21'47	
behind sun begin	-1946 Jan 02 j 23:28	27° \nearrow 41'46		min. Earth dist.	-1941 Jul 20 j 04:59	9° \searrow 58'26	28.97243 AU
behind sun end	-1946 Jan 03 j 12:19	27° \nearrow 42'56		opposition	-1941 Jul 21 j 01:22	9° \searrow 57'02	-0°25'32
max. Earth dist.	-1946 Jan 03 j 23:41	27° \nearrow 44'02	31.01464 AU	direct	-1941 Oct 07 j 04:57	8° \searrow 34'14	
morning rise	-1946 Jan 18 j 18:25	28° \nearrow 17'24		evening set	-1940 Jan 01 j 11:19	10° \searrow 26'55	
	-1946 Mar 19 j 17:11	0° \searrow					
retrograde	-1946 Apr 19 j 10:49	0° \searrow 15'13		conjunction	-1940 Jan 16 j 23:09	11° \searrow 01'52	-0°26'11
	-1946 May 20 j 17:28	30° \nearrow		minimum elong	-1940 Jan 16 j 23:09	11° \searrow 01'52	0°26'14
desc. node	-1946 Jun 21 j 18:10	29° \nearrow 18'55		max. Earth dist.	-1940 Jan 17 j 21:07	11° \searrow 03'57	30.96774 AU
opposition	-1946 Jul 09 j 08:52	28° \nearrow 50'34	-0°00'15	morning rise	-1940 Feb 01 j 14:15	11° \searrow 37'09	
min. Earth dist.	-1946 Jul 08 j 14:12	28° \nearrow 51'51	29.01039 AU	retrograde	-1940 May 02 j 15:15	13° \searrow 35'40	
direct	-1946 Sep 25 j 23:31	27° \nearrow 27'38		opposition	-1940 Jul 22 j 14:16	12° \searrow 10'52	-0°30'31
evening set	-1946 Dec 21 j 06:34	29° \nearrow 20'16		min. Earth dist.	-1940 Jul 21 j 16:50	12° \searrow 12'21	28.96339 AU
				direct	-1940 Oct 08 j 17:43	10° \searrow 48'04	
conjunction	-1945 Jan 05 j 16:28	29° \nearrow 55'04	-0°02'37	evening set	-1939 Jan 02 j 22:16	12° \searrow 40'44	
minimum elong	-1945 Jan 05 j 16:29	29° \nearrow 55'04	0°02'40				
behind sun begin	-1945 Jan 05 j 10:03	29° \nearrow 54'29		conjunction	-1939 Jan 18 j 10:22	13° \searrow 15'43	-0°30'50
behind sun end	-1945 Jan 05 j 22:54	29° \nearrow 55'39		minimum elong	-1939 Jan 18 j 10:22	13° \searrow 15'43	0°30'52
max. Earth dist.	-1945 Jan 06 j 11:51	29° \nearrow 56'54	31.00598 AU	max. Earth dist.	-1939 Jan 19 j 07:27	13° \searrow 17'43	30.95821 AU
	-1945 Jan 07 j 20:30	0° \searrow		morning rise	-1939 Feb 03 j 02:07	13° \searrow 51'02	
morning rise	-1945 Jan 21 j 05:21	0° \searrow 30'09		retrograde	-1939 May 05 j 05:58	15° \searrow 49'38	
retrograde	-1945 Apr 21 j 22:51	2° \searrow 28'06		min. Earth dist.	-1939 Jul 24 j 06:09	14° \searrow 26'12	28.95347 AU
opposition	-1945 Jul 11 j 21:48	1° \searrow 03'25	-0°05'19	opposition	-1939 Jul 25 j 03:13	14° \searrow 24'45	-0°35'28

Attention, astronomical year style is used: The year -1939 in astronomical counting style is the year 1940 BCE in historical counting style.

direct	-1939 Oct 11 j 03:55	13° S 01'54			-1932 Mar 05 j 20:43	0° S	
evening set	-1938 Jan 05 j 09:14	14° S 54'33		retrograde	-1932 May 21 j 01:18	1° S 26'21	
				opposition	-1932 Aug 09 j 19:07	0° S 01'04	-1°08'10
conjunction	-1938 Jan 20 j 21:54	15° S 29'34	-0°35'25	min. Earth dist.	-1932 Aug 08 j 19:37	0° S 02'42	28.89599 AU
minimum elong	-1938 Jan 20 j 21:54	15° S 29'34	0°35'27		-1932 Aug 10 j 10:33	30° R 3	
max. Earth dist.	-1938 Jan 21 j 20:18	15° S 31'41	30.94786 AU	direct	-1932 Oct 26 j 12:08	28° S 38'00	
morning rise	-1938 Feb 05 j 13:58	16° S 04'55			-1931 Jan 06 j 06:42	0° S	
retrograde	-1938 May 07 j 17:56	18° S 03'33		evening set	-1931 Jan 20 j 15:49	0° S 30'41	
opposition	-1938 Jul 27 j 15:49	16° S 38'36	-0°40'21				
min. Earth dist.	-1938 Jul 26 j 18:22	16° S 40'04	28.94286 AU	conjunction	-1931 Feb 05 j 07:18	1° S 05'53	-1°05'45
direct	-1938 Oct 13 j 15:59	15° S 15'41		minimum elong	-1931 Feb 05 j 07:18	1° S 05'52	1°05'48
evening set	-1937 Jan 07 j 20:20	17° S 08'19		max. Earth dist.	-1931 Feb 06 j 09:06	1° S 08'19	30.89326 AU
				morning rise	-1931 Feb 21 j 02:28	1° S 41'26	
conjunction	-1937 Jan 23 j 09:16	17° S 43'21	-0°39'58	retrograde	-1931 May 23 j 13:56	3° S 40'26	
minimum elong	-1937 Jan 23 j 09:16	17° S 43'21	0°40'00	min. Earth dist.	-1931 Aug 11 j 07:01	2° S 16'51	28.89198 AU
max. Earth dist.	-1937 Jan 24 j 07:07	17° S 45'25	30.93726 AU	opposition	-1931 Aug 12 j 07:30	2° S 15'09	-1°12'30
morning rise	-1937 Feb 08 j 01:56	18° S 18'44		direct	-1931 Oct 29 j 00:05	0° S 52'06	
retrograde	-1937 May 10 j 08:57	20° S 17'24		evening set	-1930 Jan 23 j 03:43	2° S 44'50	
min. Earth dist.	-1937 Jul 29 j 06:35	18° S 53'52	28.93245 AU				
opposition	-1937 Jul 30 j 04:31	18° S 52'21	-0°45'10	conjunction	-1930 Feb 07 j 19:27	3° S 20'03	-1°09'45
direct	-1937 Oct 16 j 03:43	17° S 29'24		minimum elong	-1930 Feb 07 j 19:26	3° S 20'03	1°09'47
evening set	-1936 Jan 10 j 07:14	19° S 22'00		max. Earth dist.	-1930 Feb 08 j 20:17	3° S 22'24	30.88941 AU
				morning rise	-1930 Feb 23 j 15:10	3° S 55'39	
conjunction	-1936 Jan 25 j 20:38	19° S 57'04	-0°44'27	retrograde	-1930 May 26 j 04:06	5° S 54'43	
minimum elong	-1936 Jan 25 j 20:38	19° S 57'04	0°44'29	opposition	-1930 Aug 14 j 19:51	4° S 29'27	-1°16'44
max. Earth dist.	-1936 Jan 26 j 19:49	19° S 59'16	30.92696 AU	min. Earth dist.	-1930 Aug 13 j 19:58	4° S 31'07	28.88832 AU
morning rise	-1936 Feb 10 j 13:38	20° S 32'29		direct	-1930 Oct 31 j 09:19	3° S 06'24	
retrograde	-1936 May 11 j 21:38	22° S 31'11		evening set	-1929 Jan 25 j 15:36	4° S 59'12	
opposition	-1936 Jul 31 j 17:12	21° S 06'03	-0°49'56				
min. Earth dist.	-1936 Jul 30 j 19:18	21° S 07'34	28.92262 AU	conjunction	-1929 Feb 10 j 07:52	5° S 34'28	-1°13'39
direct	-1936 Oct 17 j 16:38	19° S 43'03		minimum elong	-1929 Feb 10 j 07:52	5° S 34'28	1°13'42
evening set	-1935 Jan 11 j 18:23	21° S 35'38		max. Earth dist.	-1929 Feb 11 j 09:48	5° S 36'55	30.88555 AU
				morning rise	-1929 Feb 26 j 03:49	6° S 10'05	
conjunction	-1935 Jan 27 j 08:11	22° S 10'44	-0°48'52	retrograde	-1929 May 28 j 17:02	8° S 09'12	
minimum elong	-1935 Jan 27 j 08:10	22° S 10'44	0°48'54	min. Earth dist.	-1929 Aug 16 j 08:15	6° S 45'38	28.88425 AU
max. Earth dist.	-1935 Jan 28 j 07:26	22° S 12'56	30.91772 AU	opposition	-1929 Aug 17 j 08:14	6° S 43'58	-1°20'50
morning rise	-1935 Feb 12 j 01:40	22° S 46'10		direct	-1929 Nov 02 j 20:55	5° S 20'55	
retrograde	-1935 May 14 j 11:31	24° S 44'55		evening set	-1928 Jan 28 j 03:39	7° S 13'47	
min. Earth dist.	-1935 Aug 02 j 06:28	23° S 21'19	28.91405 AU				
opposition	-1935 Aug 03 j 05:38	23° S 19'43	-0°54'37	conjunction	-1928 Feb 12 j 20:11	7° S 49'03	-1°17'27
direct	-1935 Oct 20 j 04:08	21° S 56'40		minimum elong	-1928 Feb 12 j 20:11	7° S 49'03	1°17'28
evening set	-1934 Jan 14 j 05:39	23° S 49'16		max. Earth dist.	-1928 Feb 13 j 21:02	7° S 51'24	30.88117 AU
				morning rise	-1928 Feb 28 j 16:42	8° S 24'42	
conjunction	-1934 Jan 29 j 19:49	24° S 24'23	-0°53'12	retrograde	-1928 May 30 j 08:37	10° S 23'53	
minimum elong	-1934 Jan 29 j 19:49	24° S 24'23	0°53'14	opposition	-1928 Aug 18 j 20:44	8° S 58'38	-1°24'49
max. Earth dist.	-1934 Jan 30 j 19:39	24° S 26'38	30.90963 AU	min. Earth dist.	-1928 Aug 17 j 20:53	9° S 00'17	28.87952 AU
morning rise	-1934 Feb 14 j 13:46	24° S 59'51		direct	-1928 Nov 04 j 08:19	7° S 35'34	
retrograde	-1934 May 16 j 23:07	26° S 58'39		evening set	-1927 Jan 29 j 15:54	9° S 28'29	
opposition	-1934 Aug 05 j 18:12	25° S 33'24	-0°59'13				
min. Earth dist.	-1934 Aug 04 j 19:29	25° S 34'59	28.90673 AU	conjunction	-1927 Feb 14 j 08:56	10° S 03'48	-1°21'07
direct	-1934 Oct 22 j 15:16	24° S 10'20		minimum elong	-1927 Feb 14 j 08:56	10° S 03'48	1°21'09
evening set	-1933 Jan 16 j 16:53	26° S 02'57		max. Earth dist.	-1927 Feb 15 j 10:19	10° S 06'11	30.87579 AU
				morning rise	-1927 Mar 02 j 05:45	10° S 39'28	
conjunction	-1933 Feb 01 j 07:31	26° S 38'05	-0°57'28	retrograde	-1927 Jun 01 j 21:49	12° S 38'41	
minimum elong	-1933 Feb 01 j 07:31	26° S 38'05	0°57'31	min. Earth dist.	-1927 Aug 20 j 10:01	11° S 15'00	28.87368 AU
max. Earth dist.	-1933 Feb 02 j 08:12	26° S 40'25	30.90299 AU	opposition	-1927 Aug 21 j 09:03	11° S 13'24	-1°28'41
morning rise	-1933 Feb 17 j 01:49	27° S 13'35		direct	-1927 Nov 06 j 20:56	9° S 50'19	
retrograde	-1933 May 19 j 12:53	29° S 12'26		evening set	-1926 Feb 01 j 04:13	11° S 43'15	
min. Earth dist.	-1933 Aug 07 j 06:23	27° S 48'51	28.90074 AU				
opposition	-1933 Aug 08 j 06:33	27° S 47'10	-1°03'45	conjunction	-1926 Feb 16 j 21:41	12° S 18'35	-1°24'40
direct	-1933 Oct 25 j 02:44	26° S 24'06		minimum elong	-1926 Feb 16 j 21:40	12° S 18'35	1°24'41
evening set	-1932 Jan 19 j 04:23	28° S 16'44		max. Earth dist.	-1926 Feb 17 j 22:12	12° S 20'54	30.86956 AU
				morning rise	-1926 Mar 04 j 18:58	12° S 54'17	
conjunction	-1932 Feb 03 j 19:17	28° S 51'54	-1°01'40	retrograde	-1926 Jun 04 j 12:31	14° S 53'30	
minimum elong	-1932 Feb 03 j 19:17	28° S 51'54	1°01'41	opposition	-1926 Aug 23 j 21:17	13° S 28'12	-1°32'25
max. Earth dist.	-1932 Feb 04 j 19:50	28° S 54'13	30.89757 AU	min. Earth dist.	-1926 Aug 22 j 21:47	13° S 29'50	28.86709 AU
morning rise	-1932 Feb 19 j 14:08	29° S 27'26		direct	-1926 Nov 09 j 08:53	12° S 05'03	

Attention, astronomical year style is used: The year -1925 in astronomical counting style is the year 1926 BCE in historical counting style.

evening set	-1925 Feb 03 j 16:33	13° \approx 58'01		max. Earth dist.	-1919 Mar 05 j 16:10	28° \approx 04'07	30.83570 AU
				morning rise	-1919 Mar 20 j 16:09	28° \approx 37'42	
conjunction	-1925 Feb 19 j 10:21	14° \approx 33'23	-1°28'05		-1919 May 03 j 02:03	0° \approx	
minimum elong	-1925 Feb 19 j 10:20	14° \approx 33'23	1°28'08	retrograde	-1919 Jun 20 j 07:26	0° \approx 36'52	
max. Earth dist.	-1925 Feb 20 j 10:50	14° \approx 35'42	30.86257 AU		-1919 Aug 08 j 16:40	30° \approx	
	-1925 Mar 03 j 05:38	15° \approx		min. Earth dist.	-1919 Sep 07 j 10:19	29° \approx 13'02	28.83663 AU
morning rise	-1925 Mar 07 j 08:01	15° \approx 09'06		opposition	-1919 Sep 08 j 08:58	29° \approx 11'27	-1°54'17
retrograde	-1925 Jun 07 j 01:05	17° \approx 08'19		direct	-1919 Nov 24 j 14:47	27° \approx 48'01	
min. Earth dist.	-1925 Aug 25 j 11:06	15° \approx 44'32	28.86009 AU	evening set	-1918 Feb 19 j 08:43	29° \approx 41'20	
opposition	-1925 Aug 26 j 09:32	15° \approx 42'58	-1°36'00		-1918 Feb 27 j 18:09	0° \approx	
	-1925 Sep 22 j 06:37	15° \approx					
direct	-1925 Nov 11 j 20:46	14° \approx 19'46		conjunction	-1918 Mar 07 j 05:31	0° \approx 16'51	-1°48'02
	-1925 Dec 30 j 16:36	15° \approx		minimum elong	-1918 Mar 07 j 05:31	0° \approx 16'51	1°48'03
evening set	-1924 Feb 06 j 04:52	16° \approx 12'45		max. Earth dist.	-1918 Mar 08 j 06:17	0° \approx 19'11	30.83507 AU
				morning rise	-1918 Mar 23 j 05:48	0° \approx 52'43	
conjunction	-1924 Feb 21 j 23:11	16° \approx 48'08	-1°31'22	retrograde	-1918 Jun 22 j 20:02	2° \approx 51'53	
minimum elong	-1924 Feb 21 j 23:11	16° \approx 48'08	1°31'24	opposition	-1918 Sep 10 j 20:47	1° \approx 26'29	-1°56'45
max. Earth dist.	-1924 Feb 22 j 23:53	16° \approx 50'28	30.85572 AU	min. Earth dist.	-1918 Sep 09 j 22:56	1° \approx 28'01	28.83628 AU
morning rise	-1924 Mar 08 j 21:11	17° \approx 23'53		direct	-1918 Nov 27 j 02:35	0° \approx 03'03	
retrograde	-1924 Jun 08 j 15:51	19° \approx 23'05		evening set	-1917 Feb 21 j 21:42	1° \approx 56'27	
opposition	-1924 Aug 27 j 21:32	17° \approx 57'41	-1°39'27				
min. Earth dist.	-1924 Aug 26 j 22:11	17° \approx 59'19	28.85348 AU	conjunction	-1917 Mar 09 j 18:51	2° \approx 31'59	-1°50'15
direct	-1924 Nov 13 j 09:06	16° \approx 34'25		minimum elong	-1917 Mar 09 j 18:51	2° \approx 31'59	1°50'17
evening set	-1923 Feb 07 j 17:22	18° \approx 27'26		max. Earth dist.	-1917 Mar 10 j 18:39	2° \approx 34'14	30.83488 AU
				morning rise	-1917 Mar 25 j 19:32	3° \approx 07'52	
conjunction	-1923 Feb 23 j 11:58	19° \approx 02'51	-1°34'31	retrograde	-1917 Jun 25 j 11:10	5° \approx 07'02	
minimum elong	-1923 Feb 23 j 11:58	19° \approx 02'51	1°34'34	min. Earth dist.	-1917 Sep 12 j 10:27	3° \approx 43'13	28.83610 AU
max. Earth dist.	-1923 Feb 24 j 12:09	19° \approx 05'08	30.84933 AU	opposition	-1917 Sep 13 j 08:32	3° \approx 41'40	-1°59'02
morning rise	-1923 Mar 11 j 10:30	19° \approx 38'37		direct	-1917 Nov 29 j 14:09	2° \approx 18'13	
retrograde	-1923 Jun 11 j 03:27	21° \approx 37'48		evening set	-1916 Feb 24 j 10:59	4° \approx 11'41	
min. Earth dist.	-1923 Aug 29 j 11:21	20° \approx 13'56	28.84766 AU				
opposition	-1923 Aug 30 j 09:39	20° \approx 12'22	-1°42'44	conjunction	-1916 Mar 11 j 08:30	4° \approx 47'16	-1°52'19
direct	-1923 Nov 15 j 19:19	18° \approx 49'03		minimum elong	-1916 Mar 11 j 08:30	4° \approx 47'16	1°52'19
evening set	-1922 Feb 10 j 05:51	20° \approx 42'07		max. Earth dist.	-1916 Mar 12 j 07:57	4° \approx 49'28	30.83440 AU
				morning rise	-1916 Mar 27 j 09:31	5° \approx 23'10	
conjunction	-1922 Feb 26 j 01:01	21° \approx 17'32	-1°37'32	retrograde	-1916 Jun 27 j 00:49	7° \approx 22'18	
minimum elong	-1922 Feb 26 j 01:01	21° \approx 17'32	1°37'33	opposition	-1916 Sep 14 j 20:21	5° \approx 56'57	-2°01'09
max. Earth dist.	-1922 Feb 27 j 02:04	21° \approx 19'54	30.84399 AU	min. Earth dist.	-1916 Sep 13 j 23:47	5° \approx 58'24	28.83540 AU
morning rise	-1922 Mar 13 j 23:46	21° \approx 53'19		direct	-1916 Dec 01 j 02:26	4° \approx 33'28	
retrograde	-1922 Jun 13 j 15:27	23° \approx 52'30		evening set	-1915 Feb 26 j 00:19	6° \approx 27'00	
opposition	-1922 Sep 01 j 21:23	22° \approx 27'02	-1°45'52				
min. Earth dist.	-1922 Aug 31 j 22:17	22° \approx 28'40	28.84292 AU	conjunction	-1915 Mar 13 j 22:21	7° \approx 02'36	-1°54'11
direct	-1922 Nov 18 j 07:23	21° \approx 03'41		minimum elong	-1915 Mar 13 j 22:21	7° \approx 02'36	1°54'13
evening set	-1921 Feb 12 j 18:30	22° \approx 56'48		max. Earth dist.	-1915 Mar 14 j 21:11	7° \approx 04'45	30.83333 AU
				morning rise	-1915 Mar 29 j 23:41	7° \approx 38'31	
conjunction	-1921 Feb 28 j 13:54	23° \approx 32'14	-1°40'23	retrograde	-1915 Jun 29 j 15:50	9° \approx 37'36	
minimum elong	-1921 Feb 28 j 13:54	23° \approx 32'14	1°40'25	min. Earth dist.	-1915 Sep 16 j 11:11	8° \approx 13'44	28.83380 AU
max. Earth dist.	-1921 Mar 01 j 13:55	23° \approx 34'30	30.83987 AU	opposition	-1915 Sep 17 j 08:03	8° \approx 12'16	-2°03'04
morning rise	-1921 Mar 16 j 13:11	24° \approx 08'02		direct	-1915 Dec 03 j 15:42	6° \approx 48'44	
retrograde	-1921 Jun 16 j 04:48	26° \approx 07'13		evening set	-1914 Feb 28 j 13:51	8° \approx 42'20	
min. Earth dist.	-1921 Sep 03 j 10:47	24° \approx 43'20	28.83962 AU				
opposition	-1921 Sep 04 j 09:22	24° \approx 41'45	-1°48'51	conjunction	-1914 Mar 16 j 12:10	9° \approx 17'57	-1°55'54
direct	-1921 Nov 20 j 16:18	23° \approx 18'21		minimum elong	-1914 Mar 16 j 12:10	9° \approx 17'57	1°55'54
evening set	-1920 Feb 15 j 06:57	25° \approx 11'32		max. Earth dist.	-1914 Mar 17 j 09:44	9° \approx 19'58	30.83113 AU
				morning rise	-1914 Apr 01 j 13:55	9° \approx 53'53	
conjunction	-1920 Mar 02 j 02:56	25° \approx 47'00	-1°43'06	retrograde	-1914 Jul 02 j 04:04	11° \approx 52'53	
minimum elong	-1920 Mar 02 j 02:56	25° \approx 47'00	1°43'06	opposition	-1914 Sep 19 j 19:44	10° \approx 27'33	-2°04'47
max. Earth dist.	-1920 Mar 03 j 04:07	25° \approx 49'22	30.83716 AU	min. Earth dist.	-1914 Sep 19 j 00:35	10° \approx 28'54	28.83124 AU
morning rise	-1920 Mar 18 j 02:26	26° \approx 22'49		direct	-1914 Dec 06 j 02:35	9° \approx 03'57	
retrograde	-1920 Jun 17 j 17:02	28° \approx 22'00		evening set	-1913 Mar 03 j 03:12	10° \approx 57'34	
opposition	-1920 Sep 05 j 21:13	26° \approx 56'33	-1°51'39				
min. Earth dist.	-1920 Sep 04 j 22:24	26° \approx 58'09	28.83752 AU	conjunction	-1913 Mar 19 j 02:06	11° \approx 33'12	-1°57'26
direct	-1920 Nov 22 j 03:55	25° \approx 33'08		minimum elong	-1913 Mar 19 j 02:06	11° \approx 33'12	1°57'27
evening set	-1919 Feb 16 j 19:48	27° \approx 26'22		max. Earth dist.	-1913 Mar 19 j 23:47	11° \approx 35'14	30.82828 AU
				morning rise	-1913 Apr 04 j 04:03	12° \approx 09'09	
conjunction	-1919 Mar 04 j 16:06	28° \approx 01'52	-1°45'39	retrograde	-1913 Jul 04 j 17:08	14° \approx 08'04	
minimum elong	-1919 Mar 04 j 16:06	28° \approx 01'52	1°45'40	min. Earth dist.	-1913 Sep 21 j 11:53	12° \approx 44'04	28.82812 AU

Attention, astronomical year style is used: The year -1913 in astronomical counting style is the year 1914 BCE in historical counting style.

opposition	-1913 Sep 22 j 07:14	12° H 42'42	-2°06'20	morning rise	-1906 Apr 20 j 07:42	27° H 53'36	
direct	-1913 Dec 08 j 15:24	11° H 19'02		retrograde	-1906 Jul 20 j 11:24	29° H 51'56	
evening set	-1912 Mar 04 j 16:36	13° H 12'41		opposition	-1906 Oct 07 j 13:39	28° H 26'42	-2°11'38
				min. Earth dist.	-1906 Oct 06 j 21:10	28° H 27'53	28.82870 AU
conjunction	-1912 Mar 20 j 15:46	13° H 48'20	-1°58'47	direct	-1906 Dec 24 j 00:34	27° H 02'42	
minimum elong	-1912 Mar 20 j 15:46	13° H 48'20	1°58'47	evening set	-1905 Mar 21 j 15:36	28° H 56'50	
max. Earth dist.	-1912 Mar 21 j 11:51	13° H 50'13	30.82509 AU				
morning rise	-1912 Apr 05 j 18:15	14° H 24'18		conjunction	-1905 Apr 06 j 17:37	29° H 32'38	-2°03'06
retrograde	-1912 Jul 06 j 06:10	16° H 23'08		minimum elong	-1905 Apr 06 j 17:37	29° H 32'38	2°03'07
opposition	-1912 Sep 23 j 18:45	14° H 57'44	-2°07'41	max. Earth dist.	-1905 Apr 07 j 10:47	29° H 34'14	30.82947 AU
min. Earth dist.	-1912 Sep 23 j 00:32	14° H 59'02	28.82505 AU		-1905 Apr 18 j 23:32	0° Y	
direct	-1912 Dec 10 j 01:22	13° H 33'59		morning rise	-1905 Apr 22 j 22:09	0° Y 08'40	
evening set	-1911 Mar 07 j 06:01	15° H 27'40		retrograde	-1905 Jul 23 j 00:13	2° Y 06'57	
				min. Earth dist.	-1905 Oct 09 j 09:58	0° Y 42'51	28.83341 AU
conjunction	-1911 Mar 23 j 05:47	16° H 03'20	-1°59'57	opposition	-1905 Oct 10 j 00:47	0° Y 41'48	-2°11'35
minimum elong	-1911 Mar 23 j 05:46	16° H 03'20	1°59'58		-1905 Nov 04 j 16:50	30° R H	
max. Earth dist.	-1911 Mar 24 j 02:26	16° H 05'17	30.82215 AU	direct	-1905 Dec 26 j 11:08	29° H 17'47	
morning rise	-1911 Apr 08 j 08:25	16° H 39'18			-1904 Feb 14 j 23:09	0° Y	
retrograde	-1911 Jul 08 j 17:19	18° H 38'02		evening set	-1904 Mar 23 j 05:21	1° Y 12'01	
min. Earth dist.	-1911 Sep 25 j 11:55	17° H 13'55	28.82240 AU				
opposition	-1911 Sep 26 j 05:56	17° H 12'38	-2°08'50	conjunction	-1904 Apr 08 j 07:56	1° Y 47'50	-2°02'58
direct	-1911 Dec 12 j 13:38	15° H 48'48		minimum elong	-1904 Apr 08 j 07:56	1° Y 47'50	2°02'57
evening set	-1910 Mar 09 j 19:37	17° H 42'32		max. Earth dist.	-1904 Apr 09 j 01:01	1° Y 49'26	30.83434 AU
				morning rise	-1904 Apr 24 j 12:39	2° Y 23'54	
conjunction	-1910 Mar 25 j 19:38	18° H 18'13	-2°00'57	retrograde	-1904 Jul 24 j 14:31	4° Y 22'05	
minimum elong	-1910 Mar 25 j 19:38	18° H 18'13	2°00'57	opposition	-1904 Oct 11 j 11:46	2° Y 57'01	-2°11'20
max. Earth dist.	-1910 Mar 26 j 14:46	18° H 20'01	30.82000 AU	min. Earth dist.	-1904 Oct 10 j 21:02	2° Y 58'04	28.83809 AU
morning rise	-1910 Apr 10 j 22:44	18° H 54'12		direct	-1904 Dec 28 j 00:06	1° Y 33'00	
retrograde	-1910 Jul 11 j 06:20	20° H 52'51		evening set	-1903 Mar 25 j 19:32	3° Y 27'18	
opposition	-1910 Sep 28 j 17:13	19° H 27'26	-2°09'48				
min. Earth dist.	-1910 Sep 27 j 23:32	19° H 28'42	28.82088 AU	conjunction	-1903 Apr 10 j 22:20	4° Y 03'10	-2°02'39
direct	-1910 Dec 15 j 00:22	18° H 03'32		minimum elong	-1903 Apr 10 j 22:20	4° Y 03'10	2°02'38
evening set	-1909 Mar 12 j 08:55	19° H 57'19		max. Earth dist.	-1903 Apr 11 j 13:23	4° Y 04'35	30.83878 AU
				morning rise	-1903 Apr 27 j 03:27	4° Y 39'14	
conjunction	-1909 Mar 28 j 09:26	20° H 33'02	-2°01'45	retrograde	-1903 Jul 27 j 03:53	6° Y 37'20	
minimum elong	-1909 Mar 28 j 09:26	20° H 33'02	2°01'46	opposition	-1903 Oct 13 j 22:47	5° Y 12'19	-2°10'53
max. Earth dist.	-1909 Mar 29 j 05:15	20° H 34'53	30.81900 AU	min. Earth dist.	-1903 Oct 13 j 09:37	5° Y 13'15	28.84228 AU
morning rise	-1909 Apr 13 j 12:42	21° H 09'01		direct	-1903 Dec 30 j 10:18	3° Y 48'17	
retrograde	-1909 Jul 13 j 17:50	23° H 07'35		evening set	-1902 Mar 28 j 09:35	5° Y 42'39	
min. Earth dist.	-1909 Sep 30 j 11:30	21° H 43'24	28.82061 AU				
opposition	-1909 Oct 01 j 04:28	21° H 42'12	-2°10'34	conjunction	-1902 Apr 13 j 12:56	6° Y 18'32	-2°02'08
direct	-1909 Dec 17 j 11:52	20° H 18'14		minimum elong	-1902 Apr 13 j 12:56	6° Y 18'32	2°02'07
evening set	-1908 Mar 13 j 22:29	22° H 12'06		max. Earth dist.	-1902 Apr 14 j 03:54	6° Y 19'56	30.84254 AU
				morning rise	-1902 Apr 29 j 18:07	6° Y 54'37	
conjunction	-1908 Mar 29 j 23:22	22° H 47'49	-2°02'23	retrograde	-1902 Jul 29 j 15:00	8° Y 52'35	
minimum elong	-1908 Mar 29 j 23:22	22° H 47'49	2°02'22	opposition	-1902 Oct 16 j 09:48	7° Y 27'37	-2°10'14
max. Earth dist.	-1908 Mar 30 j 18:06	22° H 49'34	30.81959 AU	min. Earth dist.	-1902 Oct 15 j 21:15	7° Y 28'31	28.84552 AU
morning rise	-1908 Apr 15 j 03:02	23° H 23'49		direct	-1901 Jan 01 j 23:03	6° Y 03'32	
retrograde	-1908 Jul 15 j 08:05	25° H 22'19		evening set	-1901 Mar 30 j 23:36	7° Y 57'57	
opposition	-1908 Oct 02 j 15:31	23° H 56'57	-2°11'07				
min. Earth dist.	-1908 Oct 01 j 22:14	23° H 58'10	28.82198 AU	conjunction	-1901 Apr 16 j 03:10	8° Y 33'51	-2°01'26
direct	-1908 Dec 18 j 23:15	22° H 32'57		minimum elong	-1901 Apr 16 j 03:10	8° Y 33'51	2°01'26
evening set	-1907 Mar 16 j 12:07	24° H 26'54		max. Earth dist.	-1901 Apr 16 j 15:58	8° Y 35'03	30.84550 AU
				morning rise	-1901 May 02 j 08:47	9° Y 09'56	
conjunction	-1907 Apr 01 j 13:26	25° H 02'39	-2°02'48	retrograde	-1901 Aug 01 j 03:32	11° Y 07'46	
minimum elong	-1907 Apr 01 j 13:26	25° H 02'39	2°02'49	opposition	-1901 Oct 18 j 20:48	9° Y 42'50	-2°09'24
max. Earth dist.	-1907 Apr 02 j 08:04	25° H 04'23	30.82162 AU	min. Earth dist.	-1901 Oct 18 j 09:07	9° Y 43'40	28.84816 AU
morning rise	-1907 Apr 17 j 17:22	25° H 38'40		direct	-1900 Jan 04 j 09:44	8° Y 18'40	
retrograde	-1907 Jul 17 j 20:59	27° H 37'05		evening set	-1900 Apr 01 j 13:38	10° Y 13'08	
min. Earth dist.	-1907 Oct 04 j 10:41	26° H 12'54	28.82474 AU				
opposition	-1907 Oct 05 j 02:43	26° H 11'46	-2°11'29	conjunction	-1900 Apr 17 j 17:44	10° Y 49'03	-2°00'34
direct	-1907 Dec 21 j 11:30	24° H 47'46		minimum elong	-1900 Apr 17 j 17:44	10° Y 49'03	2°00'33
evening set	-1906 Mar 19 j 01:46	26° H 41'48		max. Earth dist.	-1900 Apr 18 j 06:34	10° Y 50'15	30.84788 AU
				morning rise	-1900 May 03 j 23:26	11° Y 25'08	
conjunction	-1906 Apr 04 j 03:30	27° H 17'34	-2°03'03	retrograde	-1900 Aug 02 j 14:37	13° Y 22'49	
minimum elong	-1906 Apr 04 j 03:30	27° H 17'34	2°03'03	opposition	-1900 Oct 20 j 07:35	11° Y 57'54	-2°08'22
max. Earth dist.	-1906 Apr 04 j 21:37	27° H 19'16	30.82511 AU	min. Earth dist.	-1900 Oct 19 j 21:16	11° Y 58'38	28.85036 AU

Attention, astronomical year style is used: The year -1899 in astronomical counting style is the year 1900 BCE in historical counting style.

direct	-1899 Jan 05 j 20:55	10° Υ 33'39	
evening set	-1899 Apr 04 j 03:46	12° Υ 28'09	
conjunction	-1899 Apr 20 j 08:09	13° Υ 04'04	-1°59'30
minimum elong	-1899 Apr 20 j 08:10	13° Υ 04'04	1°59'30
max. Earth dist.	-1899 Apr 20 j 19:14	13° Υ 05'06	30.85021 AU
morning rise	-1899 May 06 j 14:14	13° Υ 40'10	
retrograde	-1899 Aug 05 j 03:11	15° Υ 37'40	
opposition	-1899 Oct 22 j 18:18	14° Υ 12'46	-2°07'08
min. Earth dist.	-1899 Oct 22 j 08:06	14° Υ 13'30	28.85277 AU
direct	-1898 Jan 08 j 08:51	12° Υ 48'26	