

Attention, astronomical year style is used: The year -12400 in astronomical counting style is the year 12401 BCE in historical counting style.

direct	-12400 Feb 10 j 08:48	6° $\mathbf{H}$ 52'30		conjunction	-12395 Jun 24 j 22:18	5° $\mathbf{Y}$ 05'51	0°28'03
evening set	-12400 May 16 j 06:29	10° $\mathbf{H}$ 23'47		minimum elong	-12395 Jun 24 j 22:18	5° $\mathbf{Y}$ 05'51	0°28'06
				max. Earth dist.	-12395 Jun 24 j 15:28	5° $\mathbf{Y}$ 04'47	19.49086 AU
conjunction	-12400 Jun 01 j 07:00	11° $\mathbf{H}$ 24'33	-0°02'40	morning rise	-12395 Jul 10 j 14:18	6° $\mathbf{Y}$ 04'56	
minimum elong	-12400 Jun 01 j 06:59	11° $\mathbf{H}$ 24'33	0°02'55	retrograde	-12395 Oct 10 j 02:44	9° $\mathbf{Y}$ 26'03	
behind sun begin	-12400 Jun 01 j 00:24	11° $\mathbf{H}$ 23'32		opposition	-12395 Dec 24 j 03:53	7° $\mathbf{Y}$ 24'50	0°34'22
behind sun end	-12400 Jun 01 j 13:35	11° $\mathbf{H}$ 25'35		min. Earth dist.	-12395 Dec 24 j 08:26	7° $\mathbf{Y}$ 24'21	17.51554 AU
max. Earth dist.	-12400 May 31 j 12:11	11° $\mathbf{H}$ 21'34	19.29848 AU	direct	-12394 Mar 11 j 07:59	5° $\mathbf{Y}$ 20'46	
morning rise	-12400 Jun 17 j 03:29	12° $\mathbf{H}$ 24'45		evening set	-12394 Jun 14 j 00:47	8° $\mathbf{Y}$ 46'59	
retrograde	-12400 Sep 16 j 03:00	15° $\mathbf{H}$ 46'59					
asc. node	-12400 Nov 02 j 22:51	14° $\mathbf{H}$ 49'32		conjunction	-12394 Jun 29 j 18:27	9° $\mathbf{Y}$ 46'09	0°33'41
opposition	-12400 Nov 29 j 07:38	13° $\mathbf{H}$ 45'20	0°00'31	minimum elong	-12394 Jun 29 j 18:27	9° $\mathbf{Y}$ 46'09	0°33'47
min. Earth dist.	-12400 Nov 30 j 00:37	13° $\mathbf{H}$ 43'32	17.31231 AU	max. Earth dist.	-12394 Jun 29 j 15:11	9° $\mathbf{Y}$ 45'38	19.54096 AU
direct	-12399 Feb 14 j 12:28	11° $\mathbf{H}$ 39'31		morning rise	-12394 Jul 15 j 09:36	10° $\mathbf{Y}$ 44'58	
evening set	-12399 May 21 j 07:25	15° $\mathbf{H}$ 10'14		retrograde	-12394 Oct 15 j 00:52	14° $\mathbf{Y}$ 05'41	
				opposition	-12394 Dec 29 j 06:49	12° $\mathbf{Y}$ 04'30	0°40'31
conjunction	-12399 Jun 06 j 06:33	16° $\mathbf{H}$ 10'46	0°03'46	min. Earth dist.	-12394 Dec 29 j 08:52	12° $\mathbf{Y}$ 04'17	17.56709 AU
minimum elong	-12399 Jun 06 j 06:32	16° $\mathbf{H}$ 10'46	0°03'34	direct	-12393 Mar 16 j 12:01	10° $\mathbf{Y}$ 00'47	
behind sun begin	-12399 Jun 05 j 23:59	16° $\mathbf{H}$ 09'45		evening set	-12393 Jun 18 j 20:59	13° $\mathbf{Y}$ 25'49	
behind sun end	-12399 Jun 06 j 13:05	16° $\mathbf{H}$ 11'47					
max. Earth dist.	-12399 Jun 05 j 13:24	16° $\mathbf{H}$ 08'03	19.32743 AU	conjunction	-12393 Jul 04 j 13:35	14° $\mathbf{Y}$ 24'41	0°39'04
morning rise	-12399 Jun 22 j 02:09	17° $\mathbf{H}$ 10'47		minimum elong	-12393 Jul 04 j 13:34	14° $\mathbf{Y}$ 24'41	0°39'14
retrograde	-12399 Sep 21 j 04:30	20° $\mathbf{H}$ 32'54		max. Earth dist.	-12393 Jul 04 j 11:59	14° $\mathbf{Y}$ 24'26	19.59402 AU
opposition	-12399 Dec 04 j 11:57	18° $\mathbf{H}$ 31'22	0°07'32	morning rise	-12393 Jul 20 j 04:14	15° $\mathbf{Y}$ 23'15	
min. Earth dist.	-12399 Dec 05 j 01:43	18° $\mathbf{H}$ 29'54	17.34404 AU	retrograde	-12393 Oct 19 j 21:21	18° $\mathbf{Y}$ 43'32	
direct	-12398 Feb 19 j 16:47	16° $\mathbf{H}$ 25'53		opposition	-12392 Jan 03 j 09:19	16° $\mathbf{Y}$ 42'21	0°46'21
evening set	-12398 May 26 j 07:27	19° $\mathbf{H}$ 55'54		min. Earth dist.	-12392 Jan 03 j 09:05	16° $\mathbf{Y}$ 42'22	17.62171 AU
				direct	-12392 Mar 20 j 13:17	14° $\mathbf{Y}$ 38'58	
conjunction	-12398 Jun 11 j 05:32	20° $\mathbf{H}$ 56'13	0°10'00	evening set	-12392 Jun 22 j 15:56	18° $\mathbf{Y}$ 02'45	
minimum elong	-12398 Jun 11 j 05:32	20° $\mathbf{H}$ 56'13	0°09'53				
behind sun begin	-12398 Jun 11 j 00:08	20° $\mathbf{H}$ 55'23		conjunction	-12392 Jul 08 j 07:46	19° $\mathbf{Y}$ 01'18	0°44'09
behind sun end	-12398 Jun 11 j 10:55	20° $\mathbf{H}$ 57'03		minimum elong	-12392 Jul 08 j 07:46	19° $\mathbf{Y}$ 01'18	0°44'23
max. Earth dist.	-12398 Jun 10 j 16:07	20° $\mathbf{H}$ 54'05	19.36178 AU	max. Earth dist.	-12392 Jul 08 j 09:41	19° $\mathbf{Y}$ 01'36	19.65006 AU
morning rise	-12398 Jun 27 j 00:01	21° $\mathbf{H}$ 56'00		morning rise	-12392 Jul 23 j 21:45	19° $\mathbf{Y}$ 59'36	
retrograde	-12398 Sep 26 j 04:41	25° $\mathbf{H}$ 17'58		retrograde	-12392 Oct 23 j 18:06	23° $\mathbf{Y}$ 19'24	
opposition	-12398 Dec 09 j 16:20	23° $\mathbf{H}$ 16'32	0°14'29	opposition	-12391 Jan 07 j 11:11	21° $\mathbf{Y}$ 18'14	0°51'50
min. Earth dist.	-12398 Dec 10 j 04:27	23° $\mathbf{H}$ 15'15	17.38078 AU	min. Earth dist.	-12391 Jan 07 j 07:51	21° $\mathbf{Y}$ 18'35	17.67915 AU
direct	-12397 Feb 24 j 20:44	21° $\mathbf{H}$ 11'25		direct	-12391 Mar 25 j 15:45	19° $\mathbf{Y}$ 15'12	
evening set	-12397 May 31 j 07:06	24° $\mathbf{H}$ 40'39		evening set	-12391 Jun 27 j 10:05	22° $\mathbf{Y}$ 37'41	
conjunction	-12397 Jun 16 j 03:49	25° $\mathbf{H}$ 40'41	0°16'10	conjunction	-12391 Jul 13 j 01:02	23° $\mathbf{Y}$ 35'54	0°48'55
minimum elong	-12397 Jun 16 j 03:49	25° $\mathbf{H}$ 40'41	0°16'05	minimum elong	-12391 Jul 13 j 01:02	23° $\mathbf{Y}$ 35'54	0°49'13
behind sun begin	-12397 Jun 16 j 02:57	25° $\mathbf{H}$ 40'33		max. Earth dist.	-12391 Jul 13 j 05:06	23° $\mathbf{Y}$ 36'33	19.70899 AU
behind sun end	-12397 Jun 16 j 04:41	25° $\mathbf{H}$ 40'49		morning rise	-12391 Jul 28 j 14:39	24° $\mathbf{Y}$ 33'56	
max. Earth dist.	-12397 Jun 15 j 15:49	25° $\mathbf{H}$ 38'47	19.40086 AU	retrograde	-12391 Oct 28 j 13:16	27° $\mathbf{Y}$ 53'15	
morning rise	-12397 Jul 01 j 21:31	26° $\mathbf{H}$ 40'15		opposition	-12390 Jan 12 j 12:26	25° $\mathbf{Y}$ 52'05	0°56'57
	-12397 Sep 22 j 17:35	0° $\mathbf{Y}$		min. Earth dist.	-12390 Jan 12 j 06:58	25° $\mathbf{Y}$ 52'39	17.73976 AU
retrograde	-12397 Oct 01 j 04:55	0° $\mathbf{Y}$ 01'59		direct	-12390 Mar 30 j 14:52	23° $\mathbf{Y}$ 49'24	
	-12397 Oct 09 j 16:17	30° $\mathbf{R}$ $\mathbf{H}$		evening set	-12390 Jul 02 j 03:05	27° $\mathbf{Y}$ 10'33	
opposition	-12397 Dec 14 j 20:18	28° $\mathbf{H}$ 00'39	0°21'19				
min. Earth dist.	-12397 Dec 15 j 05:33	27° $\mathbf{H}$ 59'40	17.42201 AU	conjunction	-12390 Jul 17 j 17:26	28° $\mathbf{Y}$ 08'28	0°53'21
direct	-12396 Mar 01 j 00:16	25° $\mathbf{H}$ 55'52		minimum elong	-12390 Jul 17 j 17:26	28° $\mathbf{Y}$ 08'28	0°53'42
evening set	-12396 Jun 04 j 05:50	29° $\mathbf{H}$ 24'13		max. Earth dist.	-12390 Jul 18 j 00:49	28° $\mathbf{Y}$ 09'37	19.77107 AU
	-12396 Jun 13 j 18:25	0° $\mathbf{Y}$		morning rise	-12390 Aug 02 j 06:36	29° $\mathbf{Y}$ 06'14	
					-12390 Aug 17 j 12:04	0° $\mathbf{B}$	
conjunction	-12396 Jun 20 j 01:35	0° $\mathbf{Y}$ 23'58	0°22'12	retrograde	-12390 Nov 02 j 09:05	2° $\mathbf{B}$ 25'01	
minimum elong	-12396 Jun 20 j 01:35	0° $\mathbf{Y}$ 23'58	0°22'11	opposition	-12389 Jan 17 j 12:48	0° $\mathbf{B}$ 23'54	1°01'41
max. Earth dist.	-12396 Jun 19 j 17:13	0° $\mathbf{Y}$ 22'39	19.44407 AU	min. Earth dist.	-12389 Jan 17 j 03:49	0° $\mathbf{B}$ 24'50	17.80329 AU
morning rise	-12396 Jul 05 j 18:14	1° $\mathbf{Y}$ 23'18			-12389 Jan 27 j 05:03	30° $\mathbf{R}$ $\mathbf{Y}$	
retrograde	-12396 Oct 05 j 04:27	4° $\mathbf{Y}$ 44'44		direct	-12389 Apr 04 j 15:02	28° $\mathbf{Y}$ 21'36	
opposition	-12396 Dec 19 j 00:18	2° $\mathbf{Y}$ 43'29	0°27'57		-12389 Jun 06 j 10:16	0° $\mathbf{B}$	
min. Earth dist.	-12396 Dec 19 j 07:28	2° $\mathbf{Y}$ 42'43	17.46700 AU	evening set	-12389 Jul 06 j 19:19	1° $\mathbf{B}$ 41'24	
direct	-12395 Mar 06 j 04:57	0° $\mathbf{Y}$ 39'04					
evening set	-12395 Jun 09 j 03:48	4° $\mathbf{Y}$ 06'23		conjunction	-12389 Jul 22 j 08:56	2° $\mathbf{B}$ 39'01	0°57'25
				minimum elong	-12389 Jul 22 j 08:56	2° $\mathbf{B}$ 39'01	0°57'49

# Planetary Phenomena of Uranus from -12400 through -11898 (UT), Astrodienst AG 18-Feb-2025 14:23, page 2

Attention, astronomical year style is used: The year -12389 in astronomical counting style is the year 12390 BCE in historical counting style.

max. Earth dist.	-12389 Jul 22 j 18:44	2°840'32	19.83599 AU	opposition	-12382 Feb 18 j 18:16	1°II14'19	1°22'23
morning rise	-12389 Aug 06 j 21:50	3°836'31		min. Earth dist.	-12382 Feb 17 j 18:30	1°II16'44	18.29972 AU
retrograde	-12389 Nov 07 j 02:53	6°854'47			-12382 Mar 23 j 16:17	30°R8	
opposition	-12388 Jan 22 j 12:30	4°853'43	1°05'59	direct	-12382 May 06 j 03:55	29°815'07	
min. Earth dist.	-12388 Jan 22 j 01:37	4°854'51	17.86981 AU		-12382 Jun 17 j 01:54	0°II	
direct	-12388 Apr 08 j 11:58	2°851'50		evening set	-12382 Aug 05 j 13:11	2°II25'40	
evening set	-12388 Jul 10 j 10:34	6°810'18					
				conjunction	-12382 Aug 21 j 01:08	3°II21'22	1°14'46
conjunction	-12388 Jul 25 j 23:43	7°807'36	1°01'07	minimum elong	-12382 Aug 21 j 01:08	3°II21'22	1°15'25
minimum elong	-12388 Jul 25 j 23:43	7°807'36	1°01'34	max. Earth dist.	-12382 Aug 22 j 02:21	3°II25'11	20.33425 AU
max. Earth dist.	-12388 Jul 26 j 12:28	7°809'35	19.90388 AU	morning rise	-12382 Sep 05 j 14:34	4°II17'19	
morning rise	-12388 Aug 10 j 12:22	8°804'52		retrograde	-12382 Dec 08 j 01:11	7°II31'43	
retrograde	-12388 Nov 10 j 22:04	11°822'35		min. Earth dist.	-12381 Feb 22 j 10:02	5°II34'10	18.36947 AU
opposition	-12387 Jan 26 j 11:26	9°821'38	1°09'52	opposition	-12381 Feb 23 j 12:15	5°II31'30	1°23'28
min. Earth dist.	-12387 Jan 25 j 20:53	9°823'08	17.93893 AU	direct	-12381 May 10 j 21:28	3°II32'40	
direct	-12387 Apr 13 j 10:02	7°820'11		evening set	-12381 Aug 09 j 23:02	6°II41'57	
evening set	-12387 Jul 15 j 00:53	10°837'18					
				conjunction	-12381 Aug 25 j 11:09	7°II37'26	1°15'33
conjunction	-12387 Jul 30 j 13:35	11°834'19	1°04'26	minimum elong	-12381 Aug 25 j 11:09	7°II37'26	1°16'15
minimum elong	-12387 Jul 30 j 13:34	11°834'19	1°04'55	max. Earth dist.	-12381 Aug 26 j 14:20	7°II41'32	20.40275 AU
max. Earth dist.	-12387 Jul 31 j 04:54	11°836'41	19.97404 AU	morning rise	-12381 Sep 10 j 00:56	8°II33'11	
morning rise	-12387 Aug 15 j 02:10	12°831'20		retrograde	-12381 Dec 12 j 13:55	11°II47'00	
	-12387 Oct 03 j 05:51	15°8		min. Earth dist.	-12380 Feb 27 j 02:58	9°II49'32	18.43689 AU
retrograde	-12387 Nov 15 j 14:51	15°848'33		opposition	-12380 Feb 28 j 05:30	9°II46'51	1°24'05
	-12387 Dec 30 j 22:49	15°R8		direct	-12380 May 14 j 11:39	7°II48'21	
opposition	-12386 Jan 31 j 09:44	13°847'43	1°13'19	evening set	-12380 Aug 13 j 08:15	10°II56'22	
min. Earth dist.	-12386 Jan 30 j 17:42	13°849'21	18.01015 AU				
direct	-12386 Apr 18 j 04:45	11°846'44		conjunction	-12380 Aug 28 j 20:34	11°II51'39	1°15'55
	-12386 Jul 18 j 21:41	15°8		minimum elong	-12380 Aug 28 j 20:34	11°II51'39	1°16'37
evening set	-12386 Jul 19 j 14:27	15°802'30		max. Earth dist.	-12380 Aug 30 j 00:29	11°II55'50	20.46901 AU
				morning rise	-12380 Sep 13 j 10:57	12°II47'14	
conjunction	-12386 Aug 04 j 02:51	15°859'15	1°07'21	retrograde	-12380 Dec 16 j 04:12	16°II00'26	
minimum elong	-12386 Aug 04 j 02:51	15°859'15	1°07'53	opposition	-12379 Mar 03 j 21:44	14°II00'19	1°24'13
max. Earth dist.	-12386 Aug 04 j 20:34	16°801'58	20.04599 AU	min. Earth dist.	-12379 Mar 02 j 17:05	14°II03'12	18.50194 AU
morning rise	-12386 Aug 19 j 15:25	16°856'02		direct	-12379 May 19 j 03:14	12°II02'06	
retrograde	-12386 Nov 20 j 09:31	20°812'41		evening set	-12379 Aug 17 j 16:39	15°II08'53	
min. Earth dist.	-12385 Feb 04 j 11:34	18°813'58	18.08262 AU				
opposition	-12385 Feb 05 j 06:51	18°812'00	1°16'17	conjunction	-12379 Sep 02 j 05:23	16°II03'59	1°15'52
direct	-12385 Apr 23 j 00:49	16°811'29		minimum elong	-12379 Sep 02 j 05:23	16°II03'59	1°16'37
evening set	-12385 Jul 24 j 03:16	19°825'57		max. Earth dist.	-12379 Sep 03 j 11:14	16°II08'26	20.53271 AU
				morning rise	-12379 Sep 17 j 20:19	16°II59'24	
conjunction	-12385 Aug 08 j 15:23	20°822'25	1°09'50	retrograde	-12379 Dec 20 j 15:32	20°II11'59	
minimum elong	-12385 Aug 08 j 15:23	20°822'25	1°10'24	min. Earth dist.	-12378 Mar 07 j 08:16	18°II14'47	18.56443 AU
max. Earth dist.	-12385 Aug 09 j 11:30	20°825'29	20.11868 AU	opposition	-12378 Mar 08 j 13:06	18°II11'53	1°23'55
morning rise	-12385 Aug 24 j 04:01	21°818'58		direct	-12378 May 23 j 16:09	16°II13'55	
retrograde	-12385 Nov 25 j 00:53	24°835'04		evening set	-12378 Aug 22 j 00:30	19°II19'31	
min. Earth dist.	-12384 Feb 09 j 07:16	22°836'36	18.15557 AU				
opposition	-12384 Feb 10 j 03:33	22°834'32	1°18'48	conjunction	-12378 Sep 06 j 13:35	20°II14'26	1°15'25
direct	-12384 Apr 26 j 17:47	20°834'30		minimum elong	-12378 Sep 06 j 13:35	20°II14'26	1°16'09
evening set	-12384 Jul 27 j 15:12	23°847'37		max. Earth dist.	-12378 Sep 07 j 19:54	20°II18'56	20.59404 AU
				morning rise	-12378 Sep 22 j 05:16	21°II09'42	
conjunction	-12384 Aug 12 j 03:09	24°843'50	1°11'54	retrograde	-12378 Dec 25 j 03:44	24°II21'41	
minimum elong	-12384 Aug 12 j 03:09	24°843'50	1°12'31	min. Earth dist.	-12377 Mar 11 j 20:38	22°II24'39	18.62468 AU
max. Earth dist.	-12384 Aug 13 j 01:05	24°847'10	20.19154 AU	opposition	-12377 Mar 13 j 03:16	22°II21'34	1°23'11
morning rise	-12384 Aug 27 j 15:58	25°840'10		direct	-12377 May 28 j 05:06	20°II23'50	
retrograde	-12384 Nov 28 j 18:52	28°855'44		evening set	-12377 Aug 26 j 07:38	23°II28'19	
opposition	-12383 Feb 13 j 23:19	26°855'19	1°20'50				
min. Earth dist.	-12383 Feb 13 j 00:05	26°857'41	18.22819 AU	conjunction	-12377 Sep 10 j 21:15	24°II23'04	1°14'36
direct	-12383 May 01 j 12:32	24°855'43		minimum elong	-12377 Sep 10 j 21:16	24°II23'04	1°15'20
evening set	-12383 Aug 01 j 02:33	28°807'32		max. Earth dist.	-12377 Sep 12 j 05:31	24°II27'50	20.65311 AU
				morning rise	-12377 Sep 26 j 13:35	25°II18'12	
conjunction	-12383 Aug 16 j 14:28	29°803'30	1°13'33	retrograde	-12377 Dec 29 j 13:57	28°II29'35	
minimum elong	-12383 Aug 16 j 14:28	29°803'30	1°14'11	min. Earth dist.	-12376 Mar 15 j 09:50	26°II32'37	18.68280 AU
max. Earth dist.	-12383 Aug 17 j 14:35	29°807'09	20.26356 AU	opposition	-12376 Mar 16 j 16:46	26°II29'30	1°22'01
morning rise	-12383 Sep 01 j 03:30	29°859'38		direct	-12376 May 31 j 16:12	24°II31'59	
	-12383 Sep 01 j 06:01	0°II		evening set	-12376 Aug 29 j 14:12	27°II35'24	
retrograde	-12383 Dec 03 j 08:59	3°II14'37					

Attention, astronomical year style is used: The year -12376 in astronomical counting style is the year 12377 BCE in historical counting style.

conjunction	-12376 Sep 14 j 04:19	28° $\Pi$ 30'00	1°13'23	retrograde	-12369 Jan 27 j 09:34	26° $\Theta$ 48'15	
minimum elong	-12376 Sep 14 j 04:19	28° $\Pi$ 30'00	1°14'08	min. Earth dist.	-12369 Apr 14 j 08:40	24° $\Theta$ 52'00	19.01811 AU
max. Earth dist.	-12376 Sep 15 j 12:54	28° $\Pi$ 34'48	20.71031 AU	opposition	-12369 Apr 15 j 17:45	24° $\Theta$ 48'41	1°03'15
morning rise	-12376 Sep 29 j 21:33	29° $\Pi$ 25'01		direct	-12369 Jun 30 j 00:32	22° $\Theta$ 52'39	
	-12376 Oct 10 j 06:46	0° $\Theta$		evening set	-12369 Sep 27 j 03:25	25° $\Theta$ 50'47	
retrograde	-12375 Jan 02 j 00:52	2° $\Theta$ 35'52					
min. Earth dist.	-12375 Mar 19 j 20:52	0° $\Theta$ 39'03	18.73908 AU	conjunction	-12369 Oct 12 j 23:26	26° $\Theta$ 44'53	0°55'27
opposition	-12375 Mar 21 j 05:23	0° $\Theta$ 35'47	1°20'27	minimum elong	-12369 Oct 12 j 23:26	26° $\Theta$ 44'53	0°56'08
	-12375 Apr 05 j 06:50	30° $\kappa$ $\Pi$		max. Earth dist.	-12369 Oct 14 j 10:56	26° $\Theta$ 49'59	21.03381 AU
direct	-12375 Jun 05 j 02:49	28° $\Pi$ 38'29		morning rise	-12369 Oct 28 j 23:32	27° $\Theta$ 39'33	
	-12375 Aug 01 j 09:51	0° $\Theta$			-12369 Dec 17 j 19:56	0° $\Omega$	
evening set	-12375 Sep 02 j 20:21	1° $\Theta$ 40'56		retrograde	-12368 Jan 31 j 17:11	0° $\Omega$ 47'28	
					-12368 Mar 17 j 21:54	30° $\kappa$ $\Theta$	
conjunction	-12375 Sep 18 j 11:12	2° $\Theta$ 35'24	1°11'49	min. Earth dist.	-12368 Apr 17 j 17:39	28° $\Theta$ 51'12	19.04987 AU
minimum elong	-12375 Sep 18 j 11:12	2° $\Theta$ 35'24	1°12'33	opposition	-12368 Apr 19 j 01:47	28° $\Theta$ 47'58	0°59'15
max. Earth dist.	-12375 Sep 19 j 21:32	2° $\Theta$ 40'26	20.76547 AU	direct	-12368 Jul 03 j 06:44	26° $\Theta$ 52'04	
morning rise	-12375 Oct 04 j 05:12	3° $\Theta$ 30'19		evening set	-12368 Sep 30 j 08:12	29° $\Theta$ 49'43	
retrograde	-12374 Jan 06 j 10:15	6° $\Theta$ 40'37			-12368 Oct 03 j 09:35	0° $\Omega$	
min. Earth dist.	-12374 Mar 24 j 08:27	4° $\Theta$ 43'53	18.79320 AU				
opposition	-12374 Mar 25 j 17:03	4° $\Theta$ 40'37	1°18'29	conjunction	-12368 Oct 16 j 05:10	0° $\Omega$ 43'49	0°51'43
direct	-12374 Jun 09 j 11:59	2° $\Theta$ 43'33		minimum elong	-12368 Oct 16 j 05:11	0° $\Omega$ 43'49	0°52'21
evening set	-12374 Sep 07 j 02:09	5° $\Theta$ 45'05		max. Earth dist.	-12368 Oct 17 j 15:01	0° $\Omega$ 48'39	21.06297 AU
				morning rise	-12368 Nov 01 j 06:33	1° $\Omega$ 38'30	
conjunction	-12374 Sep 22 j 17:39	6° $\Theta$ 39'26	1°09'53	retrograde	-12367 Feb 04 j 02:14	4° $\Omega$ 46'07	
minimum elong	-12374 Sep 22 j 17:40	6° $\Theta$ 39'27	1°10'39	min. Earth dist.	-12367 Apr 22 j 01:54	2° $\Omega$ 49'48	19.07619 AU
max. Earth dist.	-12374 Sep 24 j 03:51	6° $\Theta$ 44'26	20.81854 AU	opposition	-12367 Apr 23 j 09:22	2° $\Omega$ 46'39	0°54'58
morning rise	-12374 Oct 08 j 12:41	7° $\Theta$ 34'17		direct	-12367 Jul 07 j 11:43	0° $\Omega$ 50'48	
retrograde	-12373 Jan 10 j 20:47	10° $\Theta$ 44'06		evening set	-12367 Oct 04 j 13:00	3° $\Omega$ 48'03	
min. Earth dist.	-12373 Mar 28 j 18:24	8° $\Theta$ 47'32	18.84504 AU				
opposition	-12373 Mar 30 j 04:05	8° $\Theta$ 44'09	1°16'09	conjunction	-12367 Oct 20 j 11:10	4° $\Omega$ 42'10	0°47'44
direct	-12373 Jun 13 j 20:40	6° $\Theta$ 47'19		minimum elong	-12367 Oct 20 j 11:10	4° $\Omega$ 42'10	0°48'22
evening set	-12373 Sep 11 j 07:25	9° $\Theta$ 48'02		max. Earth dist.	-12367 Oct 21 j 21:02	4° $\Omega$ 46'59	21.08641 AU
				morning rise	-12367 Nov 05 j 13:33	5° $\Omega$ 36'52	
conjunction	-12373 Sep 26 j 23:46	10° $\Theta$ 42'18	1°07'38	retrograde	-12366 Feb 08 j 09:22	8° $\Omega$ 44'11	
minimum elong	-12373 Sep 26 j 23:46	10° $\Theta$ 42'18	1°08'22	min. Earth dist.	-12366 Apr 26 j 09:59	6° $\Omega$ 47'46	19.09670 AU
max. Earth dist.	-12373 Sep 28 j 11:28	10° $\Theta$ 47'29	20.86893 AU	opposition	-12366 Apr 27 j 16:14	6° $\Omega$ 44'44	0°50'26
morning rise	-12373 Oct 12 j 19:38	11° $\Theta$ 37'05		direct	-12366 Jul 11 j 17:29	4° $\Omega$ 48'54	
retrograde	-12372 Jan 15 j 05:23	14° $\Theta$ 46'26		evening set	-12366 Oct 08 j 17:49	7° $\Omega$ 45'48	
min. Earth dist.	-12372 Apr 01 j 04:57	12° $\Theta$ 49'58	18.89393 AU				
opposition	-12372 Apr 02 j 14:29	12° $\Theta$ 46'36	1°13'26	conjunction	-12366 Oct 24 j 16:58	8° $\Omega$ 39'57	0°43'32
direct	-12372 Jun 17 j 04:25	10° $\Theta$ 50'01		minimum elong	-12366 Oct 24 j 16:58	8° $\Omega$ 39'57	0°44'08
evening set	-12372 Sep 14 j 12:38	13° $\Theta$ 49'57		max. Earth dist.	-12366 Oct 26 j 00:52	8° $\Omega$ 44'29	21.10431 AU
				morning rise	-12366 Nov 09 j 20:38	9° $\Omega$ 34'42	
conjunction	-12372 Sep 30 j 05:45	14° $\Theta$ 44'09	1°05'02	retrograde	-12365 Feb 12 j 17:50	12° $\Omega$ 41'46	
minimum elong	-12372 Sep 30 j 05:45	14° $\Theta$ 44'09	1°05'47	opposition	-12365 May 01 j 22:47	10° $\Omega$ 42'16	0°45'41
max. Earth dist.	-12372 Oct 01 j 16:54	14° $\Theta$ 49'14	20.91634 AU	min. Earth dist.	-12365 Apr 30 j 17:28	10° $\Omega$ 45'13	19.11188 AU
morning rise	-12372 Oct 16 j 02:45	15° $\Theta$ 38'53		direct	-12365 Jul 15 j 21:50	8° $\Omega$ 46'24	
retrograde	-12371 Jan 18 j 15:49	18° $\Theta$ 47'50		evening set	-12365 Oct 12 j 22:22	11° $\Omega$ 43'01	
min. Earth dist.	-12371 Apr 05 j 14:14	16° $\Theta$ 51'29	18.93959 AU				
opposition	-12371 Apr 07 j 00:10	16° $\Theta$ 48'05	1°10'22	conjunction	-12365 Oct 28 j 22:44	12° $\Omega$ 37'13	0°39'09
direct	-12371 Jun 21 j 11:43	14° $\Theta$ 51'42		minimum elong	-12365 Oct 28 j 22:44	12° $\Omega$ 37'13	0°39'44
evening set	-12371 Sep 18 j 17:37	17° $\Theta$ 50'58		max. Earth dist.	-12365 Oct 30 j 06:42	12° $\Omega$ 41'45	21.11690 AU
				morning rise	-12365 Nov 14 j 03:26	13° $\Omega$ 32'01	
conjunction	-12371 Oct 04 j 11:44	18° $\Theta$ 45'08	1°02'08		-12365 Dec 12 j 17:03	15° $\Omega$	
minimum elong	-12371 Oct 04 j 11:44	18° $\Theta$ 45'08	1°02'51	retrograde	-12364 Feb 17 j 00:32	16° $\Omega$ 38'52	
max. Earth dist.	-12371 Oct 05 j 23:53	18° $\Theta$ 50'21	20.96001 AU		-12364 Apr 26 j 14:35	15° $\kappa$ $\Omega$	
morning rise	-12371 Oct 20 j 09:42	19° $\Theta$ 39'49		min. Earth dist.	-12364 May 04 j 00:39	14° $\Omega$ 42'10	19.12192 AU
retrograde	-12370 Jan 22 j 23:50	22° $\Theta$ 48'23		opposition	-12364 May 05 j 04:52	14° $\Omega$ 39'19	0°40'44
min. Earth dist.	-12370 Apr 09 j 23:59	20° $\Theta$ 52'06	18.98111 AU	direct	-12364 Jul 19 j 02:41	12° $\Omega$ 43'24	
opposition	-12370 Apr 11 j 09:17	20° $\Theta$ 48'45	1°06'58		-12364 Oct 03 j 19:37	15° $\Omega$	
direct	-12370 Jun 25 j 18:29	18° $\Theta$ 52'34		evening set	-12364 Oct 16 j 03:16	15° $\Omega$ 39'49	
evening set	-12370 Sep 22 j 22:36	21° $\Theta$ 51'14					
				conjunction	-12364 Nov 01 j 04:39	16° $\Omega$ 34'04	0°34'36
conjunction	-12370 Oct 08 j 17:32	22° $\Theta$ 45'20	0°58'56	minimum elong	-12364 Nov 01 j 04:40	16° $\Omega$ 34'04	0°35'08
minimum elong	-12370 Oct 08 j 17:33	22° $\Theta$ 45'20	0°59'38	max. Earth dist.	-12364 Nov 02 j 10:36	16° $\Omega$ 38'19	21.12477 AU
max. Earth dist.	-12370 Oct 10 j 04:33	22° $\Theta$ 50'23	20.99937 AU	morning rise	-12364 Nov 17 j 10:39	17° $\Omega$ 28'56	
morning rise	-12370 Oct 24 j 16:40	23° $\Theta$ 40'01		retrograde	-12363 Feb 20 j 08:52	20° $\Omega$ 35'36	

Attention, astronomical year style is used: The year -12363 in astronomical counting style is the year 12364 BCE in historical counting style.

min. Earth dist.	-12363 May 08 j 07:20	18° $\Omega$ 38'43	19.12757 AU	morning rise	-12358 Dec 12 j 10:01	11° $\Upsilon$ 10'44	
opposition	-12363 May 09 j 10:27	18° $\Omega$ 35'59	0°35'36	retrograde	-12357 Mar 17 j 07:23	14° $\Upsilon$ 17'18	
direct	-12363 Jul 23 j 06:52	16° $\Omega$ 39'59		opposition	-12357 Jun 02 j 15:38	12° $\Upsilon$ 17'36	0°02'09
evening set	-12363 Oct 20 j 08:13	19° $\Omega$ 36'18		min. Earth dist.	-12357 Jun 01 j 21:08	12° $\Upsilon$ 19'29	19.07672 AU
				direct	-12357 Aug 16 j 04:34	10° $\Upsilon$ 21'02	
conjunction	-12363 Nov 05 j 10:51	20° $\Omega$ 30'38	0°29'53	desc. node	-12357 Oct 14 j 07:01	11° $\Upsilon$ 45'49	
minimum elong	-12363 Nov 05 j 10:52	20° $\Omega$ 30'38	0°30'23	evening set	-12357 Nov 13 j 20:39	13° $\Upsilon$ 18'29	
max. Earth dist.	-12363 Nov 06 j 16:43	20° $\Omega$ 34'51	21.12825 AU				
morning rise	-12363 Nov 21 j 17:50	21° $\Omega$ 25'35		conjunction	-12357 Nov 30 j 06:00	14° $\Upsilon$ 13'38	-0°00'40
retrograde	-12362 Feb 24 j 15:33	24° $\Omega$ 32'05		minimum elong	-12357 Nov 30 j 05:59	14° $\Upsilon$ 13'38	0°00'27
opposition	-12362 May 13 j 15:43	22° $\Omega$ 32'26	0°30'19	behind sun begin	-12357 Nov 29 j 23:18	14° $\Upsilon$ 12'43	
min. Earth dist.	-12362 May 12 j 13:43	22° $\Omega$ 35'04	19.12892 AU	behind sun end	-12357 Nov 30 j 12:40	14° $\Upsilon$ 14'33	
direct	-12362 Jul 27 j 10:25	20° $\Omega$ 36'22		max. Earth dist.	-12357 Dec 01 j 02:34	14° $\Upsilon$ 16'32	21.06537 AU
evening set	-12362 Oct 24 j 13:22	23° $\Omega$ 32'38		morning rise	-12357 Dec 16 j 19:09	15° $\Upsilon$ 09'20	
				retrograde	-12356 Mar 20 j 16:16	18° $\Upsilon$ 16'02	
conjunction	-12362 Nov 09 j 17:00	24° $\Omega$ 27'04	0°25'03	opposition	-12356 Jun 05 j 20:25	16° $\Upsilon$ 16'20	-0°03'40
minimum elong	-12362 Nov 09 j 17:00	24° $\Omega$ 27'04	0°25'30	min. Earth dist.	-12356 Jun 05 j 03:46	16° $\Upsilon$ 18'03	19.05304 AU
max. Earth dist.	-12362 Nov 10 j 20:42	24° $\Omega$ 30'59	21.12773 AU	direct	-12356 Aug 19 j 09:33	14° $\Upsilon$ 19'38	
morning rise	-12362 Nov 26 j 01:12	25° $\Omega$ 22'06		evening set	-12356 Nov 17 j 04:44	17° $\Upsilon$ 17'34	
retrograde	-12361 Feb 28 j 23:44	28° $\Omega$ 28'32					
opposition	-12361 May 17 j 20:46	26° $\Omega$ 28'50	0°24'53	conjunction	-12356 Dec 03 j 14:59	18° $\Upsilon$ 12'53	-0°05'59
min. Earth dist.	-12361 May 16 j 19:57	26° $\Omega$ 31'21	19.12647 AU	minimum elong	-12356 Dec 03 j 14:59	18° $\Upsilon$ 12'53	0°05'49
direct	-12361 Jul 31 j 14:31	24° $\Omega$ 32'40		behind sun begin	-12356 Dec 03 j 08:34	18° $\Upsilon$ 12'00	
evening set	-12361 Oct 28 j 18:43	27° $\Omega$ 29'01		behind sun end	-12356 Dec 03 j 21:24	18° $\Upsilon$ 13'46	
				max. Earth dist.	-12356 Dec 04 j 08:07	18° $\Upsilon$ 15'18	21.03925 AU
conjunction	-12361 Nov 13 j 23:36	28° $\Omega$ 23'33	0°20'05	morning rise	-12356 Dec 20 j 05:12	19° $\Upsilon$ 08'45	
minimum elong	-12361 Nov 13 j 23:37	28° $\Omega$ 23'33	0°20'29	retrograde	-12355 Mar 25 j 00:37	22° $\Upsilon$ 15'38	
max. Earth dist.	-12361 Nov 15 j 03:05	28° $\Omega$ 27'26	21.12336 AU	min. Earth dist.	-12355 Jun 09 j 11:03	20° $\Upsilon$ 17'22	19.02429 AU
morning rise	-12361 Nov 30 j 08:44	29° $\Omega$ 18'42		opposition	-12355 Jun 10 j 01:16	20° $\Upsilon$ 15'55	-0°09'30
	-12361 Dec 13 j 04:44	0° $\Upsilon$		direct	-12355 Aug 23 j 13:21	18° $\Upsilon$ 18'59	
retrograde	-12360 Mar 04 j 06:56	2° $\Upsilon$ 25'05		evening set	-12355 Nov 21 j 13:21	21° $\Upsilon$ 17'29	
min. Earth dist.	-12360 May 20 j 01:59	0° $\Upsilon$ 27'47	19.12011 AU				
opposition	-12360 May 21 j 01:34	0° $\Upsilon$ 25'23	0°19'20	conjunction	-12355 Dec 08 j 00:45	22° $\Upsilon$ 13'00	-0°11'13
	-12360 May 31 j 13:32	30° $\Upsilon$ 00		minimum elong	-12355 Dec 08 j 00:45	22° $\Upsilon$ 13'00	0°11'06
direct	-12360 Aug 03 j 17:44	28° $\Omega$ 29'09		behind sun begin	-12355 Dec 07 j 19:47	22° $\Upsilon$ 12'19	
	-12360 Oct 04 j 01:07	0° $\Upsilon$		behind sun end	-12355 Dec 08 j 05:42	22° $\Upsilon$ 13'41	
evening set	-12360 Nov 01 j 00:29	1° $\Upsilon$ 25'38		max. Earth dist.	-12355 Dec 08 j 16:23	22° $\Upsilon$ 15'12	21.00774 AU
				morning rise	-12355 Dec 24 j 15:37	23° $\Upsilon$ 09'02	
conjunction	-12360 Nov 17 j 06:26	2° $\Upsilon$ 20'17	0°15'01	retrograde	-12354 Mar 29 j 09:47	26° $\Upsilon$ 16'07	
minimum elong	-12360 Nov 17 j 06:26	2° $\Upsilon$ 20'17	0°15'23	opposition	-12354 Jun 14 j 06:20	24° $\Upsilon$ 16'21	-0°15'18
behind sun begin	-12360 Nov 17 j 04:41	2° $\Upsilon$ 20'03		min. Earth dist.	-12354 Jun 13 j 18:08	24° $\Upsilon$ 17'36	18.98997 AU
behind sun end	-12360 Nov 17 j 08:11	2° $\Upsilon$ 20'32		direct	-12354 Aug 27 j 18:58	22° $\Upsilon$ 19'11	
max. Earth dist.	-12360 Nov 18 j 07:26	2° $\Upsilon$ 23'49	21.11523 AU	evening set	-12354 Nov 25 j 22:32	25° $\Upsilon$ 18'18	
morning rise	-12360 Dec 03 j 16:48	3° $\Upsilon$ 15'34					
retrograde	-12359 Mar 08 j 15:11	6° $\Upsilon$ 21'58		conjunction	-12354 Dec 12 j 10:44	26° $\Upsilon$ 14'00	-0°16'26
min. Earth dist.	-12359 May 24 j 08:20	4° $\Upsilon$ 24'30	19.10993 AU	minimum elong	-12354 Dec 12 j 10:44	26° $\Upsilon$ 14'00	0°16'22
opposition	-12359 May 25 j 06:20	4° $\Upsilon$ 22'15	0°13'41	max. Earth dist.	-12354 Dec 12 j 22:38	26° $\Upsilon$ 15'41	20.97082 AU
direct	-12359 Aug 07 j 21:24	2° $\Upsilon$ 25'55		morning rise	-12354 Dec 29 j 02:32	27° $\Upsilon$ 10'13	
evening set	-12359 Nov 05 j 06:44	5° $\Upsilon$ 22'38			-12353 Mar 06 j 22:54	0° $\Omega$	
				retrograde	-12353 Apr 02 j 18:46	0° $\Omega$ 17'33	
conjunction	-12359 Nov 21 j 13:54	6° $\Upsilon$ 17'27	0°09'52		-12353 Apr 29 j 16:47	30° $\Upsilon$ 00	
minimum elong	-12359 Nov 21 j 13:54	6° $\Upsilon$ 17'27	0°10'11	opposition	-12353 Jun 18 j 11:38	28° $\Upsilon$ 17'40	-0°21'02
behind sun begin	-12359 Nov 21 j 08:35	6° $\Upsilon$ 16'43		min. Earth dist.	-12353 Jun 18 j 01:58	28° $\Upsilon$ 18'40	18.95042 AU
behind sun end	-12359 Nov 21 j 19:12	6° $\Upsilon$ 18'11		direct	-12353 Aug 31 j 23:59	26° $\Upsilon$ 20'13	
max. Earth dist.	-12359 Nov 22 j 14:18	6° $\Upsilon$ 20'54	21.10298 AU	evening set	-12353 Nov 30 j 08:17	29° $\Upsilon$ 20'00	
morning rise	-12359 Dec 08 j 01:08	7° $\Upsilon$ 12'51			-12353 Dec 12 j 05:19	0° $\Omega$	
retrograde	-12358 Mar 12 j 23:13	10° $\Upsilon$ 19'18					
opposition	-12358 May 29 j 10:53	8° $\Upsilon$ 19'36	0°07'57	conjunction	-12353 Dec 16 j 21:35	0° $\Omega$ 15'56	-0°21'34
min. Earth dist.	-12358 May 28 j 14:26	8° $\Upsilon$ 21'42	19.09547 AU	minimum elong	-12353 Dec 16 j 21:35	0° $\Omega$ 15'56	0°21'33
direct	-12358 Aug 12 j 01:23	6° $\Upsilon$ 23'10		max. Earth dist.	-12353 Dec 17 j 07:58	0° $\Omega$ 17'24	20.92870 AU
evening set	-12358 Nov 09 j 13:31	9° $\Upsilon$ 20'13		morning rise	-12352 Jan 02 j 13:57	1° $\Omega$ 12'20	
				retrograde	-12352 Apr 06 j 03:55	4° $\Omega$ 19'54	
conjunction	-12358 Nov 25 j 21:38	10° $\Upsilon$ 15'11	0°04'41	opposition	-12352 Jun 21 j 16:56	2° $\Omega$ 19'55	-0°26'41
minimum elong	-12358 Nov 25 j 21:39	10° $\Upsilon$ 15'11	0°04'57	min. Earth dist.	-12352 Jun 21 j 09:14	2° $\Omega$ 20'43	18.90581 AU
behind sun begin	-12358 Nov 25 j 15:08	10° $\Upsilon$ 14'18		direct	-12352 Sep 04 j 05:55	0° $\Omega$ 22'09	
behind sun end	-12358 Nov 26 j 04:09	10° $\Upsilon$ 16'05		evening set	-12352 Dec 03 j 18:50	3° $\Omega$ 22'40	
max. Earth dist.	-12358 Nov 26 j 19:10	10° $\Upsilon$ 18'13	21.08650 AU				

Attention, astronomical year style is used: The year -12352 in astronomical counting style is the year 12353 BCE in historical counting style.

conjunction	-12352 Dec 20 j 08:55	4° <u>♂</u> 18'49	-0°26'38	min. Earth dist.	-12345 Jul 20 j 23:41	1° <u>♂</u> 09'01	18.50541 AU
minimum elong	-12352 Dec 20 j 08:54	4° <u>♂</u> 18'49	0°26'41		-12345 Aug 19 j 00:52	30° <u>♂</u> ♂	
max. Earth dist.	-12352 Dec 20 j 15:29	4° <u>♂</u> 19'44	20.88194 AU	direct	-12345 Oct 03 j 11:12	29° <u>♂</u> 09'28	
morning rise	-12351 Jan 06 j 02:07	5° <u>♂</u> 15'24			-12345 Nov 17 j 05:11	0° <u>♂</u>	
retrograde	-12351 Apr 10 j 13:50	8° <u>♂</u> 23'16		evening set	-12344 Jan 03 j 16:38	2° <u>♂</u> 17'12	
opposition	-12351 Jun 25 j 22:36	6° <u>♂</u> 23'09	-0°32'14				
min. Earth dist.	-12351 Jun 25 j 17:31	6° <u>♂</u> 23'40	18.85695 AU	conjunction	-12344 Jan 20 j 11:21	3° <u>♂</u> 15'09	-0°57'30
direct	-12351 Sep 08 j 12:02	4° <u>♂</u> 25'00		minimum elong	-12344 Jan 20 j 11:20	3° <u>♂</u> 15'09	0°57'54
evening set	-12351 Dec 08 j 05:55	7° <u>♂</u> 26'20		max. Earth dist.	-12344 Jan 20 j 01:42	3° <u>♂</u> 13'45	20.47302 AU
				morning rise	-12344 Feb 06 j 06:47	4° <u>♂</u> 13'16	
conjunction	-12351 Dec 24 j 20:58	8° <u>♂</u> 22'43	-0°31'34	retrograde	-12344 May 09 j 21:35	7° <u>♂</u> 24'15	
minimum elong	-12351 Dec 24 j 20:57	8° <u>♂</u> 22'43	0°31'40	opposition	-12344 Jul 24 j 00:52	5° <u>♂</u> 23'30	-1°05'45
max. Earth dist.	-12351 Dec 25 j 02:08	8° <u>♂</u> 23'27	20.83106 AU	min. Earth dist.	-12344 Jul 24 j 09:56	5° <u>♂</u> 22'32	18.44049 AU
morning rise	-12350 Jan 10 j 14:33	9° <u>♂</u> 19'31		direct	-12344 Oct 06 j 22:14	3° <u>♂</u> 22'49	
retrograde	-12350 Apr 14 j 23:16	12° <u>♂</u> 27'41		evening set	-12343 Jan 07 j 09:47	6° <u>♂</u> 31'51	
opposition	-12350 Jun 30 j 04:22	10° <u>♂</u> 27'26	-0°37'38				
min. Earth dist.	-12350 Jun 30 j 01:03	10° <u>♂</u> 27'47	18.80428 AU	conjunction	-12343 Jan 24 j 04:41	7° <u>♂</u> 30'04	-1°00'59
direct	-12350 Sep 12 j 18:36	8° <u>♂</u> 28'56		minimum elong	-12343 Jan 24 j 04:40	7° <u>♂</u> 30'04	1°01'25
evening set	-12350 Dec 12 j 17:48	11° <u>♂</u> 31'08		max. Earth dist.	-12343 Jan 23 j 15:16	7° <u>♂</u> 28'07	20.40728 AU
				morning rise	-12343 Feb 10 j 00:16	8° <u>♂</u> 28'25	
conjunction	-12350 Dec 29 j 09:26	12° <u>♂</u> 27'46	-0°36'22	retrograde	-12343 May 14 j 10:56	11° <u>♂</u> 39'59	
minimum elong	-12350 Dec 29 j 09:26	12° <u>♂</u> 27'46	0°36'32	opposition	-12343 Jul 28 j 10:31	9° <u>♂</u> 39'12	-1°09'27
max. Earth dist.	-12350 Dec 29 j 10:58	12° <u>♂</u> 27'59	20.77689 AU	min. Earth dist.	-12343 Jul 28 j 22:33	9° <u>♂</u> 37'55	18.37403 AU
morning rise	-12349 Jan 15 j 03:42	13° <u>♂</u> 24'46		direct	-12343 Oct 11 j 08:29	7° <u>♂</u> 38'09	
retrograde	-12349 Apr 19 j 09:46	16° <u>♂</u> 33'19		evening set	-12342 Jan 12 j 03:38	10° <u>♂</u> 48'31	
opposition	-12349 Jul 04 j 10:37	14° <u>♂</u> 32'55	-0°42'53				
min. Earth dist.	-12349 Jul 04 j 09:49	14° <u>♂</u> 33'00	18.74877 AU	conjunction	-12342 Jan 28 j 22:56	11° <u>♂</u> 47'01	-1°04'08
direct	-12349 Sep 17 j 01:32	12° <u>♂</u> 34'01		minimum elong	-12342 Jan 28 j 22:55	11° <u>♂</u> 47'01	1°04'38
evening set	-12349 Dec 17 j 06:09	15° <u>♂</u> 37'12		max. Earth dist.	-12342 Jan 28 j 07:53	11° <u>♂</u> 44'49	20.33986 AU
				morning rise	-12342 Feb 14 j 18:17	12° <u>♂</u> 45'35	
conjunction	-12348 Jan 02 j 22:42	16° <u>♂</u> 34'05	-0°41'01		-12342 Apr 01 j 03:38	15° <u>♂</u>	
minimum elong	-12348 Jan 02 j 22:41	16° <u>♂</u> 34'05	0°41'13	retrograde	-12342 May 19 j 02:32	15° <u>♂</u> 57'45	
max. Earth dist.	-12348 Jan 02 j 22:59	16° <u>♂</u> 34'07	20.72000 AU		-12342 Jul 06 j 21:01	15° <u>♂</u> ♂	
morning rise	-12348 Jan 19 j 17:14	17° <u>♂</u> 31'17		opposition	-12342 Aug 01 j 20:49	13° <u>♂</u> 56'55	-1°12'48
retrograde	-12348 Apr 22 j 20:26	20° <u>♂</u> 40'14		min. Earth dist.	-12342 Aug 02 j 10:18	13° <u>♂</u> 55'29	18.30574 AU
opposition	-12348 Jul 07 j 17:12	18° <u>♂</u> 39'44	-0°47'56	direct	-12342 Oct 15 j 21:17	11° <u>♂</u> 55'30	
min. Earth dist.	-12348 Jul 07 j 17:59	18° <u>♂</u> 39'39	18.69066 AU		-12341 Jan 14 j 20:01	15° <u>♂</u>	
direct	-12348 Sep 20 j 09:19	16° <u>♂</u> 40'29		evening set	-12341 Jan 16 j 22:38	15° <u>♂</u> 07'13	
evening set	-12348 Dec 20 j 19:38	19° <u>♂</u> 44'41					
				conjunction	-12341 Feb 02 j 17:59	16° <u>♂</u> 05'59	-1°06'57
conjunction	-12347 Jan 06 j 12:39	20° <u>♂</u> 41'49	-0°45'28	minimum elong	-12341 Feb 02 j 17:58	16° <u>♂</u> 05'59	1°07'29
minimum elong	-12347 Jan 06 j 12:39	20° <u>♂</u> 41'49	0°45'43	max. Earth dist.	-12341 Feb 01 j 23:12	16° <u>♂</u> 03'14	20.27063 AU
max. Earth dist.	-12347 Jan 06 j 09:15	20° <u>♂</u> 41'20	20.66083 AU	morning rise	-12341 Feb 19 j 13:16	17° <u>♂</u> 04'47	
morning rise	-12347 Jan 23 j 07:42	21° <u>♂</u> 39'15		retrograde	-12341 May 23 j 17:27	20° <u>♂</u> 17'33	
retrograde	-12347 Apr 27 j 07:26	24° <u>♂</u> 48'39		opposition	-12341 Aug 06 j 08:00	18° <u>♂</u> 16'38	-1°15'46
opposition	-12347 Jul 12 j 00:15	22° <u>♂</u> 48'03	-0°52'47	min. Earth dist.	-12341 Aug 07 j 00:32	18° <u>♂</u> 14'52	18.23582 AU
min. Earth dist.	-12347 Jul 12 j 03:39	22° <u>♂</u> 47'42	18.63060 AU	direct	-12341 Oct 20 j 09:20	16° <u>♂</u> 14'48	
direct	-12347 Sep 24 j 17:08	20° <u>♂</u> 48'25		evening set	-12340 Jan 21 j 18:22	19° <u>♂</u> 27'53	
evening set	-12347 Dec 25 j 09:46	23° <u>♂</u> 53'45					
				conjunction	-12340 Feb 07 j 13:59	20° <u>♂</u> 26'55	-1°09'24
conjunction	-12346 Jan 11 j 03:32	24° <u>♂</u> 51'09	-0°49'43	minimum elong	-12340 Feb 07 j 13:58	20° <u>♂</u> 26'55	1°09'58
minimum elong	-12346 Jan 11 j 03:31	24° <u>♂</u> 51'09	0°50'01	max. Earth dist.	-12340 Feb 06 j 17:22	20° <u>♂</u> 23'53	20.19982 AU
max. Earth dist.	-12346 Jan 10 j 22:51	24° <u>♂</u> 50'29	20.59980 AU	morning rise	-12340 Feb 24 j 08:59	21° <u>♂</u> 25'57	
morning rise	-12346 Jan 27 j 22:40	25° <u>♂</u> 48'48		retrograde	-12340 May 27 j 10:26	24° <u>♂</u> 39'18	
retrograde	-12346 May 01 j 19:43	28° <u>♂</u> 58'42		opposition	-12340 Aug 09 j 19:54	22° <u>♂</u> 38'17	-1°18'18
opposition	-12346 Jul 16 j 07:53	26° <u>♂</u> 58'02	-0°57'23	min. Earth dist.	-12340 Aug 10 j 13:43	22° <u>♂</u> 36'23	18.16424 AU
min. Earth dist.	-12346 Jul 16 j 12:44	26° <u>♂</u> 57'31	18.56872 AU	direct	-12340 Oct 24 j 00:04	20° <u>♂</u> 36'01	
direct	-12346 Sep 29 j 02:25	24° <u>♂</u> 58'03		evening set	-12339 Jan 25 j 15:12	23° <u>♂</u> 50'28	
evening set	-12346 Dec 30 j 00:44	28° <u>♂</u> 04'32		max. Earth dist.	-12339 Feb 10 j 10:43	24° <u>♂</u> 46'13	20.12755 AU
conjunction	-12345 Jan 15 j 18:50	29° <u>♂</u> 02'13	-0°53'45	conjunction	-12339 Feb 11 j 10:43	24° <u>♂</u> 49'46	-1°11'28
minimum elong	-12345 Jan 15 j 18:49	29° <u>♂</u> 02'13	0°54'05	minimum elong	-12339 Feb 11 j 10:43	24° <u>♂</u> 49'46	1°12'05
max. Earth dist.	-12345 Jan 15 j 10:34	29° <u>♂</u> 01'01	20.53715 AU	morning rise	-12339 Feb 28 j 05:25	25° <u>♂</u> 49'00	
morning rise	-12345 Feb 01 j 14:19	0° <u>♂</u> 00'06		retrograde	-12339 Jun 01 j 02:24	29° <u>♂</u> 02'57	
	-12345 Feb 01 j 13:39	0° <u>♂</u>		opposition	-12339 Aug 14 j 08:40	27° <u>♂</u> 01'49	-1°20'24
retrograde	-12345 May 06 j 07:37	3° <u>♂</u> 10'32		min. Earth dist.	-12339 Aug 15 j 05:27	26° <u>♂</u> 59'35	18.09166 AU
opposition	-12345 Jul 20 j 16:09	1° <u>♂</u> 09'48	-1°01'43	direct	-12339 Oct 28 j 13:48	24° <u>♂</u> 59'04	

Attention, astronomical year style is used: The year -12338 in astronomical counting style is the year 12339 BCE in historical counting style.

evening set	-12338 Jan 30 j 12:39	28° $\mathbb{M}$ 14'53		minimum elong	-12332 Mar 16 j 05:33	26° $\mathbb{A}$ 19'47	1°14'28
max. Earth dist.	-12338 Feb 15 j 06:32	29° $\mathbb{M}$ 10'38	20.05472 AU	morning rise	-12332 Apr 01 j 19:56	27° $\mathbb{A}$ 20'18	
					-12332 May 26 j 03:12	0° $\mathbb{B}$	
conjunction	-12338 Feb 16 j 08:12	29° $\mathbb{M}$ 14'27	-1°13'07	retrograde	-12332 Jul 02 j 15:50	0° $\mathbb{B}$ 38'15	
minimum elong	-12338 Feb 16 j 08:12	29° $\mathbb{M}$ 14'27	1°13'45		-12332 Aug 09 j 17:32	30° $\mathbb{R}$ $\mathbb{A}$	
	-12338 Mar 01 j 03:20	0° $\mathbb{A}$		opposition	-12332 Sep 14 j 00:42	28° $\mathbb{A}$ 36'24	-1°21'23
morning rise	-12338 Mar 05 j 02:29	0° $\mathbb{A}$ 13'54		min. Earth dist.	-12332 Sep 15 j 05:33	28° $\mathbb{A}$ 33'16	17.62061 AU
retrograde	-12338 Jun 05 j 20:44	3° $\mathbb{A}$ 28'24		direct	-12332 Nov 29 j 00:02	26° $\mathbb{A}$ 30'53	
opposition	-12338 Aug 18 j 22:07	1° $\mathbb{A}$ 27'08	-1°22'03	evening set	-12331 Mar 04 j 14:18	29° $\mathbb{A}$ 55'55	
min. Earth dist.	-12338 Aug 19 j 19:47	1° $\mathbb{A}$ 24'48	18.01881 AU		-12331 Mar 05 j 17:33	0° $\mathbb{B}$	
	-12338 Sep 25 j 10:30	30° $\mathbb{R}$ $\mathbb{M}$		max. Earth dist.	-12331 Mar 19 j 20:22	0° $\mathbb{B}$ 51'40	19.59200 AU
direct	-12338 Nov 02 j 06:42	29° $\mathbb{M}$ 23'56					
	-12338 Dec 09 j 16:39	0° $\mathbb{A}$		conjunction	-12331 Mar 21 j 07:09	0° $\mathbb{B}$ 57'01	-1°12'10
evening set	-12337 Feb 04 j 10:46	2° $\mathbb{A}$ 41'06		minimum elong	-12331 Mar 21 j 07:09	0° $\mathbb{B}$ 57'01	1°12'56
max. Earth dist.	-12337 Feb 20 j 01:57	3° $\mathbb{A}$ 36'42	19.98196 AU	morning rise	-12331 Apr 06 j 20:27	1° $\mathbb{B}$ 57'39	
				retrograde	-12331 Jul 07 j 11:50	5° $\mathbb{B}$ 16'10	
conjunction	-12337 Feb 21 j 06:08	3° $\mathbb{A}$ 40'55	-1°14'21	opposition	-12331 Sep 18 j 20:26	3° $\mathbb{B}$ 14'20	-1°19'25
minimum elong	-12337 Feb 21 j 06:08	3° $\mathbb{A}$ 40'55	1°15'01	min. Earth dist.	-12331 Sep 20 j 02:46	3° $\mathbb{B}$ 11'02	17.56620 AU
morning rise	-12337 Mar 09 j 23:57	4° $\mathbb{A}$ 40'34		direct	-12331 Dec 03 j 20:50	1° $\mathbb{B}$ 08'36	
retrograde	-12337 Jun 10 j 13:14	7° $\mathbb{A}$ 55'39		evening set	-12330 Mar 09 j 17:05	4° $\mathbb{B}$ 34'49	
opposition	-12337 Aug 23 j 12:29	5° $\mathbb{A}$ 54'14	-1°23'12	max. Earth dist.	-12330 Mar 24 j 20:57	5° $\mathbb{B}$ 30'29	19.53971 AU
min. Earth dist.	-12337 Aug 24 j 12:49	5° $\mathbb{A}$ 51'36	17.94656 AU				
direct	-12337 Nov 06 j 21:51	3° $\mathbb{A}$ 50'34		conjunction	-12330 Mar 26 j 09:04	5° $\mathbb{B}$ 36'04	-1°10'08
evening set	-12336 Feb 09 j 09:42	7° $\mathbb{A}$ 09'05		minimum elong	-12330 Mar 26 j 09:04	5° $\mathbb{B}$ 36'04	1°10'53
max. Earth dist.	-12336 Feb 24 j 23:12	8° $\mathbb{A}$ 04'41	19.91028 AU	morning rise	-12330 Apr 11 j 21:35	6° $\mathbb{B}$ 36'50	
				retrograde	-12330 Jul 12 j 10:56	9° $\mathbb{B}$ 55'54	
conjunction	-12336 Feb 26 j 04:54	8° $\mathbb{A}$ 09'09	-1°15'09	opposition	-12330 Sep 23 j 16:56	7° $\mathbb{B}$ 54'06	-1°16'55
minimum elong	-12336 Feb 26 j 04:54	8° $\mathbb{A}$ 09'09	1°15'50	min. Earth dist.	-12330 Sep 24 j 23:05	7° $\mathbb{B}$ 50'49	17.51595 AU
morning rise	-12336 Mar 13 j 22:12	9° $\mathbb{A}$ 08'59		direct	-12330 Dec 08 j 21:14	5° $\mathbb{B}$ 48'09	
retrograde	-12336 Jun 14 j 08:46	12° $\mathbb{A}$ 24'38		evening set	-12329 Mar 14 j 20:07	9° $\mathbb{B}$ 15'29	
opposition	-12336 Aug 27 j 03:25	10° $\mathbb{A}$ 23'05	-1°23'53	max. Earth dist.	-12329 Mar 29 j 24:00	10° $\mathbb{B}$ 11'23	19.49133 AU
min. Earth dist.	-12336 Aug 28 j 04:17	10° $\mathbb{A}$ 20'23	17.87569 AU				
direct	-12336 Nov 10 j 16:51	8° $\mathbb{A}$ 18'58		conjunction	-12329 Mar 31 j 11:30	10° $\mathbb{B}$ 16'53	-1°07'38
evening set	-12335 Feb 13 j 09:26	11° $\mathbb{A}$ 38'50		minimum elong	-12329 Mar 31 j 11:30	10° $\mathbb{B}$ 16'53	1°08'22
max. Earth dist.	-12335 Feb 28 j 20:56	12° $\mathbb{A}$ 34'24	19.84028 AU	morning rise	-12329 Apr 16 j 22:53	11° $\mathbb{B}$ 17'45	
				retrograde	-12329 Jul 17 j 08:39	14° $\mathbb{B}$ 37'20	
conjunction	-12335 Mar 02 j 04:18	12° $\mathbb{A}$ 39'08	-1°15'29	opposition	-12329 Sep 28 j 14:33	12° $\mathbb{B}$ 35'34	-1°13'53
minimum elong	-12335 Mar 02 j 04:18	12° $\mathbb{A}$ 39'08	1°16'11	min. Earth dist.	-12329 Sep 29 j 21:49	12° $\mathbb{B}$ 32'10	17.46945 AU
morning rise	-12335 Mar 18 j 20:53	13° $\mathbb{A}$ 39'09		direct	-12329 Dec 13 j 20:37	10° $\mathbb{B}$ 29'28	
retrograde	-12335 Jun 19 j 02:17	16° $\mathbb{A}$ 55'22		evening set	-12328 Mar 18 j 23:54	13° $\mathbb{B}$ 57'50	
opposition	-12335 Aug 31 j 19:31	14° $\mathbb{A}$ 53'42	-1°24'02	max. Earth dist.	-12328 Apr 03 j 01:18	14° $\mathbb{B}$ 53'35	19.44676 AU
min. Earth dist.	-12335 Sep 01 j 22:37	14° $\mathbb{A}$ 50'46	17.80701 AU				
direct	-12335 Nov 15 j 09:46	12° $\mathbb{A}$ 49'10		conjunction	-12328 Apr 04 j 14:13	14° $\mathbb{B}$ 59'20	-1°04'39
evening set	-12334 Feb 18 j 09:37	16° $\mathbb{A}$ 10'21		minimum elong	-12328 Apr 04 j 14:14	14° $\mathbb{B}$ 59'20	1°05'21
max. Earth dist.	-12334 Mar 05 j 19:22	17° $\mathbb{A}$ 05'55	19.77297 AU	morning rise	-12328 Apr 21 j 00:42	16° $\mathbb{B}$ 00'17	
				retrograde	-12328 Jul 21 j 08:17	19° $\mathbb{B}$ 20'21	
conjunction	-12334 Mar 07 j 04:02	17° $\mathbb{A}$ 10'52	-1°15'22	opposition	-12328 Oct 02 j 12:53	17° $\mathbb{B}$ 18'36	-1°10'20
minimum elong	-12334 Mar 07 j 04:02	17° $\mathbb{A}$ 10'52	1°16'06	min. Earth dist.	-12328 Oct 03 j 20:02	17° $\mathbb{B}$ 15'13	17.42677 AU
morning rise	-12334 Mar 23 j 20:00	18° $\mathbb{A}$ 11'04		direct	-12328 Dec 17 j 22:24	15° $\mathbb{B}$ 12'20	
retrograde	-12334 Jun 23 j 23:01	21° $\mathbb{A}$ 27'53		evening set	-12327 Mar 24 j 03:50	18° $\mathbb{B}$ 41'37	
opposition	-12334 Sep 05 j 12:20	19° $\mathbb{A}$ 26'06	-1°23'41	max. Earth dist.	-12327 Apr 08 j 05:32	19° $\mathbb{B}$ 37'36	19.40591 AU
min. Earth dist.	-12334 Sep 06 j 15:28	19° $\mathbb{A}$ 23'09	17.74126 AU				
direct	-12334 Nov 20 j 06:39	17° $\mathbb{A}$ 21'12		conjunction	-12327 Apr 09 j 17:24	19° $\mathbb{B}$ 43'13	-1°01'13
evening set	-12333 Feb 23 j 10:32	20° $\mathbb{A}$ 43'41		minimum elong	-12327 Apr 09 j 17:24	19° $\mathbb{B}$ 43'13	1°01'55
max. Earth dist.	-12333 Mar 10 j 19:06	21° $\mathbb{A}$ 39'19	19.70880 AU	morning rise	-12327 Apr 26 j 02:37	20° $\mathbb{B}$ 44'13	
				retrograde	-12327 Jul 26 j 07:49	24° $\mathbb{B}$ 04'43	
conjunction	-12333 Mar 12 j 04:33	21° $\mathbb{A}$ 44'25	-1°14'47	opposition	-12327 Oct 07 j 12:20	22° $\mathbb{B}$ 02'59	-1°06'17
minimum elong	-12333 Mar 12 j 04:33	21° $\mathbb{A}$ 44'25	1°15'31	min. Earth dist.	-12327 Oct 08 j 19:54	21° $\mathbb{B}$ 59'33	17.38777 AU
morning rise	-12333 Mar 28 j 19:36	22° $\mathbb{A}$ 44'47		direct	-12327 Dec 22 j 23:43	19° $\mathbb{B}$ 56'34	
retrograde	-12333 Jun 28 j 17:42	26° $\mathbb{A}$ 02'09		evening set	-12326 Mar 29 j 08:00	23° $\mathbb{B}$ 26'38	
opposition	-12333 Sep 10 j 06:04	24° $\mathbb{A}$ 00'20	-1°22'48	max. Earth dist.	-12326 Apr 13 j 07:32	24° $\mathbb{B}$ 22'30	19.36896 AU
min. Earth dist.	-12333 Sep 11 j 11:04	23° $\mathbb{A}$ 57'11	17.67900 AU				
direct	-12333 Nov 25 j 01:15	21° $\mathbb{A}$ 55'05		conjunction	-12326 Apr 14 j 20:23	24° $\mathbb{B}$ 28'17	-0°57'21
evening set	-12332 Feb 28 j 12:09	25° $\mathbb{A}$ 18'52		minimum elong	-12326 Apr 14 j 20:24	24° $\mathbb{B}$ 28'17	0°58'02
max. Earth dist.	-12332 Mar 14 j 18:43	26° $\mathbb{A}$ 14'27	19.64847 AU	morning rise	-12326 May 01 j 04:38	25° $\mathbb{B}$ 29'20	
				retrograde	-12326 Jul 31 j 08:06	28° $\mathbb{B}$ 50'13	
conjunction	-12332 Mar 16 j 05:33	26° $\mathbb{A}$ 19'47	-1°13'43	opposition	-12326 Oct 12 j 12:23	26° $\mathbb{B}$ 48'28	-1°01'45

Attention, astronomical year style is used: The year -12326 in astronomical counting style is the year 12327 BCE in historical counting style.

min. Earth dist.	-12326 Oct 13 j 19:44	26° $\text{Z}$ 45'04	17.35291 AU	direct	-12319 Jan 26 j 02:15	23° $\text{Z}$ 25'28	
direct	-12326 Dec 28 j 02:08	24° $\text{Z}$ 41'53		evening set	-12319 May 02 j 10:13	26° $\text{Z}$ 57'35	
evening set	-12325 Apr 03 j 12:12	28° $\text{Z}$ 12'39		max. Earth dist.	-12319 May 17 j 11:41	27° $\text{Z}$ 54'36	19.25626 AU
conjunction	-12325 Apr 19 j 23:43	29° $\text{Z}$ 14'20	-0°53'05	conjunction	-12319 May 18 j 14:30	27° $\text{Z}$ 58'52	-0°20'54
minimum elong	-12325 Apr 19 j 23:44	29° $\text{Z}$ 14'20	0°53'44	minimum elong	-12319 May 18 j 14:30	27° $\text{Z}$ 58'52	0°21'19
max. Earth dist.	-12325 Apr 18 j 12:23	29° $\text{Z}$ 08'46	19.33625 AU	morning rise	-12319 Jun 03 j 14:31	28° $\text{Z}$ 59'31	
	-12325 May 02 j 03:04	0° $\text{Z}$			-12319 Jun 20 j 10:48	0° $\text{Z}$	
morning rise	-12325 May 06 j 06:42	0° $\text{Z}$ 15'23		retrograde	-12319 Sep 02 j 11:29	2° $\text{Z}$ 21'41	
retrograde	-12325 Aug 05 j 08:51	3° $\text{Z}$ 36'35		opposition	-12319 Nov 15 j 04:34	0° $\text{Z}$ 19'46	-0°20'02
opposition	-12325 Oct 17 j 13:02	1° $\text{Z}$ 34'49	-0°56'48	min. Earth dist.	-12319 Nov 16 j 03:08	0° $\text{Z}$ 17'20	17.26066 AU
min. Earth dist.	-12325 Oct 18 j 20:04	1° $\text{Z}$ 31'26	17.32233 AU		-12319 Nov 22 j 20:47	30° $\text{Z}$	
	-12325 Nov 27 j 16:13	30° $\text{Z}$		direct	-12318 Jan 31 j 08:28	28° $\text{Z}$ 13'09	
direct	-12324 Jan 02 j 04:44	29° $\text{Z}$ 28'07			-12318 Apr 06 j 21:13	0° $\text{Z}$	
	-12324 Feb 06 j 04:10	0° $\text{Z}$		evening set	-12318 May 07 j 12:30	1° $\text{Z}$ 45'03	
evening set	-12324 Apr 07 j 16:36	2° $\text{Z}$ 59'25					
max. Earth dist.	-12324 Apr 22 j 15:15	3° $\text{Z}$ 55'29	19.30816 AU	conjunction	-12318 May 23 j 15:36	2° $\text{Z}$ 46'11	-0°14'48
conjunction	-12324 Apr 24 j 02:54	4° $\text{Z}$ 01'07	-0°48'26	minimum elong	-12318 May 23 j 15:36	2° $\text{Z}$ 46'11	0°15'09
minimum elong	-12324 Apr 24 j 02:54	4° $\text{Z}$ 01'07	0°49'05	behind sun begin	-12318 May 23 j 13:17	2° $\text{Z}$ 45'49	
morning rise	-12324 May 10 j 08:49	5° $\text{Z}$ 02'10		behind sun end	-12318 May 23 j 17:56	2° $\text{Z}$ 46'33	
retrograde	-12324 Aug 09 j 09:10	8° $\text{Z}$ 23'38		max. Earth dist.	-12318 May 22 j 15:29	2° $\text{Z}$ 42'21	19.26610 AU
opposition	-12324 Oct 21 j 14:27	6° $\text{Z}$ 21'49	-0°51'26	morning rise	-12318 Jun 08 j 14:25	3° $\text{Z}$ 46'42	
min. Earth dist.	-12324 Oct 22 j 21:09	6° $\text{Z}$ 18'29	17.29679 AU	retrograde	-12318 Sep 07 j 10:57	7° $\text{Z}$ 08'53	
direct	-12323 Jan 06 j 07:56	4° $\text{Z}$ 14'59		opposition	-12318 Nov 20 j 08:29	5° $\text{Z}$ 07'02	-0°13'09
evening set	-12323 Apr 12 j 20:36	7° $\text{Z}$ 46'44		min. Earth dist.	-12318 Nov 21 j 06:01	5° $\text{Z}$ 04'44	17.27385 AU
max. Earth dist.	-12323 Apr 27 j 20:12	8° $\text{Z}$ 43'04	19.28534 AU	direct	-12317 Feb 05 j 12:21	3° $\text{Z}$ 00'38	
				evening set	-12317 May 12 j 14:30	6° $\text{Z}$ 32'14	
conjunction	-12323 Apr 29 j 05:51	8° $\text{Z}$ 48'24	-0°43'27	conjunction	-12317 May 28 j 16:15	7° $\text{Z}$ 33'11	-0°08'36
minimum elong	-12323 Apr 29 j 05:51	8° $\text{Z}$ 48'24	0°44'03	minimum elong	-12317 May 28 j 16:15	7° $\text{Z}$ 33'11	0°08'54
morning rise	-12323 May 15 j 10:31	9° $\text{Z}$ 49'24		behind sun begin	-12317 May 28 j 10:33	7° $\text{Z}$ 32'18	
retrograde	-12323 Aug 14 j 10:12	13° $\text{Z}$ 11'06		behind sun end	-12317 May 28 j 21:58	7° $\text{Z}$ 34'04	
opposition	-12323 Oct 26 j 16:26	11° $\text{Z}$ 09'14	-0°45'42	max. Earth dist.	-12317 May 27 j 18:00	7° $\text{Z}$ 29'39	19.28270 AU
min. Earth dist.	-12323 Oct 27 j 21:45	11° $\text{Z}$ 06'03	17.27663 AU	morning rise	-12317 Jun 13 j 14:04	8° $\text{Z}$ 33'33	
direct	-12322 Jan 11 j 12:07	9° $\text{Z}$ 02'21		retrograde	-12317 Sep 12 j 12:33	11° $\text{Z}$ 55'43	
evening set	-12322 Apr 18 j 00:33	12° $\text{Z}$ 34'21		opposition	-12317 Nov 25 j 12:20	9° $\text{Z}$ 53'58	-0°06'10
max. Earth dist.	-12322 May 02 j 23:38	13° $\text{Z}$ 30'46	19.26822 AU	min. Earth dist.	-12317 Nov 26 j 06:44	9° $\text{Z}$ 52'00	17.29346 AU
				direct	-12316 Feb 10 j 18:13	7° $\text{Z}$ 47'50	
conjunction	-12322 May 04 j 08:32	13° $\text{Z}$ 35'58	-0°38'10	evening set	-12316 May 16 j 15:56	11° $\text{Z}$ 19'01	
minimum elong	-12322 May 04 j 08:33	13° $\text{Z}$ 35'59	0°38'44				
morning rise	-12322 May 20 j 12:04	14° $\text{Z}$ 36'56		conjunction	-12316 Jun 01 j 16:32	12° $\text{Z}$ 19'46	-0°02'21
	-12322 May 26 j 18:56	15° $\text{Z}$		minimum elong	-12316 Jun 01 j 16:33	12° $\text{Z}$ 19'46	0°02'36
retrograde	-12322 Aug 19 j 10:00	17° $\text{Z}$ 58'49		behind sun begin	-12316 Jun 01 j 09:56	12° $\text{Z}$ 18'44	
opposition	-12322 Oct 31 j 18:50	15° $\text{Z}$ 56'53	-0°39'40	behind sun end	-12316 Jun 01 j 23:09	12° $\text{Z}$ 20'47	
min. Earth dist.	-12322 Nov 01 j 23:34	15° $\text{Z}$ 53'46	17.26266 AU	max. Earth dist.	-12316 May 31 j 21:28	12° $\text{Z}$ 16'44	19.30536 AU
	-12322 Nov 23 j 10:53	15° $\text{Z}$		morning rise	-12316 Jun 17 j 13:07	13° $\text{Z}$ 19'57	
direct	-12321 Jan 16 j 16:03	13° $\text{Z}$ 49'58		retrograde	-12316 Sep 16 j 12:06	16° $\text{Z}$ 42'03	
	-12321 Mar 10 j 04:09	15° $\text{Z}$		asc. node	-12316 Oct 17 j 05:24	16° $\text{Z}$ 17'00	
evening set	-12321 Apr 23 j 04:03	17° $\text{Z}$ 22'08		opposition	-12316 Nov 29 j 16:42	14° $\text{Z}$ 40'26	0°00'51
max. Earth dist.	-12321 May 08 j 04:09	18° $\text{Z}$ 18'47	19.25750 AU	min. Earth dist.	-12316 Nov 30 j 09:56	14° $\text{Z}$ 38'35	17.31894 AU
				direct	-12315 Feb 14 j 21:31	12° $\text{Z}$ 34'36	
conjunction	-12321 May 09 j 10:54	18° $\text{Z}$ 23'40	-0°32'38	evening set	-12315 May 21 j 16:47	16° $\text{Z}$ 05'14	
minimum elong	-12321 May 09 j 10:54	18° $\text{Z}$ 23'40	0°33'08				
morning rise	-12321 May 25 j 13:16	19° $\text{Z}$ 24'33		conjunction	-12315 Jun 06 j 15:59	17° $\text{Z}$ 05'45	0°04'03
retrograde	-12321 Aug 24 j 10:55	22° $\text{Z}$ 46'33		minimum elong	-12315 Jun 06 j 15:59	17° $\text{Z}$ 05'45	0°03'53
opposition	-12321 Nov 05 j 21:39	20° $\text{Z}$ 44'36	-0°33'20	behind sun begin	-12315 Jun 06 j 09:27	17° $\text{Z}$ 04'44	
min. Earth dist.	-12321 Nov 07 j 00:07	20° $\text{Z}$ 41'44	17.25505 AU	behind sun end	-12315 Jun 06 j 22:31	17° $\text{Z}$ 06'46	
direct	-12320 Jan 21 j 21:56	18° $\text{Z}$ 37'43		max. Earth dist.	-12315 Jun 05 j 22:34	17° $\text{Z}$ 02'59	19.33364 AU
evening set	-12320 Apr 27 j 07:20	22° $\text{Z}$ 09'55		morning rise	-12315 Jun 22 j 11:41	18° $\text{Z}$ 05'45	
max. Earth dist.	-12320 May 12 j 07:56	23° $\text{Z}$ 06'44	19.25332 AU	retrograde	-12315 Sep 21 j 13:51	21° $\text{Z}$ 27'45	
				opposition	-12315 Dec 04 j 20:57	19° $\text{Z}$ 26'13	0°07'50
conjunction	-12320 May 13 j 12:54	23° $\text{Z}$ 11'20	-0°26'51	min. Earth dist.	-12315 Dec 05 j 10:59	19° $\text{Z}$ 24'44	17.34972 AU
minimum elong	-12320 May 13 j 12:54	23° $\text{Z}$ 11'20	0°27'18	direct	-12314 Feb 20 j 02:54	17° $\text{Z}$ 20'44	
morning rise	-12320 May 29 j 14:01	24° $\text{Z}$ 12'07		evening set	-12314 May 26 j 16:59	20° $\text{Z}$ 50'41	
retrograde	-12320 Aug 28 j 10:11	27° $\text{Z}$ 34'13					
opposition	-12320 Nov 10 j 01:00	25° $\text{Z}$ 32'16	-0°26'47	conjunction	-12314 Jun 11 j 15:08	21° $\text{Z}$ 50'58	0°10'16
min. Earth dist.	-12320 Nov 11 j 02:33	25° $\text{Z}$ 29'30	17.25435 AU	minimum elong	-12314 Jun 11 j 15:08	21° $\text{Z}$ 50'58	0°10'07

Attention, astronomical year style is used: The year -12314 in astronomical counting style is the year 12315 BCE in historical counting style.

behind sun begin	-12314 Jun 11 j 09:49	21° $\text{H}$ 50'09		retrograde	-12308 Oct 24 j 03:04	24° $\text{Y}$ 12'53	
behind sun end	-12314 Jun 11 j 20:27	21° $\text{H}$ 51'48		opposition	-12307 Jan 07 j 19:36	22° $\text{Y}$ 11'41	0°51'51
max. Earth dist.	-12314 Jun 11 j 01:10	21° $\text{H}$ 48'46	19.36679 AU	min. Earth dist.	-12307 Jan 07 j 16:28	22° $\text{Y}$ 12'01	17.67651 AU
morning rise	-12314 Jun 27 j 09:40	22° $\text{H}$ 50'45		direct	-12307 Mar 26 j 00:07	20° $\text{Y}$ 08'36	
retrograde	-12314 Sep 26 j 12:56	26° $\text{H}$ 12'35		evening set	-12307 Jun 27 j 19:06	23° $\text{Y}$ 31'07	
opposition	-12314 Dec 10 j 01:06	24° $\text{H}$ 11'10	0°14'45				
min. Earth dist.	-12314 Dec 10 j 13:47	24° $\text{H}$ 09'49	17.38508 AU	conjunction	-12307 Jul 13 j 10:06	24° $\text{Y}$ 29'22	0°48'55
direct	-12313 Feb 25 j 05:45	22° $\text{H}$ 06'00		minimum elong	-12307 Jul 13 j 10:05	24° $\text{Y}$ 29'21	0°49'12
evening set	-12313 May 31 j 16:36	25° $\text{H}$ 35'11		max. Earth dist.	-12307 Jul 13 j 14:01	24° $\text{Y}$ 29'58	19.70660 AU
				morning rise	-12307 Jul 28 j 23:45	25° $\text{Y}$ 27'24	
conjunction	-12313 Jun 16 j 13:25	26° $\text{H}$ 35'13	0°16'23	retrograde	-12307 Oct 28 j 22:20	28° $\text{Y}$ 46'42	
minimum elong	-12313 Jun 16 j 13:25	26° $\text{H}$ 35'13	0°16'19	opposition	-12306 Jan 12 j 20:48	26° $\text{Y}$ 45'31	0°56'56
max. Earth dist.	-12313 Jun 16 j 00:47	26° $\text{H}$ 33'13	19.40433 AU	min. Earth dist.	-12306 Jan 12 j 15:13	26° $\text{Y}$ 46'06	17.73774 AU
morning rise	-12313 Jul 02 j 07:11	27° $\text{H}$ 34'46		direct	-12306 Mar 30 j 23:38	24° $\text{Y}$ 42'48	
	-12313 Aug 16 j 23:48	0° $\text{Y}$		evening set	-12306 Jul 02 j 12:11	28° $\text{Y}$ 04'02	
retrograde	-12313 Oct 01 j 13:57	0° $\text{Y}$ 56'23					
	-12313 Nov 18 j 05:17	30° $\text{R}$ $\text{H}$		conjunction	-12306 Jul 18 j 02:35	29° $\text{Y}$ 01'58	0°53'19
opposition	-12313 Dec 15 j 05:06	28° $\text{H}$ 55'02	0°21'32	minimum elong	-12306 Jul 18 j 02:35	29° $\text{Y}$ 01'58	0°53'39
min. Earth dist.	-12313 Dec 15 j 14:46	28° $\text{H}$ 54'00	17.42463 AU	max. Earth dist.	-12306 Jul 18 j 10:04	29° $\text{Y}$ 03'08	19.76953 AU
direct	-12312 Mar 01 j 10:25	26° $\text{H}$ 50'12		morning rise	-12306 Aug 02 j 15:44	29° $\text{Y}$ 59'44	
	-12312 May 30 j 14:28	0° $\text{Y}$			-12306 Aug 02 j 17:27	0° $\text{H}$	
evening set	-12312 Jun 04 j 15:13	0° $\text{Y}$ 18'30		retrograde	-12306 Nov 02 j 17:45	3° $\text{H}$ 18'31	
				opposition	-12305 Jan 17 j 21:00	1° $\text{H}$ 17'25	1°01'38
conjunction	-12312 Jun 20 j 11:04	1° $\text{Y}$ 18'15	0°22'23	min. Earth dist.	-12305 Jan 17 j 12:06	1° $\text{H}$ 18'21	17.80234 AU
minimum elong	-12312 Jun 20 j 11:04	1° $\text{Y}$ 18'15	0°22'22		-12305 Feb 20 j 14:22	30° $\text{R}$ $\text{Y}$	
max. Earth dist.	-12312 Jun 20 j 02:04	1° $\text{Y}$ 16'50	19.44577 AU	direct	-12305 Apr 04 j 23:41	29° $\text{Y}$ 15'08	
morning rise	-12312 Jul 06 j 03:46	2° $\text{Y}$ 17'35			-12305 May 16 j 15:51	0° $\text{H}$	
retrograde	-12312 Oct 05 j 12:29	5° $\text{Y}$ 38'55		evening set	-12305 Jul 07 j 04:27	2° $\text{H}$ 35'02	
opposition	-12312 Dec 19 j 09:03	3° $\text{Y}$ 37'38	0°28'08				
min. Earth dist.	-12312 Dec 19 j 16:49	3° $\text{Y}$ 36'49	17.46785 AU	conjunction	-12305 Jul 22 j 18:07	3° $\text{H}$ 32'39	0°57'22
direct	-12311 Mar 06 j 13:18	1° $\text{Y}$ 33'10		minimum elong	-12305 Jul 22 j 18:06	3° $\text{H}$ 32'39	0°57'45
evening set	-12311 Jun 09 j 13:13	5° $\text{Y}$ 00'27		max. Earth dist.	-12305 Jul 23 j 03:52	3° $\text{H}$ 34'10	19.83571 AU
				morning rise	-12305 Aug 07 j 07:02	4° $\text{H}$ 30'10	
conjunction	-12311 Jun 25 j 07:49	5° $\text{Y}$ 59'55	0°28'11	retrograde	-12305 Nov 07 j 11:44	7° $\text{H}$ 48'27	
minimum elong	-12311 Jun 25 j 07:49	5° $\text{Y}$ 59'55	0°28'15	opposition	-12304 Jan 22 j 20:48	5° $\text{H}$ 47'27	1°05'55
max. Earth dist.	-12311 Jun 25 j 00:18	5° $\text{Y}$ 58'44	19.49088 AU	min. Earth dist.	-12304 Jan 22 j 09:50	5° $\text{H}$ 48'35	17.87014 AU
morning rise	-12311 Jul 10 j 23:54	6° $\text{Y}$ 59'00		direct	-12304 Apr 08 j 20:21	3° $\text{H}$ 45'36	
retrograde	-12311 Oct 10 j 12:07	10° $\text{Y}$ 20'01		evening set	-12304 Jul 10 j 19:36	7° $\text{H}$ 04'09	
opposition	-12311 Dec 24 j 12:25	8° $\text{Y}$ 18'45	0°34'30				
min. Earth dist.	-12311 Dec 24 j 17:22	8° $\text{Y}$ 18'14	17.51482 AU	conjunction	-12304 Jul 26 j 08:49	8° $\text{H}$ 01'29	1°01'02
direct	-12310 Mar 11 j 17:01	6° $\text{Y}$ 14'37		minimum elong	-12304 Jul 26 j 08:49	8° $\text{H}$ 01'29	1°01'28
evening set	-12310 Jun 14 j 10:01	9° $\text{Y}$ 40'49		max. Earth dist.	-12304 Jul 26 j 21:46	8° $\text{H}$ 03'29	19.90482 AU
				morning rise	-12304 Aug 10 j 21:28	8° $\text{H}$ 58'45	
conjunction	-12310 Jun 30 j 03:49	10° $\text{Y}$ 40'00	0°33'47	retrograde	-12304 Nov 11 j 06:45	12° $\text{H}$ 16'30	
minimum elong	-12310 Jun 30 j 03:49	10° $\text{Y}$ 40'00	0°33'55	opposition	-12303 Jan 26 j 19:46	10° $\text{H}$ 15'38	1°09'46
max. Earth dist.	-12310 Jun 30 j 00:01	10° $\text{Y}$ 39'24	19.53956 AU	min. Earth dist.	-12303 Jan 26 j 05:22	10° $\text{H}$ 17'07	17.94034 AU
morning rise	-12310 Jul 15 j 19:03	11° $\text{Y}$ 38'49		direct	-12303 Apr 13 j 18:20	8° $\text{H}$ 14'15	
retrograde	-12310 Oct 15 j 09:26	14° $\text{Y}$ 59'28		evening set	-12303 Jul 15 j 10:07	11° $\text{H}$ 31'27	
opposition	-12310 Dec 29 j 15:23	12° $\text{Y}$ 58'14	0°40'37				
min. Earth dist.	-12310 Dec 29 j 17:56	12° $\text{Y}$ 57'58	17.56513 AU	conjunction	-12303 Jul 30 j 22:49	12° $\text{H}$ 28'29	1°04'19
direct	-12309 Mar 16 j 19:57	10° $\text{Y}$ 54'26		minimum elong	-12303 Jul 30 j 22:48	12° $\text{H}$ 28'29	1°04'49
evening set	-12309 Jun 19 j 06:06	14° $\text{Y}$ 19'29		max. Earth dist.	-12303 Jul 31 j 14:02	12° $\text{H}$ 30'50	19.97589 AU
				morning rise	-12303 Aug 15 j 11:25	13° $\text{H}$ 25'31	
conjunction	-12309 Jul 04 j 22:46	15° $\text{Y}$ 18'20	0°39'07		-12303 Sep 12 j 18:05	15° $\text{H}$	
minimum elong	-12309 Jul 04 j 22:46	15° $\text{Y}$ 18'20	0°39'18	retrograde	-12303 Nov 15 j 23:54	16° $\text{H}$ 42'44	
max. Earth dist.	-12309 Jul 04 j 20:43	15° $\text{Y}$ 18'01	19.59164 AU		-12302 Jan 24 j 09:37	15° $\text{R}$ $\text{H}$	
morning rise	-12309 Jul 20 j 13:29	16° $\text{Y}$ 16'55		opposition	-12302 Jan 31 j 17:59	14° $\text{H}$ 42'00	1°13'10
retrograde	-12309 Oct 20 j 06:46	19° $\text{Y}$ 37'08		min. Earth dist.	-12302 Jan 31 j 02:09	14° $\text{H}$ 43'37	18.01230 AU
opposition	-12308 Jan 03 j 17:45	17° $\text{Y}$ 35'54	0°46'24	direct	-12302 Apr 18 j 13:09	12° $\text{H}$ 41'04	
min. Earth dist.	-12308 Jan 03 j 17:40	17° $\text{Y}$ 35'55	17.61905 AU		-12302 Jul 03 j 12:52	15° $\text{H}$	
direct	-12308 Mar 20 j 22:09	15° $\text{Y}$ 32'27		evening set	-12302 Jul 19 j 23:43	15° $\text{H}$ 56'57	
evening set	-12308 Jun 23 j 01:04	18° $\text{Y}$ 56'16					
				conjunction	-12302 Aug 04 j 12:09	16° $\text{H}$ 53'41	1°07'12
conjunction	-12308 Jul 08 j 16:59	19° $\text{Y}$ 54'49	0°44'11	minimum elong	-12302 Aug 04 j 12:08	16° $\text{H}$ 53'41	1°07'44
minimum elong	-12308 Jul 08 j 16:59	19° $\text{Y}$ 54'49	0°44'26	max. Earth dist.	-12302 Aug 05 j 05:50	16° $\text{H}$ 56'24	20.04831 AU
max. Earth dist.	-12308 Jul 08 j 18:45	19° $\text{Y}$ 55'06	19.64733 AU	morning rise	-12302 Aug 20 j 00:41	17° $\text{H}$ 50'28	
morning rise	-12308 Jul 24 j 07:00	20° $\text{Y}$ 53'07		retrograde	-12302 Nov 20 j 18:04	21° $\text{H}$ 07'08	



Attention, astronomical year style is used: The year -12301 in astronomical counting style is the year 12302 BCE in historical counting style.

opposition	-12301 Feb 05 j 15:21	19° <b>8</b> 06'32	1°16'07	minimum elong	-12295 Sep 02 j 14:50	16° <b>II</b> 58'14	1°16'16
min. Earth dist.	-12301 Feb 04 j 20:22	19° <b>8</b> 08'29	18.08496 AU	max. Earth dist.	-12295 Sep 03 j 20:13	17° <b>II</b> 02'36	20.52846 AU
direct	-12301 Apr 23 j 09:15	17° <b>8</b> 06'05		morning rise	-12295 Sep 18 j 05:44	17° <b>II</b> 53'39	
evening set	-12301 Jul 24 j 12:34	20° <b>8</b> 20'36		retrograde	-12295 Dec 20 j 23:38	21° <b>II</b> 06'10	
				opposition	-12294 Mar 08 j 21:37	19° <b>II</b> 06'01	1°23'34
conjunction	-12301 Aug 09 j 00:40	21° <b>8</b> 17'05	1°09'40	min. Earth dist.	-12294 Mar 07 j 17:05	19° <b>II</b> 08'54	18.55999 AU
minimum elong	-12301 Aug 09 j 00:39	21° <b>8</b> 17'05	1°10'15	direct	-12294 May 24 j 00:56	17° <b>II</b> 07'58	
max. Earth dist.	-12301 Aug 09 j 20:27	21° <b>8</b> 20'06	20.12089 AU	evening set	-12294 Aug 22 j 09:57	20° <b>II</b> 13'36	
morning rise	-12301 Aug 24 j 13:15	22° <b>8</b> 13'38					
retrograde	-12301 Nov 25 j 10:15	25° <b>8</b> 29'44		conjunction	-12294 Sep 06 j 23:01	21° <b>II</b> 08'31	1°15'06
opposition	-12300 Feb 10 j 12:07	23° <b>8</b> 29'16	1°18'36	minimum elong	-12294 Sep 06 j 23:01	21° <b>II</b> 08'31	1°15'50
min. Earth dist.	-12300 Feb 09 j 16:11	23° <b>8</b> 31'18	18.15756 AU	max. Earth dist.	-12294 Sep 08 j 05:11	21° <b>II</b> 13'00	20.58955 AU
direct	-12300 Apr 27 j 02:51	21° <b>8</b> 29'15		morning rise	-12294 Sep 22 j 14:37	22° <b>II</b> 03'47	
evening set	-12300 Jul 28 j 00:42	24° <b>8</b> 42'26		retrograde	-12294 Dec 25 j 13:02	25° <b>II</b> 15'44	
				min. Earth dist.	-12293 Mar 12 j 05:20	23° <b>II</b> 18'40	18.62024 AU
conjunction	-12300 Aug 12 j 12:40	25° <b>8</b> 38'39	1°11'43	opposition	-12293 Mar 13 j 11:56	23° <b>II</b> 15'35	1°22'49
minimum elong	-12300 Aug 12 j 12:40	25° <b>8</b> 38'38	1°12'19	direct	-12293 May 28 j 13:51	21° <b>II</b> 17'47	
max. Earth dist.	-12300 Aug 13 j 10:19	25° <b>8</b> 41'56	20.19316 AU	evening set	-12293 Aug 26 j 17:02	24° <b>II</b> 22'20	
morning rise	-12300 Aug 28 j 01:24	26° <b>8</b> 34'59					
retrograde	-12300 Nov 29 j 03:17	29° <b>8</b> 50'30		conjunction	-12293 Sep 11 j 06:34	25° <b>II</b> 17'05	1°14'16
min. Earth dist.	-12299 Feb 13 j 09:08	27° <b>8</b> 52'27	18.22936 AU	minimum elong	-12293 Sep 11 j 06:34	25° <b>II</b> 17'05	1°15'00
opposition	-12299 Feb 14 j 07:55	27° <b>8</b> 50'08	1°20'36	max. Earth dist.	-12293 Sep 12 j 14:38	25° <b>II</b> 21'50	20.64881 AU
direct	-12299 May 01 j 21:21	25° <b>8</b> 50'32		morning rise	-12293 Sep 26 j 22:50	26° <b>II</b> 12'14	
evening set	-12299 Aug 01 j 12:05	29° <b>8</b> 02'24		retrograde	-12293 Dec 29 j 22:41	29° <b>II</b> 23'38	
				min. Earth dist.	-12292 Mar 15 j 18:44	27° <b>II</b> 26'39	18.67873 AU
conjunction	-12299 Aug 16 j 23:59	29° <b>8</b> 58'21	1°13'20	opposition	-12292 Mar 17 j 01:35	27° <b>II</b> 23'32	1°21'39
minimum elong	-12299 Aug 16 j 23:59	29° <b>8</b> 58'21	1°13'57	direct	-12292 Jun 01 j 00:43	25° <b>II</b> 26'00	
	-12299 Aug 17 j 10:51	0° <b>II</b>		evening set	-12292 Aug 29 j 23:43	28° <b>II</b> 29'31	
max. Earth dist.	-12299 Aug 17 j 23:29	0° <b>II</b> 01'55	20.26414 AU				
morning rise	-12299 Sep 01 j 12:59	0° <b>II</b> 54'29		conjunction	-12292 Sep 14 j 13:49	29° <b>II</b> 24'07	1°13'02
retrograde	-12299 Dec 03 j 17:47	4° <b>II</b> 09'25		minimum elong	-12292 Sep 14 j 13:49	29° <b>II</b> 24'07	1°13'47
min. Earth dist.	-12298 Feb 18 j 03:42	2° <b>II</b> 11'30	18.29964 AU	max. Earth dist.	-12292 Sep 15 j 22:24	29° <b>II</b> 28'55	20.70650 AU
opposition	-12298 Feb 19 j 03:00	2° <b>II</b> 09'08	1°22'08		-12292 Sep 24 j 18:25	0° <b>III</b>	
direct	-12298 May 06 j 13:46	0° <b>II</b> 09'55		morning rise	-12292 Sep 30 j 06:56	0° <b>III</b> 19'10	
evening set	-12298 Aug 05 j 22:45	3° <b>II</b> 20'28		retrograde	-12291 Jan 02 j 11:04	3° <b>III</b> 30'02	
				min. Earth dist.	-12291 Mar 20 j 05:40	1° <b>III</b> 33'17	18.73552 AU
conjunction	-12298 Aug 21 j 10:42	4° <b>II</b> 16'11	1°14'31	opposition	-12291 Mar 21 j 14:13	1° <b>III</b> 30'00	1°20'04
minimum elong	-12298 Aug 21 j 10:42	4° <b>II</b> 16'11	1°15'10		-12291 May 03 j 00:37	30° <b>R</b> <b>II</b>	
max. Earth dist.	-12298 Aug 22 j 11:26	4° <b>II</b> 19'55	20.33344 AU	direct	-12291 Jun 05 j 11:42	29° <b>II</b> 32'44	
morning rise	-12298 Sep 06 j 00:02	5° <b>II</b> 12'07			-12291 Jul 07 j 23:36	0° <b>III</b>	
retrograde	-12298 Dec 08 j 09:33	8° <b>II</b> 26'27		evening set	-12291 Sep 03 j 05:54	2° <b>III</b> 35'18	
opposition	-12297 Feb 23 j 20:52	6° <b>II</b> 26'14	1°23'11				
min. Earth dist.	-12297 Feb 22 j 19:07	6° <b>II</b> 28'50	18.36791 AU	conjunction	-12291 Sep 18 j 20:43	3° <b>III</b> 29'47	1°11'27
direct	-12297 May 11 j 06:21	4° <b>II</b> 27'20		minimum elong	-12291 Sep 18 j 20:43	3° <b>III</b> 29'47	1°12'12
evening set	-12297 Aug 10 j 08:41	7° <b>II</b> 36'37		max. Earth dist.	-12291 Sep 20 j 06:55	3° <b>III</b> 34'48	20.76215 AU
				morning rise	-12291 Oct 04 j 14:40	4° <b>III</b> 24'44	
conjunction	-12297 Aug 25 j 20:45	8° <b>II</b> 32'07	1°15'17	retrograde	-12290 Jan 06 j 19:58	7° <b>III</b> 35'07	
minimum elong	-12297 Aug 25 j 20:45	8° <b>II</b> 32'07	1°15'57	min. Earth dist.	-12290 Mar 24 j 17:44	5° <b>III</b> 38'26	18.79003 AU
max. Earth dist.	-12297 Aug 26 j 23:15	8° <b>II</b> 36'06	20.40054 AU	opposition	-12290 Mar 26 j 02:11	5° <b>III</b> 35'11	1°18'05
morning rise	-12297 Sep 10 j 10:30	9° <b>II</b> 27'51		direct	-12290 Jun 09 j 20:50	3° <b>III</b> 38'10	
retrograde	-12297 Dec 12 j 22:05	12° <b>II</b> 41'35		evening set	-12290 Sep 07 j 11:45	6° <b>III</b> 39'51	
opposition	-12296 Feb 28 j 14:11	10° <b>II</b> 41'24	1°23'46				
min. Earth dist.	-12296 Feb 27 j 12:06	10° <b>II</b> 44'03	18.43401 AU	conjunction	-12290 Sep 23 j 03:12	7° <b>III</b> 34'14	1°09'31
direct	-12296 May 14 j 21:16	8° <b>II</b> 42'49		minimum elong	-12290 Sep 23 j 03:12	7° <b>III</b> 34'14	1°10'15
evening set	-12296 Aug 13 j 17:42	11° <b>II</b> 50'50		max. Earth dist.	-12290 Sep 24 j 13:27	7° <b>III</b> 39'14	20.81547 AU
				morning rise	-12290 Oct 08 j 22:07	8° <b>III</b> 29'06	
conjunction	-12296 Aug 29 j 06:02	12° <b>II</b> 46'07	1°15'37	retrograde	-12289 Jan 11 j 07:08	11° <b>III</b> 39'02	
minimum elong	-12296 Aug 29 j 06:02	12° <b>II</b> 46'07	1°16'20	min. Earth dist.	-12289 Mar 29 j 03:41	9° <b>III</b> 42'34	18.84195 AU
max. Earth dist.	-12296 Aug 30 j 09:34	12° <b>II</b> 50'15	20.46560 AU	opposition	-12289 Mar 30 j 13:18	9° <b>III</b> 39'12	1°15'43
morning rise	-12296 Sep 13 j 20:21	13° <b>II</b> 41'41		direct	-12289 Jun 14 j 05:57	7° <b>III</b> 42'26	
retrograde	-12296 Dec 16 j 12:46	16° <b>II</b> 54'49		evening set	-12289 Sep 11 j 17:15	10° <b>III</b> 43'19	
min. Earth dist.	-12295 Mar 03 j 02:02	14° <b>II</b> 57'31	18.49801 AU				
opposition	-12295 Mar 04 j 06:23	14° <b>II</b> 54'39	1°23'53	conjunction	-12289 Sep 27 j 09:31	11° <b>III</b> 37'37	1°07'14
direct	-12295 May 19 j 12:05	12° <b>II</b> 56'20		minimum elong	-12289 Sep 27 j 09:32	11° <b>III</b> 37'37	1°07'59
evening set	-12295 Aug 18 j 02:10	16° <b>II</b> 03'08		max. Earth dist.	-12289 Sep 28 j 21:03	11° <b>III</b> 42'47	20.86579 AU
				morning rise	-12289 Oct 13 j 05:20	12° <b>III</b> 32'25	
conjunction	-12295 Sep 02 j 14:50	16° <b>II</b> 58'14	1°15'34	retrograde	-12288 Jan 15 j 15:51	15° <b>III</b> 41'55	

Attention, astronomical year style is used: The year -12288 in astronomical counting style is the year 12289 BCE in historical counting style.

opposition	-12288 Apr 02 j 23:53	13° $\overline{042}$ '11	1°12'59	conjunction	-12282 Oct 25 j 03:06	9° $\Omega$ 37'43	0°43'05
min. Earth dist.	-12288 Apr 01 j 14:43	13° $\overline{045}$ '31	18.89060 AU	minimum elong	-12282 Oct 25 j 03:06	9° $\Omega$ 37'43	0°43'41
direct	-12288 Jun 17 j 13:47	11° $\overline{045}$ '41		max. Earth dist.	-12282 Oct 26 j 10:55	9° $\Omega$ 42'15	21.09200 AU
evening set	-12288 Sep 14 j 22:32	14° $\overline{045}$ '48		morning rise	-12282 Nov 10 j 06:39	10° $\Omega$ 32'29	
				retrograde	-12281 Feb 13 j 03:42	13° $\Omega$ 39'37	
conjunction	-12288 Sep 30 j 15:36	15° $\overline{040}$ '02	1°04'38	min. Earth dist.	-12281 May 01 j 03:39	11° $\Omega$ 42'57	19.09924 AU
minimum elong	-12288 Sep 30 j 15:36	15° $\overline{040}$ '02	1°05'20	opposition	-12281 May 02 j 09:00	11° $\Omega$ 40'00	0°45'12
max. Earth dist.	-12288 Oct 02 j 02:37	15° $\overline{045}$ '06	20.91271 AU	direct	-12281 Jul 16 j 08:53	9° $\Omega$ 44'01	
morning rise	-12288 Oct 16 j 12:31	16° $\overline{034}$ '47		evening set	-12281 Oct 13 j 08:43	12° $\Omega$ 40'42	
retrograde	-12287 Jan 19 j 01:56	19° $\overline{043}$ '54					
min. Earth dist.	-12287 Apr 06 j 00:06	17° $\overline{047}$ '38	18.93549 AU	conjunction	-12281 Oct 29 j 08:57	13° $\Omega$ 34'54	0°38'43
opposition	-12287 Apr 07 j 09:47	17° $\overline{044}$ '16	1°09'54	minimum elong	-12281 Oct 29 j 08:57	13° $\Omega$ 34'54	0°39'15
direct	-12287 Jun 21 j 21:27	15° $\overline{047}$ '57		max. Earth dist.	-12281 Oct 30 j 16:52	13° $\Omega$ 39'26	21.10411 AU
evening set	-12287 Sep 19 j 03:46	18° $\overline{047}$ '24		morning rise	-12281 Nov 14 j 13:33	14° $\Omega$ 29'43	
					-12281 Nov 23 j 20:08	15° $\Omega$	
conjunction	-12287 Oct 04 j 21:46	19° $\overline{041}$ '35	1°01'42	retrograde	-12280 Feb 17 j 10:29	17° $\Omega$ 36'37	
minimum elong	-12287 Oct 04 j 21:47	19° $\overline{041}$ '35	1°02'24	min. Earth dist.	-12280 May 04 j 10:54	15° $\Omega$ 39'47	19.10917 AU
max. Earth dist.	-12287 Oct 06 j 09:28	19° $\overline{046}$ '44	20.95535 AU	opposition	-12280 May 05 j 15:02	15° $\Omega$ 36'57	0°40'15
morning rise	-12287 Oct 20 j 19:38	20° $\overline{036}$ '18			-12280 May 21 j 03:30	15° $\overline{R}$ $\Omega$	
retrograde	-12286 Jan 23 j 10:19	23° $\overline{045}$ '02		direct	-12280 Jul 19 j 13:28	13° $\Omega$ 40'54	
min. Earth dist.	-12286 Apr 10 j 10:10	21° $\overline{048}$ '45	18.97580 AU		-12280 Sep 14 j 07:42	15° $\Omega$	
opposition	-12286 Apr 11 j 18:57	21° $\overline{045}$ '28	1°06'29	evening set	-12280 Oct 16 j 13:32	16° $\Omega$ 37'23	
direct	-12286 Jun 26 j 04:10	19° $\overline{049}$ '21					
evening set	-12286 Sep 23 j 08:52	22° $\overline{048}$ '11		conjunction	-12280 Nov 01 j 14:51	17° $\Omega$ 31'39	0°34'10
				minimum elong	-12280 Nov 01 j 14:52	17° $\Omega$ 31'39	0°34'41
conjunction	-12286 Oct 09 j 03:45	23° $\overline{042}$ '19	0°58'29	max. Earth dist.	-12280 Nov 02 j 21:01	17° $\Omega$ 35'55	21.11213 AU
minimum elong	-12286 Oct 09 j 03:45	23° $\overline{042}$ '19	0°59'10	morning rise	-12280 Nov 17 j 20:44	18° $\Omega$ 26'32	
max. Earth dist.	-12286 Oct 10 j 14:18	23° $\overline{047}$ '18	20.99333 AU	retrograde	-12279 Feb 20 j 18:33	21° $\Omega$ 33'15	
morning rise	-12286 Oct 25 j 02:45	24° $\overline{037}$ '01		opposition	-12279 May 09 j 20:44	19° $\Omega$ 33'31	0°35'08
retrograde	-12285 Jan 27 j 19:40	27° $\overline{045}$ '24		min. Earth dist.	-12279 May 08 j 17:22	19° $\Omega$ 36'17	19.11515 AU
min. Earth dist.	-12285 Apr 14 j 18:53	25° $\overline{049}$ '10	19.01122 AU	direct	-12279 Jul 23 j 17:26	17° $\Omega$ 37'24	
opposition	-12285 Apr 16 j 03:40	25° $\overline{045}$ '53	1°02'46	evening set	-12279 Oct 20 j 18:31	20° $\Omega$ 33'46	
direct	-12285 Jun 30 j 10:51	23° $\overline{049}$ '52					
evening set	-12285 Sep 27 j 13:40	26° $\overline{048}$ '09		conjunction	-12279 Nov 05 j 21:02	21° $\Omega$ 28'07	0°29'28
				minimum elong	-12279 Nov 05 j 21:02	21° $\Omega$ 28'07	0°29'56
conjunction	-12285 Oct 13 j 09:36	27° $\overline{042}$ '16	0°55'00	max. Earth dist.	-12279 Nov 07 j 03:03	21° $\Omega$ 32'22	21.11610 AU
minimum elong	-12285 Oct 13 j 09:37	27° $\overline{042}$ '17	0°55'39	morning rise	-12279 Nov 22 j 03:53	22° $\Omega$ 23'05	
max. Earth dist.	-12285 Oct 14 j 20:29	27° $\overline{047}$ '17	21.02603 AU	retrograde	-12278 Feb 25 j 01:18	25° $\Omega$ 29'40	
morning rise	-12285 Oct 29 j 09:38	28° $\overline{036}$ '58		min. Earth dist.	-12278 May 12 j 23:55	23° $\Omega$ 32'33	19.11715 AU
	-12285 Nov 24 j 21:39	0° $\Omega$		opposition	-12278 May 14 j 02:00	23° $\Omega$ 29'54	0°29'51
retrograde	-12284 Feb 01 j 03:23	1° $\Omega$ 45'01		direct	-12278 Jul 27 j 21:46	21° $\Omega$ 33'45	
	-12284 Apr 13 j 11:14	30° $\overline{R}$ $\overline{04}$		evening set	-12278 Oct 24 j 23:43	24° $\Omega$ 30'06	
min. Earth dist.	-12284 Apr 18 j 04:14	29° $\overline{048}$ '42	19.04114 AU				
opposition	-12284 Apr 19 j 11:55	29° $\overline{045}$ '31	0°58'45	conjunction	-12278 Nov 10 j 03:17	25° $\Omega$ 24'32	0°24'37
direct	-12284 Jul 03 j 16:37	27° $\overline{049}$ '36		minimum elong	-12278 Nov 10 j 03:17	25° $\Omega$ 24'32	0°25'03
	-12284 Sep 16 j 04:00	0° $\Omega$		max. Earth dist.	-12278 Nov 11 j 07:15	25° $\Omega$ 28'30	21.11637 AU
evening set	-12284 Sep 30 j 18:35	0° $\Omega$ 47'22		morning rise	-12278 Nov 26 j 11:23	26° $\Omega$ 19'36	
				retrograde	-12277 Mar 01 j 09:35	29° $\Omega$ 26'07	
conjunction	-12284 Oct 16 j 15:30	1° $\Omega$ 41'29	0°51'15	min. Earth dist.	-12277 May 17 j 06:04	27° $\Omega$ 28'53	19.11548 AU
minimum elong	-12284 Oct 16 j 15:31	1° $\Omega$ 41'29	0°51'54	opposition	-12277 May 18 j 07:11	27° $\Omega$ 26'21	0°24'26
max. Earth dist.	-12284 Oct 18 j 00:51	1° $\Omega$ 46'15	21.05337 AU	direct	-12277 Aug 01 j 00:58	25° $\Omega$ 30'07	
morning rise	-12284 Nov 01 j 16:47	2° $\Omega$ 36'11		evening set	-12277 Oct 29 j 05:02	28° $\Omega$ 26'32	
retrograde	-12283 Feb 04 j 12:22	5° $\Omega$ 43'54					
opposition	-12283 Apr 23 j 19:26	3° $\Omega$ 44'23	0°54'28	conjunction	-12277 Nov 14 j 09:51	29° $\Omega$ 21'06	0°19'40
min. Earth dist.	-12283 Apr 22 j 12:14	3° $\Omega$ 47'31	19.06571 AU	minimum elong	-12277 Nov 14 j 09:51	29° $\Omega$ 21'06	0°20'04
direct	-12283 Jul 07 j 22:42	1° $\Omega$ 48'28		max. Earth dist.	-12277 Nov 15 j 13:29	29° $\Omega$ 25'00	21.11274 AU
evening set	-12283 Oct 04 j 23:22	4° $\Omega$ 45'49			-12277 Nov 25 j 21:44	0° $\overline{R}$	
				morning rise	-12277 Nov 30 j 18:56	0° $\overline{R}$ 16'16	
conjunction	-12283 Oct 20 j 21:26	5° $\Omega$ 39'57	0°47'16	retrograde	-12276 Mar 04 j 16:39	3° $\overline{R}$ 22'46	
minimum elong	-12283 Oct 20 j 21:26	5° $\Omega$ 39'57	0°47'53	opposition	-12276 May 21 j 12:12	1° $\overline{R}$ 23'01	0°18'53
max. Earth dist.	-12283 Oct 22 j 06:51	5° $\Omega$ 44'43	21.07521 AU	min. Earth dist.	-12276 May 20 j 12:34	1° $\overline{R}$ 25'25	19.10976 AU
morning rise	-12283 Nov 05 j 23:46	6° $\Omega$ 34'41			-12276 Jun 28 j 09:22	30° $\overline{R}$ $\Omega$	
retrograde	-12282 Feb 08 j 19:24	9° $\Omega$ 42'05		direct	-12276 Aug 04 j 04:58	29° $\Omega$ 26'44	
min. Earth dist.	-12282 Apr 26 j 20:32	7° $\Omega$ 45'32	19.08486 AU		-12276 Sep 09 j 08:03	0° $\overline{R}$	
opposition	-12282 Apr 28 j 02:29	7° $\Omega$ 42'32	0°49'56	evening set	-12276 Nov 01 j 11:00	2° $\overline{R}$ 23'19	
direct	-12282 Jul 12 j 03:40	5° $\Omega$ 46'36					
evening set	-12282 Oct 09 j 04:02	8° $\Omega$ 43'34		conjunction	-12276 Nov 17 j 16:52	3° $\overline{R}$ 18'01	0°14'36

Attention, astronomical year style is used: The year -12276 in astronomical counting style is the year 12277 BCE in historical counting style.

minimum elong	-12276 Nov 17 j 16:52	3° <u>18</u> '01	0°14'57	opposition	-12270 Jun 14 j 17:46	25° <u>15</u> '48	-0°15'39
behind sun begin	-12276 Nov 17 j 14:30	3° <u>17</u> '41		min. Earth dist.	-12270 Jun 14 j 05:42	25° <u>17</u> '02	18.97591 AU
behind sun end	-12276 Nov 17 j 19:14	3° <u>18</u> '20		direct	-12270 Aug 28 j 05:40	23° <u>18</u> '35	
max. Earth dist.	-12276 Nov 18 j 18:02	3° <u>21</u> '34	21.10513 AU	evening set	-12270 Nov 26 j 09:36	26° <u>17</u> '48	
morning rise	-12276 Dec 04 j 03:10	4° <u>13</u> '18					
retrograde	-12275 Mar 09 j 01:34	7° <u>19</u> '50		conjunction	-12270 Dec 12 j 21:45	27° <u>13</u> '33	-0°16'44
opposition	-12275 May 25 j 16:59	5° <u>20</u> '06	0°13'14	minimum elong	-12270 Dec 12 j 21:45	27° <u>13</u> '33	0°16'40
min. Earth dist.	-12275 May 24 j 18:50	5° <u>22</u> '21	19.09996 AU	max. Earth dist.	-12270 Dec 13 j 09:37	27° <u>15</u> '13	20.95626 AU
direct	-12275 Aug 08 j 08:28	3° <u>23</u> '44		morning rise	-12270 Dec 29 j 13:31	28° <u>09</u> '48	
evening set	-12275 Nov 05 j 17:23	6° <u>20</u> '35			-12269 Feb 04 j 12:59	0° <u>0</u> '	
				retrograde	-12269 Apr 03 j 06:13	1° <u>0</u> '17'18	
conjunction	-12275 Nov 22 j 00:27	7° <u>15</u> '26	0°09'28		-12269 Jun 01 j 08:08	30° <u>18</u> '	
minimum elong	-12275 Nov 22 j 00:27	7° <u>15</u> '26	0°09'47	opposition	-12269 Jun 18 j 23:02	29° <u>17</u> '20	-0°21'21
behind sun begin	-12275 Nov 21 j 19:00	7° <u>14</u> '41		min. Earth dist.	-12269 Jun 18 j 13:18	29° <u>18</u> '20	18.93543 AU
behind sun end	-12275 Nov 22 j 05:54	7° <u>16</u> '10		direct	-12269 Sep 01 j 10:50	27° <u>19</u> '48	
max. Earth dist.	-12275 Nov 23 j 00:50	7° <u>18</u> '52	21.09307 AU		-12269 Nov 24 j 19:22	0° <u>0</u> '	
morning rise	-12275 Dec 08 j 11:37	8° <u>10</u> '51		evening set	-12269 Nov 30 j 19:15	0° <u>0</u> '19'41	
retrograde	-12274 Mar 13 j 09:05	11° <u>17</u> '27					
opposition	-12274 May 29 j 21:50	9° <u>17</u> '45	0°07'30	conjunction	-12269 Dec 17 j 08:31	1° <u>0</u> '15'39	-0°21'50
min. Earth dist.	-12274 May 29 j 01:28	9° <u>19</u> '50	19.08550 AU	minimum elong	-12269 Dec 17 j 08:31	1° <u>0</u> '15'39	0°21'51
direct	-12274 Aug 12 j 11:50	7° <u>21</u> '18		max. Earth dist.	-12269 Dec 17 j 18:59	1° <u>0</u> '17'08	20.91345 AU
evening set	-12274 Nov 10 j 00:11	10° <u>18</u> '30		morning rise	-12268 Jan 03 j 00:52	2° <u>0</u> '12'05	
				retrograde	-12268 Apr 06 j 15:46	5° <u>0</u> '19'50	
conjunction	-12274 Nov 26 j 08:14	11° <u>13</u> '29	0°04'17	opposition	-12268 Jun 22 j 04:27	3° <u>0</u> '19'44	-0°26'58
minimum elong	-12274 Nov 26 j 08:13	11° <u>13</u> '29	0°04'32	min. Earth dist.	-12268 Jun 21 j 20:45	3° <u>0</u> '20'32	18.89041 AU
behind sun begin	-12274 Nov 26 j 01:40	11° <u>12</u> '35		direct	-12268 Sep 04 j 17:11	1° <u>0</u> '21'52	
behind sun end	-12274 Nov 26 j 14:47	11° <u>14</u> '23		evening set	-12268 Dec 04 j 05:48	4° <u>0</u> '22'29	
max. Earth dist.	-12274 Nov 27 j 05:44	11° <u>16</u> '31	21.07633 AU				
morning rise	-12274 Dec 12 j 20:30	12° <u>09</u> '03		conjunction	-12268 Dec 20 j 19:49	5° <u>0</u> '18'40	-0°26'52
retrograde	-12273 Mar 17 j 18:37	15° <u>15</u> '48		minimum elong	-12268 Dec 20 j 19:49	5° <u>0</u> '18'40	0°26'54
min. Earth dist.	-12273 Jun 02 j 08:12	13° <u>17</u> '59	19.06625 AU	max. Earth dist.	-12268 Dec 21 j 02:41	5° <u>0</u> '19'39	20.86657 AU
opposition	-12273 Jun 03 j 02:44	13° <u>16</u> '05	0°01'44	morning rise	-12267 Jan 06 j 12:59	6° <u>0</u> '15'18	
direct	-12273 Aug 16 j 16:10	11° <u>19</u> '31		retrograde	-12267 Apr 11 j 00:43	9° <u>0</u> '23'19	
desc. node	-12273 Sep 17 j 18:33	11° <u>45</u> '55		opposition	-12267 Jun 26 j 10:01	7° <u>0</u> '23'05	-0°32'29
evening set	-12273 Nov 14 j 07:37	14° <u>17</u> '07		min. Earth dist.	-12267 Jun 26 j 04:39	7° <u>0</u> '23'39	18.84179 AU
				direct	-12267 Sep 08 j 22:44	5° <u>0</u> '24'51	
conjunction	-12273 Nov 30 j 16:50	15° <u>12</u> '17	-0°01'04	evening set	-12267 Dec 08 j 16:51	8° <u>0</u> '26'17	
minimum elong	-12273 Nov 30 j 16:50	15° <u>12</u> '17	0°00'51				
behind sun begin	-12273 Nov 30 j 10:08	15° <u>11</u> '22		conjunction	-12267 Dec 25 j 07:50	9° <u>0</u> '22'43	-0°31'46
behind sun end	-12273 Nov 30 j 23:32	15° <u>13</u> '13		minimum elong	-12267 Dec 25 j 07:50	9° <u>0</u> '22'43	0°31'53
max. Earth dist.	-12273 Dec 01 j 13:11	15° <u>15</u> '09	21.05444 AU	max. Earth dist.	-12267 Dec 25 j 13:25	9° <u>0</u> '23'30	20.81626 AU
morning rise	-12273 Dec 17 j 05:55	16° <u>08</u> '01		morning rise	-12266 Jan 11 j 01:24	10° <u>0</u> '19'32	
retrograde	-12272 Mar 21 j 02:38	19° <u>14</u> '55		retrograde	-12266 Apr 15 j 11:09	13° <u>0</u> '27'52	
opposition	-12272 Jun 06 j 07:35	17° <u>15</u> '12	-0°04'05	opposition	-12266 Jun 30 j 15:55	11° <u>0</u> '27'31	-0°37'51
min. Earth dist.	-12272 Jun 05 j 15:10	17° <u>16</u> '53	19.04161 AU	min. Earth dist.	-12266 Jun 30 j 12:20	11° <u>0</u> '27'53	18.79000 AU
direct	-12272 Aug 19 j 19:42	15° <u>18</u> '27		direct	-12266 Sep 13 j 06:05	9° <u>0</u> '28'56	
evening set	-12272 Nov 17 j 15:46	18° <u>16</u> '33		evening set	-12266 Dec 13 j 04:33	12° <u>0</u> '31'14	
conjunction	-12272 Dec 04 j 01:58	19° <u>11</u> '53	-0°06'20	conjunction	-12266 Dec 29 j 20:09	13° <u>0</u> '27'54	-0°36'33
minimum elong	-12272 Dec 04 j 01:57	19° <u>11</u> '53	0°06'11	minimum elong	-12266 Dec 29 j 20:08	13° <u>0</u> '27'54	0°36'41
behind sun begin	-12272 Dec 03 j 19:36	19° <u>11</u> '01		max. Earth dist.	-12266 Dec 29 j 22:16	13° <u>0</u> '28'12	20.76320 AU
behind sun end	-12272 Dec 04 j 08:18	19° <u>12</u> '46		morning rise	-12265 Jan 15 j 14:24	14° <u>0</u> '24'56	
max. Earth dist.	-12272 Dec 04 j 18:51	19° <u>14</u> '16	21.02719 AU	retrograde	-12265 Apr 19 j 20:44	17° <u>0</u> '33'39	
morning rise	-12272 Dec 20 j 16:05	20° <u>07</u> '47		opposition	-12265 Jul 04 j 22:14	15° <u>0</u> '33'09	-0°43'04
retrograde	-12271 Mar 25 j 12:22	23° <u>14</u> '52		min. Earth dist.	-12265 Jul 04 j 20:54	15° <u>0</u> '33'18	18.73580 AU
opposition	-12271 Jun 10 j 12:40	21° <u>15</u> '05	-0°09'53	direct	-12265 Sep 17 j 12:39	13° <u>0</u> '34'12	
min. Earth dist.	-12271 Jun 09 j 22:28	21° <u>16</u> '33	19.01156 AU	evening set	-12265 Dec 17 j 17:04	16° <u>0</u> '37'28	
direct	-12271 Aug 24 j 00:48	19° <u>18</u> '08					
evening set	-12271 Nov 22 j 00:22	22° <u>16</u> '46		conjunction	-12264 Jan 03 j 09:34	17° <u>0</u> '34'23	-0°41'10
				minimum elong	-12264 Jan 03 j 09:33	17° <u>0</u> '34'23	0°41'21
conjunction	-12271 Dec 08 j 11:40	23° <u>12</u> '19	-0°11'33	max. Earth dist.	-12264 Jan 03 j 10:24	17° <u>0</u> '34'30	20.70779 AU
minimum elong	-12271 Dec 08 j 11:40	23° <u>12</u> '19	0°11'27	morning rise	-12264 Jan 20 j 04:04	18° <u>0</u> '31'38	
behind sun begin	-12271 Dec 08 j 06:51	23° <u>11</u> '39		retrograde	-12264 Apr 23 j 07:53	21° <u>0</u> '40'44	
behind sun end	-12271 Dec 08 j 16:28	23° <u>12</u> '58		opposition	-12264 Jul 08 j 04:48	19° <u>0</u> '40'10	-0°48'05
max. Earth dist.	-12271 Dec 09 j 03:04	23° <u>14</u> '29	20.99431 AU	min. Earth dist.	-12264 Jul 08 j 05:11	19° <u>0</u> '40'07	18.67933 AU
morning rise	-12271 Dec 25 j 02:28	24° <u>08</u> '22		direct	-12264 Sep 20 j 20:45	17° <u>0</u> '40'52	
retrograde	-12270 Mar 29 j 20:54	27° <u>15</u> '39		evening set	-12264 Dec 21 j 06:37	20° <u>0</u> '45'10	

Attention, astronomical year style is used: The year -12263 in astronomical counting style is the year 12264 BCE in historical counting style.

conjunction	-12263 Jan 06 j 23:35	21° $\underline{0}$ 42'20	-0°45'36	morning rise	-12257 Feb 20 j 01:10	18° $\underline{0}$ 06'37	
minimum elong	-12263 Jan 06 j 23:35	21° $\underline{0}$ 42'20	0°45'51	retrograde	-12257 May 24 j 05:43	21° $\underline{0}$ 19'28	
max. Earth dist.	-12263 Jan 06 j 20:47	21° $\underline{0}$ 41'56	20.65039 AU	opposition	-12257 Aug 06 j 20:36	19° $\underline{0}$ 18'30	-1°15'39
morning rise	-12263 Jan 23 j 18:38	22° $\underline{0}$ 39'48		min. Earth dist.	-12257 Aug 07 j 13:00	19° $\underline{0}$ 16'45	18.22990 AU
retrograde	-12263 Apr 27 j 18:59	25° $\underline{0}$ 49'22		direct	-12257 Oct 20 j 21:40	17° $\underline{0}$ 16'37	
opposition	-12263 Jul 12 j 12:02	23° $\underline{0}$ 48'42	-0°52'54	evening set	-12256 Jan 22 j 06:19	20° $\underline{0}$ 29'43	
min. Earth dist.	-12263 Jul 12 j 14:48	23° $\underline{0}$ 48'25	18.62106 AU	max. Earth dist.	-12256 Feb 07 j 05:29	21° $\underline{0}$ 25'45	20.19365 AU
direct	-12263 Sep 25 j 04:32	21° $\underline{0}$ 49'03					
evening set	-12263 Dec 25 j 20:45	24° $\underline{0}$ 54'28		conjunction	-12256 Feb 08 j 01:58	21° $\underline{0}$ 28'46	-1°09'18
				minimum elong	-12256 Feb 08 j 01:57	21° $\underline{0}$ 28'46	1°09'51
conjunction	-12262 Jan 11 j 14:28	25° $\underline{0}$ 51'54	-0°49'49	morning rise	-12256 Feb 24 j 20:59	22° $\underline{0}$ 27'49	
minimum elong	-12262 Jan 11 j 14:27	25° $\underline{0}$ 51'54	0°50'07	retrograde	-12256 May 27 j 22:35	25° $\underline{0}$ 41'14	
max. Earth dist.	-12262 Jan 11 j 10:23	25° $\underline{0}$ 51'19	20.59111 AU	opposition	-12256 Aug 10 j 08:25	23° $\underline{0}$ 40'09	-1°18'09
morning rise	-12262 Jan 28 j 09:35	26° $\underline{0}$ 49'35		min. Earth dist.	-12256 Aug 11 j 02:16	23° $\underline{0}$ 38'14	18.15784 AU
retrograde	-12262 May 02 j 07:16	29° $\underline{0}$ 59'38		direct	-12256 Oct 24 j 12:33	21° $\underline{0}$ 37'50	
opposition	-12262 Jul 16 j 19:44	27° $\underline{0}$ 58'56	-0°57'28	evening set	-12255 Jan 26 j 03:10	24° $\underline{0}$ 52'17	
min. Earth dist.	-12262 Jul 17 j 00:07	27° $\underline{0}$ 58'28	18.56086 AU				
direct	-12262 Sep 29 j 13:37	25° $\underline{0}$ 58'58		conjunction	-12255 Feb 11 j 22:43	25° $\underline{0}$ 51'37	-1°11'19
evening set	-12262 Dec 30 j 12:01	29° $\underline{0}$ 05'32		minimum elong	-12255 Feb 11 j 22:42	25° $\underline{0}$ 51'37	1°11'54
	-12261 Jan 15 j 07:47	0° $\underline{0}$		max. Earth dist.	-12255 Feb 10 j 22:50	25° $\underline{0}$ 48'04	20.12107 AU
conjunction	-12261 Jan 16 j 06:04	0° $\underline{0}$ 03'13	-0°53'49	morning rise	-12255 Feb 28 j 17:29	26° $\underline{0}$ 50'52	
minimum elong	-12261 Jan 16 j 06:04	0° $\underline{0}$ 03'13	0°54'10		-12255 May 19 j 03:59	0° $\underline{0}$	
max. Earth dist.	-12261 Jan 15 j 22:17	0° $\underline{0}$ 02'06	20.53006 AU	retrograde	-12255 Jun 01 j 14:16	0° $\underline{0}$ 04'52	
morning rise	-12261 Feb 02 j 01:33	1° $\underline{0}$ 01'08			-12255 Jun 15 j 03:12	30° $\underline{0}$	
retrograde	-12261 May 06 j 19:51	4° $\underline{0}$ 11'43		opposition	-12255 Aug 14 j 21:14	28° $\underline{0}$ 03'40	-1°20'13
opposition	-12261 Jul 21 j 04:02	2° $\underline{0}$ 10'58	-1°01'47	min. Earth dist.	-12255 Aug 15 j 17:55	28° $\underline{0}$ 01'27	18.08512 AU
min. Earth dist.	-12261 Jul 21 j 11:06	2° $\underline{0}$ 10'13	18.49898 AU	direct	-12255 Oct 29 j 02:44	26° $\underline{0}$ 00'53	
direct	-12261 Oct 03 j 22:45	0° $\underline{0}$ 10'39		evening set	-12254 Jan 31 j 00:27	29° $\underline{0}$ 16'42	
evening set	-12260 Jan 04 j 04:07	3° $\underline{0}$ 18'28			-12254 Feb 12 j 06:42	0° $\underline{0}$	
				conjunction	-12254 Feb 16 j 20:03	0° $\underline{0}$ 16'17	-1°12'56
conjunction	-12260 Jan 20 j 22:48	4° $\underline{0}$ 16'26	-0°57'32	minimum elong	-12254 Feb 16 j 20:03	0° $\underline{0}$ 16'17	1°13'34
minimum elong	-12260 Jan 20 j 22:48	4° $\underline{0}$ 16'26	0°57'56	max. Earth dist.	-12254 Feb 15 j 18:49	0° $\underline{0}$ 12'31	20.04824 AU
max. Earth dist.	-12260 Jan 20 j 13:31	4° $\underline{0}$ 15'05	20.46712 AU	morning rise	-12254 Mar 05 j 14:23	1° $\underline{0}$ 15'45	
morning rise	-12260 Feb 06 j 18:15	5° $\underline{0}$ 14'34		retrograde	-12254 Jun 06 j 08:27	4° $\underline{0}$ 30'20	
retrograde	-12260 May 10 j 09:47	8° $\underline{0}$ 25'42		opposition	-12254 Aug 19 j 10:40	2° $\underline{0}$ 28'59	-1°21'49
opposition	-12260 Jul 24 j 13:02	6° $\underline{0}$ 24'56	-1°05'47	min. Earth dist.	-12254 Aug 20 j 08:13	2° $\underline{0}$ 26'40	18.01248 AU
min. Earth dist.	-12260 Jul 24 j 21:51	6° $\underline{0}$ 23'59	18.43496 AU	direct	-12254 Nov 02 j 19:07	0° $\underline{0}$ 25'45	
direct	-12260 Oct 07 j 09:25	4° $\underline{0}$ 24'16		evening set	-12253 Feb 04 j 22:42	3° $\underline{0}$ 42'56	
evening set	-12259 Jan 07 j 21:27	7° $\underline{0}$ 33'22					
				conjunction	-12253 Feb 21 j 18:06	4° $\underline{0}$ 42'46	-1°14'08
conjunction	-12259 Jan 24 j 16:18	8° $\underline{0}$ 31'36	-1°00'59	minimum elong	-12253 Feb 21 j 18:05	4° $\underline{0}$ 42'46	1°14'47
minimum elong	-12259 Jan 24 j 16:17	8° $\underline{0}$ 31'36	1°01'26	max. Earth dist.	-12253 Feb 20 j 14:12	4° $\underline{0}$ 38'36	19.97590 AU
max. Earth dist.	-12259 Jan 24 j 03:04	8° $\underline{0}$ 29'40	20.40196 AU	morning rise	-12253 Mar 10 j 11:59	5° $\underline{0}$ 42'27	
morning rise	-12259 Feb 10 j 11:52	9° $\underline{0}$ 29'58		retrograde	-12253 Jun 11 j 01:34	8° $\underline{0}$ 57'36	
retrograde	-12259 May 14 j 23:34	12° $\underline{0}$ 41'39		opposition	-12253 Aug 24 j 00:54	6° $\underline{0}$ 56'09	-1°22'57
opposition	-12259 Jul 28 j 22:47	10° $\underline{0}$ 40'50	-1°09'26	min. Earth dist.	-12253 Aug 25 j 01:01	6° $\underline{0}$ 53'32	17.94089 AU
min. Earth dist.	-12259 Jul 29 j 10:34	10° $\underline{0}$ 39'35	18.36881 AU	direct	-12253 Nov 07 j 10:53	4° $\underline{0}$ 52'26	
direct	-12259 Oct 11 j 20:20	8° $\underline{0}$ 39'48		evening set	-12252 Feb 09 j 21:39	8° $\underline{0}$ 11'00	
evening set	-12258 Jan 12 j 15:30	11° $\underline{0}$ 50'13		max. Earth dist.	-12252 Feb 25 j 11:45	9° $\underline{0}$ 06'42	19.90506 AU
conjunction	-12258 Jan 29 j 10:47	12° $\underline{0}$ 48'44	-1°04'06	conjunction	-12252 Feb 26 j 16:54	9° $\underline{0}$ 11'05	-1°14'54
minimum elong	-12258 Jan 29 j 10:47	12° $\underline{0}$ 48'44	1°04'35	minimum elong	-12252 Feb 26 j 16:54	9° $\underline{0}$ 11'05	1°15'34
max. Earth dist.	-12258 Jan 28 j 19:51	12° $\underline{0}$ 46'33	20.33458 AU	morning rise	-12252 Mar 14 j 10:15	10° $\underline{0}$ 10'58	
morning rise	-12258 Feb 15 j 06:09	13° $\underline{0}$ 47'19		retrograde	-12252 Jun 14 j 20:54	13° $\underline{0}$ 26'42	
	-12258 Mar 09 j 14:41	15° $\underline{0}$		opposition	-12252 Aug 27 j 16:00	11° $\underline{0}$ 25'08	-1°23'35
retrograde	-12258 May 19 j 15:02	16° $\underline{0}$ 59'35		min. Earth dist.	-12252 Aug 28 j 16:32	11° $\underline{0}$ 22'28	17.87102 AU
	-12258 Aug 01 j 21:08	15° $\underline{0}$		direct	-12252 Nov 11 j 04:44	9° $\underline{0}$ 21'00	
opposition	-12258 Aug 02 j 09:17	14° $\underline{0}$ 58'42	-1°12'45	evening set	-12251 Feb 13 j 21:19	12° $\underline{0}$ 40'55	
min. Earth dist.	-12258 Aug 02 j 22:41	14° $\underline{0}$ 57'17	18.30034 AU	max. Earth dist.	-12251 Mar 01 j 09:15	13° $\underline{0}$ 36'34	19.83621 AU
direct	-12258 Oct 16 j 09:03	12° $\underline{0}$ 57'17					
	-12258 Dec 27 j 07:44	15° $\underline{0}$		conjunction	-12251 Mar 02 j 16:13	13° $\underline{0}$ 41'15	-1°15'12
evening set	-12257 Jan 17 j 10:28	16° $\underline{0}$ 09'01		minimum elong	-12251 Mar 02 j 16:13	13° $\underline{0}$ 41'15	1°15'55
max. Earth dist.	-12257 Feb 02 j 11:03	17° $\underline{0}$ 05'02	20.26501 AU	morning rise	-12251 Mar 19 j 08:52	14° $\underline{0}$ 41'18	
				retrograde	-12251 Jun 19 j 15:22	17° $\underline{0}$ 57'38	
conjunction	-12257 Feb 03 j 05:49	17° $\underline{0}$ 07'48	-1°06'53	opposition	-12251 Sep 01 j 08:06	15° $\underline{0}$ 55'58	-1°23'43
minimum elong	-12257 Feb 03 j 05:49	17° $\underline{0}$ 07'48	1°07'24	min. Earth dist.	-12251 Sep 02 j 10:47	15° $\underline{0}$ 53'05	17.80363 AU

Attention, astronomical year style is used: The year -12251 in astronomical counting style is the year 12252 BCE in historical counting style.

direct	-12251 Nov 15 j 22:12	13° $\mathring{A}$ 51'28		conjunction	-12244 Apr 05 j 03:11	16° $\mathring{Z}$ 04'05	-1°04'09
evening set	-12250 Feb 18 j 21:38	17° $\mathring{A}$ 12'44		minimum elong	-12244 Apr 05 j 03:12	16° $\mathring{Z}$ 04'05	1°04'52
max. Earth dist.	-12250 Mar 06 j 08:03	18° $\mathring{A}$ 08'24	19.77031 AU	morning rise	-12244 Apr 21 j 13:46	17° $\mathring{Z}$ 05'03	
				retrograde	-12244 Jul 21 j 21:51	20° $\mathring{Z}$ 25'09	
conjunction	-12250 Mar 07 j 16:08	18° $\mathring{A}$ 13'16	-1°15'04	opposition	-12244 Oct 03 j 02:09	18° $\mathring{Z}$ 23'25	-1°09'45
minimum elong	-12250 Mar 07 j 16:08	18° $\mathring{A}$ 13'16	1°15'46	min. Earth dist.	-12244 Oct 04 j 09:14	18° $\mathring{Z}$ 20'02	17.42713 AU
morning rise	-12250 Mar 24 j 08:09	19° $\mathring{A}$ 13'30		direct	-12244 Dec 18 j 11:19	16° $\mathring{Z}$ 17'09	
retrograde	-12250 Jun 24 j 11:49	22° $\mathring{A}$ 30'25		evening set	-12243 Mar 24 j 16:44	19° $\mathring{Z}$ 46'26	
opposition	-12250 Sep 06 j 00:56	20° $\mathring{A}$ 28'42	-1°23'19	max. Earth dist.	-12243 Apr 08 j 18:19	20° $\mathring{Z}$ 42'23	19.40588 AU
min. Earth dist.	-12250 Sep 07 j 03:37	20° $\mathring{A}$ 25'48	17.73936 AU				
direct	-12250 Nov 20 j 18:00	18° $\mathring{A}$ 23'51		conjunction	-12243 Apr 10 j 06:22	20° $\mathring{Z}$ 48'01	-1°00'41
evening set	-12249 Feb 23 j 22:33	21° $\mathring{A}$ 46'26		minimum elong	-12243 Apr 10 j 06:22	20° $\mathring{Z}$ 48'01	1°01'23
max. Earth dist.	-12249 Mar 11 j 07:35	22° $\mathring{A}$ 42'09	19.70763 AU	morning rise	-12243 Apr 26 j 15:39	21° $\mathring{Z}$ 49'02	
				retrograde	-12243 Jul 26 j 21:02	25° $\mathring{Z}$ 09'32	
conjunction	-12249 Mar 12 j 16:39	22° $\mathring{A}$ 47'11	-1°14'26	opposition	-12243 Oct 08 j 01:35	23° $\mathring{Z}$ 07'47	-1°05'41
minimum elong	-12249 Mar 12 j 16:39	22° $\mathring{A}$ 47'11	1°15'10	min. Earth dist.	-12243 Oct 09 j 09:15	23° $\mathring{Z}$ 04'20	17.38739 AU
morning rise	-12249 Mar 29 j 07:50	23° $\mathring{A}$ 47'35		direct	-12243 Dec 23 j 12:43	21° $\mathring{Z}$ 01'20	
retrograde	-12249 Jun 29 j 07:22	27° $\mathring{A}$ 05'05		evening set	-12242 Mar 29 j 21:03	24° $\mathring{Z}$ 31'22	
opposition	-12249 Sep 10 j 18:51	25° $\mathring{A}$ 03'20	-1°22'24	max. Earth dist.	-12242 Apr 13 j 20:29	25° $\mathring{Z}$ 27'12	19.36829 AU
min. Earth dist.	-12249 Sep 11 j 23:26	25° $\mathring{A}$ 00'13	17.67849 AU				
direct	-12249 Nov 25 j 13:23	22° $\mathring{A}$ 58'11		conjunction	-12242 Apr 15 j 09:32	25° $\mathring{Z}$ 33'01	-0°56'48
evening set	-12248 Feb 29 j 00:18	26° $\mathring{A}$ 22'04		minimum elong	-12242 Apr 15 j 09:32	25° $\mathring{Z}$ 33'01	0°57'29
max. Earth dist.	-12248 Mar 15 j 07:27	27° $\mathring{A}$ 17'45	19.64859 AU	morning rise	-12242 May 01 j 17:53	26° $\mathring{Z}$ 34'04	
				retrograde	-12242 Jul 31 j 21:15	29° $\mathring{Z}$ 54'54	
conjunction	-12248 Mar 16 j 17:46	27° $\mathring{A}$ 23'01	-1°13'21	opposition	-12242 Oct 13 j 01:28	27° $\mathring{Z}$ 53'06	-1°01'08
minimum elong	-12248 Mar 16 j 17:46	27° $\mathring{A}$ 23'01	1°14'04	min. Earth dist.	-12242 Oct 14 j 08:47	27° $\mathring{Z}$ 49'41	17.35200 AU
morning rise	-12248 Apr 02 j 08:14	28° $\mathring{A}$ 23'33		direct	-12242 Dec 28 j 15:21	25° $\mathring{Z}$ 46'28	
	-12248 May 01 j 08:44	0° $\mathring{Z}$		evening set	-12241 Apr 04 j 01:13	29° $\mathring{Z}$ 17'10	
retrograde	-12248 Jul 03 j 04:42	1° $\mathring{Z}$ 41'38			-12241 Apr 15 j 12:57	0° $\mathring{Z}$	
	-12248 Sep 06 j 19:43	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	-12241 Apr 19 j 01:25	0° $\mathring{Z}$ 13'16	19.33520 AU
opposition	-12248 Sep 14 j 13:30	29° $\mathring{A}$ 39'53	-1°20'57				
min. Earth dist.	-12248 Sep 15 j 17:59	29° $\mathring{A}$ 36'46	17.62122 AU	conjunction	-12241 Apr 20 j 12:51	0° $\mathring{Z}$ 18'51	-0°52'32
direct	-12248 Nov 29 j 11:29	27° $\mathring{A}$ 34'28		minimum elong	-12241 Apr 20 j 12:52	0° $\mathring{Z}$ 18'51	0°53'11
	-12247 Feb 15 j 21:29	0° $\mathring{Z}$		morning rise	-12241 May 06 j 19:57	1° $\mathring{Z}$ 19'54	
evening set	-12247 Mar 05 j 02:38	0° $\mathring{Z}$ 59'36		retrograde	-12241 Aug 05 j 21:30	4° $\mathring{Z}$ 41'02	
max. Earth dist.	-12247 Mar 20 j 08:59	1° $\mathring{Z}$ 55'24	19.59306 AU	opposition	-12241 Oct 18 j 02:11	2° $\mathring{Z}$ 39'12	-0°56'10
				min. Earth dist.	-12241 Oct 19 j 09:17	2° $\mathring{Z}$ 35'49	17.32120 AU
conjunction	-12247 Mar 21 j 19:34	2° $\mathring{Z}$ 00'43	-1°11'46	direct	-12240 Jan 02 j 18:20	0° $\mathring{Z}$ 32'25	
minimum elong	-12247 Mar 21 j 19:34	2° $\mathring{Z}$ 00'43	1°12'30	evening set	-12240 Apr 08 j 05:31	4° $\mathring{Z}$ 03'38	
morning rise	-12247 Apr 07 j 08:59	3° $\mathring{Z}$ 01'23		max. Earth dist.	-12240 Apr 23 j 04:12	4° $\mathring{Z}$ 59'42	19.30708 AU
retrograde	-12247 Jul 08 j 01:38	6° $\mathring{Z}$ 20'01					
opposition	-12247 Sep 19 j 09:24	4° $\mathring{Z}$ 18'18	-1°18'57	conjunction	-12240 Apr 24 j 15:53	5° $\mathring{Z}$ 05'19	-0°47'53
min. Earth dist.	-12247 Sep 20 j 15:31	4° $\mathring{Z}$ 15'01	17.56754 AU	minimum elong	-12240 Apr 24 j 15:54	5° $\mathring{Z}$ 05'19	0°48'29
direct	-12247 Dec 04 j 09:11	2° $\mathring{Z}$ 12'40		morning rise	-12240 May 10 j 21:55	6° $\mathring{Z}$ 06'23	
evening set	-12246 Mar 10 j 05:27	5° $\mathring{Z}$ 38'57		retrograde	-12240 Aug 09 j 21:40	9° $\mathring{Z}$ 27'46	
max. Earth dist.	-12246 Mar 25 j 09:37	6° $\mathring{Z}$ 34'41	19.54118 AU	opposition	-12240 Oct 22 j 03:29	7° $\mathring{Z}$ 25'52	-0°50'48
				min. Earth dist.	-12240 Oct 23 j 09:59	7° $\mathring{Z}$ 22'33	17.29585 AU
conjunction	-12246 Mar 26 j 21:32	6° $\mathring{Z}$ 40'14	-1°09'42	direct	-12239 Jan 06 j 21:17	5° $\mathring{Z}$ 18'58	
minimum elong	-12246 Mar 26 j 21:32	6° $\mathring{Z}$ 40'14	1°10'26	evening set	-12239 Apr 13 j 09:31	8° $\mathring{Z}$ 50'36	
morning rise	-12246 Apr 12 j 10:10	7° $\mathring{Z}$ 41'01		max. Earth dist.	-12239 Apr 28 j 09:22	9° $\mathring{Z}$ 46'58	19.28467 AU
retrograde	-12246 Jul 13 j 00:05	11° $\mathring{Z}$ 00'12					
opposition	-12246 Sep 24 j 06:02	8° $\mathring{Z}$ 58'28	-1°16'24	conjunction	-12239 Apr 29 j 18:52	9° $\mathring{Z}$ 52'16	-0°42'54
min. Earth dist.	-12246 Sep 25 j 12:00	8° $\mathring{Z}$ 55'12	17.51737 AU	minimum elong	-12239 Apr 29 j 18:52	9° $\mathring{Z}$ 52'16	0°43'29
direct	-12246 Dec 09 j 09:36	6° $\mathring{Z}$ 52'37		morning rise	-12239 May 15 j 23:38	10° $\mathring{Z}$ 53'17	
evening set	-12245 Mar 15 j 08:49	10° $\mathring{Z}$ 20'01		retrograde	-12239 Aug 14 j 22:50	14° $\mathring{Z}$ 14'54	
max. Earth dist.	-12245 Mar 30 j 12:38	11° $\mathring{Z}$ 15'54	19.49261 AU	opposition	-12239 Oct 27 j 05:23	12° $\mathring{Z}$ 12'57	-0°45'05
				min. Earth dist.	-12239 Oct 28 j 10:35	12° $\mathring{Z}$ 09'46	17.27635 AU
conjunction	-12245 Apr 01 j 00:15	11° $\mathring{Z}$ 21'25	-1°07'09	direct	-12238 Jan 12 j 01:45	10° $\mathring{Z}$ 05'59	
minimum elong	-12245 Apr 01 j 00:16	11° $\mathring{Z}$ 21'25	1°07'52	evening set	-12238 Apr 18 j 13:16	13° $\mathring{Z}$ 37'54	
morning rise	-12245 Apr 17 j 11:43	12° $\mathring{Z}$ 22'18					
retrograde	-12245 Jul 17 j 22:04	15° $\mathring{Z}$ 41'57		conjunction	-12238 May 04 j 21:21	14° $\mathring{Z}$ 39'31	-0°37'37
opposition	-12245 Sep 29 j 03:39	13° $\mathring{Z}$ 40'15	-1°13'20	minimum elong	-12238 May 04 j 21:21	14° $\mathring{Z}$ 39'31	0°38'09
min. Earth dist.	-12245 Sep 30 j 10:58	13° $\mathring{Z}$ 36'50	17.47049 AU	max. Earth dist.	-12238 May 03 j 12:36	14° $\mathring{Z}$ 34'19	19.26841 AU
direct	-12245 Dec 14 j 09:12	11° $\mathring{Z}$ 34'11			-12238 May 10 j 06:45	15° $\mathring{Z}$	
evening set	-12244 Mar 19 j 12:47	15° $\mathring{Z}$ 02'35		morning rise	-12238 May 21 j 01:00	15° $\mathring{Z}$ 40'28	
max. Earth dist.	-12244 Apr 03 j 14:07	15° $\mathring{Z}$ 58'19	19.44749 AU	retrograde	-12238 Aug 19 j 22:32	19° $\mathring{Z}$ 02'16	
				opposition	-12238 Nov 01 j 07:45	17° $\mathring{Z}$ 00'17	-0°39'03

Attention, astronomical year style is used: The year -12238 in astronomical counting style is the year 12239 BCE in historical counting style.

min. Earth dist.	-12238 Nov 02 j 12:07	16° $\approx$ 57'13	17.26338 AU	behind sun end	-12232 Jun 02 j 12:00	13° $\mathbb{H}$ 24'17	
	-12237 Jan 01 j 06:16	15° $\mathbb{R}\approx$		morning rise	-12232 Jun 18 j 02:01	14° $\mathbb{H}$ 23'26	
direct	-12237 Jan 17 j 04:44	14° $\mathbb{H}$ 53'19		retrograde	-12232 Sep 17 j 00:55	17° $\mathbb{H}$ 45'31	
	-12237 Feb 02 j 03:20	15° $\mathbb{H}\approx$		asc. node	-12232 Sep 20 j 04:54	17° $\mathbb{H}$ 45'15	
evening set	-12237 Apr 23 j 16:48	18° $\mathbb{H}\approx$ 25'25		opposition	-12232 Nov 30 j 05:17	15° $\mathbb{H}$ 43'59	0°01'22
				min. Earth dist.	-12232 Nov 30 j 22:45	15° $\mathbb{H}$ 42'07	17.32500 AU
conjunction	-12237 May 09 j 23:44	19° $\mathbb{H}\approx$ 26'57	-0°32'05	direct	-12231 Feb 15 j 10:20	13° $\mathbb{H}$ 38'14	
minimum elong	-12237 May 09 j 23:44	19° $\mathbb{H}\approx$ 26'57	0°32'34	evening set	-12231 May 22 j 05:40	17° $\mathbb{H}$ 08'51	
max. Earth dist.	-12237 May 08 j 17:20	19° $\mathbb{H}\approx$ 22'07	19.25885 AU	max. Earth dist.	-12231 Jun 06 j 11:23	18° $\mathbb{H}$ 06'34	19.33945 AU
morning rise	-12237 May 26 j 02:09	20° $\mathbb{H}\approx$ 27'49					
retrograde	-12237 Aug 25 j 00:08	23° $\mathbb{H}\approx$ 49'45		conjunction	-12231 Jun 07 j 04:57	18° $\mathbb{H}$ 09'22	0°04'30
opposition	-12237 Nov 06 j 10:25	21° $\mathbb{H}\approx$ 47'47	-0°32'44	minimum elong	-12231 Jun 07 j 04:57	18° $\mathbb{H}$ 09'21	0°04'20
min. Earth dist.	-12237 Nov 07 j 12:40	21° $\mathbb{H}\approx$ 44'56	17.25708 AU	behind sun begin	-12231 Jun 06 j 22:27	18° $\mathbb{H}$ 08'21	
direct	-12236 Jan 22 j 10:31	19° $\mathbb{H}\approx$ 40'53		behind sun end	-12231 Jun 07 j 11:27	18° $\mathbb{H}$ 10'22	
evening set	-12236 Apr 27 j 20:07	23° $\mathbb{H}\approx$ 13'02		morning rise	-12231 Jun 23 j 00:41	19° $\mathbb{H}$ 09'21	
max. Earth dist.	-12236 May 12 j 20:59	24° $\mathbb{H}\approx$ 09'53	19.25612 AU	retrograde	-12231 Sep 22 j 02:18	22° $\mathbb{H}$ 31'18	
				opposition	-12231 Dec 05 j 09:23	20° $\mathbb{H}$ 29'50	0°08'19
conjunction	-12236 May 14 j 01:46	24° $\mathbb{H}\approx$ 14'28	-0°26'19	min. Earth dist.	-12231 Dec 05 j 23:42	20° $\mathbb{H}$ 28'19	17.35524 AU
minimum elong	-12236 May 14 j 01:46	24° $\mathbb{H}\approx$ 14'28	0°26'46	direct	-12230 Feb 20 j 15:14	18° $\mathbb{H}$ 24'22	
morning rise	-12236 May 30 j 02:58	25° $\mathbb{H}\approx$ 15'14		evening set	-12230 May 27 j 05:45	21° $\mathbb{H}$ 54'18	
retrograde	-12236 Aug 28 j 23:24	28° $\mathbb{H}\approx$ 37'17					
opposition	-12236 Nov 10 j 13:44	26° $\mathbb{H}\approx$ 35'21	-0°26'11	conjunction	-12230 Jun 12 j 04:00	22° $\mathbb{H}$ 54'35	0°10'40
min. Earth dist.	-12236 Nov 11 j 14:59	26° $\mathbb{H}\approx$ 32'38	17.25787 AU	minimum elong	-12230 Jun 12 j 03:59	22° $\mathbb{H}$ 54'35	0°10'34
direct	-12235 Jan 26 j 14:01	24° $\mathbb{H}\approx$ 28'35		behind sun begin	-12230 Jun 11 j 22:49	22° $\mathbb{H}$ 53'47	
evening set	-12235 May 02 j 22:53	28° $\mathbb{H}\approx$ 00'41		behind sun end	-12230 Jun 12 j 09:09	22° $\mathbb{H}$ 55'23	
max. Earth dist.	-12235 May 18 j 00:50	28° $\mathbb{H}\approx$ 57'46	19.26050 AU	max. Earth dist.	-12230 Jun 11 j 13:41	22° $\mathbb{H}$ 52'19	19.37188 AU
				morning rise	-12230 Jun 27 j 22:35	23° $\mathbb{H}$ 54'21	
conjunction	-12235 May 19 j 03:16	29° $\mathbb{H}\approx$ 01'58	-0°20'22	retrograde	-12230 Sep 27 j 01:38	27° $\mathbb{H}$ 16'07	
minimum elong	-12235 May 19 j 03:16	29° $\mathbb{H}\approx$ 01'58	0°20'46	opposition	-12230 Dec 10 j 13:35	25° $\mathbb{H}$ 14'43	0°15'12
	-12235 Jun 03 j 10:32	0° $\mathbb{H}$		min. Earth dist.	-12230 Dec 11 j 02:38	25° $\mathbb{H}$ 13'20	17.38974 AU
morning rise	-12235 Jun 04 j 03:22	0° $\mathbb{H}$ 02'37		direct	-12229 Feb 25 j 18:43	23° $\mathbb{H}$ 09'34	
retrograde	-12235 Sep 03 j 01:05	3° $\mathbb{H}$ 24'45		evening set	-12229 Jun 01 j 05:18	26° $\mathbb{H}$ 38'42	
opposition	-12235 Nov 15 j 17:14	1° $\mathbb{H}$ 22'53	-0°19'27				
min. Earth dist.	-12235 Nov 16 j 15:41	1° $\mathbb{H}$ 20'28	17.26548 AU	conjunction	-12229 Jun 17 j 02:10	27° $\mathbb{H}$ 38'42	0°16'45
	-12235 Dec 20 j 16:56	30° $\mathbb{R}\approx$		minimum elong	-12229 Jun 17 j 02:10	27° $\mathbb{H}$ 38'42	0°16'42
direct	-12234 Jan 31 j 20:45	29° $\mathbb{H}\approx$ 16'20		max. Earth dist.	-12229 Jun 16 j 13:17	27° $\mathbb{H}$ 36'40	19.40850 AU
	-12234 Mar 13 j 21:11	0° $\mathbb{H}$		morning rise	-12229 Jul 02 j 19:58	28° $\mathbb{H}$ 38'15	
evening set	-12234 May 08 j 01:19	2° $\mathbb{H}$ 48'14			-12229 Jul 26 j 03:26	0° $\mathbb{Y}$	
max. Earth dist.	-12234 May 23 j 04:25	3° $\mathbb{H}$ 45'33	19.27147 AU	retrograde	-12229 Oct 02 j 02:04	1° $\mathbb{Y}$ 59'46	
				opposition	-12229 Dec 15 j 17:25	29° $\mathbb{H}$ 58'25	0°21'56
conjunction	-12234 May 24 j 04:29	3° $\mathbb{H}$ 49'22	-0°14'17		-12229 Dec 15 j 02:25	30° $\mathbb{R}\mathbb{H}$	
minimum elong	-12234 May 24 j 04:29	3° $\mathbb{H}$ 49'22	0°14'38	min. Earth dist.	-12229 Dec 16 j 03:19	29° $\mathbb{H}$ 57'22	17.42833 AU
behind sun begin	-12234 May 24 j 01:37	3° $\mathbb{H}$ 48'55		direct	-12228 Mar 01 j 22:32	27° $\mathbb{H}$ 53'34	
behind sun end	-12234 May 24 j 07:21	3° $\mathbb{H}$ 49'49			-12228 May 12 j 19:03	0° $\mathbb{Y}$	
morning rise	-12234 Jun 09 j 03:22	4° $\mathbb{H}$ 49'53		evening set	-12228 Jun 05 j 03:53	1° $\mathbb{Y}$ 21'46	
retrograde	-12234 Sep 07 j 23:59	8° $\mathbb{H}$ 12'03					
opposition	-12234 Nov 20 j 20:57	6° $\mathbb{H}$ 10'17	-0°12'34	conjunction	-12228 Jun 20 j 23:47	2° $\mathbb{Y}$ 21'31	0°22'42
min. Earth dist.	-12234 Nov 21 j 18:30	6° $\mathbb{H}$ 07'58	17.27962 AU	minimum elong	-12228 Jun 20 j 23:47	2° $\mathbb{Y}$ 21'31	0°22'43
direct	-12233 Feb 06 j 00:14	4° $\mathbb{H}$ 03'58		max. Earth dist.	-12228 Jun 20 j 14:31	2° $\mathbb{Y}$ 20'03	19.44906 AU
evening set	-12233 May 13 j 03:20	7° $\mathbb{H}$ 35'35		morning rise	-12228 Jul 06 j 16:32	3° $\mathbb{Y}$ 20'49	
max. Earth dist.	-12233 May 28 j 07:02	8° $\mathbb{H}$ 33'00	19.28876 AU	retrograde	-12228 Oct 06 j 00:41	6° $\mathbb{Y}$ 42'01	
				opposition	-12228 Dec 19 j 21:12	4° $\mathbb{Y}$ 40'42	0°28'28
conjunction	-12233 May 29 j 05:11	8° $\mathbb{H}$ 36'32	-0°08'06	min. Earth dist.	-12228 Dec 20 j 05:18	4° $\mathbb{Y}$ 39'51	17.47079 AU
minimum elong	-12233 May 29 j 05:11	8° $\mathbb{H}$ 36'32	0°08'23	direct	-12227 Mar 07 j 02:21	2° $\mathbb{Y}$ 36'10	
behind sun begin	-12233 May 28 j 23:21	8° $\mathbb{H}$ 35'37		evening set	-12227 Jun 10 j 01:36	6° $\mathbb{Y}$ 03'20	
behind sun end	-12233 May 29 j 11:01	8° $\mathbb{H}$ 37'26					
morning rise	-12233 Jun 14 j 03:04	9° $\mathbb{H}$ 36'53		conjunction	-12227 Jun 25 j 20:17	7° $\mathbb{Y}$ 02'47	0°28'28
retrograde	-12233 Sep 13 j 01:45	12° $\mathbb{H}$ 59'02		minimum elong	-12227 Jun 25 j 20:16	7° $\mathbb{Y}$ 02'47	0°28'32
opposition	-12233 Nov 26 j 00:56	10° $\mathbb{H}$ 57'23	-0°05'37	max. Earth dist.	-12227 Jun 25 j 12:35	7° $\mathbb{Y}$ 01'35	19.49354 AU
min. Earth dist.	-12233 Nov 26 j 19:28	10° $\mathbb{H}$ 55'24	17.29964 AU	morning rise	-12227 Jul 11 j 12:25	8° $\mathbb{Y}$ 01'51	
direct	-12232 Feb 11 j 06:41	8° $\mathbb{H}$ 51'20		retrograde	-12227 Oct 10 j 23:32	11° $\mathbb{Y}$ 22'43	
evening set	-12232 May 17 j 04:43	12° $\mathbb{H}$ 22'31		opposition	-12227 Dec 25 j 00:24	9° $\mathbb{Y}$ 21'23	0°34'47
max. Earth dist.	-12232 Jun 01 j 10:11	13° $\mathbb{H}$ 20'13	19.31152 AU	min. Earth dist.	-12227 Dec 25 j 05:26	9° $\mathbb{Y}$ 20'51	17.51723 AU
				direct	-12226 Mar 12 j 05:19	7° $\mathbb{Y}$ 17'09	
conjunction	-12232 Jun 02 j 05:23	13° $\mathbb{H}$ 23'16	-0°01'52	evening set	-12226 Jun 14 j 22:19	10° $\mathbb{Y}$ 43'14	
minimum elong	-12232 Jun 02 j 05:22	13° $\mathbb{H}$ 23'16	0°02'05				
behind sun begin	-12232 Jun 01 j 22:45	13° $\mathbb{H}$ 22'14		conjunction	-12226 Jun 30 j 16:10	11° $\mathbb{Y}$ 42'23	0°34'01

Attention, astronomical year style is used: The year -12226 in astronomical counting style is the year 12227 BCE in historical counting style.

minimum elong	-12226 Jun 30 j 16:09	11° $\Upsilon$ 42'23	0°34'08	direct	-12219 Apr 14 j 06:01	9° $\mathcal{B}$ 13'54	
max. Earth dist.	-12226 Jun 30 j 12:18	11° $\Upsilon$ 41'46	19.54188 AU	evening set	-12219 Jul 15 j 21:42	12° $\mathcal{B}$ 31'04	
morning rise	-12226 Jul 16 j 07:24	12° $\Upsilon$ 41'10					
retrograde	-12226 Oct 15 j 20:46	16° $\Upsilon$ 01'37		conjunction	-12219 Jul 31 j 10:24	13° $\mathcal{B}$ 28'05	1°04'16
opposition	-12226 Dec 30 j 03:01	14° $\Upsilon$ 00'19	0°40'50	minimum elong	-12219 Jul 31 j 10:24	13° $\mathcal{B}$ 28'05	1°04'45
min. Earth dist.	-12226 Dec 30 j 05:48	14° $\Upsilon$ 00'01	17.56746 AU	max. Earth dist.	-12219 Aug 01 j 01:19	13° $\mathcal{B}$ 30'23	19.98356 AU
direct	-12225 Mar 17 j 08:44	11° $\Upsilon$ 56'25		morning rise	-12219 Aug 15 j 23:00	14° $\mathcal{B}$ 25'05	
evening set	-12225 Jun 19 j 18:16	15° $\Upsilon$ 21'18			-12219 Aug 25 j 19:48	15° $\mathcal{B}$	
				retrograde	-12219 Nov 16 j 11:13	17° $\mathcal{B}$ 42'11	
conjunction	-12225 Jul 05 j 10:58	16° $\Upsilon$ 20'09	0°39'18	opposition	-12218 Feb 01 j 04:57	15° $\mathcal{B}$ 41'31	1°13'05
minimum elong	-12225 Jul 05 j 10:57	16° $\Upsilon$ 20'09	0°39'30	min. Earth dist.	-12218 Jan 31 j 13:12	15° $\mathcal{B}$ 43'08	18.01995 AU
max. Earth dist.	-12225 Jul 05 j 08:54	16° $\Upsilon$ 19'49	19.59414 AU		-12218 Feb 18 j 10:15	15° $\mathcal{R}$ $\mathcal{B}$	
morning rise	-12225 Jul 21 j 01:42	17° $\Upsilon$ 18'41		direct	-12218 Apr 19 j 00:35	13° $\mathcal{B}$ 40'39	
retrograde	-12225 Oct 20 j 17:49	20° $\Upsilon$ 38'43			-12218 Jun 14 j 05:19	15° $\mathcal{B}$	
opposition	-12224 Jan 04 j 05:15	18° $\Upsilon$ 37'24	0°46'34	evening set	-12218 Jul 20 j 11:21	16° $\mathcal{B}$ 56'30	
min. Earth dist.	-12224 Jan 04 j 05:04	18° $\Upsilon$ 37'25	17.62184 AU				
direct	-12224 Mar 21 j 10:08	16° $\Upsilon$ 33'50		conjunction	-12218 Aug 04 j 23:46	17° $\mathcal{B}$ 53'13	1°07'06
evening set	-12224 Jun 23 j 12:57	19° $\Upsilon$ 57'30		minimum elong	-12218 Aug 04 j 23:46	17° $\mathcal{B}$ 53'13	1°07'38
				max. Earth dist.	-12218 Aug 05 j 17:16	17° $\mathcal{B}$ 55'54	20.05583 AU
conjunction	-12224 Jul 09 j 04:55	20° $\Upsilon$ 56'02	0°44'18	morning rise	-12218 Aug 20 j 12:14	18° $\mathcal{B}$ 49'59	
minimum elong	-12224 Jul 09 j 04:54	20° $\Upsilon$ 56'02	0°44'32	retrograde	-12218 Nov 21 j 05:08	22° $\mathcal{B}$ 06'33	
max. Earth dist.	-12224 Jul 09 j 06:51	20° $\Upsilon$ 56'20	19.65050 AU	min. Earth dist.	-12217 Feb 05 j 07:31	20° $\mathcal{B}$ 07'56	18.09229 AU
morning rise	-12224 Jul 24 j 18:55	21° $\Upsilon$ 54'18		opposition	-12217 Feb 06 j 02:12	20° $\mathcal{B}$ 06'02	1°15'59
retrograde	-12224 Oct 24 j 13:53	25° $\Upsilon$ 13'52		direct	-12217 Apr 23 j 21:09	18° $\mathcal{B}$ 05'37	
opposition	-12223 Jan 08 j 06:56	23° $\Upsilon$ 12'36	0°51'58	evening set	-12217 Jul 25 j 00:19	21° $\mathcal{B}$ 20'08	
min. Earth dist.	-12223 Jan 08 j 03:48	23° $\Upsilon$ 12'56	17.68018 AU				
direct	-12223 Mar 26 j 12:10	21° $\Upsilon$ 09'26		conjunction	-12217 Aug 09 j 12:22	22° $\mathcal{B}$ 16'35	1°09'32
evening set	-12223 Jun 28 j 06:59	24° $\Upsilon$ 31'49		minimum elong	-12217 Aug 09 j 12:21	22° $\mathcal{B}$ 16'35	1°10'05
				max. Earth dist.	-12217 Aug 10 j 07:40	22° $\mathcal{B}$ 19'32	20.12797 AU
conjunction	-12223 Jul 13 j 22:00	25° $\Upsilon$ 30'02	0°49'00	morning rise	-12217 Aug 25 j 00:56	23° $\mathcal{B}$ 13'07	
minimum elong	-12223 Jul 13 j 21:59	25° $\Upsilon$ 30'02	0°49'18	retrograde	-12217 Nov 25 j 20:51	26° $\mathcal{B}$ 29'08	
max. Earth dist.	-12223 Jul 14 j 01:57	25° $\Upsilon$ 30'39	19.71083 AU	opposition	-12216 Feb 10 j 22:59	24° $\mathcal{B}$ 28'44	1°18'25
morning rise	-12223 Jul 29 j 11:39	26° $\Upsilon$ 28'03		min. Earth dist.	-12216 Feb 10 j 03:20	24° $\mathcal{B}$ 30'44	18.16434 AU
retrograde	-12223 Oct 29 j 09:41	29° $\Upsilon$ 47'09		direct	-12216 Apr 27 j 13:48	22° $\mathcal{B}$ 28'45	
opposition	-12222 Jan 13 j 07:49	27° $\Upsilon$ 45'56	0°57'00	evening set	-12216 Jul 28 j 12:18	25° $\mathcal{B}$ 41'55	
min. Earth dist.	-12222 Jan 13 j 02:02	27° $\Upsilon$ 46'32	17.74259 AU				
direct	-12222 Mar 31 j 11:06	25° $\Upsilon$ 43'10		conjunction	-12216 Aug 13 j 00:17	26° $\mathcal{B}$ 38'06	1°11'32
evening set	-12222 Jul 02 j 23:55	29° $\Upsilon$ 04'17		minimum elong	-12216 Aug 13 j 00:17	26° $\mathcal{B}$ 38'06	1°12'07
				max. Earth dist.	-12216 Aug 13 j 21:37	26° $\mathcal{B}$ 41'22	20.19955 AU
conjunction	-12222 Jul 18 j 14:22	0° $\mathcal{B}$ 02'12	0°53'22	morning rise	-12216 Aug 28 j 12:58	27° $\mathcal{B}$ 34'25	
minimum elong	-12222 Jul 18 j 14:21	0° $\mathcal{B}$ 02'12	0°53'42		-12216 Oct 16 j 02:32	0° $\Pi$	
	-12222 Jul 18 j 00:15	0° $\mathcal{B}$		retrograde	-12216 Nov 29 j 14:07	0° $\Pi$ 49'52	
max. Earth dist.	-12222 Jul 18 j 21:58	0° $\mathcal{B}$ 03'23	19.77499 AU		-12215 Jan 14 j 22:35	30° $\mathcal{R}$ $\mathcal{B}$	
morning rise	-12222 Aug 03 j 03:30	0° $\mathcal{B}$ 59'57		opposition	-12215 Feb 14 j 18:45	28° $\mathcal{B}$ 49'34	1°20'23
retrograde	-12222 Nov 03 j 04:51	4° $\mathcal{B}$ 18'33		min. Earth dist.	-12215 Feb 13 j 20:21	28° $\mathcal{B}$ 51'50	18.23531 AU
opposition	-12221 Jan 18 j 08:04	2° $\mathcal{B}$ 17'28	1°01'40	direct	-12215 May 02 j 08:54	26° $\mathcal{B}$ 49'58	
min. Earth dist.	-12221 Jan 17 j 23:06	2° $\mathcal{B}$ 18'24	17.80836 AU	evening set	-12215 Aug 01 j 23:43	0° $\Pi$ 01'49	
direct	-12221 Apr 05 j 11:02	0° $\mathcal{B}$ 15'09			-12215 Aug 01 j 11:23	0° $\Pi$	
evening set	-12221 Jul 07 j 16:02	3° $\mathcal{B}$ 34'58					
				conjunction	-12215 Aug 17 j 11:36	0° $\Pi$ 57'46	1°13'07
conjunction	-12221 Jul 23 j 05:42	4° $\mathcal{B}$ 32'34	0°57'23	minimum elong	-12215 Aug 17 j 11:35	0° $\Pi$ 57'46	1°13'44
minimum elong	-12221 Jul 23 j 05:42	4° $\mathcal{B}$ 32'34	0°57'47	max. Earth dist.	-12215 Aug 18 j 10:34	1° $\Pi$ 01'14	20.26969 AU
max. Earth dist.	-12221 Jul 23 j 15:23	4° $\mathcal{B}$ 34'04	19.84226 AU	morning rise	-12215 Sep 02 j 00:34	1° $\Pi$ 53'52	
morning rise	-12221 Aug 07 j 18:38	5° $\mathcal{B}$ 30'04		retrograde	-12215 Dec 04 j 04:21	5° $\Pi$ 08'42	
retrograde	-12221 Nov 07 j 23:24	8° $\mathcal{B}$ 48'12		opposition	-12214 Feb 19 j 13:36	3° $\Pi$ 08'28	1°21'52
opposition	-12220 Jan 23 j 07:48	6° $\mathcal{B}$ 47'14	1°05'54	min. Earth dist.	-12214 Feb 18 j 14:43	3° $\Pi$ 10'48	18.30480 AU
min. Earth dist.	-12220 Jan 22 j 20:40	6° $\mathcal{B}$ 48'22	17.87710 AU	direct	-12214 May 06 j 23:57	1° $\Pi$ 09'15	
direct	-12220 Apr 09 j 07:54	4° $\mathcal{B}$ 45'23		evening set	-12214 Aug 06 j 10:14	4° $\Pi$ 19'47	
evening set	-12220 Jul 11 j 07:16	8° $\mathcal{B}$ 03'53					
				conjunction	-12214 Aug 21 j 22:12	5° $\Pi$ 15'29	1°14'16
conjunction	-12220 Jul 26 j 20:30	9° $\mathcal{B}$ 01'12	1°01'01	minimum elong	-12214 Aug 21 j 22:12	5° $\Pi$ 15'29	1°14'55
minimum elong	-12220 Jul 26 j 20:30	9° $\mathcal{B}$ 01'12	1°01'28	max. Earth dist.	-12214 Aug 22 j 22:42	5° $\Pi$ 19'11	20.33831 AU
max. Earth dist.	-12220 Jul 27 j 09:27	9° $\mathcal{B}$ 03'12	19.91213 AU	morning rise	-12214 Sep 06 j 11:30	6° $\Pi$ 11'23	
morning rise	-12220 Aug 11 j 09:07	9° $\mathcal{B}$ 58'26		retrograde	-12214 Dec 08 j 19:55	9° $\Pi$ 25'36	
retrograde	-12220 Nov 11 j 18:02	13° $\mathcal{B}$ 16'03		min. Earth dist.	-12213 Feb 23 j 06:04	7° $\Pi$ 28'00	18.37251 AU
opposition	-12219 Jan 27 j 06:41	11° $\mathcal{B}$ 15'15	1°09'43	opposition	-12213 Feb 24 j 07:31	7° $\Pi$ 25'25	1°22'53
min. Earth dist.	-12219 Jan 26 j 16:23	11° $\mathcal{B}$ 16'43	17.94788 AU	direct	-12213 May 11 j 17:39	5° $\Pi$ 26'31	

Attention, astronomical year style is used: The year -12213 in astronomical counting style is the year 12214 BCE in historical counting style.

evening set	-12213 Aug 10 j 19:53	8° $\Pi$ 35'45		max. Earth dist.	-12207 Sep 20 j 17:19	4° $\ominus$ 32'50	20.77155 AU
				morning rise	-12207 Oct 05 j 01:08	5° $\ominus$ 22'46	
conjunction	-12213 Aug 26 j 07:56	9° $\Pi$ 31'13	1°15'00	retrograde	-12206 Jan 07 j 06:16	8° $\ominus$ 33'03	
minimum elong	-12213 Aug 26 j 07:56	9° $\Pi$ 31'13	1°15'41	min. Earth dist.	-12206 Mar 25 j 03:50	6° $\ominus$ 36'28	18.79963 AU
max. Earth dist.	-12213 Aug 27 j 10:12	9° $\Pi$ 35'10	20.40503 AU	opposition	-12206 Mar 26 j 12:13	6° $\ominus$ 33'13	1°17'38
morning rise	-12213 Sep 10 j 21:41	10° $\Pi$ 26'57		direct	-12206 Jun 10 j 07:03	4° $\ominus$ 36'17	
retrograde	-12213 Dec 13 j 09:00	13° $\Pi$ 40'34		evening set	-12206 Sep 07 j 22:24	7° $\ominus$ 37'55	
min. Earth dist.	-12212 Feb 27 j 22:53	11° $\Pi$ 43'00	18.43847 AU				
opposition	-12212 Feb 29 j 00:44	11° $\Pi$ 40'23	1°23'26	conjunction	-12206 Sep 23 j 13:48	8° $\ominus$ 32'16	1°09'07
direct	-12212 May 15 j 07:25	9° $\Pi$ 41'47		minimum elong	-12206 Sep 23 j 13:48	8° $\ominus$ 32'16	1°09'51
evening set	-12212 Aug 14 j 04:50	12° $\Pi$ 49'45		max. Earth dist.	-12206 Sep 24 j 23:57	8° $\ominus$ 37'16	20.82519 AU
				morning rise	-12206 Oct 09 j 08:36	9° $\ominus$ 27'06	
conjunction	-12212 Aug 29 j 17:10	13° $\Pi$ 45'00	1°15'19	retrograde	-12205 Jan 11 j 17:33	12° $\ominus$ 36'57	
minimum elong	-12212 Aug 29 j 17:09	13° $\Pi$ 45'00	1°16'00	opposition	-12205 Mar 30 j 23:27	10° $\ominus$ 37'12	1°15'16
max. Earth dist.	-12212 Aug 30 j 20:48	13° $\Pi$ 49'08	20.47019 AU	min. Earth dist.	-12205 Mar 29 j 13:51	10° $\ominus$ 40'34	18.85160 AU
morning rise	-12212 Sep 14 j 07:25	14° $\Pi$ 40'33		direct	-12205 Jun 14 j 16:12	8° $\ominus$ 40'32	
retrograde	-12212 Dec 16 j 22:44	17° $\Pi$ 53'33		evening set	-12205 Sep 12 j 03:52	11° $\ominus$ 41'21	
opposition	-12211 Mar 04 j 16:42	15° $\Pi$ 53'23	1°23'32				
min. Earth dist.	-12211 Mar 03 j 12:26	15° $\Pi$ 56'15	18.50287 AU	conjunction	-12205 Sep 27 j 20:02	12° $\ominus$ 35'38	1°06'49
direct	-12211 May 19 j 23:04	13° $\Pi$ 55'03		minimum elong	-12205 Sep 27 j 20:02	12° $\ominus$ 35'38	1°07'31
evening set	-12211 Aug 18 j 13:07	17° $\Pi$ 01'48		max. Earth dist.	-12205 Sep 29 j 07:12	12° $\ominus$ 40'44	20.87526 AU
				morning rise	-12205 Oct 13 j 15:46	13° $\ominus$ 30'24	
conjunction	-12211 Sep 03 j 01:45	17° $\Pi$ 56'52	1°15'14	retrograde	-12204 Jan 16 j 02:04	16° $\ominus$ 39'50	
minimum elong	-12211 Sep 03 j 01:45	17° $\Pi$ 56'52	1°15'57	min. Earth dist.	-12204 Apr 02 j 01:16	14° $\ominus$ 43'29	18.89970 AU
max. Earth dist.	-12211 Sep 04 j 07:08	18° $\Pi$ 01'15	20.53368 AU	opposition	-12204 Apr 03 j 10:09	14° $\ominus$ 40'11	1°12'31
morning rise	-12211 Sep 18 j 16:36	18° $\Pi$ 52'15		direct	-12204 Jun 17 j 24:00	12° $\ominus$ 43'45	
retrograde	-12211 Dec 21 j 10:25	22° $\Pi$ 04'39		evening set	-12204 Sep 15 j 09:18	15° $\ominus$ 43'49	
min. Earth dist.	-12210 Mar 08 j 03:24	20° $\Pi$ 07'24	18.56571 AU				
opposition	-12210 Mar 09 j 07:57	20° $\Pi$ 04'31	1°23'12	conjunction	-12204 Oct 01 j 02:17	16° $\ominus$ 38'01	1°04'11
direct	-12210 May 24 j 11:27	18° $\Pi$ 06'27		minimum elong	-12204 Oct 01 j 02:18	16° $\ominus$ 38'01	1°04'54
evening set	-12210 Aug 22 j 20:44	21° $\Pi$ 12'02		max. Earth dist.	-12204 Oct 02 j 12:59	16° $\ominus$ 43'03	20.92132 AU
				morning rise	-12204 Oct 16 j 23:04	17° $\ominus$ 32'45	
conjunction	-12210 Sep 07 j 09:44	22° $\Pi$ 06'55	1°14'46	retrograde	-12203 Jan 19 j 13:02	20° $\ominus$ 41'47	
minimum elong	-12210 Sep 07 j 09:44	22° $\Pi$ 06'55	1°15'28	min. Earth dist.	-12203 Apr 06 j 10:36	18° $\ominus$ 45'33	18.94347 AU
max. Earth dist.	-12210 Sep 08 j 16:10	22° $\Pi$ 11'26	20.59579 AU	opposition	-12203 Apr 07 j 19:57	18° $\ominus$ 42'12	1°09'25
morning rise	-12210 Sep 23 j 01:13	23° $\Pi$ 02'10		direct	-12203 Jun 22 j 07:56	16° $\ominus$ 45'57	
retrograde	-12210 Dec 25 j 22:47	26° $\Pi$ 14'00		evening set	-12203 Sep 19 j 14:34	19° $\ominus$ 45'22	
opposition	-12209 Mar 13 j 22:09	24° $\Pi$ 13'53	1°22'26				
min. Earth dist.	-12209 Mar 12 j 15:20	24° $\Pi$ 17'00	18.62710 AU	conjunction	-12203 Oct 05 j 08:28	20° $\ominus$ 39'31	1°01'15
direct	-12209 May 29 j 00:27	22° $\Pi$ 16'07		minimum elong	-12203 Oct 05 j 08:29	20° $\ominus$ 39'31	1°01'56
evening set	-12209 Aug 27 j 03:49	25° $\Pi$ 20'36		max. Earth dist.	-12203 Oct 06 j 19:35	20° $\ominus$ 44'35	20.96256 AU
				morning rise	-12203 Oct 21 j 06:14	21° $\ominus$ 34'13	
conjunction	-12209 Sep 11 j 17:17	26° $\Pi$ 15'20	1°13'54	retrograde	-12202 Jan 23 j 20:37	24° $\ominus$ 42'52	
minimum elong	-12209 Sep 11 j 17:18	26° $\Pi$ 15'20	1°14'38	min. Earth dist.	-12202 Apr 10 j 21:05	22° $\ominus$ 46'35	18.98215 AU
max. Earth dist.	-12209 Sep 13 j 01:23	26° $\Pi$ 20'04	20.65630 AU	opposition	-12202 Apr 12 j 05:20	22° $\ominus$ 43'21	1°05'59
morning rise	-12209 Sep 27 j 09:29	27° $\Pi$ 10'27		direct	-12202 Jun 26 j 14:46	20° $\ominus$ 47'15	
	-12209 Nov 30 j 15:30	0° $\ominus$		evening set	-12202 Sep 23 j 19:33	23° $\ominus$ 46'02	
retrograde	-12209 Dec 30 j 09:12	0° $\ominus$ 21'44					
	-12208 Jan 29 j 17:22	30° $\Re$ $\Pi$		conjunction	-12202 Oct 09 j 14:20	24° $\ominus$ 40'09	0°58'02
min. Earth dist.	-12208 Mar 16 j 04:46	28° $\Pi$ 24'49	18.68683 AU	minimum elong	-12202 Oct 09 j 14:21	24° $\ominus$ 40'09	0°58'42
opposition	-12208 Mar 17 j 11:43	28° $\Pi$ 21'42	1°21'14	max. Earth dist.	-12202 Oct 11 j 00:30	24° $\ominus$ 45'04	20.99872 AU
direct	-12208 Jun 01 j 11:13	26° $\Pi$ 24'12		morning rise	-12202 Oct 25 j 13:13	25° $\ominus$ 34'50	
evening set	-12208 Aug 30 j 10:20	29° $\Pi$ 27'40		retrograde	-12201 Jan 28 j 06:41	28° $\ominus$ 43'08	
	-12208 Sep 08 j 17:05	0° $\ominus$		min. Earth dist.	-12201 Apr 15 j 05:42	26° $\ominus$ 46'53	19.01559 AU
				opposition	-12201 Apr 16 j 14:05	26° $\ominus$ 43'39	1°02'15
conjunction	-12208 Sep 15 j 00:24	0° $\ominus$ 22'15	1°12'40	direct	-12201 Jun 30 j 21:45	24° $\ominus$ 47'38	
minimum elong	-12208 Sep 15 j 00:24	0° $\ominus$ 22'15	1°13'24	evening set	-12201 Sep 28 j 00:28	27° $\ominus$ 45'52	
max. Earth dist.	-12208 Sep 16 j 09:08	0° $\ominus$ 27'04	20.71514 AU				
morning rise	-12208 Sep 30 j 17:27	1° $\ominus$ 17'15		conjunction	-12201 Oct 13 j 20:17	28° $\ominus$ 39'58	0°54'32
retrograde	-12207 Jan 02 j 20:53	4° $\ominus$ 28'02		minimum elong	-12201 Oct 13 j 20:18	28° $\ominus$ 39'58	0°55'12
min. Earth dist.	-12207 Mar 20 j 15:38	2° $\ominus$ 31'22	18.74456 AU	max. Earth dist.	-12201 Oct 15 j 06:36	28° $\ominus$ 44'54	21.02943 AU
opposition	-12207 Mar 22 j 00:22	2° $\ominus$ 28'05	1°19'38	morning rise	-12201 Oct 29 j 20:14	29° $\ominus$ 34'39	
direct	-12207 Jun 05 j 22:00	0° $\ominus$ 30'52			-12201 Nov 06 j 12:14	0° $\Re$	
evening set	-12207 Sep 03 j 16:33	3° $\ominus$ 33'23		retrograde	-12200 Feb 01 j 13:42	2° $\Re$ 42'36	
				opposition	-12200 Apr 19 j 22:15	0° $\Re$ 43'07	0°58'14
conjunction	-12207 Sep 19 j 07:16	4° $\ominus$ 27'51	1°11'04	min. Earth dist.	-12200 Apr 18 j 15:11	0° $\Re$ 46'14	19.04358 AU
minimum elong	-12207 Sep 19 j 07:16	4° $\ominus$ 27'51	1°11'47		-12200 May 08 j 06:16	30° $\Re$ $\ominus$	



Attention, astronomical year style is used: The year -12200 in astronomical counting style is the year 12201 BCE in historical counting style.

direct	-12200 Jul 04 j 03:50	28° $\Omega$ 47'10		conjunction	-12194 Nov 10 j 13:24	26° $\Omega$ 22'10	0°24'12
	-12200 Aug 27 j 08:43	0° $\Omega$		minimum elong	-12194 Nov 10 j 13:24	26° $\Omega$ 22'10	0°24'38
evening set	-12200 Oct 01 j 05:13	1° $\Omega$ 44'53		max. Earth dist.	-12194 Nov 11 j 17:30	26° $\Omega$ 26'09	21.11567 AU
				morning rise	-12194 Nov 26 j 21:24	27° $\Omega$ 17'14	
conjunction	-12200 Oct 17 j 02:05	2° $\Omega$ 38'59	0°50'47		-12193 Jan 29 j 04:45	0° $\Omega$	
minimum elong	-12200 Oct 17 j 02:05	2° $\Omega$ 38'59	0°51'25	retrograde	-12193 Mar 01 j 19:58	0° $\Omega$ 23'52	
max. Earth dist.	-12200 Oct 18 j 11:07	2° $\Omega$ 43'43	21.05495 AU		-12193 Apr 02 j 20:37	30° $\Omega$	
morning rise	-12200 Nov 02 j 03:15	3° $\Omega$ 33'41		opposition	-12193 May 18 j 17:41	28° $\Omega$ 24'10	0°23'58
retrograde	-12199 Feb 04 j 22:43	6° $\Omega$ 41'20		min. Earth dist.	-12193 May 17 j 16:24	28° $\Omega$ 26'43	19.11473 AU
min. Earth dist.	-12199 Apr 22 j 22:55	4° $\Omega$ 44'53	19.06648 AU	direct	-12193 Aug 01 j 11:43	26° $\Omega$ 28'01	
opposition	-12199 Apr 24 j 05:48	4° $\Omega$ 41'47	0°53'57	evening set	-12193 Oct 29 j 15:27	29° $\Omega$ 24'31	
direct	-12199 Jul 08 j 09:47	2° $\Omega$ 45'51			-12193 Nov 09 j 05:08	0° $\Omega$	
evening set	-12199 Oct 05 j 09:55	5° $\Omega$ 43'09					
				conjunction	-12193 Nov 14 j 20:08	0° $\Omega$ 19'06	0°19'15
conjunction	-12199 Oct 21 j 07:51	6° $\Omega$ 37'16	0°46'49	minimum elong	-12193 Nov 14 j 20:08	0° $\Omega$ 19'06	0°19'38
minimum elong	-12199 Oct 21 j 07:52	6° $\Omega$ 37'16	0°47'25	max. Earth dist.	-12193 Nov 15 j 23:43	0° $\Omega$ 22'59	21.11190 AU
max. Earth dist.	-12199 Oct 22 j 16:55	6° $\Omega$ 41'59	21.07533 AU	morning rise	-12193 Dec 01 j 05:08	1° $\Omega$ 14'16	
morning rise	-12199 Nov 06 j 10:05	7° $\Omega$ 31'59		retrograde	-12192 Mar 05 j 03:24	4° $\Omega$ 20'53	
retrograde	-12198 Feb 09 j 05:19	10° $\Omega$ 39'20		opposition	-12192 May 21 j 22:43	2° $\Omega$ 21'12	0°18'26
min. Earth dist.	-12198 Apr 27 j 07:07	8° $\Omega$ 42'44	19.08447 AU	min. Earth dist.	-12192 May 20 j 23:14	2° $\Omega$ 23'35	19.10873 AU
opposition	-12198 Apr 28 j 12:43	8° $\Omega$ 39'45	0°49'26	direct	-12192 Aug 04 j 14:53	0° $\Omega$ 25'00	
direct	-12198 Jul 12 j 14:57	6° $\Omega$ 43'48		evening set	-12192 Nov 01 j 21:28	3° $\Omega$ 21'41	
evening set	-12198 Oct 09 j 14:32	9° $\Omega$ 40'45					
				conjunction	-12192 Nov 18 j 03:14	4° $\Omega$ 16'23	0°14'12
conjunction	-12198 Oct 25 j 13:31	10° $\Omega$ 34'54	0°42'39	minimum elong	-12192 Nov 18 j 03:14	4° $\Omega$ 16'23	0°14'33
minimum elong	-12198 Oct 25 j 13:31	10° $\Omega$ 34'54	0°43'12	behind sun begin	-12192 Nov 18 j 00:26	4° $\Omega$ 15'59	
max. Earth dist.	-12198 Oct 26 j 21:14	10° $\Omega$ 39'25	21.09130 AU	behind sun end	-12192 Nov 18 j 06:02	4° $\Omega$ 16'46	
morning rise	-12198 Nov 10 j 16:57	11° $\Omega$ 29'39		max. Earth dist.	-12192 Nov 19 j 04:27	4° $\Omega$ 19'56	21.10381 AU
retrograde	-12197 Feb 13 j 13:38	14° $\Omega$ 36'46		morning rise	-12192 Dec 04 j 13:26	5° $\Omega$ 11'41	
opposition	-12197 May 02 j 19:13	12° $\Omega$ 37'08	0°44'42	retrograde	-12191 Mar 09 j 12:11	8° $\Omega$ 18'20	
min. Earth dist.	-12197 May 01 j 13:52	12° $\Omega$ 40'05	19.09833 AU	min. Earth dist.	-12191 May 25 j 05:36	6° $\Omega$ 20'55	19.09821 AU
direct	-12197 Jul 16 j 19:56	10° $\Omega$ 41'08		opposition	-12191 May 26 j 03:43	6° $\Omega$ 18'40	0°12'47
evening set	-12197 Oct 13 j 19:05	13° $\Omega$ 37'49		direct	-12191 Aug 08 j 18:43	4° $\Omega$ 22'22	
				evening set	-12191 Nov 06 j 03:54	7° $\Omega$ 19'18	
conjunction	-12197 Oct 29 j 19:13	14° $\Omega$ 32'01	0°38'17				
minimum elong	-12197 Oct 29 j 19:13	14° $\Omega$ 32'01	0°38'49	conjunction	-12191 Nov 22 j 10:49	8° $\Omega$ 14'09	0°09'05
max. Earth dist.	-12197 Oct 31 j 02:58	14° $\Omega$ 36'32	21.10309 AU	minimum elong	-12191 Nov 22 j 10:49	8° $\Omega$ 14'09	0°09'21
	-12197 Nov 07 j 00:18	15° $\Omega$		behind sun begin	-12191 Nov 22 j 05:13	8° $\Omega$ 13'23	
morning rise	-12197 Nov 14 j 23:44	15° $\Omega$ 26'50		behind sun end	-12191 Nov 22 j 16:24	8° $\Omega$ 14'55	
retrograde	-12196 Feb 17 j 20:12	18° $\Omega$ 33'45		max. Earth dist.	-12191 Nov 23 j 11:02	8° $\Omega$ 17'34	21.09074 AU
min. Earth dist.	-12196 May 04 j 21:15	16° $\Omega$ 36'54	19.10812 AU	morning rise	-12191 Dec 08 j 21:52	9° $\Omega$ 09'35	
opposition	-12196 May 06 j 01:21	16° $\Omega$ 34'04	0°39'46	retrograde	-12190 Mar 13 j 20:11	12° $\Omega$ 16'19	
	-12196 Jun 20 j 06:45	15° $\Omega$		opposition	-12190 May 30 j 08:38	10° $\Omega$ 16'39	0°07'04
direct	-12196 Jul 19 j 23:57	14° $\Omega$ 38'03		min. Earth dist.	-12190 May 29 j 12:37	10° $\Omega$ 18'41	19.08253 AU
	-12196 Aug 18 j 04:38	15° $\Omega$		direct	-12190 Aug 12 j 22:46	8° $\Omega$ 20'14	
evening set	-12196 Oct 16 j 23:55	17° $\Omega$ 34'33		evening set	-12190 Nov 10 j 10:52	11° $\Omega$ 17'30	
conjunction	-12196 Nov 02 j 01:08	18° $\Omega$ 28'49	0°33'44	conjunction	-12190 Nov 26 j 18:48	12° $\Omega$ 12'30	0°03'54
minimum elong	-12196 Nov 02 j 01:09	18° $\Omega$ 28'49	0°34'14	minimum elong	-12190 Nov 26 j 18:49	12° $\Omega$ 12'30	0°04'09
max. Earth dist.	-12196 Nov 03 j 07:17	18° $\Omega$ 33'06	21.11112 AU	behind sun begin	-12190 Nov 26 j 12:13	12° $\Omega$ 11'36	
morning rise	-12196 Nov 18 j 06:54	19° $\Omega$ 23'42		behind sun end	-12190 Nov 27 j 01:25	12° $\Omega$ 13'24	
retrograde	-12195 Feb 21 j 04:37	22° $\Omega$ 30'28		max. Earth dist.	-12190 Nov 27 j 16:08	12° $\Omega$ 15'31	21.07258 AU
min. Earth dist.	-12195 May 09 j 03:23	20° $\Omega$ 33'33	19.11423 AU	morning rise	-12190 Dec 13 j 06:59	13° $\Omega$ 08'05	
opposition	-12195 May 10 j 06:57	20° $\Omega$ 30'46	0°34'40	retrograde	-12189 Mar 18 j 05:07	16° $\Omega$ 14'56	
direct	-12195 Jul 24 j 04:25	18° $\Omega$ 34'41		opposition	-12189 Jun 03 j 13:36	14° $\Omega$ 15'13	0°01'19
evening set	-12195 Oct 21 j 04:52	21° $\Omega$ 31'07		min. Earth dist.	-12189 Jun 02 j 19:20	14° $\Omega$ 17'05	19.06162 AU
				direct	-12189 Aug 17 j 02:29	12° $\Omega$ 18'39	
conjunction	-12195 Nov 06 j 07:16	22° $\Omega$ 25'29	0°29'02	desc. node	-12189 Aug 23 j 13:46	12° $\Omega$ 19'44	
minimum elong	-12195 Nov 06 j 07:17	22° $\Omega$ 25'29	0°29'30	evening set	-12189 Nov 14 j 18:19	15° $\Omega$ 16'18	
max. Earth dist.	-12195 Nov 07 j 13:11	22° $\Omega$ 29'43	21.11528 AU				
morning rise	-12195 Nov 22 j 14:03	23° $\Omega$ 20'27		conjunction	-12189 Dec 01 j 03:29	16° $\Omega$ 11'29	-0°01'26
retrograde	-12194 Feb 25 j 11:20	26° $\Omega$ 27'06		minimum elong	-12189 Dec 01 j 03:27	16° $\Omega$ 11'29	0°01'15
min. Earth dist.	-12194 May 13 j 10:18	24° $\Omega$ 30'03	19.11640 AU	behind sun begin	-12189 Nov 30 j 20:45	16° $\Omega$ 10'34	
opposition	-12194 May 14 j 12:25	24° $\Omega$ 27'24	0°29'23	behind sun end	-12189 Dec 01 j 10:09	16° $\Omega$ 12'24	
direct	-12194 Jul 28 j 07:27	22° $\Omega$ 31'18		max. Earth dist.	-12189 Dec 01 j 23:20	16° $\Omega$ 14'17	21.04882 AU
evening set	-12194 Oct 25 j 09:55	25° $\Omega$ 27'43		morning rise	-12189 Dec 17 j 16:29	17° $\Omega$ 07'13	
				retrograde	-12188 Mar 21 j 13:26	20° $\Omega$ 14'12	

Attention, astronomical year style is used: The year -12188 in astronomical counting style is the year 12189 BCE in historical counting style.

opposition	-12188 Jun 06 j 18:41	18° <u>14</u> '26	-0°04'28	opposition	-12182 Jul 01 j 03:02	12° <u>25</u> '50	-0°38'02
min. Earth dist.	-12188 Jun 06 j 02:41	18° <u>16</u> '04	19.03494 AU	min. Earth dist.	-12182 Jun 30 j 23:14	12° <u>26</u> '13	18.77789 AU
direct	-12188 Aug 20 j 07:28	16° <u>17</u> '39		direct	-12182 Sep 13 j 16:25	10° <u>27</u> '09	
evening set	-12188 Nov 18 j 02:29	19° <u>15</u> '46		evening set	-12182 Dec 13 j 15:06	13° <u>29</u> '31	
conjunction	-12188 Dec 04 j 12:35	20° <u>11</u> '07	-0°06'41	conjunction	-12182 Dec 30 j 06:38	14° <u>26</u> '12	-0°36'42
minimum elong	-12188 Dec 04 j 12:35	20° <u>11</u> '07	0°06'32	minimum elong	-12182 Dec 30 j 06:38	14° <u>26</u> '12	0°36'51
behind sun begin	-12188 Dec 04 j 06:17	20° <u>10</u> '15		max. Earth dist.	-12182 Dec 30 j 09:05	14° <u>26</u> '32	20.75131 AU
behind sun end	-12188 Dec 04 j 18:52	20° <u>11</u> '59		morning rise	-12181 Jan 16 j 00:50	15° <u>23</u> '16	
max. Earth dist.	-12188 Dec 05 j 05:07	20° <u>13</u> '27	21.01947 AU	retrograde	-12181 Apr 20 j 08:14	18° <u>32</u> '06	
morning rise	-12188 Dec 21 j 02:38	21° <u>07</u> '01		opposition	-12181 Jul 05 j 09:19	16° <u>31</u> '31	-0°43'13
retrograde	-12187 Mar 25 j 22:33	24° <u>14</u> '10		min. Earth dist.	-12181 Jul 05 j 07:36	16° <u>31</u> '42	18.72418 AU
opposition	-12187 Jun 10 j 23:40	22° <u>14</u> '18	-0°10'14	direct	-12181 Sep 17 j 23:28	14° <u>32</u> '31	
min. Earth dist.	-12187 Jun 10 j 09:41	22° <u>15</u> '44	19.00281 AU	evening set	-12181 Dec 18 j 03:40	17° <u>35</u> '52	
direct	-12187 Aug 24 j 12:06	20° <u>17</u> '14		conjunction	-12180 Jan 03 j 20:06	18° <u>32</u> '49	-0°41'17
evening set	-12187 Nov 22 j 11:03	23° <u>15</u> '53		minimum elong	-12180 Jan 03 j 20:06	18° <u>32</u> '49	0°41'29
conjunction	-12187 Dec 08 j 22:16	24° <u>11</u> '26	-0°11'51	max. Earth dist.	-12180 Jan 03 j 21:14	18° <u>32</u> '59	20.69645 AU
minimum elong	-12187 Dec 08 j 22:16	24° <u>11</u> '26	0°11'45	morning rise	-12180 Jan 20 j 14:36	19° <u>30</u> '06	
behind sun begin	-12187 Dec 08 j 17:36	24° <u>10</u> '48		retrograde	-12180 Apr 23 j 19:12	22° <u>39</u> '22	
behind sun end	-12187 Dec 09 j 02:55	24° <u>12</u> '05		opposition	-12180 Jul 08 j 16:07	20° <u>38</u> '44	-0°48'13
max. Earth dist.	-12187 Dec 09 j 13:16	24° <u>13</u> '33	20.98468 AU	min. Earth dist.	-12180 Jul 08 j 16:17	20° <u>38</u> '43	18.66823 AU
morning rise	-12187 Dec 25 j 13:01	25° <u>07</u> '31		direct	-12180 Sep 21 j 06:57	18° <u>39</u> '25	
retrograde	-12186 Mar 30 j 06:49	28° <u>14</u> '49		evening set	-12180 Dec 21 j 17:16	21° <u>43</u> '50	
opposition	-12186 Jun 15 j 04:50	26° <u>14</u> '50	-0°15'58	conjunction	-12179 Jan 07 j 10:12	22° <u>41</u> '02	-0°45'41
min. Earth dist.	-12186 Jun 14 j 17:04	26° <u>16</u> '03	18.96546 AU	minimum elong	-12179 Jan 07 j 10:11	22° <u>41</u> '02	0°45'57
direct	-12186 Aug 28 j 17:11	24° <u>17</u> '31		max. Earth dist.	-12179 Jan 07 j 07:45	22° <u>40</u> '41	20.63953 AU
evening set	-12186 Nov 26 j 20:05	27° <u>16</u> '43		morning rise	-12179 Jan 24 j 05:12	23° <u>38</u> '33	
conjunction	-12186 Dec 13 j 08:11	28° <u>12</u> '28	-0°17'00	retrograde	-12179 Apr 28 j 06:51	26° <u>48</u> '19	
minimum elong	-12186 Dec 13 j 08:11	28° <u>12</u> '28	0°16'58	opposition	-12179 Jul 12 j 23:22	24° <u>47</u> '38	-0°53'00
max. Earth dist.	-12186 Dec 13 j 19:56	28° <u>14</u> '08	20.94516 AU	min. Earth dist.	-12179 Jul 13 j 01:50	24° <u>47</u> '22	18.61036 AU
morning rise	-12186 Dec 29 j 23:54	29° <u>08</u> '44		direct	-12179 Sep 25 j 14:45	22° <u>48</u> '00	
retrograde	-12185 Jan 14 j 23:34	0° <u>16</u> '16		evening set	-12179 Dec 26 j 07:37	25° <u>53</u> '33	
opposition	-12185 Jun 19 j 10:06	0° <u>16</u> '09	-0°21'38	conjunction	-12178 Jan 12 j 01:17	26° <u>51</u> '02	-0°49'53
min. Earth dist.	-12185 Jun 19 j 00:20	0° <u>17</u> '09	18.92377 AU	minimum elong	-12178 Jan 12 j 01:16	26° <u>51</u> '02	0°50'12
direct	-12185 Jun 25 j 22:53	30° <u>18</u> '28		max. Earth dist.	-12178 Jan 11 j 21:29	26° <u>50</u> '29	20.58056 AU
evening set	-12185 Sep 01 j 22:54	28° <u>18</u> '28		morning rise	-12178 Jan 28 j 20:23	27° <u>48</u> '46	
conjunction	-12185 Dec 01 j 05:49	1° <u>18</u> '21		retrograde	-12178 Mar 14 j 16:03	0° <u>18</u> '46	
minimum elong	-12185 Dec 17 j 18:59	2° <u>14</u> '20	-0°22'05	opposition	-12178 May 02 j 19:35	0° <u>18</u> '59	
max. Earth dist.	-12185 Dec 17 j 18:58	2° <u>14</u> '20	0°22'05	min. Earth dist.	-12178 Jun 21 j 16:34	30° <u>18</u> '46	
morning rise	-12184 Jan 03 j 11:17	3° <u>10</u> '47		direct	-12178 Jul 17 j 07:13	28° <u>58</u> '20	-0°57'32
retrograde	-12184 Apr 07 j 01:04	6° <u>18</u> '33		evening set	-12178 Jul 17 j 11:36	28° <u>57</u> '52	18.55034 AU
opposition	-12184 Jun 22 j 15:24	4° <u>18</u> '18	-0°27'13	conjunction	-12178 Sep 30 j 00:03	26° <u>58</u> '24	
min. Earth dist.	-12184 Jun 22 j 07:45	4° <u>19</u> '06	18.87814 AU	minimum elong	-12178 Dec 29 j 10:25	0° <u>18</u> '46	
direct	-12184 Sep 05 j 03:59	2° <u>20</u> '18		max. Earth dist.	-12178 Dec 30 j 22:56	0° <u>18</u> '05	
evening set	-12184 Dec 04 j 16:19	5° <u>20</u> '56		morning rise	-12177 Jan 16 j 16:59	1° <u>02</u> '53	-0°53'51
conjunction	-12184 Dec 21 j 06:16	6° <u>17</u> '08	-0°27'04	minimum elong	-12177 Jan 16 j 16:59	1° <u>02</u> '53	0°54'12
minimum elong	-12184 Dec 21 j 06:15	6° <u>17</u> '08	0°27'08	max. Earth dist.	-12177 Jan 16 j 09:23	1° <u>01</u> '47	20.51948 AU
max. Earth dist.	-12184 Dec 21 j 13:17	6° <u>18</u> '07	20.85419 AU	morning rise	-12177 Feb 02 j 12:29	2° <u>00</u> '51	
morning rise	-12183 Jan 06 j 23:22	7° <u>13</u> '47		retrograde	-12177 May 07 j 07:59	5° <u>11</u> '40	
retrograde	-12183 Apr 11 j 11:41	10° <u>21</u> '52		opposition	-12177 Jul 21 j 15:45	3° <u>10</u> '56	-1°01'48
opposition	-12183 Jun 26 j 21:05	8° <u>21</u> '29	-0°32'42	min. Earth dist.	-12177 Jul 21 j 22:45	3° <u>10</u> '12	18.48819 AU
min. Earth dist.	-12183 Jun 26 j 15:25	8° <u>22</u> '04	18.82942 AU	direct	-12177 Oct 04 j 09:17	1° <u>10</u> '39	
direct	-12183 Sep 09 j 10:32	6° <u>23</u> '08		evening set	-12176 Jan 04 j 15:18	4° <u>18</u> '39	
evening set	-12183 Dec 09 j 03:15	9° <u>24</u> '35		conjunction	-12176 Jan 21 j 09:58	5° <u>16</u> '40	-0°57'32
conjunction	-12183 Dec 25 j 18:08	10° <u>21</u> '02	-0°31'57	minimum elong	-12176 Jan 21 j 09:57	5° <u>16</u> '40	0°57'57
minimum elong	-12183 Dec 25 j 18:08	10° <u>21</u> '02	0°32'03	max. Earth dist.	-12176 Jan 21 j 00:43	5° <u>15</u> '20	20.45601 AU
max. Earth dist.	-12183 Dec 25 j 23:56	10° <u>21</u> '51	20.80395 AU	morning rise	-12176 Feb 07 j 05:24	6° <u>14</u> '52	
morning rise	-12182 Jan 11 j 11:38	11° <u>17</u> '52		retrograde	-12176 May 10 j 22:06	9° <u>25</u> '28	-1°05'46
retrograde	-12182 Apr 15 j 20:59	14° <u>26</u> '19		opposition	-12176 Jul 25 j 00:51	7° <u>24</u> '30	18.42348 AU
				min. Earth dist.	-12176 Jul 25 j 09:51	7° <u>24</u> '30	18.42348 AU
				direct	-12176 Oct 07 j 20:40	5° <u>24</u> '49	
				evening set	-12175 Jan 08 j 08:47	8° <u>34</u> '06	

Attention, astronomical year style is used: The year -12175 in astronomical counting style is the year 12176 BCE in historical counting style.

conjunction	-12175 Jan 25 j 03:38	9° $\mathbb{M}$ 32'23	-1°00'57	conjunction	-12169 Feb 22 j 05:43	5° $\mathbb{A}$ 44'58	-1°13'53
minimum elong	-12175 Jan 25 j 03:37	9° $\mathbb{M}$ 32'23	1°01'23	minimum elong	-12169 Feb 22 j 05:43	5° $\mathbb{A}$ 44'58	1°14'32
max. Earth dist.	-12175 Jan 24 j 14:19	9° $\mathbb{M}$ 30'27	20.39003 AU	morning rise	-12169 Mar 10 j 23:43	6° $\mathbb{A}$ 44'41	
morning rise	-12175 Feb 10 j 23:14	10° $\mathbb{M}$ 30'48		retrograde	-12169 Jun 11 j 13:17	9° $\mathbb{A}$ 59'58	
retrograde	-12175 May 15 j 11:37	13° $\mathbb{M}$ 42'45		opposition	-12169 Aug 24 j 13:19	7° $\mathbb{A}$ 58'23	-1°22'39
opposition	-12175 Jul 29 j 10:50	11° $\mathbb{M}$ 41'54	-1°09'23	min. Earth dist.	-12169 Aug 25 j 12:50	7° $\mathbb{A}$ 55'50	17.92990 AU
min. Earth dist.	-12175 Jul 29 j 22:37	11° $\mathbb{M}$ 40'39	18.35639 AU	direct	-12169 Nov 07 j 22:37	5° $\mathbb{A}$ 54'36	
direct	-12175 Oct 12 j 07:44	9° $\mathbb{M}$ 40'51		evening set	-12168 Feb 10 j 09:17	9° $\mathbb{A}$ 13'13	
evening set	-12174 Jan 13 j 02:47	12° $\mathbb{M}$ 51'26		max. Earth dist.	-12168 Feb 26 j 00:06	10° $\mathbb{A}$ 09'03	19.89488 AU
conjunction	-12174 Jan 29 j 22:06	13° $\mathbb{M}$ 49'59	-1°04'02	conjunction	-12168 Feb 27 j 04:35	10° $\mathbb{A}$ 13'20	-1°14'37
minimum elong	-12174 Jan 29 j 22:05	13° $\mathbb{M}$ 49'59	1°04'31	minimum elong	-12168 Feb 27 j 04:35	10° $\mathbb{A}$ 13'20	1°15'17
max. Earth dist.	-12174 Jan 29 j 07:09	13° $\mathbb{M}$ 47'48	20.32167 AU	morning rise	-12168 Mar 14 j 21:59	11° $\mathbb{A}$ 13'14	
morning rise	-12174 Feb 15 j 17:29	14° $\mathbb{M}$ 48'38		retrograde	-12168 Jun 15 j 09:20	14° $\mathbb{A}$ 29'05	
retrograde	-12174 Feb 19 j 01:33	15° $\mathbb{M}$		opposition	-12168 Aug 28 j 04:26	12° $\mathbb{A}$ 27'25	-1°23'16
opposition	-12174 May 20 j 02:56	18° $\mathbb{M}$ 01'08		min. Earth dist.	-12168 Aug 29 j 04:25	12° $\mathbb{A}$ 24'49	17.86172 AU
min. Earth dist.	-12174 Aug 02 j 21:26	16° $\mathbb{M}$ 00'12	-1°12'39	direct	-12168 Nov 11 j 17:23	10° $\mathbb{A}$ 23'14	
direct	-12174 Aug 03 j 10:55	15° $\mathbb{M}$ 58'45	18.28696 AU	evening set	-12167 Feb 14 j 09:07	13° $\mathbb{A}$ 43'12	
evening set	-12174 Aug 27 j 12:15	15° $\mathbb{R}$ $\mathbb{M}$		max. Earth dist.	-12167 Mar 01 j 21:35	14° $\mathbb{A}$ 38'58	19.82786 AU
direct	-12174 Oct 16 j 20:58	13° $\mathbb{M}$ 58'44		conjunction	-12167 Mar 03 j 04:03	14° $\mathbb{A}$ 43'34	-1°14'54
retrograde	-12174 Dec 05 j 05:59	15° $\mathbb{M}$		minimum elong	-12167 Mar 03 j 04:03	14° $\mathbb{A}$ 43'34	1°15'35
conjunction	-12173 Jan 17 j 21:58	17° $\mathbb{M}$ 10'36		morning rise	-12167 Mar 19 j 20:48	15° $\mathbb{A}$ 43'39	
conjunction	-12173 Feb 03 j 17:20	18° $\mathbb{M}$ 09'26	-1°06'46	retrograde	-12167 Jun 20 j 03:09	19° $\mathbb{A}$ 00'05	
minimum elong	-12173 Feb 03 j 17:20	18° $\mathbb{M}$ 09'26	1°07'18	opposition	-12167 Sep 01 j 20:40	16° $\mathbb{A}$ 58'22	-1°23'21
max. Earth dist.	-12173 Feb 02 j 22:30	18° $\mathbb{M}$ 06'40	20.25129 AU	min. Earth dist.	-12167 Sep 02 j 22:45	16° $\mathbb{A}$ 55'32	17.79619 AU
morning rise	-12173 Feb 20 j 12:45	19° $\mathbb{M}$ 08'18		direct	-12167 Nov 16 j 10:16	14° $\mathbb{A}$ 53'50	
retrograde	-12173 May 24 j 17:37	22° $\mathbb{M}$ 21'21		evening set	-12166 Feb 19 j 09:25	18° $\mathbb{A}$ 15'09	
opposition	-12173 Aug 07 j 08:41	20° $\mathbb{M}$ 20'17	-1°15'31	max. Earth dist.	-12166 Mar 06 j 20:37	19° $\mathbb{A}$ 10'57	19.76376 AU
min. Earth dist.	-12173 Aug 08 j 00:58	20° $\mathbb{M}$ 18'33	18.21592 AU	conjunction	-12166 Mar 08 j 04:01	19° $\mathbb{A}$ 15'43	-1°14'43
direct	-12173 Oct 21 j 09:41	18° $\mathbb{M}$ 18'21		minimum elong	-12166 Mar 08 j 04:01	19° $\mathbb{A}$ 15'43	1°15'26
evening set	-12172 Jan 22 j 17:51	21° $\mathbb{M}$ 31'34		morning rise	-12166 Mar 24 j 20:07	20° $\mathbb{A}$ 15'59	
conjunction	-12172 Feb 08 j 13:33	22° $\mathbb{M}$ 30'41	-1°09'09	retrograde	-12166 Jun 25 j 00:38	23° $\mathbb{A}$ 33'01	
minimum elong	-12172 Feb 08 j 13:32	22° $\mathbb{M}$ 30'41	1°09'42	opposition	-12166 Sep 06 j 13:37	21° $\mathbb{A}$ 31'16	-1°22'56
max. Earth dist.	-12172 Feb 07 j 17:13	22° $\mathbb{M}$ 27'41	20.17959 AU	min. Earth dist.	-12166 Sep 07 j 15:51	21° $\mathbb{A}$ 28'25	17.73354 AU
morning rise	-12172 Feb 25 j 08:37	23° $\mathbb{M}$ 29'46		direct	-12166 Nov 21 j 06:46	19° $\mathbb{A}$ 26'26	
retrograde	-12172 May 28 j 10:21	26° $\mathbb{M}$ 43'21		evening set	-12165 Feb 24 j 10:40	22° $\mathbb{A}$ 49'05	
opposition	-12172 Aug 10 j 20:39	24° $\mathbb{M}$ 42'10	-1°17'59	max. Earth dist.	-12165 Mar 11 j 20:06	23° $\mathbb{A}$ 44'53	19.70257 AU
min. Earth dist.	-12172 Aug 11 j 14:19	24° $\mathbb{M}$ 40'16	18.14380 AU	conjunction	-12165 Mar 13 j 04:49	23° $\mathbb{A}$ 49'52	-1°14'04
direct	-12172 Oct 25 j 00:33	22° $\mathbb{M}$ 39'46		minimum elong	-12165 Mar 13 j 04:49	23° $\mathbb{A}$ 49'52	1°14'47
evening set	-12171 Jan 26 j 14:39	25° $\mathbb{M}$ 54'19		morning rise	-12165 Mar 29 j 20:06	24° $\mathbb{A}$ 50'18	
max. Earth dist.	-12171 Feb 11 j 10:31	26° $\mathbb{M}$ 50'10	20.10721 AU	retrograde	-12165 Jun 29 j 19:47	28° $\mathbb{A}$ 07'55	
conjunction	-12171 Feb 12 j 10:12	26° $\mathbb{M}$ 53'40	-1°11'08	opposition	-12165 Sep 11 j 07:33	26° $\mathbb{A}$ 06'11	-1°21'59
minimum elong	-12171 Feb 12 j 10:12	26° $\mathbb{M}$ 53'40	1°11'44	min. Earth dist.	-12165 Sep 12 j 11:52	26° $\mathbb{A}$ 03'06	17.67398 AU
morning rise	-12171 Mar 01 j 05:03	27° $\mathbb{M}$ 52'59		direct	-12165 Nov 26 j 01:35	24° $\mathbb{A}$ 01'03	
retrograde	-12171 Apr 11 j 17:41	0° $\mathbb{A}$		evening set	-12164 Feb 29 j 12:39	27° $\mathbb{A}$ 25'02	
opposition	-12171 Jun 02 j 02:12	1° $\mathbb{A}$ 07'08		max. Earth dist.	-12164 Mar 15 j 20:20	28° $\mathbb{A}$ 20'49	19.64458 AU
min. Earth dist.	-12171 Jul 24 j 14:32	30° $\mathbb{R}$ $\mathbb{M}$		conjunction	-12164 Mar 17 j 06:13	28° $\mathbb{A}$ 26'00	-1°12'56
direct	-12171 Aug 15 j 09:28	29° $\mathbb{M}$ 05'48	-1°20'00	minimum elong	-12164 Mar 17 j 06:13	28° $\mathbb{A}$ 26'00	1°13'40
evening set	-12171 Aug 16 j 05:43	29° $\mathbb{M}$ 03'37	18.07160 AU	morning rise	-12164 Apr 02 j 20:45	29° $\mathbb{A}$ 26'35	
direct	-12171 Oct 29 j 14:41	27° $\mathbb{M}$ 02'55		retrograde	-12164 Apr 12 j 08:26	0° $\mathbb{B}$	
evening set	-12170 Jan 26 j 01:06	0° $\mathbb{A}$		opposition	-12164 Jul 03 j 18:34	2° $\mathbb{B}$ 44'47	
max. Earth dist.	-12170 Jan 31 j 12:02	0° $\mathbb{A}$ 18'49		min. Earth dist.	-12164 Sep 15 j 02:27	0° $\mathbb{B}$ 43'04	-1°20'29
conjunction	-12170 Feb 16 j 06:54	1° $\mathbb{A}$ 14'45	20.03519 AU	direct	-12164 Sep 16 j 06:47	0° $\mathbb{B}$ 39'59	17.61749 AU
conjunction	-12170 Feb 17 j 07:41	1° $\mathbb{A}$ 18'26	-1°12'43	evening set	-12164 Oct 01 j 22:36	30° $\mathbb{R}$ $\mathbb{A}$	
minimum elong	-12170 Feb 17 j 07:41	1° $\mathbb{A}$ 18'26	1°13'20	max. Earth dist.	-12163 Jan 26 j 10:00	0° $\mathbb{B}$	
morning rise	-12170 Mar 06 j 02:04	2° $\mathbb{A}$ 17'57		conjunction	-12163 Mar 05 j 15:08	2° $\mathbb{B}$ 02'56	
retrograde	-12170 Jun 06 j 20:32	5° $\mathbb{A}$ 32'39		minimum elong	-12163 Mar 20 j 21:39	2° $\mathbb{B}$ 58'47	19.58948 AU
opposition	-12170 Aug 19 j 22:53	3° $\mathbb{A}$ 31'11	-1°21'34	morning rise	-12163 Mar 22 j 08:05	3° $\mathbb{B}$ 04'05	-1°11'20
min. Earth dist.	-12170 Aug 20 j 20:01	3° $\mathbb{A}$ 28'55	18.00004 AU	retrograde	-12163 Mar 22 j 08:06	3° $\mathbb{B}$ 04'05	1°12'03
direct	-12170 Nov 03 j 07:19	1° $\mathbb{A}$ 27'51		morning rise	-12163 Apr 07 j 21:36	4° $\mathbb{B}$ 04'47	
evening set	-12169 Feb 05 j 10:16	4° $\mathbb{A}$ 45'06		retrograde	-12163 Jul 08 j 14:55	7° $\mathbb{B}$ 23'34	
max. Earth dist.	-12169 Feb 21 j 02:13	5° $\mathbb{A}$ 40'51	19.96415 AU				

Attention, astronomical year style is used: The year -12163 in astronomical counting style is the year 12164 BCE in historical counting style.

opposition	-12163 Sep 19 j 22:30	5° $\overline{3}$ 21'52	-1°18'26	max. Earth dist.	-12156 Apr 23 j 17:51	6° $\approx$ 05'06	19.30208 AU
min. Earth dist.	-12163 Sep 21 j 04:40	5° $\overline{3}$ 18'35	17.56396 AU				
direct	-12163 Dec 04 j 21:12	3° $\overline{3}$ 16'16		conjunction	-12156 Apr 25 j 05:17	6° $\approx$ 10'41	-0°47'19
evening set	-12162 Mar 10 j 18:17	6° $\overline{3}$ 42'41		minimum elong	-12156 Apr 25 j 05:17	6° $\approx$ 10'41	0°47'55
max. Earth dist.	-12162 Mar 25 j 22:39	7° $\overline{3}$ 38'27	19.53746 AU	morning rise	-12156 May 11 j 11:25	7° $\approx$ 11'46	
				retrograde	-12156 Aug 10 j 11:31	10° $\approx$ 33'14	
conjunction	-12162 Mar 27 j 10:26	7° $\overline{3}$ 43'59	-1°09'14	opposition	-12156 Oct 22 j 16:57	8° $\approx$ 31'18	-0°50'10
minimum elong	-12162 Mar 27 j 10:27	7° $\overline{3}$ 43'59	1°09'56	min. Earth dist.	-12156 Oct 23 j 23:05	8° $\approx$ 28'02	17.29135 AU
morning rise	-12162 Apr 12 j 23:09	8° $\overline{3}$ 44'49		direct	-12155 Jan 07 j 10:59	6° $\approx$ 24'23	
retrograde	-12162 Jul 13 j 14:25	12° $\overline{3}$ 04'07		evening set	-12155 Apr 13 j 22:40	9° $\approx$ 56'06	
opposition	-12162 Sep 24 j 19:11	10° $\overline{3}$ 02'25	-1°15'52	max. Earth dist.	-12155 Apr 28 j 23:06	10° $\approx$ 52'34	19.28076 AU
min. Earth dist.	-12162 Sep 26 j 01:14	9° $\overline{3}$ 59'08	17.51344 AU				
direct	-12162 Dec 09 j 21:55	7° $\overline{3}$ 56'36		conjunction	-12155 Apr 30 j 08:08	10° $\approx$ 57'47	-0°42'20
evening set	-12161 Mar 15 j 21:50	11° $\overline{3}$ 24'06		minimum elong	-12155 Apr 30 j 08:08	10° $\approx$ 57'47	0°42'53
max. Earth dist.	-12161 Mar 31 j 01:37	12° $\overline{3}$ 20'00	19.48836 AU	morning rise	-12155 May 16 j 12:59	11° $\approx$ 58'50	
					-12155 Jul 19 j 14:03	15° $\approx$	
conjunction	-12161 Apr 01 j 13:22	12° $\overline{3}$ 25'32	-1°06'39	retrograde	-12155 Aug 15 j 12:07	15° $\approx$ 20'31	
minimum elong	-12161 Apr 01 j 13:22	12° $\overline{3}$ 25'32	1°07'22		-12155 Sep 11 j 20:23	15° $\approx$	
morning rise	-12161 Apr 18 j 00:55	13° $\overline{3}$ 26'27		opposition	-12155 Oct 27 j 18:52	13° $\approx$ 18'33	-0°44'27
retrograde	-12161 Jul 18 j 11:52	16° $\overline{3}$ 46'14		min. Earth dist.	-12155 Oct 28 j 23:47	13° $\approx$ 15'25	17.27314 AU
opposition	-12161 Sep 29 j 17:03	14° $\overline{3}$ 44'32	-1°12'46	direct	-12154 Jan 12 j 14:14	11° $\approx$ 11'36	
min. Earth dist.	-12161 Oct 01 j 00:33	14° $\overline{3}$ 41'06	17.46590 AU	evening set	-12154 Apr 19 j 02:37	14° $\approx$ 43'35	
direct	-12161 Dec 14 j 21:45	12° $\overline{3}$ 38'30			-12154 Apr 23 j 12:13	15° $\approx$	
evening set	-12160 Mar 20 j 01:53	16° $\overline{3}$ 06'59		max. Earth dist.	-12154 May 04 j 02:21	15° $\approx$ 40'05	19.26598 AU
max. Earth dist.	-12160 Apr 04 j 03:17	17° $\overline{3}$ 02'45	19.44253 AU				
				conjunction	-12154 May 05 j 10:46	15° $\approx$ 45'13	-0°37'03
conjunction	-12160 Apr 05 j 16:22	17° $\overline{3}$ 08'32	-1°03'37	minimum elong	-12154 May 05 j 10:47	15° $\approx$ 45'13	0°37'35
minimum elong	-12160 Apr 05 j 16:22	17° $\overline{3}$ 08'32	1°04'18	morning rise	-12154 May 21 j 14:31	16° $\approx$ 46'12	
morning rise	-12160 Apr 22 j 03:01	18° $\overline{3}$ 09'31		retrograde	-12154 Aug 20 j 12:47	20° $\approx$ 08'03	
retrograde	-12160 Jul 22 j 11:37	21° $\overline{3}$ 29'45		opposition	-12154 Nov 01 j 21:06	18° $\approx$ 06'05	-0°38'24
opposition	-12160 Oct 03 j 15:34	19° $\overline{3}$ 28'00	-1°09'10	min. Earth dist.	-12154 Nov 03 j 01:02	18° $\approx$ 03'03	17.26179 AU
min. Earth dist.	-12160 Oct 04 j 22:41	19° $\overline{3}$ 24'37	17.42184 AU	direct	-12153 Jan 17 j 18:19	15° $\approx$ 59'08	
direct	-12160 Dec 19 j 00:16	17° $\overline{3}$ 21'45		evening set	-12153 Apr 24 j 06:15	19° $\approx$ 31'18	
evening set	-12159 Mar 25 j 05:59	20° $\overline{3}$ 51'07		max. Earth dist.	-12153 May 09 j 07:20	20° $\approx$ 28'06	19.25815 AU
max. Earth dist.	-12159 Apr 09 j 07:36	21° $\overline{3}$ 47'06	19.40036 AU				
				conjunction	-12153 May 10 j 13:17	20° $\approx$ 32'51	-0°31'31
conjunction	-12159 Apr 10 j 19:43	21° $\overline{3}$ 52'45	-1°00'09	minimum elong	-12153 May 10 j 13:18	20° $\approx$ 32'51	0°32'00
minimum elong	-12159 Apr 10 j 19:43	21° $\overline{3}$ 52'45	1°00'50	morning rise	-12153 May 26 j 15:47	21° $\approx$ 33'45	
morning rise	-12159 Apr 27 j 05:07	22° $\overline{3}$ 53'48		retrograde	-12153 Aug 25 j 13:31	24° $\approx$ 55'44	
retrograde	-12159 Jul 27 j 10:23	26° $\overline{3}$ 14'24		opposition	-12153 Nov 06 j 23:58	22° $\approx$ 53'48	-0°32'05
opposition	-12159 Oct 08 j 15:00	24° $\overline{3}$ 12'38	-1°05'04	min. Earth dist.	-12153 Nov 08 j 01:51	22° $\approx$ 51'00	17.25723 AU
min. Earth dist.	-12159 Oct 09 j 22:48	24° $\overline{3}$ 09'10	17.38170 AU	direct	-12152 Jan 22 j 23:12	20° $\approx$ 46'57	
direct	-12159 Dec 24 j 01:51	22° $\overline{3}$ 06'10		evening set	-12152 Apr 28 j 09:35	24° $\approx$ 19'10	
evening set	-12158 Mar 30 j 10:13	25° $\overline{3}$ 36'18		max. Earth dist.	-12152 May 13 j 10:47	25° $\approx$ 16'04	19.25712 AU
max. Earth dist.	-12158 Apr 14 j 09:51	26° $\overline{3}$ 32'11	19.36254 AU				
				conjunction	-12152 May 14 j 15:18	25° $\approx$ 20'36	-0°25'45
conjunction	-12158 Apr 15 j 22:50	26° $\overline{3}$ 37'59	-0°56'15	minimum elong	-12152 May 14 j 15:18	25° $\approx$ 20'36	0°26'10
minimum elong	-12158 Apr 15 j 22:50	26° $\overline{3}$ 37'59	0°56'55	morning rise	-12152 May 30 j 16:37	26° $\approx$ 21'23	
morning rise	-12158 May 02 j 07:19	27° $\overline{3}$ 39'04		retrograde	-12152 Aug 29 j 13:40	29° $\approx$ 43'29	
	-12158 Jun 15 j 16:17	0° $\approx$		opposition	-12152 Nov 11 j 03:19	27° $\approx$ 41'36	-0°25'32
retrograde	-12158 Aug 01 j 10:45	1° $\approx$ 00'01		min. Earth dist.	-12152 Nov 12 j 04:09	27° $\approx$ 38'56	17.25959 AU
	-12158 Sep 18 j 19:22	30° $\approx$		direct	-12151 Jan 27 j 03:41	25° $\approx$ 34'55	
opposition	-12158 Oct 13 j 14:57	28° $\overline{3}$ 58'11	-1°00'31	evening set	-12151 May 03 j 12:33	29° $\approx$ 07'03	
min. Earth dist.	-12158 Oct 14 j 22:08	28° $\overline{3}$ 54'47	17.34622 AU		-12151 May 17 j 12:35	0° $\approx$	
direct	-12158 Dec 29 j 05:03	26° $\overline{3}$ 51'31					
	-12157 Mar 29 j 11:14	0° $\approx$		conjunction	-12151 May 19 j 17:03	0° $\approx$ 08'21	-0°19'48
evening set	-12157 Apr 04 j 14:27	0° $\approx$ 22'18		minimum elong	-12151 May 19 j 17:03	0° $\approx$ 08'21	0°20'12
max. Earth dist.	-12157 Apr 19 j 14:56	1° $\approx$ 18'28	19.32955 AU	max. Earth dist.	-12151 May 18 j 14:56	0° $\approx$ 04'12	19.26289 AU
				morning rise	-12151 Jun 04 j 17:13	1° $\approx$ 09'01	
conjunction	-12157 Apr 21 j 02:11	1° $\approx$ 24'01	-0°51'58	retrograde	-12151 Sep 03 j 14:47	4° $\approx$ 31'10	
minimum elong	-12157 Apr 21 j 02:12	1° $\approx$ 24'01	0°52'35	opposition	-12151 Nov 16 j 06:49	2° $\approx$ 29'23	-0°18'48
morning rise	-12157 May 07 j 09:22	2° $\approx$ 25'07		min. Earth dist.	-12151 Nov 17 j 05:07	2° $\approx$ 26'58	17.26838 AU
retrograde	-12157 Aug 06 j 10:37	5° $\approx$ 46'20		direct	-12150 Feb 01 j 09:34	0° $\approx$ 22'53	
opposition	-12157 Oct 18 j 15:36	3° $\approx$ 44'28	-0°55'32	evening set	-12150 May 08 j 15:05	3° $\approx$ 54'49	
min. Earth dist.	-12157 Oct 19 j 22:38	3° $\approx$ 41'05	17.31580 AU				
direct	-12156 Jan 03 j 07:28	1° $\approx$ 37'40		conjunction	-12150 May 24 j 18:20	4° $\approx$ 55'58	-0°13'43
evening set	-12156 Apr 08 j 18:48	5° $\approx$ 08'58		minimum elong	-12150 May 24 j 18:20	4° $\approx$ 55'58	0°14'02

Attention, astronomical year style is used: The year -12150 in astronomical counting style is the year 12151 BCE in historical counting style.

behind sun begin	-12150 May 24 j 14:58	4° $\text{H}$ 55'26			-12144 Jan 11 j 22:51	30° $\text{R}$ $\text{H}$	
behind sun end	-12150 May 24 j 21:43	4° $\text{H}$ 56'29		direct	-12144 Mar 02 j 13:38	28° $\text{H}$ 59'30	
max. Earth dist.	-12150 May 23 j 18:17	4° $\text{H}$ 52'08	19.27475 AU		-12144 Apr 20 j 03:55	0° $\text{Y}$	
morning rise	-12150 Jun 09 j 17:19	5° $\text{H}$ 56'29		evening set	-12144 Jun 05 j 17:49	2° $\text{Y}$ 27'37	
retrograde	-12150 Sep 08 j 14:33	9° $\text{H}$ 18'39					
opposition	-12150 Nov 21 j 10:47	7° $\text{H}$ 16'57	-0°11'56	conjunction	-12144 Jun 21 j 13:47	3° $\text{Y}$ 27'21	0°23'06
min. Earth dist.	-12150 Nov 22 j 08:13	7° $\text{H}$ 14'39	17.28312 AU	minimum elong	-12144 Jun 21 j 13:46	3° $\text{Y}$ 27'21	0°23'06
direct	-12149 Feb 06 j 13:58	5° $\text{H}$ 10'41		max. Earth dist.	-12144 Jun 21 j 04:17	3° $\text{Y}$ 25'51	19.44998 AU
evening set	-12149 May 13 j 17:14	8° $\text{H}$ 42'19		morning rise	-12144 Jul 07 j 06:34	4° $\text{Y}$ 26'38	
				retrograde	-12144 Oct 06 j 13:31	7° $\text{Y}$ 47'44	
conjunction	-12149 May 29 j 19:07	9° $\text{H}$ 43'15	-0°07'33	opposition	-12144 Dec 20 j 10:46	5° $\text{Y}$ 46'21	0°28'53
minimum elong	-12149 May 29 j 19:08	9° $\text{H}$ 43'15	0°07'49	min. Earth dist.	-12144 Dec 20 j 19:05	5° $\text{Y}$ 45'28	17.47160 AU
behind sun begin	-12149 May 29 j 13:09	9° $\text{H}$ 42'20		direct	-12143 Mar 07 j 15:58	3° $\text{Y}$ 41'44	
behind sun end	-12149 May 30 j 01:06	9° $\text{H}$ 44'11		evening set	-12143 Jun 10 j 15:31	7° $\text{Y}$ 08'49	
max. Earth dist.	-12149 May 28 j 21:03	9° $\text{H}$ 39'45	19.29231 AU				
morning rise	-12149 Jun 14 j 17:02	10° $\text{H}$ 43'37		conjunction	-12143 Jun 26 j 10:14	8° $\text{Y}$ 08'15	0°28'48
retrograde	-12149 Sep 13 j 15:52	14° $\text{H}$ 05'45		minimum elong	-12143 Jun 26 j 10:14	8° $\text{Y}$ 08'15	0°28'53
opposition	-12149 Nov 26 j 14:49	12° $\text{H}$ 04'08	-0°05'00	max. Earth dist.	-12143 Jun 26 j 02:26	8° $\text{Y}$ 07'01	19.49438 AU
min. Earth dist.	-12149 Nov 27 j 09:23	12° $\text{H}$ 02'09	17.30316 AU	morning rise	-12143 Jul 12 j 02:24	9° $\text{Y}$ 07'18	
direct	-12148 Feb 11 j 20:13	9° $\text{H}$ 58'07		retrograde	-12143 Oct 11 j 12:40	12° $\text{Y}$ 28'01	
evening set	-12148 May 17 j 18:49	13° $\text{H}$ 29'17		opposition	-12143 Dec 25 j 13:39	10° $\text{Y}$ 26'38	0°35'08
				min. Earth dist.	-12143 Dec 25 j 18:43	10° $\text{Y}$ 26'06	17.51821 AU
conjunction	-12148 Jun 02 j 19:30	14° $\text{H}$ 30'01	-0°01'19	direct	-12142 Mar 12 j 19:26	8° $\text{Y}$ 22'19	
minimum elong	-12148 Jun 02 j 19:31	14° $\text{H}$ 30'01	0°01'32	evening set	-12142 Jun 15 j 12:03	11° $\text{Y}$ 48'19	
behind sun begin	-12148 Jun 02 j 12:54	14° $\text{H}$ 29'00					
behind sun end	-12148 Jun 03 j 02:08	14° $\text{H}$ 31'03		conjunction	-12142 Jul 01 j 05:56	12° $\text{Y}$ 47'28	0°34'18
max. Earth dist.	-12148 Jun 02 j 00:03	14° $\text{H}$ 26'56	19.31489 AU	minimum elong	-12142 Jul 01 j 05:55	12° $\text{Y}$ 47'28	0°34'27
morning rise	-12148 Jun 18 j 16:12	15° $\text{H}$ 30'12		max. Earth dist.	-12142 Jul 01 j 02:05	12° $\text{Y}$ 46'52	19.54312 AU
asc. node	-12148 Aug 19 j 18:32	18° $\text{H}$ 28'50		morning rise	-12142 Jul 16 j 21:12	13° $\text{Y}$ 46'15	
retrograde	-12148 Sep 17 j 15:15	18° $\text{H}$ 52'14		retrograde	-12142 Oct 16 j 09:46	17° $\text{Y}$ 06'35	
opposition	-12148 Nov 30 j 19:12	16° $\text{H}$ 50'42	0°01'58	opposition	-12142 Dec 30 j 16:16	15° $\text{Y}$ 05'13	0°41'08
min. Earth dist.	-12148 Dec 01 j 12:46	16° $\text{H}$ 48'49	17.32817 AU	min. Earth dist.	-12142 Dec 30 j 19:05	15° $\text{Y}$ 04'56	17.56911 AU
direct	-12147 Feb 16 j 00:01	14° $\text{H}$ 44'57		direct	-12141 Mar 17 j 21:27	13° $\text{Y}$ 01'15	
evening set	-12147 May 22 j 19:42	18° $\text{H}$ 15'31		evening set	-12141 Jun 20 j 07:47	16° $\text{Y}$ 26'05	
conjunction	-12147 Jun 07 j 19:03	19° $\text{H}$ 16'02	0°05'01	conjunction	-12141 Jul 06 j 00:30	17° $\text{Y}$ 24'55	0°39'32
minimum elong	-12147 Jun 07 j 19:04	19° $\text{H}$ 16'02	0°04'52	minimum elong	-12141 Jul 06 j 00:29	17° $\text{Y}$ 24'55	0°39'44
behind sun begin	-12147 Jun 07 j 12:37	19° $\text{H}$ 15'02		max. Earth dist.	-12141 Jul 05 j 22:33	17° $\text{Y}$ 24'36	19.59626 AU
behind sun end	-12147 Jun 08 j 01:30	19° $\text{H}$ 17'02		morning rise	-12141 Jul 21 j 15:14	18° $\text{Y}$ 23'26	
max. Earth dist.	-12147 Jun 07 j 01:16	19° $\text{H}$ 13'12	19.34228 AU	retrograde	-12141 Oct 21 j 07:11	21° $\text{Y}$ 43'22	
morning rise	-12147 Jun 23 j 14:51	20° $\text{H}$ 16'00		opposition	-12140 Jan 04 j 18:20	19° $\text{Y}$ 42'02	0°46'49
retrograde	-12147 Sep 22 j 16:28	23° $\text{H}$ 37'53		min. Earth dist.	-12140 Jan 04 j 17:54	19° $\text{Y}$ 42'05	17.62458 AU
opposition	-12147 Dec 05 j 23:19	21° $\text{H}$ 36'24	0°08'53	direct	-12140 Mar 21 j 23:25	17° $\text{Y}$ 38'27	
min. Earth dist.	-12147 Dec 06 j 13:45	21° $\text{H}$ 34'52	17.35768 AU	evening set	-12140 Jun 24 j 02:28	21° $\text{Y}$ 02'04	
direct	-12146 Feb 21 j 05:52	19° $\text{H}$ 30'56					
evening set	-12146 May 27 j 19:55	23° $\text{H}$ 00'48		conjunction	-12140 Jul 09 j 18:27	22° $\text{Y}$ 00'35	0°44'30
				minimum elong	-12140 Jul 09 j 18:27	22° $\text{Y}$ 00'35	0°44'45
conjunction	-12146 Jun 12 j 18:10	24° $\text{H}$ 01'03	0°11'09	max. Earth dist.	-12140 Jul 09 j 20:33	22° $\text{Y}$ 00'55	19.65389 AU
minimum elong	-12146 Jun 12 j 18:10	24° $\text{H}$ 01'03	0°11'02	morning rise	-12140 Jul 25 j 08:27	22° $\text{Y}$ 58'51	
behind sun begin	-12146 Jun 12 j 13:11	24° $\text{H}$ 00'17		retrograde	-12140 Oct 25 j 03:27	26° $\text{Y}$ 18'20	
behind sun end	-12146 Jun 12 j 23:10	24° $\text{H}$ 01'50		opposition	-12139 Jan 08 j 19:49	24° $\text{Y}$ 17'05	0°52'10
max. Earth dist.	-12146 Jun 12 j 03:27	23° $\text{H}$ 58'44	19.37393 AU	min. Earth dist.	-12139 Jan 08 j 16:36	24° $\text{Y}$ 17'25	17.68431 AU
morning rise	-12146 Jun 28 j 12:48	25° $\text{H}$ 00'49		direct	-12139 Mar 27 j 00:35	22° $\text{Y}$ 13'55	
retrograde	-12146 Sep 27 j 14:58	28° $\text{H}$ 22'29		evening set	-12139 Jun 28 j 20:20	25° $\text{Y}$ 36'17	
opposition	-12146 Dec 11 j 03:20	26° $\text{H}$ 21'03	0°15'42				
min. Earth dist.	-12146 Dec 11 j 16:37	26° $\text{H}$ 19'39	17.39143 AU	conjunction	-12139 Jul 14 j 11:22	26° $\text{Y}$ 34'30	0°49'09
direct	-12145 Feb 26 j 08:51	24° $\text{H}$ 15'51		minimum elong	-12139 Jul 14 j 11:22	26° $\text{Y}$ 34'30	0°49'26
evening set	-12145 Jun 01 j 19:27	27° $\text{H}$ 44'54		max. Earth dist.	-12139 Jul 14 j 15:25	26° $\text{Y}$ 35'07	19.71566 AU
				morning rise	-12139 Jul 30 j 01:03	27° $\text{Y}$ 32'30	
conjunction	-12145 Jun 17 j 16:23	28° $\text{H}$ 44'54	0°17'11		-12139 Sep 15 j 18:05	0° $\text{B}$	
minimum elong	-12145 Jun 17 j 16:23	28° $\text{H}$ 44'54	0°17'09	retrograde	-12139 Oct 29 j 22:53	0° $\text{B}$ 51'32	
max. Earth dist.	-12145 Jun 17 j 03:12	28° $\text{H}$ 42'49	19.40988 AU		-12139 Dec 15 j 03:01	30° $\text{R}$ $\text{Y}$	
morning rise	-12145 Jul 03 j 10:13	29° $\text{H}$ 44'26		opposition	-12138 Jan 13 j 20:40	28° $\text{Y}$ 50'23	0°57'09
	-12145 Jul 07 j 15:27	0° $\text{Y}$		min. Earth dist.	-12138 Jan 13 j 14:40	28° $\text{Y}$ 51'00	17.74805 AU
retrograde	-12145 Oct 02 j 15:30	3° $\text{Y}$ 05'50		direct	-12138 Apr 01 j 00:09	26° $\text{Y}$ 47'39	
opposition	-12145 Dec 16 j 07:08	1° $\text{Y}$ 04'25	0°22'23		-12138 Jul 01 j 03:16	0° $\text{B}$	
min. Earth dist.	-12145 Dec 16 j 17:09	1° $\text{Y}$ 03'22	17.42943 AU	evening set	-12138 Jul 03 j 13:11	0° $\text{B}$ 08'46	

Attention, astronomical year style is used: The year -12138 in astronomical counting style is the year 12139 BCE in historical counting style.

conjunction	-12138 Jul 19 j 03:39	1°806'40	0°53'28			-12132 Sep 22 j 11:07	0°II	
minimum elong	-12138 Jul 19 j 03:39	1°806'40	0°53'49	retrograde		-12132 Nov 30 j 02:06	1°II53'44	
max. Earth dist.	-12138 Jul 19 j 11:27	1°807'53	19.78104 AU			-12131 Feb 12 j 14:14	30°R8	
morning rise	-12138 Aug 03 j 16:46	2°804'24		min. Earth dist.		-12131 Feb 14 j 09:04	29°855'39	18.23953 AU
retrograde	-12138 Nov 03 j 18:19	5°822'57		opposition		-12131 Feb 15 j 07:05	29°853'24	1°20'09
opposition	-12137 Jan 18 j 20:48	3°821'57	1°01'45	direct		-12131 May 02 j 21:51	27°853'45	
min. Earth dist.	-12137 Jan 18 j 11:54	3°822'52	17.81487 AU			-12131 Jul 14 j 04:01	0°II	
direct	-12137 Apr 05 j 23:50	1°819'43		evening set		-12131 Aug 02 j 12:39	1°II05'29	
evening set	-12137 Jul 08 j 05:22	4°839'31						
conjunction	-12137 Jul 23 j 19:02	5°837'07	0°57'26	conjunction		-12131 Aug 18 j 00:32	2°II01'24	1°12'53
minimum elong	-12137 Jul 23 j 19:01	5°837'07	0°57'50	minimum elong		-12131 Aug 18 j 00:32	2°II01'24	1°13'31
max. Earth dist.	-12137 Jul 24 j 04:43	5°838'37	19.84920 AU	max. Earth dist.		-12131 Aug 18 j 23:02	2°II04'48	20.27347 AU
morning rise	-12137 Aug 08 j 07:58	6°834'35		morning rise		-12131 Sep 02 j 13:31	2°II57'28	
retrograde	-12137 Nov 08 j 12:22	9°852'40		retrograde		-12131 Dec 04 j 16:09	6°II12'08	
opposition	-12136 Jan 23 j 20:30	7°851'48	1°05'56	min. Earth dist.		-12130 Feb 19 j 03:16	4°II14'08	18.30818 AU
min. Earth dist.	-12136 Jan 23 j 09:25	7°852'56	17.88429 AU	opposition		-12130 Feb 20 j 01:56	4°II11'50	1°21'35
direct	-12136 Apr 09 j 20:51	5°850'02		direct		-12130 May 07 j 13:53	2°II12'31	
evening set	-12136 Jul 11 j 20:28	9°808'31		evening set		-12130 Aug 06 j 22:55	5°II22'54	
conjunction	-12136 Jul 27 j 09:44	10°805'48	1°01'02	conjunction		-12130 Aug 22 j 10:52	6°II18'35	1°14'00
minimum elong	-12136 Jul 27 j 09:43	10°805'48	1°01'28	minimum elong		-12130 Aug 22 j 10:52	6°II18'34	1°14'39
max. Earth dist.	-12136 Jul 27 j 22:44	10°807'49	19.91945 AU	max. Earth dist.		-12130 Aug 23 j 11:15	6°II22'15	20.34143 AU
morning rise	-12136 Aug 11 j 22:20	11°803'02		morning rise		-12130 Sep 07 j 00:07	7°II14'27	
retrograde	-12136 Nov 12 j 07:02	14°820'35		retrograde		-12130 Dec 09 j 07:33	10°II28'29	
opposition	-12135 Jan 27 j 19:23	12°819'52	1°09'42	opposition		-12129 Feb 24 j 19:41	8°II28'13	1°22'34
min. Earth dist.	-12135 Jan 27 j 05:25	12°821'18	17.95519 AU	min. Earth dist.		-12129 Feb 23 j 18:20	8°II30'47	18.37547 AU
direct	-12135 Apr 14 j 18:42	10°818'35		direct		-12129 May 12 j 06:36	6°II29'12	
evening set	-12135 Jul 16 j 11:01	13°835'44		evening set		-12129 Aug 11 j 08:30	9°II38'18	
conjunction	-12135 Jul 31 j 23:42	14°832'43	1°04'13	conjunction		-12129 Aug 26 j 20:32	10°II33'44	1°14'42
minimum elong	-12135 Jul 31 j 23:42	14°832'43	1°04'43	minimum elong		-12129 Aug 26 j 20:32	10°II33'44	1°15'22
max. Earth dist.	-12135 Aug 01 j 14:21	14°834'59	19.99074 AU	max. Earth dist.		-12129 Aug 27 j 22:36	10°II37'39	20.40805 AU
morning rise	-12135 Aug 08 j 08:55	15°8		morning rise		-12129 Sep 11 j 10:15	11°II29'25	
retrograde	-12135 Aug 16 j 12:17	15°829'42		retrograde		-12129 Dec 13 j 19:43	14°II42'51	
opposition	-12135 Nov 16 j 23:57	18°846'43		min. Earth dist.		-12128 Feb 28 j 10:49	12°II45'12	18.44169 AU
min. Earth dist.	-12134 Feb 01 j 17:28	16°846'07	1°13'00	opposition		-12128 Feb 29 j 12:42	12°II42'35	1°23'05
direct	-12134 Feb 01 j 02:02	16°847'42	18.02692 AU	direct		-12128 May 15 j 20:43	10°II43'53	
evening set	-12134 Mar 26 j 07:54	15°R8		evening set		-12128 Aug 14 j 17:14	13°II51'42	
conjunction	-12134 Apr 19 j 13:48	14°845'17		conjunction		-12128 Aug 30 j 05:32	14°II46'56	1°14'59
minimum elong	-12134 May 13 j 08:33	15°8		minimum elong		-12128 Aug 30 j 05:32	14°II46'56	1°15'41
max. Earth dist.	-12134 Jul 21 j 00:38	18°801'05		max. Earth dist.		-12128 Aug 31 j 09:18	14°II51'05	20.47374 AU
morning rise	-12134 Aug 05 j 13:04	18°857'48	1°07'01	morning rise		-12128 Sep 14 j 19:45	15°II42'27	
retrograde	-12134 Aug 05 j 13:03	18°857'48	1°07'32	retrograde		-12128 Dec 17 j 10:18	18°II55'16	
opposition	-12134 Aug 06 j 06:21	19°800'27	20.06247 AU	min. Earth dist.		-12127 Mar 04 j 00:08	16°II57'55	18.50688 AU
min. Earth dist.	-12134 Aug 21 j 01:29	19°854'32		opposition		-12127 Mar 05 j 04:36	16°II55'03	1°23'09
direct	-12134 Nov 21 j 17:40	23°810'59		direct		-12127 May 20 j 11:26	14°II56'39	
evening set	-12133 Feb 06 j 14:48	21°810'30	1°15'51	evening set		-12127 Aug 19 j 01:28	18°II03'17	
conjunction	-12133 Feb 05 j 20:32	21°812'22	18.09853 AU	conjunction		-12127 Sep 03 j 14:01	18°II58'19	1°14'53
minimum elong	-12133 Apr 24 j 09:45	19°810'06		minimum elong		-12127 Sep 03 j 14:01	18°II58'19	1°15'34
max. Earth dist.	-12133 Jul 25 j 13:27	22°824'32		max. Earth dist.		-12127 Sep 04 j 19:24	19°II02'41	20.53827 AU
morning rise	-12133 Aug 10 j 01:30	23°820'58	1°09'24	morning rise		-12127 Sep 19 j 04:48	19°II53'40	
retrograde	-12133 Aug 10 j 01:29	23°820'58	1°09'57	retrograde		-12127 Dec 21 j 20:59	23°II05'54	
opposition	-12133 Aug 10 j 20:21	23°823'51	20.13374 AU	opposition		-12126 Mar 09 j 19:37	21°II05'45	1°22'48
min. Earth dist.	-12133 Aug 25 j 14:03	24°817'28		min. Earth dist.		-12126 Mar 08 j 14:50	21°II08'39	18.57100 AU
direct	-12133 Nov 26 j 09:31	27°833'21		direct		-12126 May 24 j 23:11	19°II07'40	
evening set	-12132 Feb 11 j 11:32	25°832'57	1°18'14	evening set		-12126 Aug 23 j 08:59	22°II13'10	
conjunction	-12132 Feb 10 j 16:12	25°834'55	18.16959 AU	conjunction		-12126 Sep 07 j 21:57	23°II08'01	1°14'23
minimum elong	-12132 Apr 28 j 03:27	23°832'56		minimum elong		-12126 Sep 07 j 21:58	23°II08'01	1°15'06
max. Earth dist.	-12132 Jul 29 j 01:26	26°846'01		max. Earth dist.		-12126 Sep 09 j 04:38	23°II12'34	20.60185 AU
morning rise	-12132 Aug 13 j 13:26	27°842'11	1°11'21	morning rise		-12126 Sep 23 j 13:22	24°II03'14	
retrograde	-12132 Aug 13 j 13:26	27°842'11	1°11'56	retrograde		-12126 Dec 26 j 10:31	27°II14'55	
opposition	-12132 Aug 14 j 10:26	27°845'23	20.20427 AU	min. Earth dist.		-12125 Mar 13 j 02:40	25°II17'59	18.63391 AU
min. Earth dist.	-12132 Aug 29 j 02:05	28°838'28		opposition		-12125 Mar 14 j 09:47	25°II14'51	1°22'00
direct				direct		-12125 May 29 j 12:13	23°II17'06	

Attention, astronomical year style is used: The year -12125 in astronomical counting style is the year 12126 BCE in historical counting style.

evening set	-12125 Aug 27 j 15:53	26°II21'31		max. Earth dist.	-12119 Oct 07 j 07:02	21°☾45'48	20.97228 AU
				morning rise	-12119 Oct 21 j 18:02	22°☾35'28	
conjunction	-12125 Sep 12 j 05:19	27°II16'13	1°13'30	retrograde	-12118 Jan 24 j 08:43	25°☾44'02	
minimum elong	-12125 Sep 12 j 05:19	27°II16'13	1°14'13	min. Earth dist.	-12118 Apr 11 j 08:54	23°☾47'48	18.99141 AU
max. Earth dist.	-12125 Sep 13 j 13:32	27°II20'59	20.66391 AU	opposition	-12118 Apr 12 j 16:52	23°☾44'36	1°05'25
morning rise	-12125 Sep 27 j 21:28	28°II11'19		direct	-12118 Jun 27 j 02:42	21°☾48'34	
	-12125 Nov 01 j 19:37	0°☾		evening set	-12118 Sep 24 j 07:29	24°☾47'17	
retrograde	-12125 Dec 30 j 20:40	1°☾22'30					
	-12124 Mar 02 j 04:12	30°☾II		conjunction	-12118 Oct 10 j 02:14	25°☾41'23	0°57'31
opposition	-12124 Mar 17 j 23:21	29°II22'32	1°20'47	minimum elong	-12118 Oct 10 j 02:14	25°☾41'23	0°58'10
min. Earth dist.	-12124 Mar 16 j 16:15	29°II25'40	18.69512 AU	max. Earth dist.	-12118 Oct 11 j 12:05	25°☾46'15	21.00756 AU
direct	-12124 Jun 01 j 22:02	27°II25'06		morning rise	-12118 Oct 26 j 01:01	26°☾36'01	
	-12124 Aug 22 j 12:01	0°☾		retrograde	-12117 Jan 28 j 17:50	29°☾44'14	
evening set	-12124 Aug 30 j 22:27	0°☾28'31		min. Earth dist.	-12117 Apr 15 j 17:15	27°☾48'01	19.02398 AU
				opposition	-12117 Apr 17 j 01:32	27°☾44'47	1°01'41
conjunction	-12124 Sep 15 j 12:28	1°☾23'05	1°12'15	direct	-12117 Jul 01 j 09:56	25°☾48'49	
minimum elong	-12124 Sep 15 j 12:29	1°☾23'05	1°12'58	evening set	-12117 Sep 28 j 12:10	28°☾46'57	
max. Earth dist.	-12124 Sep 16 j 21:30	1°☾27'57	20.72411 AU				
morning rise	-12124 Oct 01 j 05:26	2°☾18'04		conjunction	-12117 Oct 14 j 07:56	29°☾41'01	0°54'02
retrograde	-12123 Jan 03 j 09:00	5°☾28'45		minimum elong	-12117 Oct 14 j 07:56	29°☾41'01	0°54'40
min. Earth dist.	-12123 Mar 21 j 03:00	3°☾32'13	18.75409 AU	max. Earth dist.	-12117 Oct 15 j 17:52	29°☾45'53	21.03749 AU
opposition	-12123 Mar 22 j 11:48	3°☾28'55	1°19'09		-12117 Oct 19 j 20:19	0°☾	
direct	-12123 Jun 06 j 09:33	1°☾31'48		morning rise	-12117 Oct 30 j 07:49	0°☾35'40	
evening set	-12123 Sep 04 j 04:37	4°☾34'17		retrograde	-12116 Feb 02 j 00:56	3°☾43'31	
				min. Earth dist.	-12116 Apr 19 j 02:45	1°☾47'08	19.05132 AU
conjunction	-12123 Sep 19 j 19:15	5°☾28'44	1°10'38	opposition	-12116 Apr 20 j 09:40	1°☾44'02	0°57'40
minimum elong	-12123 Sep 19 j 19:16	5°☾28'44	1°11'21		-12116 Jun 12 j 21:13	30°☾☾	
max. Earth dist.	-12123 Sep 21 j 05:22	5°☾33'44	20.78158 AU	direct	-12116 Jul 04 j 15:35	29°☾48'06	
morning rise	-12123 Oct 05 j 13:04	6°☾23'37			-12116 Jul 26 j 01:38	0°☾	
retrograde	-12122 Jan 07 j 18:30	9°☾33'51		evening set	-12116 Oct 01 j 16:50	2°☾45'43	
opposition	-12122 Mar 26 j 23:48	7°☾34'08	1°17'08				
min. Earth dist.	-12122 Mar 25 j 15:30	7°☾37'22	18.81003 AU	conjunction	-12116 Oct 17 j 13:37	3°☾39'47	0°50'17
direct	-12122 Jun 10 j 18:04	5°☾37'19		minimum elong	-12116 Oct 17 j 13:38	3°☾39'47	0°50'54
evening set	-12122 Sep 08 j 10:21	8°☾38'56		max. Earth dist.	-12116 Oct 18 j 22:34	3°☾44'30	21.06255 AU
				morning rise	-12116 Nov 02 j 14:41	4°☾34'26	
conjunction	-12122 Sep 24 j 01:41	9°☾33'16	1°08'39	retrograde	-12115 Feb 05 j 09:44	7°☾41'57	
minimum elong	-12122 Sep 24 j 01:41	9°☾33'16	1°09'21	min. Earth dist.	-12115 Apr 23 j 10:00	5°☾45'31	19.07401 AU
max. Earth dist.	-12122 Sep 25 j 12:02	9°☾38'16	20.83585 AU	opposition	-12115 Apr 24 j 16:57	5°☾42'25	0°53'24
morning rise	-12122 Oct 09 j 20:23	10°☾28'04		direct	-12115 Jul 08 j 21:43	3°☾46'28	
retrograde	-12121 Jan 12 j 05:42	13°☾37'52		evening set	-12115 Oct 05 j 21:23	6°☾43'39	
min. Earth dist.	-12121 Mar 30 j 01:32	11°☾41'37	18.86239 AU				
opposition	-12121 Mar 31 j 11:03	11°☾38'16	1°14'44	conjunction	-12115 Oct 21 j 19:13	7°☾37'44	0°46'20
direct	-12121 Jun 15 j 03:59	9°☾41'42		minimum elong	-12115 Oct 21 j 19:13	7°☾37'44	0°46'54
evening set	-12121 Sep 12 j 15:59	12°☾42'30		max. Earth dist.	-12115 Oct 23 j 04:13	7°☾42'27	21.08297 AU
				morning rise	-12115 Nov 06 j 21:21	8°☾32'25	
conjunction	-12121 Sep 28 j 08:03	13°☾36'45	1°06'20	retrograde	-12114 Feb 09 j 16:00	11°☾39'38	
minimum elong	-12121 Sep 28 j 08:04	13°☾36'45	1°07'03	opposition	-12114 Apr 28 j 23:55	9°☾40'03	0°48'54
max. Earth dist.	-12121 Sep 29 j 19:03	13°☾41'51	20.88606 AU	min. Earth dist.	-12114 Apr 27 j 18:17	9°☾43'02	19.09231 AU
morning rise	-12121 Oct 14 j 03:42	14°☾31'30		direct	-12114 Jul 13 j 02:22	7°☾44'06	
retrograde	-12120 Jan 16 j 14:39	17°☾40'53		evening set	-12114 Oct 10 j 01:44	10°☾40'56	
opposition	-12120 Apr 03 j 21:40	15°☾41'21	1°11'58				
min. Earth dist.	-12120 Apr 02 j 13:06	15°☾44'37	18.91042 AU	conjunction	-12114 Oct 26 j 00:38	11°☾35'02	0°42'10
direct	-12120 Jun 18 j 11:37	13°☾45'02		minimum elong	-12114 Oct 26 j 00:38	11°☾35'02	0°42'43
evening set	-12120 Sep 15 j 21:21	16°☾45'05		max. Earth dist.	-12114 Oct 27 j 08:37	11°☾39'36	21.09940 AU
				morning rise	-12114 Nov 11 j 03:58	12°☾29'45	
conjunction	-12120 Oct 01 j 14:17	17°☾39'16	1°03'42		-12113 Jan 05 j 13:41	15°☾	
minimum elong	-12120 Oct 01 j 14:18	17°☾39'16	1°04'22	retrograde	-12113 Feb 14 j 00:44	15°☾36'45	
max. Earth dist.	-12120 Oct 03 j 00:49	17°☾44'16	20.93181 AU		-12113 Mar 26 j 06:27	15°☾☾	
morning rise	-12120 Oct 17 j 10:59	18°☾33'57		min. Earth dist.	-12113 May 02 j 00:48	13°☾40'06	19.10676 AU
retrograde	-12119 Jan 20 j 00:38	21°☾42'56		opposition	-12113 May 03 j 06:24	13°☾37'07	0°44'10
min. Earth dist.	-12119 Apr 06 j 22:23	19°☾46'47	18.95361 AU	direct	-12113 Jul 17 j 07:26	11°☾41'08	
opposition	-12119 Apr 08 j 07:35	19°☾43'28	1°08'51	evening set	-12113 Oct 14 j 06:19	14°☾37'42	
direct	-12119 Jun 22 j 20:02	17°☾47'18			-12113 Oct 20 j 21:40	15°☾	
evening set	-12119 Sep 20 j 02:34	20°☾46'40					
				conjunction	-12113 Oct 30 j 06:20	15°☾31'52	0°37'48
conjunction	-12119 Oct 05 j 20:21	21°☾40'48	1°00'45	minimum elong	-12113 Oct 30 j 06:20	15°☾31'52	0°38'19
minimum elong	-12119 Oct 05 j 20:22	21°☾40'48	1°01'26	max. Earth dist.	-12113 Oct 31 j 14:13	15°☾36'24	21.11188 AU

Attention, astronomical year style is used: The year -12113 in astronomical counting style is the year 12114 BCE in historical counting style.

morning rise	-12113 Nov 15 j 10:46	16° $\Omega$ 26'39		morning rise	-12107 Dec 09 j 08:53	10° $\Upsilon$ 08'52	
retrograde	-12112 Feb 18 j 07:02	19° $\Omega$ 33'26		retrograde	-12106 Mar 14 j 06:30	13° $\Upsilon$ 15'34	
min. Earth dist.	-12112 May 05 j 08:17	17° $\Omega$ 36'38	19.11730 AU	opposition	-12106 May 30 j 19:57	11° $\Upsilon$ 15'57	0°06'37
opposition	-12112 May 06 j 12:26	17° $\Omega$ 33'48	0°39'15	min. Earth dist.	-12106 May 30 j 00:14	11° $\Upsilon$ 17'58	19.08993 AU
direct	-12112 Jul 20 j 11:28	15° $\Omega$ 37'48		direct	-12106 Aug 13 j 09:54	9° $\Upsilon$ 19'37	
evening set	-12112 Oct 17 j 11:02	18° $\Omega$ 34'12		evening set	-12106 Nov 10 j 21:58	12° $\Upsilon$ 16'49	
conjunction	-12112 Nov 02 j 12:11	19° $\Omega$ 28'26	0°33'16	conjunction	-12106 Nov 27 j 05:51	13° $\Upsilon$ 11'48	0°03'30
minimum elong	-12112 Nov 02 j 12:11	19° $\Omega$ 28'26	0°33'46	minimum elong	-12106 Nov 27 j 05:50	13° $\Upsilon$ 11'48	0°03'43
max. Earth dist.	-12112 Nov 03 j 18:38	19° $\Omega$ 32'45	21.12065 AU	behind sun begin	-12106 Nov 26 j 23:12	13° $\Upsilon$ 10'53	
morning rise	-12112 Nov 18 j 17:49	20° $\Omega$ 23'17		behind sun end	-12106 Nov 27 j 12:27	13° $\Upsilon$ 12'43	
retrograde	-12111 Feb 21 j 15:43	23° $\Omega$ 29'56		max. Earth dist.	-12106 Nov 28 j 02:48	13° $\Upsilon$ 14'45	21.07910 AU
opposition	-12111 May 10 j 18:09	21° $\Omega$ 30'17	0°34'09	morning rise	-12106 Dec 13 j 17:54	14° $\Upsilon$ 07'21	
min. Earth dist.	-12111 May 09 j 14:23	21° $\Omega$ 33'05	19.12405 AU	retrograde	-12105 Mar 18 j 16:04	17° $\Upsilon$ 14'11	
direct	-12111 Jul 24 j 15:37	19° $\Omega$ 34'16		min. Earth dist.	-12105 Jun 03 j 06:52	15° $\Upsilon$ 16'22	19.06717 AU
evening set	-12111 Oct 21 j 15:52	22° $\Omega$ 30'36		opposition	-12105 Jun 04 j 00:59	15° $\Upsilon$ 14'31	0°00'52
conjunction	-12111 Nov 06 j 18:08	23° $\Omega$ 24'55	0°28'35	desc. node	-12105 Jul 28 j 02:08	13° $\Upsilon$ 28'45	
minimum elong	-12111 Nov 06 j 18:08	23° $\Omega$ 24'55	0°29'01	direct	-12105 Aug 17 j 14:52	13° $\Upsilon$ 17'59	
max. Earth dist.	-12111 Nov 08 j 00:11	23° $\Omega$ 29'10	21.12534 AU	evening set	-12105 Nov 15 j 05:29	16° $\Upsilon$ 15'35	
morning rise	-12111 Nov 23 j 00:49	24° $\Omega$ 19'51		conjunction	-12105 Dec 01 j 14:30	17° $\Upsilon$ 10'45	-0°01'49
retrograde	-12110 Feb 25 j 22:13	27° $\Omega$ 26'25		minimum elong	-12105 Dec 01 j 14:30	17° $\Upsilon$ 10'45	0°01'38
opposition	-12110 May 14 j 23:37	25° $\Omega$ 26'47	0°28'52	behind sun begin	-12105 Dec 01 j 07:48	17° $\Upsilon$ 09'49	
min. Earth dist.	-12110 May 13 j 21:30	25° $\Omega$ 29'25	19.12663 AU	behind sun end	-12105 Dec 01 j 21:13	17° $\Upsilon$ 11'40	
direct	-12110 Jul 28 j 19:19	23° $\Omega$ 30'46		max. Earth dist.	-12105 Dec 02 j 09:53	17° $\Upsilon$ 13'29	21.05345 AU
evening set	-12110 Oct 25 j 21:01	26° $\Omega$ 27'05		morning rise	-12105 Dec 18 j 03:27	18° $\Upsilon$ 06'28	
conjunction	-12110 Nov 11 j 00:24	27° $\Omega$ 21'30	0°23'45	retrograde	-12104 Mar 21 j 23:48	21° $\Upsilon$ 13'24	
minimum elong	-12110 Nov 11 j 00:24	27° $\Omega$ 21'31	0°24'09	opposition	-12104 Jun 07 j 05:55	19° $\Upsilon$ 13'40	-0°04'52
max. Earth dist.	-12110 Nov 12 j 04:40	27° $\Omega$ 25'30	21.12599 AU	min. Earth dist.	-12104 Jun 06 j 14:17	19° $\Upsilon$ 15'16	19.03865 AU
morning rise	-12110 Nov 27 j 08:17	28° $\Omega$ 16'32		direct	-12104 Aug 20 j 18:30	17° $\Upsilon$ 16'54	
retrograde	-12109 Mar 02 j 07:06	1° $\Upsilon$ 23'06		evening set	-12104 Nov 18 j 13:31	20° $\Upsilon$ 14'57	
min. Earth dist.	-12109 May 03 j 22:02	30° $\Re$ 02		conjunction	-12104 Dec 04 j 23:32	21° $\Upsilon$ 10'17	-0°07'01
opposition	-12109 May 18 j 03:30	29° $\Omega$ 26'02	19.12502 AU	minimum elong	-12104 Dec 04 j 23:32	21° $\Upsilon$ 10'17	0°06'53
direct	-12109 May 19 j 04:51	29° $\Omega$ 23'28	0°23'28	behind sun begin	-12104 Dec 04 j 17:19	21° $\Upsilon$ 09'26	
evening set	-12109 Oct 22 j 19:16	0° $\Upsilon$		behind sun end	-12104 Dec 05 j 05:46	21° $\Upsilon$ 11'09	
conjunction	-12109 Nov 15 j 07:06	1° $\Upsilon$ 18'23	0°18'48	max. Earth dist.	-12104 Dec 05 j 15:54	21° $\Upsilon$ 12'36	21.02240 AU
minimum elong	-12109 Nov 15 j 07:06	1° $\Upsilon$ 18'23	0°19'10	morning rise	-12104 Dec 21 j 13:30	22° $\Upsilon$ 06'11	
max. Earth dist.	-12109 Nov 16 j 10:32	1° $\Upsilon$ 22'15	21.12204 AU	retrograde	-12103 Mar 26 j 09:11	25° $\Upsilon$ 13'17	
morning rise	-12109 Dec 01 j 16:02	2° $\Upsilon$ 13'32		opposition	-12103 Jun 11 j 10:56	23° $\Upsilon$ 13'25	-0°10'36
retrograde	-12108 Mar 05 j 14:02	5° $\Upsilon$ 20'05		min. Earth dist.	-12103 Jun 10 j 21:03	23° $\Upsilon$ 14'51	19.00499 AU
min. Earth dist.	-12108 May 21 j 10:42	3° $\Upsilon$ 22'51	19.11857 AU	direct	-12103 Aug 24 j 23:43	21° $\Upsilon$ 16'22	
opposition	-12108 May 22 j 10:00	3° $\Upsilon$ 20'29	0°17'56	evening set	-12103 Nov 22 j 21:51	24° $\Upsilon$ 14'57	
direct	-12108 Aug 05 j 02:33	1° $\Upsilon$ 24'23		conjunction	-12103 Dec 09 j 08:57	25° $\Upsilon$ 10'29	-0°12'10
evening set	-12108 Nov 02 j 08:37	4° $\Upsilon$ 21'00		minimum elong	-12103 Dec 09 j 08:56	25° $\Upsilon$ 10'29	0°12'05
conjunction	-12108 Nov 18 j 14:16	5° $\Upsilon$ 15'40	0°13'45	behind sun begin	-12103 Dec 09 j 04:27	25° $\Upsilon$ 09'52	
minimum elong	-12108 Nov 18 j 14:16	5° $\Upsilon$ 15'40	0°14'04	behind sun end	-12103 Dec 09 j 13:25	25° $\Upsilon$ 11'06	
behind sun begin	-12108 Nov 18 j 11:02	5° $\Upsilon$ 15'13		max. Earth dist.	-12103 Dec 09 j 23:51	25° $\Upsilon$ 12'35	20.98628 AU
behind sun end	-12108 Nov 18 j 17:30	5° $\Upsilon$ 16'06		morning rise	-12103 Dec 25 j 23:38	26° $\Upsilon$ 06'32	
max. Earth dist.	-12108 Nov 19 j 15:18	5° $\Upsilon$ 19'12	21.11321 AU	retrograde	-12102 Mar 30 j 17:32	29° $\Upsilon$ 13'51	
morning rise	-12108 Dec 05 j 00:18	6° $\Upsilon$ 10'56		opposition	-12102 Jun 15 j 16:01	27° $\Upsilon$ 13'51	-0°16'18
retrograde	-12107 Mar 09 j 23:16	9° $\Upsilon$ 17'33		min. Earth dist.	-12102 Jun 15 j 04:25	27° $\Upsilon$ 15'02	18.96660 AU
opposition	-12107 May 26 j 14:54	7° $\Upsilon$ 17'57	0°12'18	direct	-12102 Aug 29 j 04:24	25° $\Upsilon$ 16'30	
min. Earth dist.	-12107 May 25 j 16:54	7° $\Upsilon$ 20'11	19.10705 AU	evening set	-12102 Nov 27 j 06:51	28° $\Upsilon$ 15'40	
direct	-12107 Aug 09 j 06:49	5° $\Upsilon$ 21'44		conjunction	-12102 Dec 13 j 18:52	29° $\Upsilon$ 11'24	-0°17'17
evening set	-12107 Nov 06 j 15:08	8° $\Upsilon$ 18'38		minimum elong	-12102 Dec 13 j 18:52	29° $\Upsilon$ 11'24	0°17'15
conjunction	-12107 Nov 22 j 21:54	9° $\Upsilon$ 13'27	0°08'39	max. Earth dist.	-12102 Dec 14 j 06:47	29° $\Upsilon$ 13'05	20.94599 AU
minimum elong	-12107 Nov 22 j 21:55	9° $\Upsilon$ 13'27	0°08'56		-12102 Dec 28 j 03:23	0° $\Omega$	
behind sun begin	-12107 Nov 22 j 16:12	9° $\Upsilon$ 12'40		morning rise	-12102 Dec 30 j 10:30	0° $\Omega$ 07'39	
behind sun end	-12107 Nov 23 j 03:38	9° $\Upsilon$ 14'14		retrograde	-12101 Apr 04 j 02:55	3° $\Omega$ 15'11	
max. Earth dist.	-12107 Nov 23 j 21:39	9° $\Upsilon$ 16'48	21.09892 AU	opposition	-12101 Jun 19 j 21:06	1° $\Omega$ 15'02	-0°21'56
				min. Earth dist.	-12101 Jun 19 j 11:15	1° $\Omega$ 16'03	18.92443 AU
					-12101 Jul 22 j 16:23	30° $\Re$	
				direct	-12101 Sep 02 j 09:24	29° $\Upsilon$ 17'22	
					-12101 Oct 13 j 11:08	0° $\Omega$	



Attention, astronomical year style is used: The year -12101 in astronomical counting style is the year 12102 BCE in historical counting style.

evening set	-12101 Dec 01 j 16:28	2°♂17'12		retrograde	-12094 May 03 j 06:01	1°♂58'06	
					-12094 Jul 16 j 17:50	30°♂♂	
conjunction	-12101 Dec 18 j 05:32	3°♂13'10	-0°22'19	opposition	-12094 Jul 17 j 18:23	29°♂57'24	-0°57'34
minimum elong	-12101 Dec 18 j 05:32	3°♂13'10	0°22'21	min. Earth dist.	-12094 Jul 17 j 22:55	29°♂56'56	18.55074 AU
max. Earth dist.	-12101 Dec 18 j 16:01	3°♂14'39	20.90197 AU	direct	-12094 Sep 30 j 10:27	27°♂57'29	
morning rise	-12100 Jan 03 j 21:46	4°♂09'36			-12094 Dec 11 j 12:38	0°♂	
retrograde	-12100 Apr 07 j 12:15	7°♂17'23		evening set	-12094 Dec 31 j 09:27	1°♂04'12	
opposition	-12100 Jun 23 j 02:29	5°♂17'07	-0°27'29				
min. Earth dist.	-12100 Jun 22 j 18:48	5°♂17'55	18.87874 AU	conjunction	-12093 Jan 17 j 03:27	2°♂01'56	-0°53'51
direct	-12100 Sep 05 j 15:16	3°♂19'08		minimum elong	-12093 Jan 17 j 03:26	2°♂01'56	0°54'13
evening set	-12100 Dec 05 j 02:48	6°♂19'43		max. Earth dist.	-12093 Jan 16 j 19:42	2°♂00'49	20.51923 AU
				morning rise	-12093 Feb 02 j 22:56	2°♂59'54	
conjunction	-12100 Dec 21 j 16:39	7°♂15'54	-0°27'17	retrograde	-12093 May 07 j 19:28	6°♂10'45	
minimum elong	-12100 Dec 21 j 16:38	7°♂15'54	0°27'20	opposition	-12093 Jul 22 j 02:52	4°♂09'59	-1°01'47
max. Earth dist.	-12100 Dec 21 j 23:59	7°♂16'57	20.85485 AU	min. Earth dist.	-12093 Jul 22 j 09:56	4°♂09'14	18.48718 AU
morning rise	-12099 Jan 07 j 09:39	8°♂12'33		direct	-12093 Oct 04 j 20:37	2°♂09'41	
retrograde	-12099 Apr 11 j 21:55	11°♂20'39		evening set	-12092 Jan 05 j 01:50	5°♂17'38	
opposition	-12099 Jun 27 j 08:02	9°♂20'16	-0°32'55				
min. Earth dist.	-12099 Jun 27 j 02:05	9°♂20'53	18.83025 AU	conjunction	-12092 Jan 21 j 20:27	6°♂15'40	-0°57'31
direct	-12099 Sep 09 j 20:45	7°♂21'56		minimum elong	-12092 Jan 21 j 20:27	6°♂15'40	0°57'54
evening set	-12099 Dec 09 j 13:44	10°♂23'22		max. Earth dist.	-12092 Jan 21 j 10:55	6°♂14'17	20.45410 AU
				morning rise	-12092 Feb 07 j 15:53	7°♂13'51	
conjunction	-12099 Dec 26 j 04:31	11°♂19'48	-0°32'08	retrograde	-12092 May 11 j 08:47	10°♂25'14	
minimum elong	-12099 Dec 26 j 04:31	11°♂19'48	0°32'15	opposition	-12092 Jul 25 j 12:08	8°♂24'24	-1°05'42
max. Earth dist.	-12099 Dec 26 j 10:29	11°♂20'39	20.80496 AU	min. Earth dist.	-12092 Jul 25 j 21:22	8°♂23'26	18.42063 AU
morning rise	-12098 Jan 11 j 21:58	12°♂16'39		direct	-12092 Oct 08 j 07:10	6°♂23'43	
retrograde	-12098 Apr 16 j 08:07	15°♂25'06		evening set	-12091 Jan 08 j 19:11	9°♂32'56	
opposition	-12098 Jul 01 j 13:59	13°♂24'38	-0°38'13				
min. Earth dist.	-12098 Jul 01 j 10:04	13°♂25'02	18.77911 AU	conjunction	-12091 Jan 25 j 13:59	10°♂31'13	-1°00'52
direct	-12098 Sep 14 j 03:17	11°♂26'00		minimum elong	-12091 Jan 25 j 13:59	10°♂31'13	1°01'19
evening set	-12098 Dec 14 j 01:25	14°♂28'20		max. Earth dist.	-12091 Jan 25 j 00:26	10°♂29'14	20.38621 AU
				morning rise	-12091 Feb 11 j 09:35	11°♂29'38	
conjunction	-12098 Dec 30 j 16:55	15°♂25'00	-0°36'51	retrograde	-12091 May 15 j 22:53	14°♂41'35	
minimum elong	-12098 Dec 30 j 16:55	15°♂25'00	0°37'00	opposition	-12091 Jul 29 j 22:02	12°♂40'38	-1°09'17
max. Earth dist.	-12098 Dec 30 j 19:37	15°♂25'23	20.75273 AU	min. Earth dist.	-12091 Jul 30 j 09:52	12°♂39'23	18.35161 AU
morning rise	-12097 Jan 16 j 11:06	16°♂22'04		direct	-12091 Oct 12 j 18:54	10°♂39'31	
retrograde	-12097 Apr 20 j 18:52	19°♂30'57		evening set	-12090 Jan 13 j 13:14	13°♂50'01	
opposition	-12097 Jul 05 j 20:21	17°♂30'23	-0°43'22				
min. Earth dist.	-12097 Jul 05 j 18:20	17°♂30'36	18.72571 AU	conjunction	-12090 Jan 30 j 08:32	14°♂48'35	-1°03'55
direct	-12097 Sep 18 j 10:13	15°♂31'25		minimum elong	-12090 Jan 30 j 08:31	14°♂48'35	1°04'24
evening set	-12097 Dec 18 j 14:03	18°♂34'45		max. Earth dist.	-12090 Jan 29 j 17:24	14°♂46'22	20.31602 AU
					-12090 Feb 02 j 14:27	15°♂	
conjunction	-12096 Jan 04 j 06:25	19°♂31'41	-0°41'24	morning rise	-12090 Feb 16 j 03:56	15°♂47'14	
minimum elong	-12096 Jan 04 j 06:25	19°♂31'41	0°41'37	retrograde	-12090 May 20 j 13:34	18°♂59'44	
max. Earth dist.	-12096 Jan 04 j 07:38	19°♂31'52	20.69804 AU	opposition	-12090 Aug 03 j 08:31	16°♂58'40	-1°12'30
morning rise	-12096 Jan 21 j 00:53	20°♂28'58		min. Earth dist.	-12090 Aug 03 j 22:13	16°♂57'12	18.28052 AU
retrograde	-12096 Apr 24 j 05:49	23°♂38'17			-12090 Oct 06 j 18:31	15°♂♂	
opposition	-12096 Jul 09 j 03:05	21°♂37'41	-0°48'19	direct	-12090 Oct 17 j 07:32	14°♂57'06	
min. Earth dist.	-12096 Jul 09 j 03:13	21°♂37'40	18.66982 AU		-12090 Oct 27 j 19:15	15°♂	
direct	-12096 Sep 21 j 17:26	19°♂38'25		evening set	-12089 Jan 18 j 08:18	18°♂08'54	
evening set	-12096 Dec 22 j 03:41	22°♂42'48		max. Earth dist.	-12089 Feb 03 j 08:46	19°♂04'58	20.24421 AU
conjunction	-12095 Jan 07 j 20:34	23°♂40'00	-0°45'46	conjunction	-12089 Feb 04 j 03:41	19°♂07'45	-1°06'37
minimum elong	-12095 Jan 07 j 20:34	23°♂40'00	0°46'02	minimum elong	-12089 Feb 04 j 03:41	19°♂07'45	1°07'08
max. Earth dist.	-12095 Jan 07 j 18:13	23°♂39'40	20.64104 AU	morning rise	-12089 Feb 20 j 23:09	20°♂06'38	
morning rise	-12095 Jan 24 j 15:33	24°♂37'30		retrograde	-12089 May 25 j 04:25	23°♂19'41	
retrograde	-12095 Apr 28 j 18:05	27°♂47'19		opposition	-12089 Aug 07 j 19:46	21°♂18'29	-1°15'20
opposition	-12095 Jul 13 j 10:27	25°♂46'39	-0°53'04	min. Earth dist.	-12089 Aug 08 j 12:02	21°♂16'44	18.20827 AU
min. Earth dist.	-12095 Jul 13 j 12:46	25°♂46'24	18.61163 AU	direct	-12089 Oct 21 j 20:42	19°♂16'26	
direct	-12095 Sep 26 j 01:58	23°♂47'04		evening set	-12088 Jan 23 j 04:07	22°♂29'36	
evening set	-12095 Dec 26 j 17:57	26°♂52'35					
				conjunction	-12088 Feb 08 j 23:48	23°♂28'43	-1°08'57
conjunction	-12094 Jan 12 j 11:33	27°♂50'03	-0°49'56	minimum elong	-12088 Feb 08 j 23:48	23°♂28'43	1°09'31
minimum elong	-12094 Jan 12 j 11:33	27°♂50'03	0°50'14	max. Earth dist.	-12088 Feb 08 j 03:38	23°♂25'44	20.17153 AU
max. Earth dist.	-12094 Jan 12 j 07:43	27°♂49'30	20.58146 AU	morning rise	-12088 Feb 25 j 18:54	24°♂27'48	
morning rise	-12094 Jan 29 j 06:39	28°♂47'47		retrograde	-12088 May 28 j 20:36	27°♂41'25	
	-12094 Feb 20 j 19:58	0°♂		opposition	-12088 Aug 11 j 07:38	25°♂40'06	-1°17'45

Attention, astronomical year style is used: The year -12088 in astronomical counting style is the year 12089 BCE in historical counting style.

min. Earth dist.	-12088 Aug 12 j 01:20	25° $\mathbb{M}$ 38'12	18.13548 AU	conjunction	-12081 Mar 13 j 15:28	24° $\mathbb{A}$ 49'05	-1°13'41
direct	-12088 Oct 25 j 11:26	23° $\mathbb{M}$ 37'36		minimum elong	-12081 Mar 13 j 15:29	24° $\mathbb{A}$ 49'05	1°14'24
evening set	-12087 Jan 27 j 00:53	26° $\mathbb{M}$ 52'07		morning rise	-12081 Mar 30 j 06:53	25° $\mathbb{A}$ 49'34	
				retrograde	-12081 Jun 30 j 08:01	29° $\mathbb{A}$ 07'21	
conjunction	-12087 Feb 12 j 20:27	27° $\mathbb{M}$ 51'30	-1°10'54	opposition	-12081 Sep 11 j 18:48	27° $\mathbb{A}$ 05'41	-1°21'32
minimum elong	-12087 Feb 12 j 20:27	27° $\mathbb{M}$ 51'30	1°11'29	min. Earth dist.	-12081 Sep 12 j 22:56	27° $\mathbb{A}$ 02'37	17.67041 AU
max. Earth dist.	-12087 Feb 11 j 20:59	27° $\mathbb{M}$ 48'01	20.09881 AU	direct	-12081 Nov 26 j 12:00	25° $\mathbb{A}$ 00'38	
morning rise	-12087 Mar 01 j 15:22	28° $\mathbb{M}$ 50'49		evening set	-12080 Feb 29 j 23:22	28° $\mathbb{A}$ 24'44	
	-12087 Mar 22 j 12:48	0° $\mathbb{A}$		max. Earth dist.	-12080 Mar 16 j 07:22	29° $\mathbb{A}$ 20'36	19.64105 AU
retrograde	-12087 Jun 02 j 12:32	2° $\mathbb{A}$ 05'01					
opposition	-12087 Aug 15 j 20:25	0° $\mathbb{A}$ 03'34	-1°19'44	conjunction	-12080 Mar 17 j 17:00	29° $\mathbb{A}$ 25'45	-1°12'32
min. Earth dist.	-12087 Aug 16 j 16:26	0° $\mathbb{A}$ 01'25	18.06324 AU	minimum elong	-12080 Mar 17 j 17:00	29° $\mathbb{A}$ 25'45	1°13'14
	-12087 Aug 17 j 05:34	30° $\mathbb{R}$ $\mathbb{M}$			-12080 Mar 27 j 00:57	0° $\mathbb{B}$	
direct	-12087 Oct 30 j 01:49	28° $\mathbb{M}$ 00'36		morning rise	-12080 Apr 03 j 07:37	0° $\mathbb{B}$ 26'22	
	-12086 Jan 08 j 16:44	0° $\mathbb{A}$		retrograde	-12080 Jul 04 j 06:06	3° $\mathbb{B}$ 44'45	
evening set	-12086 Jan 31 j 22:04	1° $\mathbb{A}$ 16'30		opposition	-12080 Sep 15 j 13:49	1° $\mathbb{B}$ 43'04	-1°20'00
				min. Earth dist.	-12080 Sep 16 j 18:02	1° $\mathbb{B}$ 40'00	17.61391 AU
conjunction	-12086 Feb 17 j 17:47	2° $\mathbb{A}$ 16'08	-1°12'28		-12080 Nov 01 j 01:44	30° $\mathbb{R}$ $\mathbb{A}$	
minimum elong	-12086 Feb 17 j 17:46	2° $\mathbb{A}$ 16'08	1°13'05	direct	-12080 Nov 30 j 10:36	29° $\mathbb{A}$ 37'46	
max. Earth dist.	-12086 Feb 16 j 17:28	2° $\mathbb{A}$ 12'31	20.02696 AU		-12080 Dec 29 j 14:19	0° $\mathbb{B}$	
morning rise	-12086 Mar 06 j 12:14	3° $\mathbb{A}$ 15'40		evening set	-12079 Mar 06 j 02:07	3° $\mathbb{B}$ 03'06	
retrograde	-12086 Jun 07 j 06:26	6° $\mathbb{A}$ 30'28		max. Earth dist.	-12079 Mar 21 j 08:32	3° $\mathbb{B}$ 58'58	19.58572 AU
opposition	-12086 Aug 20 j 09:53	4° $\mathbb{A}$ 28'54	-1°21'16				
min. Earth dist.	-12086 Aug 21 j 06:48	4° $\mathbb{A}$ 26'39	17.99205 AU	conjunction	-12079 Mar 22 j 19:09	4° $\mathbb{B}$ 04'17	-1°10'53
direct	-12086 Nov 03 j 18:06	2° $\mathbb{A}$ 25'31		minimum elong	-12079 Mar 22 j 19:09	4° $\mathbb{B}$ 04'17	1°11'35
evening set	-12085 Feb 05 j 20:25	5° $\mathbb{A}$ 42'48		morning rise	-12079 Apr 08 j 08:46	5° $\mathbb{B}$ 05'02	
				retrograde	-12079 Jul 09 j 03:06	8° $\mathbb{B}$ 23'56	
conjunction	-12085 Feb 22 j 15:53	6° $\mathbb{A}$ 42'42	-1°13'36	opposition	-12079 Sep 20 j 09:57	6° $\mathbb{B}$ 22'15	-1°17'56
minimum elong	-12085 Feb 22 j 15:53	6° $\mathbb{A}$ 42'42	1°14'14	min. Earth dist.	-12079 Sep 21 j 16:06	6° $\mathbb{B}$ 18'58	17.55997 AU
max. Earth dist.	-12085 Feb 21 j 12:44	6° $\mathbb{A}$ 38'38	19.95652 AU	direct	-12079 Dec 05 j 08:04	4° $\mathbb{B}$ 16'41	
morning rise	-12085 Mar 11 j 09:57	7° $\mathbb{A}$ 42'27		evening set	-12078 Mar 11 j 05:16	7° $\mathbb{B}$ 43'10	
retrograde	-12085 Jun 12 j 00:00	10° $\mathbb{A}$ 57'50		max. Earth dist.	-12078 Mar 26 j 09:41	8° $\mathbb{B}$ 38'57	19.53311 AU
opposition	-12085 Aug 25 j 00:12	8° $\mathbb{A}$ 56'12	-1°22'20				
min. Earth dist.	-12085 Aug 25 j 23:21	8° $\mathbb{A}$ 53'42	17.92271 AU	conjunction	-12078 Mar 27 j 21:33	8° $\mathbb{B}$ 44'30	-1°08'46
direct	-12085 Nov 08 j 09:59	6° $\mathbb{A}$ 52'24		minimum elong	-12078 Mar 27 j 21:34	8° $\mathbb{B}$ 44'30	1°09'28
evening set	-12084 Feb 10 j 19:28	10° $\mathbb{A}$ 11'05		morning rise	-12078 Apr 13 j 10:23	9° $\mathbb{B}$ 45'21	
max. Earth dist.	-12084 Feb 26 j 10:53	11° $\mathbb{A}$ 07'02	19.88821 AU	retrograde	-12078 Jul 14 j 01:53	13° $\mathbb{B}$ 04'46	
				opposition	-12078 Sep 25 j 06:47	11° $\mathbb{B}$ 03'02	-1°15'20
conjunction	-12084 Feb 27 j 14:50	11° $\mathbb{A}$ 11'14	-1°14'19	min. Earth dist.	-12078 Sep 26 j 12:47	10° $\mathbb{B}$ 59'46	17.50866 AU
minimum elong	-12084 Feb 27 j 14:50	11° $\mathbb{A}$ 11'14	1°14'58	direct	-12078 Dec 10 j 09:12	8° $\mathbb{B}$ 57'12	
morning rise	-12084 Mar 15 j 08:18	12° $\mathbb{A}$ 11'11		evening set	-12077 Mar 16 j 08:57	12° $\mathbb{B}$ 24'45	
retrograde	-12084 Jun 15 j 19:31	15° $\mathbb{A}$ 27'10		max. Earth dist.	-12077 Mar 31 j 12:31	13° $\mathbb{B}$ 20'38	19.48316 AU
opposition	-12084 Aug 28 j 15:27	13° $\mathbb{A}$ 25'29	-1°22'54				
min. Earth dist.	-12084 Aug 29 j 15:04	13° $\mathbb{A}$ 22'56	17.85559 AU	conjunction	-12077 Apr 02 j 00:34	13° $\mathbb{B}$ 26'13	-1°06'10
direct	-12084 Nov 12 j 03:41	11° $\mathbb{A}$ 21'20		minimum elong	-12077 Apr 02 j 00:34	13° $\mathbb{B}$ 26'13	1°06'51
evening set	-12083 Feb 14 j 19:15	14° $\mathbb{A}$ 41'24		morning rise	-12077 Apr 18 j 12:14	14° $\mathbb{B}$ 27'10	
max. Earth dist.	-12083 Mar 02 j 08:08	15° $\mathbb{A}$ 37'14	19.82230 AU	retrograde	-12077 Jul 18 j 23:32	17° $\mathbb{B}$ 47'00	
				opposition	-12077 Sep 30 j 04:36	15° $\mathbb{B}$ 45'15	-1°12'13
conjunction	-12083 Mar 03 j 14:14	15° $\mathbb{A}$ 41'47	-1°14'34	min. Earth dist.	-12077 Oct 01 j 12:09	15° $\mathbb{B}$ 41'49	17.46029 AU
minimum elong	-12083 Mar 03 j 14:14	15° $\mathbb{A}$ 41'47	1°15'15	direct	-12077 Dec 15 j 08:49	13° $\mathbb{B}$ 39'09	
morning rise	-12083 Mar 20 j 07:06	16° $\mathbb{A}$ 41'55		evening set	-12076 Mar 20 j 13:02	17° $\mathbb{B}$ 07'40	
retrograde	-12083 Jun 20 j 14:49	19° $\mathbb{A}$ 58'32		max. Earth dist.	-12076 Apr 04 j 14:28	18° $\mathbb{B}$ 03'26	19.43660 AU
opposition	-12083 Sep 02 j 07:42	17° $\mathbb{A}$ 56'50	-1°22'58				
min. Earth dist.	-12083 Sep 03 j 09:23	17° $\mathbb{A}$ 54'03	17.79115 AU	conjunction	-12076 Apr 06 j 03:39	18° $\mathbb{B}$ 09'14	-1°03'07
direct	-12083 Nov 16 j 21:03	15° $\mathbb{A}$ 52'21		minimum elong	-12076 Apr 06 j 03:40	18° $\mathbb{B}$ 09'14	1°03'49
evening set	-12082 Feb 19 j 19:48	19° $\mathbb{A}$ 13'47		morning rise	-12076 Apr 22 j 14:26	19° $\mathbb{B}$ 10'15	
max. Earth dist.	-12082 Mar 07 j 07:35	20° $\mathbb{A}$ 09'43	19.75924 AU	retrograde	-12076 Jul 22 j 23:20	22° $\mathbb{B}$ 30'30	
				opposition	-12076 Oct 04 j 03:07	20° $\mathbb{B}$ 28'41	-1°08'36
conjunction	-12082 Mar 08 j 14:29	20° $\mathbb{A}$ 14'25	-1°14'22	min. Earth dist.	-12076 Oct 05 j 10:10	20° $\mathbb{B}$ 25'18	17.41558 AU
minimum elong	-12082 Mar 08 j 14:29	20° $\mathbb{A}$ 14'25	1°15'03	direct	-12076 Dec 19 j 11:45	18° $\mathbb{B}$ 22'21	
morning rise	-12082 Mar 25 j 06:41	21° $\mathbb{A}$ 14'43		evening set	-12075 Mar 25 j 16:59	21° $\mathbb{B}$ 51'42	
retrograde	-12082 Jun 25 j 11:46	24° $\mathbb{A}$ 31'55		max. Earth dist.	-12075 Apr 09 j 18:38	22° $\mathbb{B}$ 47'42	19.39389 AU
opposition	-12082 Sep 07 j 00:38	22° $\mathbb{A}$ 30'14	-1°22'31				
min. Earth dist.	-12082 Sep 08 j 02:36	22° $\mathbb{A}$ 27'25	17.72943 AU	conjunction	-12075 Apr 11 j 06:51	22° $\mathbb{B}$ 53'21	-0°59'38
direct	-12082 Nov 21 j 16:52	20° $\mathbb{A}$ 25'28		minimum elong	-12075 Apr 11 j 06:51	22° $\mathbb{B}$ 53'21	1°00'18
evening set	-12081 Feb 24 j 21:16	23° $\mathbb{A}$ 48'15		morning rise	-12075 Apr 27 j 16:24	23° $\mathbb{B}$ 54'26	
max. Earth dist.	-12081 Mar 12 j 06:54	24° $\mathbb{A}$ 44'07	19.69880 AU	retrograde	-12075 Jul 27 j 21:54	27° $\mathbb{B}$ 15'03	

Attention, astronomical year style is used: The year -12075 in astronomical counting style is the year 12076 BCE in historical counting style.

opposition	-12075 Oct 09 j 02:32	25° $\text{Z}$ 13'10	-1°04'30	min. Earth dist.	-12069 Nov 08 j 13:37	23° $\approx$ 51'43	17.25442 AU
min. Earth dist.	-12075 Oct 10 j 10:23	25° $\text{Z}$ 09'42	17.37504 AU	direct	-12068 Jan 23 j 10:35	21° $\approx$ 47'44	
direct	-12075 Dec 24 j 12:56	23° $\text{Z}$ 06'37		evening set	-12068 Apr 28 j 21:28	25° $\approx$ 20'06	
evening set	-12074 Mar 30 j 21:20	26° $\text{Z}$ 36'43		max. Earth dist.	-12068 May 13 j 22:49	26° $\approx$ 17'03	19.25467 AU
max. Earth dist.	-12074 Apr 14 j 21:08	27° $\text{Z}$ 32'38	19.35583 AU				
				conjunction	-12068 May 15 j 03:17	26° $\approx$ 21'34	-0°25'15
conjunction	-12074 Apr 16 j 10:04	27° $\text{Z}$ 38'26	-0°55'44	minimum elong	-12068 May 15 j 03:17	26° $\approx$ 21'34	0°25'40
minimum elong	-12074 Apr 16 j 10:05	27° $\text{Z}$ 38'26	0°56'23	morning rise	-12068 May 31 j 04:43	27° $\approx$ 22'24	
morning rise	-12074 May 02 j 18:42	28° $\text{Z}$ 39'32			-12068 Jul 21 j 02:20	0° $\text{H}$	
	-12074 May 25 j 22:52	0° $\approx$		retrograde	-12068 Aug 30 j 02:23	0° $\text{H}$ 44'38	
retrograde	-12074 Aug 01 j 22:10	2° $\approx$ 00'29			-12068 Oct 10 j 09:32	30° $\text{R}$	
	-12074 Oct 13 j 12:57	30° $\text{R}$		opposition	-12068 Nov 11 j 15:15	28° $\approx$ 42'51	-0°24'59
opposition	-12074 Oct 14 j 02:21	29° $\text{Z}$ 58'33	-0°59'57	min. Earth dist.	-12068 Nov 12 j 16:03	28° $\approx$ 40'10	17.25737 AU
min. Earth dist.	-12074 Oct 15 j 09:25	29° $\text{Z}$ 55'09	17.33951 AU	direct	-12067 Jan 27 j 14:06	26° $\approx$ 36'14	
direct	-12074 Dec 29 j 16:22	27° $\text{Z}$ 51'47			-12067 May 01 j 17:14	0° $\text{H}$	
	-12073 Mar 12 j 07:04	0° $\approx$		evening set	-12067 May 04 j 00:32	0° $\text{H}$ 08'33	
evening set	-12073 Apr 05 j 01:37	1° $\approx$ 22'33		max. Earth dist.	-12067 May 19 j 03:10	1° $\text{H}$ 05'45	19.26076 AU
max. Earth dist.	-12073 Apr 20 j 02:20	2° $\approx$ 18'46	19.32297 AU				
				conjunction	-12067 May 20 j 05:09	1° $\text{H}$ 09'53	-0°19'18
conjunction	-12073 Apr 21 j 13:29	2° $\approx$ 24'18	-0°51'27	minimum elong	-12067 May 20 j 05:09	1° $\text{H}$ 09'53	0°19'39
minimum elong	-12073 Apr 21 j 13:29	2° $\approx$ 24'18	0°52'04	morning rise	-12067 Jun 05 j 05:25	2° $\text{H}$ 10'35	
morning rise	-12073 May 07 j 20:47	3° $\approx$ 25'25		retrograde	-12067 Sep 04 j 04:29	5° $\text{H}$ 32'54	
retrograde	-12073 Aug 06 j 22:01	6° $\approx$ 46'39		opposition	-12067 Nov 16 j 19:00	3° $\text{H}$ 31'13	-0°18'15
opposition	-12073 Oct 19 j 03:09	4° $\approx$ 44'40	-0°54'59	min. Earth dist.	-12067 Nov 17 j 17:30	3° $\text{H}$ 28'47	17.26620 AU
min. Earth dist.	-12073 Oct 20 j 10:08	4° $\approx$ 41'18	17.30943 AU	direct	-12066 Feb 01 j 20:53	1° $\text{H}$ 24'49	
direct	-12072 Jan 03 j 19:04	2° $\approx$ 37'46		evening set	-12066 May 09 j 03:25	4° $\text{H}$ 56'56	
evening set	-12072 Apr 09 j 05:56	6° $\approx$ 09'05		max. Earth dist.	-12066 May 24 j 06:26	5° $\text{H}$ 54'15	19.27241 AU
max. Earth dist.	-12072 Apr 24 j 05:16	7° $\approx$ 05'16	19.29600 AU				
				conjunction	-12066 May 25 j 06:44	5° $\text{H}$ 58'07	-0°13'13
conjunction	-12072 Apr 25 j 16:29	7° $\approx$ 10'49	-0°46'48	minimum elong	-12066 May 25 j 06:44	5° $\text{H}$ 58'07	0°13'32
minimum elong	-12072 Apr 25 j 16:30	7° $\approx$ 10'49	0°47'23	behind sun begin	-12066 May 25 j 03:00	5° $\text{H}$ 57'32	
morning rise	-12072 May 11 j 22:45	8° $\approx$ 11'55		behind sun end	-12066 May 25 j 10:28	5° $\text{H}$ 58'42	
retrograde	-12072 Aug 10 j 22:34	11° $\approx$ 33'26		morning rise	-12066 Jun 10 j 05:47	6° $\text{H}$ 58'40	
opposition	-12072 Oct 23 j 04:31	9° $\approx$ 31'25	-0°49'37	retrograde	-12066 Sep 09 j 03:39	10° $\text{H}$ 21'00	
min. Earth dist.	-12072 Oct 24 j 10:19	9° $\approx$ 28'11	17.28564 AU	opposition	-12066 Nov 21 j 23:01	8° $\text{H}$ 19'24	-0°11'23
direct	-12071 Jan 07 j 22:27	7° $\approx$ 24'26		min. Earth dist.	-12066 Nov 22 j 20:41	8° $\text{H}$ 17'04	17.28055 AU
evening set	-12071 Apr 14 j 10:01	10° $\approx$ 56'11		direct	-12065 Feb 07 j 00:59	6° $\text{H}$ 13'13	
max. Earth dist.	-12071 Apr 29 j 10:48	11° $\approx$ 52'43	19.27550 AU	evening set	-12065 May 14 j 05:51	9° $\text{H}$ 45'02	
				max. Earth dist.	-12065 May 29 j 09:37	10° $\text{H}$ 42'29	19.28943 AU
conjunction	-12071 Apr 30 j 19:35	11° $\approx$ 57'54	-0°41'50	conjunction	-12065 May 30 j 07:51	10° $\text{H}$ 46'01	-0°07'04
minimum elong	-12071 Apr 30 j 19:36	11° $\approx$ 57'54	0°42'23	minimum elong	-12065 May 30 j 07:50	10° $\text{H}$ 46'01	0°07'19
morning rise	-12071 May 17 j 00:32	12° $\approx$ 58'58		behind sun begin	-12065 May 30 j 01:45	10° $\text{H}$ 45'05	
	-12071 Jun 22 j 10:42	15° $\approx$		behind sun end	-12065 May 30 j 13:55	10° $\text{H}$ 46'58	
retrograde	-12071 Aug 15 j 23:41	16° $\approx$ 20'42		morning rise	-12065 Jun 15 j 05:48	11° $\text{H}$ 46'25	
	-12071 Oct 12 j 02:36	15° $\text{R}$		retrograde	-12065 Sep 14 j 05:24	15° $\text{H}$ 08'41	
opposition	-12071 Oct 28 j 06:24	14° $\approx$ 18'42	-0°43'53	opposition	-12065 Nov 27 j 03:18	13° $\text{H}$ 07'10	-0°04'28
min. Earth dist.	-12071 Oct 29 j 11:11	14° $\approx$ 15'34	17.26841 AU	min. Earth dist.	-12065 Nov 27 j 22:09	13° $\text{H}$ 05'09	17.29992 AU
direct	-12070 Jan 13 j 02:16	12° $\approx$ 11'43		direct	-12064 Feb 12 j 08:21	11° $\text{H}$ 01'13	
	-12070 Apr 07 j 11:24	15° $\approx$		evening set	-12064 May 18 j 07:32	14° $\text{H}$ 32'33	
evening set	-12070 Apr 19 j 14:04	15° $\approx$ 43'47					
conjunction	-12070 May 05 j 22:21	16° $\approx$ 45'26	-0°36'33	conjunction	-12064 Jun 03 j 08:18	15° $\text{H}$ 33'20	-0°00'50
minimum elong	-12070 May 05 j 22:21	16° $\approx$ 45'26	0°37'03	minimum elong	-12064 Jun 03 j 08:18	15° $\text{H}$ 33'20	0°01'03
max. Earth dist.	-12070 May 04 j 14:03	16° $\approx$ 40'19	19.26178 AU	behind sun begin	-12064 Jun 03 j 01:41	15° $\text{H}$ 32'18	
morning rise	-12070 May 22 j 02:13	17° $\approx$ 46'27		behind sun end	-12064 Jun 03 j 14:55	15° $\text{H}$ 34'21	
retrograde	-12070 Aug 21 j 00:12	21° $\approx$ 08'24		max. Earth dist.	-12064 Jun 02 j 12:30	15° $\text{H}$ 30'11	19.31122 AU
opposition	-12070 Nov 02 j 08:50	19° $\approx$ 06'26	-0°37'51	morning rise	-12064 Jun 19 j 05:04	16° $\text{H}$ 33'32	
min. Earth dist.	-12070 Nov 03 j 12:26	19° $\approx$ 03'26	17.25809 AU	asc. node	-12064 Jul 22 j 21:37	18° $\text{H}$ 27'27	
direct	-12069 Jan 18 j 05:16	16° $\approx$ 59'30		retrograde	-12064 Sep 18 j 04:13	19° $\text{H}$ 55'43	
evening set	-12069 Apr 24 j 17:50	20° $\approx$ 31'47		opposition	-12064 Dec 01 j 07:46	17° $\text{H}$ 54'14	0°02'28
max. Earth dist.	-12069 May 09 j 19:20	21° $\approx$ 28'40	19.25494 AU	min. Earth dist.	-12064 Dec 02 j 01:37	17° $\text{H}$ 52'20	17.32408 AU
				direct	-12063 Feb 16 j 12:25	15° $\text{H}$ 48'32	
				evening set	-12063 May 23 j 08:41	19° $\text{H}$ 19'16	
conjunction	-12069 May 11 j 00:59	21° $\approx$ 33'22	-0°31'01	conjunction	-12063 Jun 08 j 08:08	20° $\text{H}$ 19'48	0°05'28
minimum elong	-12069 May 11 j 00:59	21° $\approx$ 33'22	0°31'28	minimum elong	-12063 Jun 08 j 08:07	20° $\text{H}$ 19'48	0°05'18
morning rise	-12069 May 27 j 03:34	22° $\approx$ 34'18		behind sun begin	-12063 Jun 08 j 01:44	20° $\text{H}$ 18'49	
retrograde	-12069 Aug 26 j 02:23	25° $\approx$ 56'24					
opposition	-12069 Nov 07 j 11:47	23° $\approx$ 54'31	-0°31'32				

Attention, astronomical year style is used: The year -12063 in astronomical counting style is the year 12064 BCE in historical counting style.

behind sun end	-12063 Jun 08 j 14:31	20° $\text{H}$ 20'48		opposition	-12056 Jan 05 j 07:03	20° $\text{Y}$ 46'23	0°47'02
max. Earth dist.	-12063 Jun 07 j 14:09	20° $\text{H}$ 16'57	19.33778 AU	min. Earth dist.	-12056 Jan 05 j 06:10	20° $\text{Y}$ 46'28	17.62339 AU
morning rise	-12063 Jun 24 j 03:57	21° $\text{H}$ 19'49		direct	-12056 Mar 22 j 12:10	18° $\text{Y}$ 42'45	
retrograde	-12063 Sep 23 j 05:21	24° $\text{H}$ 41'48		evening set	-12056 Jun 24 j 15:34	22° $\text{Y}$ 06'24	
opposition	-12063 Dec 06 j 11:48	22° $\text{H}$ 40'21	0°09'22				
min. Earth dist.	-12063 Dec 07 j 02:33	22° $\text{H}$ 38'47	17.35282 AU	conjunction	-12056 Jul 10 j 07:38	23° $\text{Y}$ 04'56	0°44'41
direct	-12062 Feb 21 j 18:18	20° $\text{H}$ 34'53		minimum elong	-12056 Jul 10 j 07:37	23° $\text{Y}$ 04'56	0°44'55
evening set	-12062 May 28 j 08:59	24° $\text{H}$ 04'54		max. Earth dist.	-12056 Jul 10 j 10:00	23° $\text{Y}$ 05'18	19.65356 AU
				morning rise	-12056 Jul 25 j 21:39	24° $\text{Y}$ 03'11	
conjunction	-12062 Jun 13 j 07:20	25° $\text{H}$ 05'12	0°11'34	retrograde	-12056 Oct 25 j 15:51	27° $\text{Y}$ 22'38	
minimum elong	-12062 Jun 13 j 07:20	25° $\text{H}$ 05'12	0°11'29	opposition	-12055 Jan 09 j 08:37	25° $\text{Y}$ 21'24	0°52'21
behind sun begin	-12062 Jun 13 j 02:31	25° $\text{H}$ 04'27		min. Earth dist.	-12055 Jan 09 j 05:12	25° $\text{Y}$ 21'46	17.68476 AU
behind sun end	-12062 Jun 13 j 12:09	25° $\text{H}$ 05'57		direct	-12055 Mar 27 j 13:25	23° $\text{Y}$ 18'14	
max. Earth dist.	-12062 Jun 12 j 16:22	25° $\text{H}$ 02'49	19.36877 AU	evening set	-12055 Jun 29 j 09:35	26° $\text{Y}$ 40'37	
morning rise	-12062 Jun 29 j 02:02	26° $\text{H}$ 04'59					
retrograde	-12062 Sep 28 j 03:58	29° $\text{H}$ 26'43		conjunction	-12055 Jul 15 j 00:40	27° $\text{Y}$ 38'50	0°49'18
opposition	-12062 Dec 11 j 15:59	27° $\text{H}$ 25'18	0°16'09	minimum elong	-12055 Jul 15 j 00:40	27° $\text{Y}$ 38'50	0°49'36
min. Earth dist.	-12062 Dec 12 j 05:32	27° $\text{H}$ 23'52	17.38605 AU	max. Earth dist.	-12055 Jul 15 j 04:50	27° $\text{Y}$ 39'29	19.71688 AU
direct	-12061 Feb 26 j 21:41	25° $\text{H}$ 20'05		morning rise	-12055 Jul 30 j 14:23	28° $\text{Y}$ 36'50	
evening set	-12061 Jun 02 j 08:26	28° $\text{H}$ 49'14			-12055 Aug 23 j 18:27	0° $\text{B}$	
				retrograde	-12055 Oct 30 j 12:28	1° $\text{B}$ 55'49	
conjunction	-12061 Jun 18 j 05:28	29° $\text{H}$ 49'16	0°17'34		-12054 Jan 12 j 06:20	30° $\text{R}$ $\text{Y}$	
minimum elong	-12061 Jun 18 j 05:27	29° $\text{H}$ 49'16	0°17'32	opposition	-12054 Jan 14 j 09:22	29° $\text{Y}$ 54'42	0°57'17
max. Earth dist.	-12061 Jun 17 j 16:17	29° $\text{H}$ 47'11	19.40439 AU	min. Earth dist.	-12054 Jan 14 j 03:08	29° $\text{Y}$ 55'21	17.74988 AU
	-12061 Jun 21 j 01:02	0° $\text{Y}$		direct	-12054 Apr 01 j 12:44	27° $\text{Y}$ 52'00	
morning rise	-12061 Jul 03 j 23:21	0° $\text{Y}$ 48'49			-12054 Jun 12 j 23:52	0° $\text{B}$	
retrograde	-12061 Oct 03 j 04:25	4° $\text{Y}$ 10'17		evening set	-12054 Jul 04 j 02:33	1° $\text{B}$ 13'07	
opposition	-12061 Dec 16 j 19:48	2° $\text{Y}$ 08'51	0°22'48				
min. Earth dist.	-12061 Dec 17 j 05:53	2° $\text{Y}$ 07'47	17.42391 AU	conjunction	-12054 Jul 19 j 17:03	2° $\text{B}$ 11'01	0°53'34
direct	-12060 Mar 03 j 02:09	0° $\text{Y}$ 03'53		minimum elong	-12054 Jul 19 j 17:03	2° $\text{B}$ 11'01	0°53'55
evening set	-12060 Jun 06 j 06:55	3° $\text{Y}$ 32'05		max. Earth dist.	-12054 Jul 20 j 00:57	2° $\text{B}$ 12'15	19.78346 AU
				morning rise	-12054 Aug 04 j 06:11	3° $\text{B}$ 08'45	
conjunction	-12060 Jun 22 j 02:57	4° $\text{Y}$ 31'50	0°23'26	retrograde	-12054 Nov 04 j 07:12	6° $\text{B}$ 27'15	
minimum elong	-12060 Jun 22 j 02:57	4° $\text{Y}$ 31'50	0°23'28	opposition	-12053 Jan 19 j 09:41	4° $\text{B}$ 26'17	1°01'50
max. Earth dist.	-12060 Jun 21 j 17:28	4° $\text{Y}$ 30'20	19.44459 AU	min. Earth dist.	-12053 Jan 19 j 00:49	4° $\text{B}$ 27'12	17.81773 AU
morning rise	-12060 Jul 07 j 19:48	5° $\text{Y}$ 31'08		direct	-12053 Apr 06 j 12:31	2° $\text{B}$ 24'04	
retrograde	-12060 Oct 07 j 02:12	8° $\text{Y}$ 52'15		evening set	-12053 Jul 08 j 18:42	5° $\text{B}$ 43'53	
opposition	-12060 Dec 20 j 23:22	6° $\text{Y}$ 50'49	0°29'14				
min. Earth dist.	-12060 Dec 21 j 07:44	6° $\text{Y}$ 49'56	17.46651 AU	conjunction	-12053 Jul 24 j 08:23	6° $\text{B}$ 41'28	0°57'29
direct	-12059 Mar 08 j 05:03	4° $\text{Y}$ 46'08		minimum elong	-12053 Jul 24 j 08:23	6° $\text{B}$ 41'28	0°57'54
evening set	-12059 Jun 11 j 04:31	8° $\text{Y}$ 13'17		max. Earth dist.	-12053 Jul 24 j 17:59	6° $\text{B}$ 42'57	19.85239 AU
				morning rise	-12053 Aug 08 j 21:20	7° $\text{B}$ 38'56	
conjunction	-12059 Jun 26 j 23:19	9° $\text{Y}$ 12'44	0°29'06	retrograde	-12053 Nov 09 j 02:24	10° $\text{B}$ 56'58	
minimum elong	-12059 Jun 26 j 23:18	9° $\text{Y}$ 12'44	0°29'12	opposition	-12052 Jan 24 j 09:26	8° $\text{B}$ 56'07	1°05'58
max. Earth dist.	-12059 Jun 26 j 15:40	9° $\text{Y}$ 11'32	19.48965 AU	min. Earth dist.	-12052 Jan 23 j 22:18	8° $\text{B}$ 57'16	17.88769 AU
morning rise	-12059 Jul 12 j 15:33	10° $\text{Y}$ 11'48		direct	-12052 Apr 10 j 09:55	6° $\text{B}$ 54'23	
retrograde	-12059 Oct 12 j 01:31	13° $\text{Y}$ 32'32		evening set	-12052 Jul 12 j 09:59	10° $\text{B}$ 12'52	
opposition	-12059 Dec 26 j 02:20	11° $\text{Y}$ 31'06	0°35'27				
min. Earth dist.	-12059 Dec 26 j 07:09	11° $\text{Y}$ 30'35	17.51399 AU	conjunction	-12052 Jul 27 j 23:15	11° $\text{B}$ 10'09	1°01'02
direct	-12058 Mar 13 j 08:09	9° $\text{Y}$ 26'43		minimum elong	-12052 Jul 27 j 23:15	11° $\text{B}$ 10'09	1°01'29
evening set	-12058 Jun 16 j 01:05	12° $\text{Y}$ 52'45		max. Earth dist.	-12052 Jul 28 j 12:08	11° $\text{B}$ 12'08	19.92294 AU
				morning rise	-12052 Aug 12 j 11:50	12° $\text{B}$ 07'22	
conjunction	-12058 Jul 01 j 19:00	13° $\text{Y}$ 51'54	0°34'34		-12052 Oct 13 j 01:46	15° $\text{B}$	
minimum elong	-12058 Jul 01 j 18:59	13° $\text{Y}$ 51'54	0°34'42	retrograde	-12052 Nov 12 j 20:15	15° $\text{B}$ 24'51	
max. Earth dist.	-12058 Jul 01 j 15:22	13° $\text{Y}$ 51'20	19.53949 AU		-12052 Dec 14 j 12:02	15° $\text{R}$ $\text{B}$	
morning rise	-12058 Jul 17 j 10:16	14° $\text{Y}$ 50'42		opposition	-12051 Jan 28 j 08:13	13° $\text{B}$ 24'10	1°09'40
retrograde	-12058 Oct 16 j 22:10	18° $\text{Y}$ 11'01		min. Earth dist.	-12051 Jan 27 j 18:29	13° $\text{B}$ 25'34	17.95872 AU
opposition	-12058 Dec 31 j 04:57	16° $\text{Y}$ 09'37	0°41'24	direct	-12051 Apr 15 j 08:04	11° $\text{B}$ 22'53	
min. Earth dist.	-12058 Dec 31 j 07:32	16° $\text{Y}$ 09'21	17.56624 AU	evening set	-12051 Jul 17 j 00:32	14° $\text{B}$ 40'01	
direct	-12057 Mar 18 j 10:37	14° $\text{Y}$ 05'36			-12051 Jul 22 j 12:27	15° $\text{B}$	
evening set	-12057 Jun 20 j 20:56	17° $\text{Y}$ 30'28					
				conjunction	-12051 Aug 01 j 13:13	15° $\text{B}$ 37'00	1°04'11
conjunction	-12057 Jul 06 j 13:42	18° $\text{Y}$ 29'18	0°39'46	minimum elong	-12051 Aug 01 j 13:13	15° $\text{B}$ 37'00	1°04'39
minimum elong	-12057 Jul 06 j 13:41	18° $\text{Y}$ 29'18	0°39'58	max. Earth dist.	-12051 Aug 02 j 03:31	15° $\text{B}$ 39'12	19.99418 AU
max. Earth dist.	-12057 Jul 06 j 11:59	18° $\text{Y}$ 29'02	19.59422 AU	morning rise	-12051 Aug 17 j 01:47	16° $\text{B}$ 33'58	
morning rise	-12057 Jul 22 j 04:28	19° $\text{Y}$ 27'49		retrograde	-12051 Nov 17 j 13:33	19° $\text{B}$ 50'55	
retrograde	-12057 Oct 21 j 20:06	22° $\text{Y}$ 47'44		opposition	-12050 Feb 02 j 06:25	17° $\text{B}$ 50'20	1°12'55

Attention, astronomical year style is used: The year -12050 in astronomical counting style is the year 12051 BCE in historical counting style.

min. Earth dist.	-12050 Feb 01 j 15:05	17° <b>8</b> 51'54	18.03021 AU	conjunction	-12044 Aug 30 j 18:10	15° <b>II</b> 49'37	1°14'39
direct	-12050 Apr 20 j 03:05	15° <b>8</b> 49'30		minimum elong	-12044 Aug 30 j 18:10	15° <b>II</b> 49'37	1°15'18
evening set	-12050 Jul 21 j 14:04	19° <b>8</b> 05'16		max. Earth dist.	-12044 Aug 31 j 22:14	15° <b>II</b> 53'49	20.47887 AU
				morning rise	-12044 Sep 15 j 08:18	16° <b>II</b> 45'06	
conjunction	-12050 Aug 06 j 02:29	20° <b>8</b> 01'58	1°06'55	retrograde	-12044 Dec 17 j 21:24	19° <b>II</b> 57'47	
minimum elong	-12050 Aug 06 j 02:29	20° <b>8</b> 01'58	1°07'27	min. Earth dist.	-12043 Mar 04 j 11:44	18° <b>II</b> 00'30	18.51285 AU
max. Earth dist.	-12050 Aug 06 j 19:34	20° <b>8</b> 04'35	20.06552 AU	opposition	-12043 Mar 05 j 16:22	17° <b>II</b> 57'36	1°22'45
morning rise	-12050 Aug 21 j 14:52	20° <b>8</b> 58'41		direct	-12043 May 20 j 23:34	15° <b>II</b> 59'12	
retrograde	-12050 Nov 22 j 06:32	24° <b>8</b> 15'04		evening set	-12043 Aug 19 j 13:57	19° <b>II</b> 05'47	
min. Earth dist.	-12049 Feb 06 j 09:43	22° <b>8</b> 16'26	18.10135 AU				
opposition	-12049 Feb 07 j 03:44	22° <b>8</b> 14'35	1°15'43	conjunction	-12043 Sep 04 j 02:28	20° <b>II</b> 00'47	1°14'31
direct	-12049 Apr 24 j 23:52	20° <b>8</b> 14'10		minimum elong	-12043 Sep 04 j 02:28	20° <b>II</b> 00'47	1°15'13
evening set	-12049 Jul 26 j 02:55	23° <b>8</b> 28'34		max. Earth dist.	-12043 Sep 05 j 07:59	20° <b>II</b> 05'11	20.54513 AU
				morning rise	-12043 Sep 19 j 17:13	20° <b>II</b> 56'07	
conjunction	-12049 Aug 10 j 14:58	24° <b>8</b> 24'59	1°09'15	retrograde	-12043 Dec 22 j 09:20	24° <b>II</b> 08'14	
minimum elong	-12049 Aug 10 j 14:57	24° <b>8</b> 24'59	1°09'48	min. Earth dist.	-12042 Mar 09 j 02:25	22° <b>II</b> 11'03	18.57869 AU
max. Earth dist.	-12049 Aug 11 j 09:27	24° <b>8</b> 27'48	20.13634 AU	opposition	-12042 Mar 10 j 07:26	22° <b>II</b> 08'08	1°22'22
morning rise	-12049 Aug 26 j 03:30	25° <b>8</b> 21'29		direct	-12042 May 25 j 11:21	20° <b>II</b> 10'05	
retrograde	-12049 Nov 26 j 22:09	28° <b>8</b> 37'16		evening set	-12042 Aug 23 j 21:13	23° <b>II</b> 15'30	
min. Earth dist.	-12048 Feb 11 j 05:10	26° <b>8</b> 38'48	18.17198 AU				
opposition	-12048 Feb 12 j 00:18	26° <b>8</b> 36'51	1°18'03	conjunction	-12042 Sep 08 j 10:11	24° <b>II</b> 10'20	1°13'59
direct	-12048 Apr 28 j 16:35	24° <b>8</b> 36'48		minimum elong	-12042 Sep 08 j 10:11	24° <b>II</b> 10'20	1°14'41
evening set	-12048 Jul 29 j 14:42	27° <b>8</b> 49'50		max. Earth dist.	-12042 Sep 09 j 17:11	24° <b>II</b> 14'56	20.61035 AU
				morning rise	-12042 Sep 24 j 01:31	25° <b>II</b> 05'31	
conjunction	-12048 Aug 14 j 02:43	28° <b>8</b> 45'59	1°11'09	retrograde	-12042 Dec 26 j 22:02	28° <b>II</b> 17'06	
minimum elong	-12048 Aug 14 j 02:43	28° <b>8</b> 45'59	1°11'45	opposition	-12041 Mar 14 j 21:34	26° <b>II</b> 17'06	1°21'32
max. Earth dist.	-12048 Aug 14 j 23:37	28° <b>8</b> 49'10	20.20652 AU	min. Earth dist.	-12041 Mar 13 j 14:14	26° <b>II</b> 20'15	18.64312 AU
morning rise	-12048 Aug 29 j 15:21	29° <b>8</b> 42'15		direct	-12041 May 29 j 23:58	24° <b>II</b> 19'23	
	-12048 Sep 03 j 16:03	0° <b>II</b>		evening set	-12041 Aug 28 j 04:10	27° <b>II</b> 23'45	
retrograde	-12048 Nov 30 j 14:14	2° <b>II</b> 57'25					
opposition	-12047 Feb 15 j 19:47	0° <b>II</b> 57'04	1°19'54	conjunction	-12041 Sep 12 j 17:33	28° <b>II</b> 18'25	1°13'05
min. Earth dist.	-12047 Feb 14 j 22:00	0° <b>II</b> 59'17	18.24165 AU	minimum elong	-12041 Sep 12 j 17:33	28° <b>II</b> 18'25	1°13'48
	-12047 Mar 12 j 04:28	30° <b>8</b>		max. Earth dist.	-12041 Sep 14 j 01:49	28° <b>II</b> 23'11	20.67378 AU
direct	-12047 May 03 j 11:32	28° <b>8</b> 57'22		morning rise	-12041 Sep 28 j 09:40	29° <b>II</b> 13'29	
	-12047 Jun 22 j 04:42	0° <b>II</b>			-12041 Oct 12 j 07:05	0° <b>8</b>	
evening set	-12047 Aug 03 j 01:48	2° <b>II</b> 09'02		retrograde	-12041 Dec 31 j 08:29	2° <b>8</b> 24'32	
				min. Earth dist.	-12040 Mar 17 j 03:48	0° <b>8</b> 27'47	18.70555 AU
conjunction	-12047 Aug 18 j 13:38	3° <b>II</b> 04'56	1°12'39	opposition	-12040 Mar 18 j 11:00	0° <b>8</b> 24'39	1°20'18
minimum elong	-12047 Aug 18 j 13:38	3° <b>II</b> 04'56	1°13'16		-12040 Mar 28 j 18:03	30° <b>8</b> II	
max. Earth dist.	-12047 Aug 19 j 11:58	3° <b>II</b> 08'19	20.27564 AU	direct	-12040 Jun 02 j 10:30	28° <b>II</b> 27'16	
morning rise	-12047 Sep 03 j 02:35	4° <b>II</b> 00'59			-12040 Aug 02 j 21:11	0° <b>8</b>	
retrograde	-12047 Dec 05 j 04:11	7° <b>II</b> 15'32		evening set	-12040 Aug 31 j 10:37	1° <b>8</b> 30'36	
opposition	-12046 Feb 20 j 14:20	5° <b>II</b> 15'12	1°21'18				
min. Earth dist.	-12046 Feb 19 j 15:46	5° <b>II</b> 17'30	18.31049 AU	conjunction	-12040 Sep 16 j 00:37	2° <b>8</b> 25'08	1°11'48
direct	-12046 May 08 j 02:28	3° <b>II</b> 15'50		minimum elong	-12040 Sep 16 j 00:37	2° <b>8</b> 25'08	1°12'31
evening set	-12046 Aug 07 j 11:54	6° <b>II</b> 26'10		max. Earth dist.	-12040 Sep 17 j 09:45	2° <b>8</b> 30'01	20.73499 AU
				morning rise	-12040 Oct 01 j 17:31	3° <b>8</b> 20'05	
conjunction	-12046 Aug 22 j 23:51	7° <b>II</b> 21'48	1°13'43	retrograde	-12039 Jan 03 j 20:41	6° <b>8</b> 30'39	
minimum elong	-12046 Aug 22 j 23:51	7° <b>II</b> 21'48	1°14'21	opposition	-12039 Mar 22 j 23:33	4° <b>8</b> 30'52	1°18'39
max. Earth dist.	-12046 Aug 24 j 00:24	7° <b>II</b> 25'31	20.34407 AU	min. Earth dist.	-12039 Mar 21 j 14:39	4° <b>8</b> 34'11	18.76527 AU
morning rise	-12046 Sep 07 j 13:03	8° <b>II</b> 17'39		direct	-12039 Jun 06 j 21:17	2° <b>8</b> 33'48	
retrograde	-12046 Dec 09 j 18:56	11° <b>II</b> 31'34		evening set	-12039 Sep 04 j 16:46	5° <b>8</b> 36'12	
min. Earth dist.	-12045 Feb 24 j 06:36	9° <b>II</b> 33'51	18.37856 AU				
opposition	-12045 Feb 25 j 07:56	9° <b>II</b> 31'16	1°22'14	conjunction	-12039 Sep 20 j 07:18	6° <b>8</b> 30'36	1°10'10
direct	-12045 May 12 j 19:29	7° <b>II</b> 32'14		minimum elong	-12039 Sep 20 j 07:18	6° <b>8</b> 30'36	1°10'51
evening set	-12045 Aug 11 j 21:15	10° <b>II</b> 41'15		max. Earth dist.	-12039 Sep 21 j 17:15	6° <b>8</b> 35'34	20.79296 AU
				morning rise	-12039 Oct 06 j 01:02	7° <b>8</b> 25'27	
conjunction	-12045 Aug 27 j 09:14	11° <b>II</b> 36'40	1°14'23	retrograde	-12038 Jan 08 j 05:47	10° <b>8</b> 35'32	
minimum elong	-12045 Aug 27 j 09:13	11° <b>II</b> 36'40	1°15'03	min. Earth dist.	-12038 Mar 26 j 03:12	8° <b>8</b> 39'07	18.82152 AU
max. Earth dist.	-12045 Aug 28 j 11:25	11° <b>II</b> 40'36	20.41172 AU	opposition	-12038 Mar 27 j 11:28	8° <b>8</b> 35'53	1°16'36
morning rise	-12045 Sep 11 j 22:55	12° <b>II</b> 32'20		direct	-12038 Jun 11 j 06:18	6° <b>8</b> 39'06	
retrograde	-12045 Dec 14 j 08:02	15° <b>II</b> 45'38		evening set	-12038 Sep 08 j 22:33	9° <b>8</b> 40'36	
min. Earth dist.	-12044 Feb 28 j 22:46	13° <b>II</b> 48'00	18.44606 AU				
opposition	-12044 Mar 01 j 00:48	13° <b>II</b> 45'22	1°22'43	conjunction	-12038 Sep 24 j 13:49	10° <b>8</b> 34'54	1°08'10
direct	-12044 May 16 j 08:46	11° <b>II</b> 46'38		minimum elong	-12038 Sep 24 j 13:49	10° <b>8</b> 34'54	1°08'52
evening set	-12044 Aug 15 j 05:54	14° <b>II</b> 54'24		max. Earth dist.	-12038 Sep 26 j 00:03	10° <b>8</b> 39'53	20.84735 AU
				morning rise	-12038 Oct 10 j 08:25	11° <b>8</b> 29'39	

Attention, astronomical year style is used: The year -12037 in astronomical counting style is the year 12038 BCE in historical counting style.

retrograde	-12037 Jan 12 j 17:23	14° $\mathring{\text{U}}$ 39'17		evening set	-12031 Oct 06 j 08:11	7° $\mathring{\text{U}}$ 41'51	
opposition	-12037 Mar 31 j 22:38	12° $\mathring{\text{U}}$ 39'43	1°14'11				
min. Earth dist.	-12037 Mar 30 j 13:11	12° $\mathring{\text{U}}$ 43'04	18.87379 AU	conjunction	-12031 Oct 22 j 05:52	8° $\mathring{\text{U}}$ 35'52	0°45'51
direct	-12037 Jun 15 j 15:51	10° $\mathring{\text{U}}$ 43'11		minimum elong	-12031 Oct 22 j 05:53	8° $\mathring{\text{U}}$ 35'52	0°46'25
evening set	-12037 Sep 13 j 04:03	13° $\mathring{\text{U}}$ 43'51		max. Earth dist.	-12031 Oct 23 j 15:09	8° $\mathring{\text{U}}$ 40'37	21.09558 AU
				morning rise	-12031 Nov 07 j 07:54	9° $\mathring{\text{U}}$ 30'30	
conjunction	-12037 Sep 28 j 20:03	14° $\mathring{\text{U}}$ 38'03	1°05'50	retrograde	-12030 Feb 10 j 02:45	12° $\mathring{\text{U}}$ 37'32	
minimum elong	-12037 Sep 28 j 20:04	14° $\mathring{\text{U}}$ 38'03	1°06'30	min. Earth dist.	-12030 Apr 28 j 04:41	10° $\mathring{\text{U}}$ 41'00	19.10577 AU
max. Earth dist.	-12037 Sep 30 j 06:42	14° $\mathring{\text{U}}$ 43'05	20.89729 AU	opposition	-12030 Apr 29 j 10:38	10° $\mathring{\text{U}}$ 38'00	0°48'22
morning rise	-12037 Oct 14 j 15:38	15° $\mathring{\text{U}}$ 32'46		direct	-12030 Jul 13 j 13:41	8° $\mathring{\text{U}}$ 42'06	
retrograde	-12036 Jan 17 j 01:31	18° $\mathring{\text{U}}$ 41'57		evening set	-12030 Oct 10 j 12:28	11° $\mathring{\text{U}}$ 38'46	
min. Earth dist.	-12036 Apr 03 j 00:53	16° $\mathring{\text{U}}$ 45'42	18.92139 AU				
opposition	-12036 Apr 04 j 09:16	16° $\mathring{\text{U}}$ 42'27	1°11'24	conjunction	-12030 Oct 26 j 11:15	12° $\mathring{\text{U}}$ 32'50	0°41'42
direct	-12036 Jun 18 j 23:23	14° $\mathring{\text{U}}$ 46'07		minimum elong	-12030 Oct 26 j 11:16	12° $\mathring{\text{U}}$ 32'50	0°42'13
evening set	-12036 Sep 16 j 09:21	17° $\mathring{\text{U}}$ 46'01		max. Earth dist.	-12030 Oct 27 j 19:40	12° $\mathring{\text{U}}$ 37'27	21.11368 AU
				morning rise	-12030 Nov 11 j 14:26	13° $\mathring{\text{U}}$ 27'30	
conjunction	-12036 Oct 02 j 02:14	18° $\mathring{\text{U}}$ 40'08	1°03'11		-12030 Dec 11 j 18:52	15° $\mathring{\text{U}}$	
minimum elong	-12036 Oct 02 j 02:14	18° $\mathring{\text{U}}$ 40'08	1°03'52	retrograde	-12029 Feb 14 j 10:52	16° $\mathring{\text{U}}$ 34'20	
max. Earth dist.	-12036 Oct 03 j 12:34	18° $\mathring{\text{U}}$ 45'07	20.94249 AU		-12029 Apr 23 j 04:20	15° $\mathring{\text{R}}$ $\mathring{\text{U}}$	
morning rise	-12036 Oct 17 j 22:48	19° $\mathring{\text{U}}$ 34'47		min. Earth dist.	-12029 May 02 j 10:49	14° $\mathring{\text{U}}$ 37'49	19.12190 AU
retrograde	-12035 Jan 20 j 12:13	22° $\mathring{\text{U}}$ 43'33		opposition	-12029 May 03 j 16:53	14° $\mathring{\text{U}}$ 34'47	0°43'40
min. Earth dist.	-12035 Apr 07 j 09:53	20° $\mathring{\text{U}}$ 47'24	18.96400 AU	direct	-12029 Jul 17 j 18:45	12° $\mathring{\text{U}}$ 38'54	
opposition	-12035 Apr 08 j 18:56	20° $\mathring{\text{U}}$ 44'05	1°08'17		-12029 Oct 03 j 19:43	15° $\mathring{\text{U}}$	
direct	-12035 Jun 23 j 07:56	18° $\mathring{\text{U}}$ 47'54		evening set	-12029 Oct 14 j 16:51	15° $\mathring{\text{U}}$ 35'21	
evening set	-12035 Sep 20 j 14:23	21° $\mathring{\text{U}}$ 47'05					
				conjunction	-12029 Oct 30 j 16:45	16° $\mathring{\text{U}}$ 29'28	0°37'21
conjunction	-12035 Oct 06 j 08:06	22° $\mathring{\text{U}}$ 41'10	1°00'14	minimum elong	-12029 Oct 30 j 16:45	16° $\mathring{\text{U}}$ 29'28	0°37'52
minimum elong	-12035 Oct 06 j 08:07	22° $\mathring{\text{U}}$ 41'10	1°00'53	max. Earth dist.	-12029 Nov 01 j 00:48	16° $\mathring{\text{U}}$ 34'01	21.12780 AU
max. Earth dist.	-12035 Oct 07 j 18:31	22° $\mathring{\text{U}}$ 46'08	20.98248 AU	morning rise	-12029 Nov 15 j 21:04	17° $\mathring{\text{U}}$ 24'11	
morning rise	-12035 Oct 22 j 05:43	23° $\mathring{\text{U}}$ 35'47		retrograde	-12028 Feb 18 j 17:27	20° $\mathring{\text{U}}$ 30'51	
retrograde	-12034 Jan 24 j 19:20	26° $\mathring{\text{U}}$ 44'08		opposition	-12028 May 06 j 22:54	18° $\mathring{\text{U}}$ 31'20	0°38'45
min. Earth dist.	-12034 Apr 11 j 20:25	24° $\mathring{\text{U}}$ 47'52	19.00144 AU	min. Earth dist.	-12028 May 05 j 18:26	18° $\mathring{\text{U}}$ 34'12	19.13396 AU
opposition	-12034 Apr 13 j 04:12	24° $\mathring{\text{U}}$ 44'41	1°04'51	direct	-12028 Jul 20 j 22:04	16° $\mathring{\text{U}}$ 35'29	
direct	-12034 Jun 27 j 14:19	22° $\mathring{\text{U}}$ 48'37		evening set	-12028 Oct 17 j 21:27	19° $\mathring{\text{U}}$ 31'46	
evening set	-12034 Sep 24 j 18:56	25° $\mathring{\text{U}}$ 47'08					
				conjunction	-12028 Nov 02 j 22:28	20° $\mathring{\text{U}}$ 25'57	0°32'49
conjunction	-12034 Oct 10 j 13:39	26° $\mathring{\text{U}}$ 41'10	0°57'00	minimum elong	-12028 Nov 02 j 22:29	20° $\mathring{\text{U}}$ 25'57	0°33'17
minimum elong	-12034 Oct 10 j 13:39	26° $\mathring{\text{U}}$ 41'10	0°57'39	max. Earth dist.	-12028 Nov 04 j 05:14	20° $\mathring{\text{U}}$ 30'19	21.13793 AU
max. Earth dist.	-12034 Oct 11 j 23:38	26° $\mathring{\text{U}}$ 46'03	21.01758 AU	morning rise	-12028 Nov 19 j 03:57	21° $\mathring{\text{U}}$ 20'45	
morning rise	-12034 Oct 26 j 12:21	27° $\mathring{\text{U}}$ 35'46		retrograde	-12027 Feb 22 j 01:51	24° $\mathring{\text{U}}$ 27'18	
	-12034 Dec 17 j 03:21	0° $\mathring{\text{U}}$		min. Earth dist.	-12027 May 10 j 00:16	22° $\mathring{\text{U}}$ 30'38	19.14186 AU
retrograde	-12033 Jan 29 j 05:01	0° $\mathring{\text{U}}$ 43'44		opposition	-12027 May 11 j 04:25	22° $\mathring{\text{U}}$ 27'48	0°33'39
	-12033 Mar 14 j 08:29	30° $\mathring{\text{R}}$ $\mathring{\text{U}}$		direct	-12027 Jul 25 j 02:33	20° $\mathring{\text{U}}$ 31'57	
min. Earth dist.	-12033 Apr 16 j 04:26	28° $\mathring{\text{U}}$ 47'30	19.03405 AU	evening set	-12027 Oct 22 j 02:16	23° $\mathring{\text{U}}$ 28'11	
opposition	-12033 Apr 17 j 12:43	28° $\mathring{\text{U}}$ 44'16	1°01'07				
direct	-12033 Jul 01 j 21:51	26° $\mathring{\text{U}}$ 48'15		conjunction	-12027 Nov 07 j 04:23	24° $\mathring{\text{U}}$ 22'28	0°28'09
evening set	-12033 Sep 28 j 23:31	29° $\mathring{\text{U}}$ 46'11		minimum elong	-12027 Nov 07 j 04:23	24° $\mathring{\text{U}}$ 22'28	0°28'35
	-12033 Oct 03 j 01:40	0° $\mathring{\text{U}}$		max. Earth dist.	-12027 Nov 08 j 10:28	24° $\mathring{\text{U}}$ 26'43	21.14360 AU
conjunction	-12033 Oct 14 j 19:11	0° $\mathring{\text{U}}$ 40'13	0°53'31	morning rise	-12027 Nov 23 j 10:57	25° $\mathring{\text{U}}$ 17'20	
minimum elong	-12033 Oct 14 j 19:11	0° $\mathring{\text{U}}$ 40'13	0°54'09	retrograde	-12026 Feb 26 j 08:24	28° $\mathring{\text{U}}$ 23'50	
max. Earth dist.	-12033 Oct 16 j 05:12	0° $\mathring{\text{U}}$ 45'05	21.04781 AU	min. Earth dist.	-12026 May 14 j 07:41	26° $\mathring{\text{U}}$ 27'01	19.14518 AU
morning rise	-12033 Oct 30 j 19:00	1° $\mathring{\text{U}}$ 34'48		opposition	-12026 May 15 j 09:53	26° $\mathring{\text{U}}$ 24'22	0°28'24
retrograde	-12032 Feb 02 j 11:37	4° $\mathring{\text{U}}$ 42'25		direct	-12026 Jul 29 j 05:24	24° $\mathring{\text{U}}$ 28'31	
opposition	-12032 Apr 20 j 20:34	2° $\mathring{\text{U}}$ 42'55	0°57'07	evening set	-12026 Oct 26 j 07:16	27° $\mathring{\text{U}}$ 24'46	
min. Earth dist.	-12032 Apr 19 j 13:40	2° $\mathring{\text{U}}$ 46'01	19.06205 AU				
direct	-12032 Jul 05 j 03:14	0° $\mathring{\text{U}}$ 46'57		conjunction	-12026 Nov 11 j 10:33	28° $\mathring{\text{U}}$ 19'08	0°23'20
evening set	-12032 Oct 02 j 03:55	3° $\mathring{\text{U}}$ 44'23		minimum elong	-12026 Nov 11 j 10:33	28° $\mathring{\text{U}}$ 19'08	0°23'43
				max. Earth dist.	-12026 Nov 12 j 14:59	28° $\mathring{\text{U}}$ 23'09	21.14468 AU
conjunction	-12032 Oct 18 j 00:37	4° $\mathring{\text{U}}$ 38'24	0°49'48	morning rise	-12026 Nov 27 j 18:18	29° $\mathring{\text{U}}$ 14'07	
minimum elong	-12032 Oct 18 j 00:38	4° $\mathring{\text{U}}$ 38'24	0°50'23		-12026 Dec 12 j 01:25	0° $\mathring{\text{U}}$ $\mathring{\text{U}}$	
max. Earth dist.	-12032 Oct 19 j 09:58	4° $\mathring{\text{U}}$ 43'10	21.07380 AU	retrograde	-12025 Mar 02 j 17:20	2° $\mathring{\text{U}}$ $\mathring{\text{U}}$ 20'35	
morning rise	-12032 Nov 03 j 01:34	5° $\mathring{\text{U}}$ 33'00		opposition	-12025 May 19 j 15:08	0° $\mathring{\text{U}}$ $\mathring{\text{U}}$ 21'08	0°23'00
retrograde	-12031 Feb 05 j 20:14	8° $\mathring{\text{U}}$ 40'18		min. Earth dist.	-12025 May 18 j 13:44	0° $\mathring{\text{U}}$ $\mathring{\text{U}}$ 23'42	19.14365 AU
min. Earth dist.	-12031 Apr 23 j 20:32	6° $\mathring{\text{U}}$ 43'54	19.08593 AU		-12025 May 28 j 09:22	30° $\mathring{\text{R}}$ $\mathring{\text{U}}$	
opposition	-12031 Apr 25 j 03:48	6° $\mathring{\text{U}}$ 40'46	0°52'52	direct	-12025 Aug 02 j 09:40	28° $\mathring{\text{U}}$ 25'15	
direct	-12031 Jul 09 j 09:24	4° $\mathring{\text{U}}$ 44'50		evening set	-12025 Oct 04 j 01:09	0° $\mathring{\text{U}}$ $\mathring{\text{U}}$	
					-12025 Oct 30 j 12:54	1° $\mathring{\text{U}}$ $\mathring{\text{U}}$ 21'36	

Attention, astronomical year style is used: The year -12025 in astronomical counting style is the year 12026 BCE in historical counting style.

conjunction	-12025 Nov 15 j 17:18	2° <u>11</u> 16'05	0°18'24	min. Earth dist.	-12019 Jun 11 j 06:51	24° <u>11</u> 11'06	19.01640 AU
minimum elong	-12025 Nov 15 j 17:19	2° <u>11</u> 16'05	0°18'44	direct	-12019 Aug 25 j 10:32	22° <u>11</u> 12'37	
max. Earth dist.	-12025 Nov 16 j 20:34	2° <u>11</u> 19'56	21.14047 AU	evening set	-12019 Nov 23 j 07:21	25° <u>11</u> 10'58	
morning rise	-12025 Dec 02 j 02:06	3° <u>11</u> 11'11					
retrograde	-12024 Mar 06 j 00:17	6° <u>11</u> 17'39		conjunction	-12019 Dec 09 j 18:18	26° <u>11</u> 06'27	-0°12'24
opposition	-12024 May 22 j 20:11	4° <u>11</u> 18'13	0°17'29	minimum elong	-12019 Dec 09 j 18:18	26° <u>11</u> 06'27	0°12'20
min. Earth dist.	-12024 May 21 j 21:11	4° <u>11</u> 20'33	19.13665 AU	behind sun begin	-12019 Dec 09 j 13:56	26° <u>11</u> 05'51	
direct	-12024 Aug 05 j 12:50	2° <u>11</u> 22'15		behind sun end	-12019 Dec 09 j 22:39	26° <u>11</u> 07'03	
evening set	-12024 Nov 02 j 18:55	5° <u>11</u> 18'46		max. Earth dist.	-12019 Dec 10 j 09:05	26° <u>11</u> 08'32	20.99744 AU
				morning rise	-12019 Dec 26 j 08:53	27° <u>11</u> 02'27	
conjunction	-12024 Nov 19 j 00:27	6° <u>11</u> 13'24	0°13'22		-12018 Mar 11 j 08:00	0° <u>11</u> 00'00	
minimum elong	-12024 Nov 19 j 00:28	6° <u>11</u> 13'24	0°13'41	retrograde	-12018 Mar 31 j 01:39	0° <u>11</u> 09'33	
behind sun begin	-12024 Nov 18 j 20:56	6° <u>11</u> 12'54			-12018 Apr 19 j 22:28	30° <u>11</u> 08'11	
behind sun end	-12024 Nov 19 j 03:59	6° <u>11</u> 13'53		opposition	-12018 Jun 16 j 01:45	28° <u>11</u> 09'32	-0°16'33
max. Earth dist.	-12024 Nov 20 j 01:24	6° <u>11</u> 16'55	21.13079 AU	min. Earth dist.	-12018 Jun 15 j 14:08	28° <u>11</u> 10'44	18.97765 AU
morning rise	-12024 Dec 05 j 10:21	7° <u>11</u> 08'37		direct	-12018 Aug 29 j 14:34	26° <u>11</u> 12'11	
retrograde	-12023 Mar 10 j 09:17	10° <u>11</u> 15'08		evening set	-12018 Nov 27 j 16:05	29° <u>11</u> 11'07	
min. Earth dist.	-12023 May 26 j 03:25	8° <u>11</u> 17'52	19.12400 AU		-12018 Dec 12 j 04:04	0° <u>11</u> 00'00	
opposition	-12023 May 27 j 01:13	8° <u>11</u> 15'40	0°11'53				
direct	-12023 Aug 09 j 16:55	6° <u>11</u> 19'34		conjunction	-12018 Dec 14 j 04:01	0° <u>11</u> 06'48	-0°17'29
evening set	-12023 Nov 07 j 01:13	9° <u>11</u> 16'19		minimum elong	-12018 Dec 14 j 04:01	0° <u>11</u> 06'48	0°17'28
				max. Earth dist.	-12018 Dec 14 j 16:06	0° <u>11</u> 08'30	20.95699 AU
conjunction	-12023 Nov 23 j 07:52	10° <u>11</u> 11'05	0°08'17	morning rise	-12018 Dec 30 j 19:32	1° <u>11</u> 02'59	
minimum elong	-12023 Nov 23 j 07:52	10° <u>11</u> 11'05	0°08'32	retrograde	-12017 Apr 04 j 11:51	4° <u>11</u> 10'21	
behind sun begin	-12023 Nov 23 j 02:02	10° <u>11</u> 10'17		opposition	-12017 Jun 20 j 06:48	2° <u>11</u> 10'11	-0°22'08
behind sun end	-12023 Nov 23 j 13:41	10° <u>11</u> 11'53		min. Earth dist.	-12017 Jun 19 j 20:37	2° <u>11</u> 11'14	18.93545 AU
max. Earth dist.	-12023 Nov 24 j 07:16	10° <u>11</u> 14'23	21.11511 AU	direct	-12017 Sep 02 j 20:24	0° <u>11</u> 12'31	
morning rise	-12023 Dec 09 j 18:44	11° <u>11</u> 06'27		evening set	-12017 Dec 02 j 01:36	3° <u>11</u> 12'09	
retrograde	-12022 Mar 14 j 16:32	14° <u>11</u> 13'02					
min. Earth dist.	-12022 May 30 j 10:57	12° <u>11</u> 15'28	19.10530 AU	conjunction	-12017 Dec 18 j 14:31	4° <u>11</u> 08'03	-0°22'30
opposition	-12022 May 31 j 06:17	12° <u>11</u> 13'30	0°06'13	minimum elong	-12017 Dec 18 j 14:31	4° <u>11</u> 08'03	0°22'31
direct	-12022 Aug 13 j 20:48	10° <u>11</u> 17'15		max. Earth dist.	-12017 Dec 19 j 01:03	4° <u>11</u> 09'32	20.91307 AU
evening set	-12022 Nov 11 j 08:03	13° <u>11</u> 14'17		morning rise	-12016 Jan 04 j 06:40	5° <u>11</u> 04'26	
				retrograde	-12016 Apr 07 j 20:01	8° <u>11</u> 12'04	
conjunction	-12022 Nov 27 j 15:48	14° <u>11</u> 09'12	0°03'09	opposition	-12016 Jun 23 j 12:01	6° <u>11</u> 11'49	-0°27'39
minimum elong	-12022 Nov 27 j 15:48	14° <u>11</u> 09'13	0°03'23	min. Earth dist.	-12016 Jun 23 j 04:09	6° <u>11</u> 12'38	18.89001 AU
behind sun begin	-12022 Nov 27 j 09:10	14° <u>11</u> 08'18		direct	-12016 Sep 06 j 00:38	4° <u>11</u> 13'51	
behind sun end	-12022 Nov 27 j 22:27	14° <u>11</u> 10'07		evening set	-12016 Dec 05 j 11:46	7° <u>11</u> 14'15	
max. Earth dist.	-12022 Nov 28 j 12:35	14° <u>11</u> 12'08	21.09366 AU				
morning rise	-12022 Dec 14 j 03:45	15° <u>11</u> 04'43		conjunction	-12016 Dec 22 j 01:32	8° <u>11</u> 10'23	-0°27'25
retrograde	-12021 Mar 19 j 01:38	18° <u>11</u> 11'23		minimum elong	-12016 Dec 22 j 01:31	8° <u>11</u> 10'23	0°27'30
opposition	-12021 Jun 04 j 11:07	16° <u>11</u> 11'45	0°00'31	max. Earth dist.	-12016 Dec 22 j 09:11	8° <u>11</u> 11'28	20.86630 AU
min. Earth dist.	-12021 Jun 03 j 17:13	16° <u>11</u> 13'35	19.08091 AU	morning rise	-12015 Jan 07 j 18:27	9° <u>11</u> 06'59	
desc. node	-12021 Jul 06 j 07:49	14° <u>11</u> 59'24		retrograde	-12015 Apr 12 j 06:57	12° <u>11</u> 14'58	
direct	-12021 Aug 18 j 01:12	14° <u>11</u> 15'16		opposition	-12015 Jun 27 j 17:36	10° <u>11</u> 14'36	-0°33'03
evening set	-12021 Nov 15 j 15:22	17° <u>11</u> 12'40		min. Earth dist.	-12015 Jun 27 j 11:14	10° <u>11</u> 15'16	18.84187 AU
				direct	-12015 Sep 10 j 07:04	8° <u>11</u> 16'20	
conjunction	-12021 Dec 02 j 00:16	18° <u>11</u> 07'46	-0°02'08	evening set	-12015 Dec 09 j 22:26	11° <u>11</u> 17'36	
minimum elong	-12021 Dec 02 j 00:15	18° <u>11</u> 07'46	0°01'58				
behind sun begin	-12021 Dec 01 j 17:33	18° <u>11</u> 06'51		conjunction	-12015 Dec 26 j 13:07	12° <u>11</u> 13'59	-0°32'15
behind sun end	-12021 Dec 02 j 06:58	18° <u>11</u> 08'41		minimum elong	-12015 Dec 26 j 13:07	12° <u>11</u> 13'59	0°32'21
max. Earth dist.	-12021 Dec 02 j 19:18	18° <u>11</u> 10'27	21.06647 AU	max. Earth dist.	-12015 Dec 26 j 19:20	12° <u>11</u> 14'52	20.81673 AU
morning rise	-12021 Dec 18 j 13:07	19° <u>11</u> 03'26		morning rise	-12014 Jan 12 j 06:32	13° <u>11</u> 10'47	
retrograde	-12020 Mar 22 j 08:50	22° <u>11</u> 10'12		retrograde	-12014 Apr 16 j 16:29	16° <u>11</u> 19'10	
opposition	-12020 Jun 07 j 16:02	20° <u>11</u> 10'27	-0°05'12	opposition	-12014 Jul 01 j 23:33	14° <u>11</u> 18'45	-0°38'19
min. Earth dist.	-12020 Jun 07 j 00:39	20° <u>11</u> 12'02	19.05100 AU	min. Earth dist.	-12014 Jul 01 j 19:29	14° <u>11</u> 19'10	18.79095 AU
direct	-12020 Aug 21 j 05:27	18° <u>11</u> 13'42		direct	-12014 Sep 14 j 12:23	12° <u>11</u> 20'12	
evening set	-12020 Nov 18 j 23:07	21° <u>11</u> 11'32		evening set	-12014 Dec 14 j 10:10	15° <u>11</u> 22'24	
conjunction	-12020 Dec 05 j 09:01	22° <u>11</u> 06'49	-0°07'18	conjunction	-12014 Dec 31 j 01:35	16° <u>11</u> 19'02	-0°36'56
minimum elong	-12020 Dec 05 j 09:01	22° <u>11</u> 06'49	0°07'11	minimum elong	-12014 Dec 31 j 01:34	16° <u>11</u> 19'02	0°37'06
behind sun begin	-12020 Dec 05 j 02:51	22° <u>11</u> 05'58		max. Earth dist.	-12014 Dec 31 j 04:38	16° <u>11</u> 19'28	20.76461 AU
behind sun end	-12020 Dec 05 j 15:11	22° <u>11</u> 07'40		morning rise	-12013 Jan 16 j 19:41	17° <u>11</u> 16'04	
max. Earth dist.	-12020 Dec 06 j 01:21	22° <u>11</u> 09'07	21.03422 AU	retrograde	-12013 Apr 21 j 04:07	20° <u>11</u> 24'53	
morning rise	-12020 Dec 21 j 22:50	23° <u>11</u> 02'38		opposition	-12013 Jul 06 j 05:46	18° <u>11</u> 24'24	-0°43'26
retrograde	-12019 Mar 26 j 18:16	26° <u>11</u> 09'34		min. Earth dist.	-12013 Jul 06 j 03:32	18° <u>11</u> 24'38	18.73749 AU
opposition	-12019 Jun 11 j 20:49	24° <u>11</u> 09'40	-0°10'53	direct	-12013 Sep 18 j 19:15	16° <u>11</u> 25'33	

Attention, astronomical year style is used: The year -12013 in astronomical counting style is the year 12014 BCE in historical counting style.

evening set	-12013 Dec 18 j 22:47	19° $\underline{0}$ 28'47		conjunction	-12006 Jan 30 j 16:52	15° $\underline{M}$ 42'40	-1°03'45
				minimum elong	-12006 Jan 30 j 16:51	15° $\underline{M}$ 42'40	1°04'14
conjunction	-12012 Jan 04 j 15:02	20° $\underline{0}$ 25'41	-0°41'27	max. Earth dist.	-12006 Jan 30 j 01:33	15° $\underline{M}$ 40'26	20.31768 AU
minimum elong	-12012 Jan 04 j 15:02	20° $\underline{0}$ 25'41	0°41'40	morning rise	-12006 Feb 16 j 12:18	16° $\underline{M}$ 41'19	
max. Earth dist.	-12012 Jan 04 j 16:24	20° $\underline{0}$ 25'53	20.70967 AU	retrograde	-12006 May 20 j 22:13	19° $\underline{M}$ 53'47	
morning rise	-12012 Jan 21 j 09:27	21° $\underline{0}$ 22'56		opposition	-12006 Aug 03 j 17:43	17° $\underline{M}$ 52'41	-1°12'18
retrograde	-12012 Apr 24 j 15:22	24° $\underline{0}$ 32'13		min. Earth dist.	-12006 Aug 04 j 07:35	17° $\underline{M}$ 51'12	18.28142 AU
opposition	-12012 Jul 09 j 12:35	22° $\underline{0}$ 31'43	-0°48'22	direct	-12006 Oct 17 j 16:33	15° $\underline{M}$ 51'06	
min. Earth dist.	-12012 Jul 09 j 12:50	22° $\underline{0}$ 31'42	18.68112 AU	evening set	-12005 Jan 18 j 16:33	19° $\underline{M}$ 02'48	
direct	-12012 Sep 22 j 02:24	20° $\underline{0}$ 32'35					
evening set	-12012 Dec 22 j 12:17	23° $\underline{0}$ 36'53		conjunction	-12005 Feb 04 j 11:55	20° $\underline{M}$ 01'38	-1°06'25
				minimum elong	-12005 Feb 04 j 11:55	20° $\underline{M}$ 01'37	1°06'56
conjunction	-12011 Jan 08 j 05:04	24° $\underline{0}$ 34'03	-0°45'48	max. Earth dist.	-12005 Feb 03 j 16:55	19° $\underline{M}$ 58'50	20.24454 AU
minimum elong	-12011 Jan 08 j 05:03	24° $\underline{0}$ 34'03	0°46'04	morning rise	-12005 Feb 21 j 07:25	21° $\underline{M}$ 00'30	
max. Earth dist.	-12011 Jan 08 j 02:53	24° $\underline{0}$ 33'44	20.65188 AU	retrograde	-12005 May 25 j 12:51	24° $\underline{M}$ 13'32	
morning rise	-12011 Jan 24 j 23:58	25° $\underline{0}$ 31'32		opposition	-12005 Aug 08 j 04:44	22° $\underline{M}$ 12'16	-1°15'05
retrograde	-12011 Apr 29 j 03:27	28° $\underline{0}$ 41'21		min. Earth dist.	-12005 Aug 08 j 20:53	22° $\underline{M}$ 10'32	18.20810 AU
opposition	-12011 Jul 13 j 19:53	26° $\underline{0}$ 40'47	-0°53'04	direct	-12005 Oct 22 j 05:52	20° $\underline{M}$ 10'11	
min. Earth dist.	-12011 Jul 13 j 22:15	26° $\underline{0}$ 40'32	18.62188 AU	evening set	-12004 Jan 23 j 12:13	23° $\underline{M}$ 23'14	
direct	-12011 Sep 26 j 10:11	24° $\underline{0}$ 41'19		max. Earth dist.	-12004 Feb 08 j 11:49	24° $\underline{M}$ 19'23	20.17101 AU
evening set	-12011 Dec 27 j 02:43	27° $\underline{0}$ 46'47					
				conjunction	-12004 Feb 09 j 07:54	24° $\underline{M}$ 22'20	-1°08'43
conjunction	-12010 Jan 12 j 20:13	28° $\underline{0}$ 44'13	-0°49'55	minimum elong	-12004 Feb 09 j 07:54	24° $\underline{M}$ 22'20	1°09'16
minimum elong	-12010 Jan 12 j 20:12	28° $\underline{0}$ 44'13	0°50'14	morning rise	-12004 Feb 26 j 03:02	25° $\underline{M}$ 21'26	
max. Earth dist.	-12010 Jan 12 j 16:11	28° $\underline{0}$ 43'38	20.59095 AU	retrograde	-12004 May 29 j 04:49	28° $\underline{M}$ 35'02	
morning rise	-12010 Jan 29 j 15:15	29° $\underline{0}$ 41'56		opposition	-12004 Aug 11 j 16:36	26° $\underline{M}$ 33'37	-1°17'29
	-12010 Feb 04 j 01:02	0° $\underline{M}$		min. Earth dist.	-12004 Aug 12 j 10:12	26° $\underline{M}$ 31'44	18.13471 AU
retrograde	-12010 May 03 j 16:11	2° $\underline{M}$ 52'15		direct	-12004 Oct 25 j 20:04	24° $\underline{M}$ 31'05	
opposition	-12010 Jul 18 j 03:47	0° $\underline{M}$ 51'38	-0°57'32	evening set	-12003 Jan 27 j 08:41	27° $\underline{M}$ 45'29	
min. Earth dist.	-12010 Jul 18 j 08:40	0° $\underline{M}$ 51'08	18.55939 AU	max. Earth dist.	-12003 Feb 12 j 04:57	28° $\underline{M}$ 41'24	20.09788 AU
	-12010 Aug 08 j 06:33	30° $\underline{R}$ $\underline{0}$					
direct	-12010 Sep 30 j 19:25	28° $\underline{0}$ 51'50		conjunction	-12003 Feb 13 j 04:15	28° $\underline{M}$ 44'51	-1°10'39
	-12010 Nov 22 j 05:26	0° $\underline{M}$		minimum elong	-12003 Feb 13 j 04:14	28° $\underline{M}$ 44'51	1°11'14
evening set	-12010 Dec 31 j 18:10	1° $\underline{M}$ 58'28		morning rise	-12003 Mar 01 j 23:14	29° $\underline{M}$ 44'10	
					-12003 Mar 06 j 13:27	0° $\underline{X}$	
conjunction	-12009 Jan 17 j 12:07	2° $\underline{M}$ 56'11	-0°53'48	retrograde	-12003 Jun 02 j 20:48	2° $\underline{X}$ 58'22	
minimum elong	-12009 Jan 17 j 12:06	2° $\underline{M}$ 56'11	0°54'09	opposition	-12003 Aug 16 j 05:16	0° $\underline{X}$ 56'49	-1°19'26
max. Earth dist.	-12009 Jan 17 j 04:06	2° $\underline{M}$ 55'02	20.52689 AU	min. Earth dist.	-12003 Aug 17 j 00:56	0° $\underline{X}$ 54'42	18.06222 AU
morning rise	-12009 Feb 03 j 07:34	3° $\underline{M}$ 54'08			-12003 Sep 08 j 01:54	30° $\underline{R}$ $\underline{M}$	
retrograde	-12009 May 08 j 04:45	7° $\underline{M}$ 05'00		direct	-12003 Oct 30 j 10:37	28° $\underline{M}$ 53'49	
opposition	-12009 Jul 22 j 12:22	5° $\underline{M}$ 04'17	-1°01'43		-12003 Dec 20 j 18:31	0° $\underline{X}$	
min. Earth dist.	-12009 Jul 22 j 19:35	5° $\underline{M}$ 03'32	18.49376 AU	evening set	-12002 Feb 01 j 05:55	2° $\underline{X}$ 09'36	
direct	-12009 Oct 05 j 05:08	3° $\underline{M}$ 04'04		max. Earth dist.	-12002 Feb 17 j 01:34	3° $\underline{X}$ 05'40	20.02592 AU
evening set	-12008 Jan 05 j 10:30	6° $\underline{M}$ 11'57					
				conjunction	-12002 Feb 18 j 01:38	3° $\underline{X}$ 09'15	-1°12'11
conjunction	-12008 Jan 22 j 05:03	7° $\underline{M}$ 09'57	-0°57'25	minimum elong	-12002 Feb 18 j 01:38	3° $\underline{X}$ 09'15	1°12'47
minimum elong	-12008 Jan 22 j 05:02	7° $\underline{M}$ 09'56	0°57'50	morning rise	-12002 Mar 06 j 20:08	4° $\underline{X}$ 08'47	
max. Earth dist.	-12008 Jan 21 j 19:07	7° $\underline{M}$ 08'30	20.45957 AU	retrograde	-12002 Jun 07 j 14:43	7° $\underline{X}$ 23'34	
morning rise	-12008 Feb 08 j 00:26	8° $\underline{M}$ 08'07		opposition	-12002 Aug 20 j 18:35	5° $\underline{X}$ 21'56	-1°20'57
retrograde	-12008 May 11 j 18:20	11° $\underline{M}$ 19'31		min. Earth dist.	-12002 Aug 21 j 15:18	5° $\underline{X}$ 19'42	17.99105 AU
opposition	-12008 Jul 25 j 21:30	9° $\underline{M}$ 18'42	-1°05'35	direct	-12002 Nov 04 j 02:32	3° $\underline{X}$ 18'30	
min. Earth dist.	-12008 Jul 26 j 07:04	9° $\underline{M}$ 17'41	18.42502 AU	evening set	-12001 Feb 06 j 04:13	6° $\underline{X}$ 35'42	
direct	-12008 Oct 08 j 16:13	7° $\underline{M}$ 18'03					
evening set	-12007 Jan 09 j 03:46	10° $\underline{M}$ 27'10		conjunction	-12001 Feb 22 j 23:43	7° $\underline{X}$ 35'36	-1°13'18
				minimum elong	-12001 Feb 22 j 23:43	7° $\underline{X}$ 35'36	1°13'56
conjunction	-12007 Jan 25 j 22:33	11° $\underline{M}$ 25'27	-1°00'45	max. Earth dist.	-12001 Feb 21 j 20:44	7° $\underline{X}$ 31'34	19.95562 AU
minimum elong	-12007 Jan 25 j 22:33	11° $\underline{M}$ 25'27	1°01'11	morning rise	-12001 Mar 11 j 17:53	8° $\underline{X}$ 35'21	
max. Earth dist.	-12007 Jan 25 j 08:42	11° $\underline{M}$ 23'26	20.38963 AU	retrograde	-12001 Jun 12 j 08:04	11° $\underline{X}$ 50'44	
morning rise	-12007 Feb 11 j 18:10	12° $\underline{M}$ 23'51		opposition	-12001 Aug 25 j 08:58	9° $\underline{X}$ 49'03	-1°21'59
	-12007 Apr 08 j 19:52	15° $\underline{M}$		min. Earth dist.	-12001 Aug 26 j 07:45	9° $\underline{X}$ 46'35	17.92187 AU
retrograde	-12007 May 16 j 07:47	15° $\underline{M}$ 35'48		direct	-12001 Nov 08 j 18:14	7° $\underline{X}$ 45'13	
	-12007 Jun 23 j 04:32	15° $\underline{R}$ $\underline{M}$		evening set	-12000 Feb 11 j 03:11	11° $\underline{X}$ 03'50	
opposition	-12007 Jul 30 j 07:18	13° $\underline{M}$ 34'50	-1°09'07				
min. Earth dist.	-12007 Jul 30 j 19:12	13° $\underline{M}$ 33'34	18.35408 AU	conjunction	-12000 Feb 27 j 22:37	12° $\underline{X}$ 03'59	-1°13'59
direct	-12007 Oct 13 j 03:55	11° $\underline{M}$ 33'43		minimum elong	-12000 Feb 27 j 22:36	12° $\underline{X}$ 03'59	1°14'39
evening set	-12006 Jan 13 j 21:34	14° $\underline{M}$ 44'07		max. Earth dist.	-12000 Feb 26 j 19:01	11° $\underline{X}$ 59'50	19.88743 AU
	-12006 Jan 18 j 12:12	15° $\underline{M}$		morning rise	-12000 Mar 15 j 16:08	13° $\underline{X}$ 03'56	



Attention, astronomical year style is used: The year -12000 in astronomical counting style is the year 12001 BCE in historical counting style.

retrograde	-12000 Jun 16 j 04:09	16°♄19'57	evening set	-11993 Mar 16 j 17:14	13°♄17'44	
opposition	-12000 Aug 29 j 00:10	14°♄18'13 -1°22'32	max. Earth dist.	-11993 Mar 31 j 20:46	14°♄13'38	19.47561 AU
min. Earth dist.	-12000 Aug 29 j 23:37	14°♄15'41 17.85480 AU				
direct	-12000 Nov 12 j 12:19	12°♄14'04	conjunction	-11993 Apr 02 j 08:58	14°♄19'15 -1°05'44	
evening set	-11999 Feb 15 j 03:07	15°♄34'05	minimum elong	-11993 Apr 02 j 08:58	14°♄19'15	1°06'26
			morning rise	-11993 Apr 18 j 20:48	15°♄20'13	
conjunction	-11999 Mar 03 j 22:09	16°♄34'29 -1°14'13	retrograde	-11993 Jul 19 j 08:44	18°♄40'09	
minimum elong	-11999 Mar 03 j 22:09	16°♄34'29 1°14'54	opposition	-11993 Sep 30 j 13:30	16°♄38'20 -1°11'44	
max. Earth dist.	-11999 Mar 02 j 16:10	16°♄29'57 19.82152 AU	min. Earth dist.	-11993 Oct 01 j 21:10	16°♄34'52	17.45233 AU
morning rise	-11999 Mar 20 j 15:08	17°♄34'38	direct	-11993 Dec 15 j 17:12	14°♄32'10	
retrograde	-11999 Jun 20 j 22:38	20°♄51'16	evening set	-11992 Mar 20 j 21:13	18°♄00'43	
opposition	-11999 Sep 02 j 16:21	18°♄49'32 -1°22'35	max. Earth dist.	-11992 Apr 04 j 23:01	18°♄56'34	19.42838 AU
min. Earth dist.	-11999 Sep 03 j 17:56	18°♄46'46 17.79024 AU				
direct	-11999 Nov 17 j 05:30	16°♄45'04	conjunction	-11992 Apr 06 j 11:59	19°♄02'20 -1°02'41	
evening set	-11998 Feb 20 j 03:39	20°♄06'29	minimum elong	-11992 Apr 06 j 11:59	19°♄02'20	1°03'21
			morning rise	-11992 Apr 22 j 22:54	20°♄03'23	
conjunction	-11998 Mar 08 j 22:27	21°♄07'07 -1°14'00	retrograde	-11992 Jul 23 j 08:24	23°♄23'44	
minimum elong	-11998 Mar 08 j 22:27	21°♄07'07 1°14'42	opposition	-11992 Oct 04 j 11:59	21°♄21'51 -1°08'07	
max. Earth dist.	-11998 Mar 07 j 15:46	21°♄02'27 19.75809 AU	min. Earth dist.	-11992 Oct 05 j 18:56	21°♄18'28	17.40721 AU
morning rise	-11998 Mar 25 j 14:46	22°♄07'26	direct	-11992 Dec 19 j 19:40	19°♄15'26	
retrograde	-11998 Jun 25 j 20:29	25°♄24'42	evening set	-11991 Mar 26 j 01:20	22°♄44'52	
opposition	-11998 Sep 07 j 09:27	23°♄22'59 -1°22'06	max. Earth dist.	-11991 Apr 10 j 03:16	23°♄40'55	19.38557 AU
min. Earth dist.	-11998 Sep 08 j 11:31	23°♄20'09 17.72788 AU				
direct	-11998 Nov 22 j 01:35	21°♄18'13	conjunction	-11991 Apr 11 j 15:20	23°♄46'33 -0°59'13	
evening set	-11997 Feb 25 j 05:15	24°♄41'00	minimum elong	-11991 Apr 11 j 15:20	23°♄46'33	0°59'52
			morning rise	-11991 Apr 28 j 01:02	24°♄47'40	
conjunction	-11997 Mar 13 j 23:31	25°♄41'51 -1°13'18	retrograde	-11991 Jul 28 j 06:43	28°♄08'23	
minimum elong	-11997 Mar 13 j 23:31	25°♄41'51 1°13'59	opposition	-11991 Oct 09 j 11:16	26°♄06'26 -1°04'02	
max. Earth dist.	-11997 Mar 12 j 14:49	25°♄36'51 19.69675 AU	min. Earth dist.	-11991 Oct 10 j 19:02	26°♄02'58	17.36693 AU
morning rise	-11997 Mar 30 j 15:03	26°♄42'20	direct	-11991 Dec 24 j 21:26	23°♄59'49	
	-11997 Jun 27 j 23:46	0°♄	evening set	-11990 Mar 31 j 05:41	27°♄30'00	
retrograde	-11997 Jun 30 j 16:17	0°♄00'12	max. Earth dist.	-11990 Apr 15 j 05:59	28°♄26'00	19.34803 AU
	-11997 Jul 03 j 08:41	30°♄				
opposition	-11997 Sep 12 j 03:37	27°♄58'30 -1°21'05	conjunction	-11990 Apr 16 j 18:34	28°♄31'45 -0°55'19	
min. Earth dist.	-11997 Sep 13 j 07:53	27°♄55'25 17.66777 AU	minimum elong	-11990 Apr 16 j 18:34	28°♄31'45	0°55'57
direct	-11997 Nov 26 j 21:01	25°♄53'26	morning rise	-11990 May 03 j 03:21	29°♄32'54	
evening set	-11996 Mar 01 j 07:27	29°♄17'33		-11990 May 10 j 14:46	0°♄	
	-11996 Mar 12 j 23:55	0°♄	retrograde	-11990 Aug 02 j 07:00	2°♄53'57	
max. Earth dist.	-11996 Mar 16 j 15:33	0°♄13'26 19.63771 AU	opposition	-11990 Oct 14 j 11:11	0°♄51'56 -0°59'29	
			min. Earth dist.	-11990 Oct 15 j 17:51	0°♄48'36	17.33215 AU
conjunction	-11996 Mar 18 j 01:12	0°♄18'35 -1°12'07		-11990 Nov 03 j 22:06	30°♄	
minimum elong	-11996 Mar 18 j 01:12	0°♄18'35 1°12'49	direct	-11990 Dec 30 j 01:04	28°♄45'08	
morning rise	-11996 Apr 03 j 15:56	1°♄19'14		-11989 Feb 22 j 09:05	0°♄	
retrograde	-11996 Jul 04 j 15:10	4°♄37'40	evening set	-11989 Apr 05 j 09:58	2°♄16'00	
opposition	-11996 Sep 15 j 22:46	2°♄35'58 -1°19'33	max. Earth dist.	-11989 Apr 20 j 11:11	3°♄12'18	19.31615 AU
min. Earth dist.	-11996 Sep 17 j 03:09	2°♄32'52 17.60983 AU				
direct	-11996 Nov 30 j 19:11	0°♄30'38	conjunction	-11989 Apr 21 j 21:57	3°♄17'46 -0°51'02	
evening set	-11995 Mar 06 j 10:08	3°♄55'58	minimum elong	-11989 Apr 21 j 21:57	3°♄17'46	0°51'38
max. Earth dist.	-11995 Mar 21 j 16:24	4°♄51'49 19.58086 AU	morning rise	-11989 May 08 j 05:23	4°♄18'55	
			retrograde	-11989 Aug 07 j 06:23	7°♄40'16	
conjunction	-11995 Mar 23 j 03:16	4°♄57'11 -1°10'28	opposition	-11989 Oct 19 j 11:58	5°♄38'15 -0°54'31	
minimum elong	-11995 Mar 23 j 03:17	4°♄57'11 1°11'10	min. Earth dist.	-11989 Oct 20 j 18:37	5°♄34'55	17.30330 AU
morning rise	-11995 Apr 08 j 17:03	5°♄57'57	direct	-11988 Jan 04 j 03:29	3°♄31'20	
retrograde	-11995 Jul 09 j 11:57	9°♄16'57	evening set	-11988 Apr 09 j 14:25	7°♄02'44	
opposition	-11995 Sep 20 j 18:54	7°♄15'12 -1°17'28	max. Earth dist.	-11988 Apr 24 j 14:17	7°♄59'01	19.29063 AU
min. Earth dist.	-11995 Sep 22 j 01:15	7°♄11'54 17.55432 AU				
direct	-11995 Dec 05 j 16:46	5°♄09'35	conjunction	-11988 Apr 26 j 01:07	8°♄04'31 -0°46'24	
evening set	-11994 Mar 11 j 13:27	8°♄36'06	minimum elong	-11988 Apr 26 j 01:07	8°♄04'31	0°46'59
max. Earth dist.	-11994 Mar 26 j 17:59	9°♄31'55 19.52674 AU	morning rise	-11988 May 12 j 07:32	9°♄05'39	
			retrograde	-11988 Aug 11 j 07:48	12°♄27'16	
conjunction	-11994 Mar 28 j 05:53	9°♄37'28 -1°08'20	opposition	-11988 Oct 23 j 13:17	10°♄25'14 -0°49'10	
minimum elong	-11994 Mar 28 j 05:53	9°♄37'28 1°09'01	min. Earth dist.	-11988 Oct 24 j 18:31	10°♄22'04	17.28109 AU
morning rise	-11994 Apr 13 j 18:50	10°♄38'21	direct	-11987 Jan 08 j 07:17	8°♄18'16	
retrograde	-11994 Jul 14 j 11:20	13°♄57'50	evening set	-11987 Apr 14 j 18:28	11°♄50'06	
opposition	-11994 Sep 25 j 15:37	11°♄56'03 -1°14'51	max. Earth dist.	-11987 Apr 29 j 19:51	12°♄46'44	19.27176 AU
min. Earth dist.	-11994 Sep 26 j 21:47	11°♄52'46 17.50161 AU				
direct	-11994 Dec 10 j 17:16	9°♄50'09	conjunction	-11987 May 01 j 04:13	12°♄51'51 -0°41'26	

Attention, astronomical year style is used: The year -11987 in astronomical counting style is the year 11988 BCE in historical counting style.

minimum elong	-11987 May 01 j 04:13	12° $\approx$ 51'52	0°41'57	minimum elong	-11981 May 30 j 17:25	11° $\mathbb{H}$ 41'34	0°06'59
morning rise	-11987 May 17 j 09:19	13° $\approx$ 52'58		behind sun begin	-11981 May 30 j 11:16	11° $\mathbb{H}$ 40'37	
	-11987 Jun 05 j 06:46	15° $\approx$		behind sun end	-11981 May 30 j 23:34	11° $\mathbb{H}$ 42'32	
retrograde	-11987 Aug 16 j 08:21	17° $\approx$ 14'48		max. Earth dist.	-11981 May 29 j 18:51	11° $\mathbb{H}$ 37'59	19.28616 AU
opposition	-11987 Oct 28 j 15:16	15° $\approx$ 12'50	-0°43'27	morning rise	-11981 Jun 15 j 15:28	12° $\mathbb{H}$ 41'59	
min. Earth dist.	-11987 Oct 29 j 19:44	15° $\approx$ 09'44	17.26539 AU	retrograde	-11981 Sep 14 j 14:55	16° $\mathbb{H}$ 04'17	
	-11987 Nov 02 j 13:20	15° $\mathbb{R}$		opposition	-11981 Nov 27 j 12:33	14° $\mathbb{H}$ 02'43	-0°04'06
direct	-11986 Jan 13 j 10:01	13° $\approx$ 05'53		min. Earth dist.	-11981 Nov 28 j 07:46	14° $\mathbb{H}$ 00'39	17.29597 AU
	-11986 Mar 22 j 11:20	15° $\approx$		direct	-11980 Feb 12 j 17:00	11° $\mathbb{H}$ 56'43	
evening set	-11986 Apr 19 j 22:43	16° $\approx$ 38'02		evening set	-11980 May 18 j 17:11	15° $\mathbb{H}$ 28'06	
max. Earth dist.	-11986 May 04 j 23:04	17° $\approx$ 34'39	19.25948 AU				
conjunction	-11986 May 06 j 07:08	17° $\approx$ 39'44	-0°36'09	conjunction	-11980 Jun 03 j 18:03	16° $\mathbb{H}$ 28'54	-0°00'31
minimum elong	-11986 May 06 j 07:08	17° $\approx$ 39'44	0°36'39	minimum elong	-11980 Jun 03 j 18:03	16° $\mathbb{H}$ 28'55	0°00'43
morning rise	-11986 May 22 j 11:09	18° $\approx$ 40'47		behind sun begin	-11980 Jun 03 j 11:27	16° $\mathbb{H}$ 27'53	
retrograde	-11986 Aug 21 j 10:09	22° $\approx$ 02'48		behind sun end	-11980 Jun 04 j 00:40	16° $\mathbb{H}$ 29'56	
opposition	-11986 Nov 02 j 17:38	20° $\approx$ 00'54	-0°37'24	max. Earth dist.	-11980 Jun 02 j 21:38	16° $\mathbb{H}$ 25'40	19.30658 AU
min. Earth dist.	-11986 Nov 03 j 20:53	19° $\approx$ 57'57	17.25633 AU	morning rise	-11980 Jun 19 j 14:57	17° $\mathbb{H}$ 29'08	
direct	-11985 Jan 18 j 14:17	17° $\approx$ 54'01		asc. node	-11980 Jul 04 j 04:55	18° $\mathbb{H}$ 21'50	
evening set	-11985 Apr 25 j 02:41	21° $\approx$ 26'24		retrograde	-11980 Sep 18 j 14:18	20° $\mathbb{H}$ 51'19	
max. Earth dist.	-11985 May 10 j 04:33	22° $\approx$ 23'21	19.25366 AU	opposition	-11980 Dec 01 j 16:56	18° $\mathbb{H}$ 49'47	0°02'48
conjunction	-11985 May 11 j 10:00	22° $\approx$ 28'01	-0°30'37	min. Earth dist.	-11980 Dec 02 j 11:09	18° $\mathbb{H}$ 47'50	17.31881 AU
minimum elong	-11985 May 11 j 10:00	22° $\approx$ 28'01	0°31'04	direct	-11979 Feb 16 j 21:28	16° $\mathbb{H}$ 44'00	
morning rise	-11985 May 27 j 12:42	23° $\approx$ 28'59		evening set	-11979 May 23 j 18:17	20° $\mathbb{H}$ 14'47	
retrograde	-11985 Aug 26 j 11:11	26° $\approx$ 51'09		conjunction	-11979 Jun 08 j 17:53	21° $\mathbb{H}$ 15'21	0°05'44
opposition	-11985 Nov 07 j 20:45	24° $\approx$ 49'21	-0°31'06	minimum elong	-11979 Jun 08 j 17:54	21° $\mathbb{H}$ 15'21	0°05'37
min. Earth dist.	-11985 Nov 08 j 22:35	24° $\approx$ 46'33	17.25341 AU	behind sun begin	-11979 Jun 08 j 11:32	21° $\mathbb{H}$ 14'22	
direct	-11984 Jan 23 j 18:27	22° $\approx$ 42'37		behind sun end	-11979 Jun 09 j 00:15	21° $\mathbb{H}$ 16'20	
evening set	-11984 Apr 29 j 06:22	26° $\approx$ 15'03		max. Earth dist.	-11979 Jun 07 j 23:31	21° $\mathbb{H}$ 12'26	19.33188 AU
max. Earth dist.	-11984 May 14 j 07:43	27° $\approx$ 12'01	19.25379 AU	morning rise	-11979 Jun 24 j 13:50	22° $\mathbb{H}$ 15'23	
conjunction	-11984 May 15 j 12:19	27° $\approx$ 16'33	-0°24'52	retrograde	-11979 Sep 23 j 15:07	25° $\mathbb{H}$ 37'22	
minimum elong	-11984 May 15 j 12:19	27° $\approx$ 16'33	0°25'15	opposition	-11979 Dec 06 j 21:07	23° $\mathbb{H}$ 35'51	0°09'40
morning rise	-11984 May 31 j 13:54	28° $\approx$ 17'25		min. Earth dist.	-11979 Dec 07 j 12:12	23° $\mathbb{H}$ 34'15	17.34635 AU
	-11984 Jun 30 j 11:20	0° $\mathbb{H}$		direct	-11978 Feb 22 j 03:50	21° $\mathbb{H}$ 30'18	
retrograde	-11984 Aug 30 j 12:28	1° $\mathbb{H}$ 39'43		evening set	-11978 May 28 j 18:37	25° $\mathbb{H}$ 00'21	
	-11984 Nov 03 j 11:02	30° $\mathbb{R}$		conjunction	-11978 Jun 13 j 17:04	26° $\mathbb{H}$ 00'41	0°11'49
opposition	-11984 Nov 12 j 00:18	29° $\approx$ 37'58	-0°24'33	minimum elong	-11978 Jun 13 j 17:04	26° $\mathbb{H}$ 00'41	0°11'44
min. Earth dist.	-11984 Nov 13 j 01:03	29° $\approx$ 35'18	17.25641 AU	behind sun begin	-11978 Jun 13 j 12:22	25° $\mathbb{H}$ 59'57	
direct	-11983 Jan 27 j 23:21	27° $\approx$ 31'24		behind sun end	-11978 Jun 13 j 21:47	26° $\mathbb{H}$ 01'25	
	-11983 Apr 16 j 13:52	0° $\mathbb{H}$		max. Earth dist.	-11978 Jun 13 j 01:38	25° $\mathbb{H}$ 58'14	19.36184 AU
evening set	-11983 May 04 j 09:45	1° $\mathbb{H}$ 03'47		morning rise	-11978 Jun 29 j 11:53	27° $\mathbb{H}$ 00'30	
conjunction	-11983 May 20 j 14:31	2° $\mathbb{H}$ 05'09	-0°18'55		-11978 Aug 31 j 08:08	0° $\mathbb{Y}$	
minimum elong	-11983 May 20 j 14:31	2° $\mathbb{H}$ 05'09	0°19'17	retrograde	-11978 Sep 28 j 13:27	0° $\mathbb{Y}$ 22'15	
max. Earth dist.	-11983 May 19 j 12:23	2° $\mathbb{H}$ 01'00	19.25956 AU		-11978 Oct 27 j 13:47	30° $\mathbb{R}$	
morning rise	-11983 Jun 05 j 14:52	3° $\mathbb{H}$ 05'53		opposition	-11978 Dec 12 j 01:18	28° $\mathbb{H}$ 20'45	0°16'25
retrograde	-11983 Sep 04 j 13:32	6° $\mathbb{H}$ 28'14		min. Earth dist.	-11978 Dec 12 j 15:06	28° $\mathbb{H}$ 19'17	17.37878 AU
opposition	-11983 Nov 17 j 04:00	4° $\mathbb{H}$ 26'34	-0°17'50	direct	-11977 Feb 27 j 07:19	26° $\mathbb{H}$ 15'26	
min. Earth dist.	-11983 Nov 18 j 02:48	4° $\mathbb{H}$ 24'07	17.26466 AU	evening set	-11977 Jun 02 j 18:11	29° $\mathbb{H}$ 44'40	
direct	-11982 Feb 02 j 05:12	2° $\mathbb{H}$ 20'11			-11977 Jun 06 j 20:42	0° $\mathbb{Y}$	
evening set	-11982 May 09 j 12:50	5° $\mathbb{H}$ 52'22		conjunction	-11977 Jun 18 j 15:20	0° $\mathbb{Y}$ 44'43	0°17'47
conjunction	-11982 May 25 j 16:15	6° $\mathbb{H}$ 53'34	-0°12'52	minimum elong	-11977 Jun 18 j 15:20	0° $\mathbb{Y}$ 44'43	0°17'47
minimum elong	-11982 May 25 j 16:16	6° $\mathbb{H}$ 53'34	0°13'09	max. Earth dist.	-11977 Jun 18 j 01:58	0° $\mathbb{Y}$ 42'36	19.39691 AU
behind sun begin	-11982 May 25 j 12:18	6° $\mathbb{H}$ 52'57		morning rise	-11977 Jul 04 j 09:19	1° $\mathbb{Y}$ 44'18	
behind sun end	-11982 May 25 j 20:13	6° $\mathbb{H}$ 54'11		retrograde	-11977 Oct 03 j 13:47	5° $\mathbb{Y}$ 05'47	
max. Earth dist.	-11982 May 24 j 15:26	6° $\mathbb{H}$ 49'38	19.27037 AU	opposition	-11977 Dec 17 j 05:10	3° $\mathbb{Y}$ 04'17	0°23'01
morning rise	-11982 Jun 10 j 15:27	7° $\mathbb{H}$ 54'09		min. Earth dist.	-11977 Dec 17 j 15:21	3° $\mathbb{Y}$ 03'12	17.41635 AU
retrograde	-11982 Sep 09 j 13:46	11° $\mathbb{H}$ 16'30		direct	-11976 Mar 03 j 12:17	0° $\mathbb{Y}$ 59'14	
opposition	-11982 Nov 22 j 08:13	9° $\mathbb{H}$ 14'54	-0°11'00	evening set	-11976 Jun 06 j 16:38	4° $\mathbb{Y}$ 27'31	
min. Earth dist.	-11982 Nov 23 j 06:05	9° $\mathbb{H}$ 12'33	17.27797 AU	conjunction	-11976 Jun 22 j 12:46	5° $\mathbb{Y}$ 27'18	0°23'37
direct	-11981 Feb 07 j 10:20	7° $\mathbb{H}$ 08'42		minimum elong	-11976 Jun 22 j 12:46	5° $\mathbb{Y}$ 27'18	0°23'39
evening set	-11981 May 14 j 15:17	10° $\mathbb{H}$ 40'34		max. Earth dist.	-11976 Jun 22 j 03:07	5° $\mathbb{Y}$ 25'47	19.43705 AU
conjunction	-11981 May 30 j 17:24	11° $\mathbb{H}$ 41'34	-0°06'44	morning rise	-11976 Jul 08 j 05:43	6° $\mathbb{Y}$ 26'38	
				retrograde	-11976 Oct 07 j 11:39	9° $\mathbb{Y}$ 47'49	
				opposition	-11976 Dec 21 j 08:49	7° $\mathbb{Y}$ 46'20	0°29'26

Attention, astronomical year style is used: The year -11976 in astronomical counting style is the year 11977 BCE in historical counting style.

min. Earth dist.	-11976 Dec 21 j 17:17	7° $\Upsilon$ 45'26	17.45913 AU	conjunction	-11969 Jul 24 j 19:32	7° $\text{8}$ 40'28	0°57'29
direct	-11975 Mar 08 j 14:32	5° $\Upsilon$ 41'35		minimum elong	-11969 Jul 24 j 19:32	7° $\text{8}$ 40'28	0°57'53
evening set	-11975 Jun 11 j 14:26	9° $\Upsilon$ 08'52		max. Earth dist.	-11969 Jul 25 j 04:49	7° $\text{8}$ 41'55	19.84756 AU
				morning rise	-11969 Aug 09 j 08:30	8° $\text{8}$ 37'59	
conjunction	-11975 Jun 27 j 09:19	10° $\Upsilon$ 08'21	0°29'16	retrograde	-11969 Nov 09 j 13:29	11° $\text{8}$ 56'09	
minimum elong	-11975 Jun 27 j 09:19	10° $\Upsilon$ 08'20	0°29'22	opposition	-11968 Jan 24 j 19:52	9° $\text{8}$ 55'24	1°05'57
max. Earth dist.	-11975 Jun 27 j 01:40	10° $\Upsilon$ 07'08	19.48252 AU	min. Earth dist.	-11968 Jan 24 j 09:03	9° $\text{8}$ 56'31	17.88250 AU
morning rise	-11975 Jul 13 j 01:36	11° $\Upsilon$ 07'26		direct	-11968 Apr 10 j 20:15	7° $\text{8}$ 53'42	
retrograde	-11975 Oct 12 j 10:52	14° $\Upsilon$ 28'15		evening set	-11968 Jul 12 j 21:14	11° $\text{8}$ 12'23	
opposition	-11975 Dec 26 j 11:43	12° $\Upsilon$ 26'48	0°35'37				
min. Earth dist.	-11975 Dec 26 j 16:29	12° $\Upsilon$ 26'18	17.50723 AU	conjunction	-11968 Jul 28 j 10:33	12° $\text{8}$ 09'42	1°00'59
direct	-11974 Mar 13 j 17:46	10° $\Upsilon$ 22'24		minimum elong	-11968 Jul 28 j 10:33	12° $\text{8}$ 09'42	1°01'26
evening set	-11974 Jun 16 j 11:12	13° $\Upsilon$ 48'37		max. Earth dist.	-11968 Jul 28 j 23:07	12° $\text{8}$ 11'39	19.91724 AU
				morning rise	-11968 Aug 12 j 23:08	13° $\text{8}$ 06'57	
conjunction	-11974 Jul 02 j 05:12	14° $\Upsilon$ 47'48	0°34'42		-11968 Sep 16 j 13:36	15° $\text{8}$	
minimum elong	-11974 Jul 02 j 05:11	14° $\Upsilon$ 47'48	0°34'51	retrograde	-11968 Nov 13 j 07:45	16° $\text{8}$ 24'34	
max. Earth dist.	-11974 Jul 02 j 01:33	14° $\Upsilon$ 47'14	19.53319 AU		-11967 Jan 13 j 22:22	15° $\text{8}$	
morning rise	-11974 Jul 17 j 20:31	15° $\Upsilon$ 46'38		opposition	-11967 Jan 28 j 18:53	14° $\text{8}$ 23'55	1°09'36
retrograde	-11974 Oct 17 j 08:25	19° $\Upsilon$ 07'04		min. Earth dist.	-11967 Jan 28 j 05:41	14° $\text{8}$ 25'16	17.95248 AU
opposition	-11974 Dec 31 j 14:33	17° $\Upsilon$ 05'42	0°41'32	direct	-11967 Apr 15 j 18:36	12° $\text{8}$ 22'39	
min. Earth dist.	-11974 Dec 31 j 17:12	17° $\Upsilon$ 05'26	17.56041 AU		-11967 Jul 06 j 03:48	15° $\text{8}$	
direct	-11973 Mar 18 j 19:16	15° $\Upsilon$ 01'43		evening set	-11967 Jul 17 j 11:59	15° $\text{8}$ 39'57	
evening set	-11973 Jun 21 j 07:06	18° $\Upsilon$ 26'46					
				conjunction	-11967 Aug 02 j 00:39	16° $\text{8}$ 36'58	1°04'05
conjunction	-11973 Jul 06 j 23:57	19° $\Upsilon$ 25'39	0°39'52	minimum elong	-11967 Aug 02 j 00:39	16° $\text{8}$ 36'58	1°04'35
minimum elong	-11973 Jul 06 j 23:56	19° $\Upsilon$ 25'39	0°40'04	max. Earth dist.	-11967 Aug 02 j 14:27	16° $\text{8}$ 39'05	19.98734 AU
max. Earth dist.	-11973 Jul 06 j 22:17	19° $\Upsilon$ 25'23	19.58887 AU	morning rise	-11967 Aug 17 j 13:12	17° $\text{8}$ 33'57	
morning rise	-11973 Jul 22 j 14:46	20° $\Upsilon$ 24'13		retrograde	-11967 Nov 18 j 00:37	20° $\text{8}$ 51'00	
retrograde	-11973 Oct 22 j 06:33	23° $\Upsilon$ 44'16		opposition	-11966 Feb 02 j 17:05	18° $\text{8}$ 50'25	1°12'48
opposition	-11972 Jan 05 j 16:46	21° $\Upsilon$ 43'00	0°47'09	min. Earth dist.	-11966 Feb 02 j 02:07	18° $\text{8}$ 51'57	18.02279 AU
min. Earth dist.	-11972 Jan 05 j 15:51	21° $\Upsilon$ 43'06	17.61841 AU	direct	-11966 Apr 20 j 14:23	16° $\text{8}$ 49'32	
direct	-11972 Mar 22 j 21:01	19° $\Upsilon$ 39'27		evening set	-11966 Jul 22 j 01:40	20° $\text{8}$ 05'27	
evening set	-11972 Jun 25 j 02:01	23° $\Upsilon$ 03'19					
				conjunction	-11966 Aug 06 j 14:08	21° $\text{8}$ 02'11	1°06'47
conjunction	-11972 Jul 10 j 18:09	24° $\Upsilon$ 01'54	0°44'46	minimum elong	-11966 Aug 06 j 14:07	21° $\text{8}$ 02'11	1°07'18
minimum elong	-11972 Jul 10 j 18:09	24° $\Upsilon$ 01'54	0°45'02	max. Earth dist.	-11966 Aug 07 j 06:49	21° $\text{8}$ 04'44	20.05756 AU
max. Earth dist.	-11972 Jul 10 j 20:31	24° $\Upsilon$ 02'16	19.64895 AU	morning rise	-11966 Aug 22 j 02:29	21° $\text{8}$ 58'55	
morning rise	-11972 Jul 26 j 08:14	25° $\Upsilon$ 00'12		retrograde	-11966 Nov 22 j 17:37	25° $\text{8}$ 15'21	
retrograde	-11972 Oct 26 j 03:16	28° $\Upsilon$ 19'48		opposition	-11965 Feb 07 j 14:30	23° $\text{8}$ 14'50	1°15'33
opposition	-11971 Jan 09 j 18:23	26° $\Upsilon$ 18'40	0°52'25	min. Earth dist.	-11965 Feb 06 j 20:57	23° $\text{8}$ 16'38	18.09287 AU
min. Earth dist.	-11971 Jan 09 j 15:15	26° $\Upsilon$ 19'00	17.68039 AU	direct	-11965 Apr 25 j 10:37	21° $\text{8}$ 14'20	
direct	-11971 Mar 27 j 22:06	24° $\Upsilon$ 15'36		evening set	-11965 Jul 26 j 14:26	24° $\text{8}$ 28'50	
evening set	-11971 Jun 29 j 20:13	27° $\Upsilon$ 38'13					
				conjunction	-11965 Aug 11 j 02:30	25° $\text{8}$ 25'16	1°09'04
conjunction	-11971 Jul 15 j 11:21	28° $\Upsilon$ 36'29	0°49'21	minimum elong	-11965 Aug 11 j 02:30	25° $\text{8}$ 25'16	1°09'38
minimum elong	-11971 Jul 15 j 11:21	28° $\Upsilon$ 36'29	0°49'39	max. Earth dist.	-11965 Aug 11 j 20:32	25° $\text{8}$ 28'01	20.12746 AU
max. Earth dist.	-11971 Jul 15 j 15:24	28° $\Upsilon$ 37'07	19.71267 AU	morning rise	-11965 Aug 26 j 15:05	26° $\text{8}$ 21'47	
morning rise	-11971 Jul 31 j 01:06	29° $\Upsilon$ 34'31		retrograde	-11965 Nov 27 j 09:11	29° $\text{8}$ 37'35	
	-11971 Aug 07 j 02:12	0° $\text{8}$		opposition	-11964 Feb 12 j 11:06	27° $\text{8}$ 37'05	1°17'50
retrograde	-11971 Oct 30 j 23:28	2° $\text{8}$ 53'41		min. Earth dist.	-11964 Feb 11 j 16:11	27° $\text{8}$ 39'01	18.16274 AU
opposition	-11970 Jan 14 j 19:27	0° $\text{8}$ 52'41	0°57'20	direct	-11964 Apr 29 j 04:30	25° $\text{8}$ 36'55	
min. Earth dist.	-11970 Jan 14 j 13:22	0° $\text{8}$ 53'19	17.74568 AU	evening set	-11964 Jul 30 j 02:16	28° $\text{8}$ 50'01	
	-11970 Feb 05 j 15:59	30° $\text{8}$ $\Upsilon$					
direct	-11970 Apr 01 j 22:10	28° $\Upsilon$ 50'04		conjunction	-11964 Aug 14 j 14:19	29° $\text{8}$ 46'12	1°10'56
	-11970 May 24 j 10:13	0° $\text{8}$		minimum elong	-11964 Aug 14 j 14:19	29° $\text{8}$ 46'12	1°11'31
evening set	-11970 Jul 04 j 13:20	2° $\text{8}$ 11'25		max. Earth dist.	-11964 Aug 15 j 11:01	29° $\text{8}$ 49'21	20.19709 AU
					-11964 Aug 18 j 08:59	0° $\text{II}$	
conjunction	-11970 Jul 20 j 03:52	3° $\text{8}$ 09'22	0°53'36	morning rise	-11964 Aug 30 j 02:56	0° $\text{II}$ 42'28	
minimum elong	-11970 Jul 20 j 03:52	3° $\text{8}$ 09'22	0°53'58	retrograde	-11964 Dec 01 j 00:56	3° $\text{II}$ 57'37	
max. Earth dist.	-11970 Jul 20 j 11:40	3° $\text{8}$ 10'35	19.77914 AU	min. Earth dist.	-11963 Feb 15 j 08:53	1° $\text{II}$ 59'21	18.23217 AU
morning rise	-11970 Aug 04 j 17:00	4° $\text{8}$ 07'08		opposition	-11963 Feb 16 j 06:26	1° $\text{II}$ 57'10	1°19'39
retrograde	-11970 Nov 04 j 19:07	7° $\text{8}$ 25'49			-11963 Apr 23 j 17:26	30° $\text{8}$ $\text{8}$	
opposition	-11969 Jan 19 j 20:00	5° $\text{8}$ 24'57	1°01'51	direct	-11963 May 03 j 22:54	29° $\text{8}$ 57'19	
min. Earth dist.	-11969 Jan 19 j 11:33	5° $\text{8}$ 25'50	17.81321 AU		-11963 May 14 j 02:15	0° $\text{II}$	
direct	-11969 Apr 06 j 22:21	3° $\text{8}$ 22'49		evening set	-11963 Aug 03 j 13:19	3° $\text{II}$ 09'03	
evening set	-11969 Jul 09 j 05:50	6° $\text{8}$ 42'51					
				conjunction	-11963 Aug 19 j 01:10	4° $\text{II}$ 04'57	1°12'24

Attention, astronomical year style is used: The year -11963 in astronomical counting style is the year 11964 BCE in historical counting style.

minimum elong	-11963 Aug 19 j 01:10	4°II04'57	1°13'00			-11956 Apr 27 j 00:23	30°RII	
max. Earth dist.	-11963 Aug 19 j 23:17	4°II08'18	20.26631 AU	direct		-11956 Jun 02 j 20:37	29°II27'11	
morning rise	-11963 Sep 03 j 14:07	5°II01'01				-11956 Jul 08 j 16:27	0°☾	
retrograde	-11963 Dec 05 j 14:50	8°II15'32		evening set		-11956 Aug 31 j 22:24	2°☾30'37	
min. Earth dist.	-11962 Feb 20 j 02:28	6°II17'23	18.30144 AU					
opposition	-11962 Feb 21 j 01:07	6°II15'05	1°21'00	conjunction		-11956 Sep 16 j 12:22	3°☾25'10	1°11'21
direct	-11962 May 08 j 14:29	4°II15'35		minimum elong		-11956 Sep 16 j 12:22	3°☾25'10	1°12'02
evening set	-11962 Aug 07 j 23:18	7°II25'57		max. Earth dist.		-11956 Sep 17 j 21:34	3°☾30'03	20.73344 AU
				morning rise		-11956 Oct 02 j 05:09	4°☾20'07	
conjunction	-11962 Aug 23 j 11:16	8°II21'36	1°13'26	retrograde		-11955 Jan 04 j 07:55	7°☾30'43	
minimum elong	-11962 Aug 23 j 11:16	8°II21'36	1°14'04	min. Earth dist.		-11955 Mar 22 j 01:59	5°☾34'18	18.76382 AU
max. Earth dist.	-11962 Aug 24 j 11:57	8°II25'20	20.33544 AU	opposition		-11955 Mar 23 j 10:42	5°☾31'00	1°18'07
morning rise	-11962 Sep 08 j 00:25	9°II17'27		direct		-11955 Jun 07 j 08:35	3°☾33'58	
retrograde	-11962 Dec 10 j 05:44	12°II31'21		evening set		-11955 Sep 05 j 04:39	6°☾36'28	
opposition	-11961 Feb 25 j 18:47	10°II30'57	1°21'54					
min. Earth dist.	-11961 Feb 24 j 17:18	10°II33'32	18.37050 AU	conjunction		-11955 Sep 20 j 19:08	7°☾30'52	1°09'40
direct	-11961 May 13 j 07:11	8°II31'47		minimum elong		-11955 Sep 20 j 19:08	7°☾30'52	1°10'22
evening set	-11961 Aug 12 j 08:47	11°II40'51		max. Earth dist.		-11955 Sep 22 j 04:51	7°☾35'49	20.79155 AU
				morning rise		-11955 Oct 06 j 12:48	8°☾25'44	
conjunction	-11961 Aug 27 j 20:44	12°II36'16	1°14'04	retrograde		-11954 Jan 08 j 18:02	11°☾35'51	
minimum elong	-11961 Aug 27 j 20:44	12°II36'16	1°14'43	opposition		-11954 Mar 27 j 22:48	9°☾36'15	1°16'03
max. Earth dist.	-11961 Aug 28 j 22:56	12°II40'12	20.40433 AU	min. Earth dist.		-11954 Mar 26 j 14:46	9°☾39'28	18.82004 AU
morning rise	-11961 Sep 12 j 10:24	13°II31'57		direct		-11954 Jun 11 j 16:57	7°☾39'30	
retrograde	-11961 Dec 14 j 18:08	16°II45'14		evening set		-11954 Sep 09 j 10:21	10°☾41'04	
min. Earth dist.	-11960 Feb 29 j 09:18	14°II47'33	18.43943 AU					
opposition	-11960 Mar 01 j 11:35	14°II44'54	1°22'21	conjunction		-11954 Sep 25 j 01:35	11°☾35'23	1°07'39
direct	-11960 May 16 j 20:20	12°II46'04		minimum elong		-11954 Sep 25 j 01:36	11°☾35'23	1°08'20
evening set	-11960 Aug 15 j 17:23	15°II53'54		max. Earth dist.		-11954 Sep 26 j 11:45	11°☾40'22	20.84570 AU
				morning rise		-11954 Oct 10 j 20:07	12°☾30'09	
conjunction	-11960 Aug 31 j 05:41	16°II49'07	1°14'18	retrograde		-11953 Jan 13 j 04:53	15°☾39'49	
minimum elong	-11960 Aug 31 j 05:41	16°II49'07	1°14'59	min. Earth dist.		-11953 Mar 31 j 00:48	13°☾43'37	18.87190 AU
max. Earth dist.	-11960 Sep 01 j 09:59	16°II53'21	20.47302 AU	opposition		-11953 Apr 01 j 10:03	13°☾40'17	1°13'36
morning rise	-11960 Sep 15 j 19:46	17°II44'36		direct		-11953 Jun 16 j 03:18	11°☾43'45	
retrograde	-11960 Dec 18 j 08:27	20°II57'18		evening set		-11953 Sep 13 j 15:57	14°☾44'29	
min. Earth dist.	-11959 Mar 04 j 22:31	18°II59'59	18.50775 AU					
opposition	-11959 Mar 06 j 03:22	18°II57'04	1°22'22	conjunction		-11953 Sep 29 j 07:53	15°☾38'42	1°05'18
direct	-11959 May 21 j 10:58	16°II58'37		minimum elong		-11953 Sep 29 j 07:53	15°☾38'42	1°06'00
evening set	-11959 Aug 20 j 01:26	20°II05'16		max. Earth dist.		-11953 Sep 30 j 18:10	15°☾43'41	20.89514 AU
				morning rise		-11953 Oct 15 j 03:25	16°☾33'24	
conjunction	-11959 Sep 04 j 13:55	21°II00'17	1°14'09	retrograde		-11952 Jan 17 j 13:44	19°☾42'36	
minimum elong	-11959 Sep 04 j 13:55	21°II00'17	1°14'49	opposition		-11952 Apr 04 j 20:34	17°☾43'07	1°10'49
max. Earth dist.	-11959 Sep 05 j 19:31	21°II04'42	20.54078 AU	min. Earth dist.		-11952 Apr 03 j 12:26	17°☾46'20	18.91898 AU
morning rise	-11959 Sep 20 j 04:37	21°II55'37		direct		-11952 Jun 19 j 11:00	15°☾46'46	
retrograde	-11959 Dec 22 j 19:42	25°II07'46		evening set		-11952 Sep 16 j 21:06	18°☾46'42	
opposition	-11958 Mar 10 j 18:28	23°II07'40	1°21'56					
min. Earth dist.	-11958 Mar 09 j 13:16	23°II10'36	18.57502 AU	conjunction		-11952 Oct 02 j 13:57	19°☾40'50	1°02'39
direct	-11958 May 25 j 22:01	21°II09'35		minimum elong		-11952 Oct 02 j 13:58	19°☾40'50	1°03'18
evening set	-11958 Aug 24 j 08:51	24°II15'06		max. Earth dist.		-11952 Oct 04 j 00:11	19°☾45'48	20.93989 AU
				morning rise		-11952 Oct 18 j 10:27	20°☾35'29	
conjunction	-11958 Sep 08 j 21:48	25°II09'57	1°13'35	retrograde		-11951 Jan 20 j 23:24	23°☾44'14	
minimum elong	-11958 Sep 08 j 21:48	25°II09'57	1°14'17	min. Earth dist.		-11951 Apr 07 j 21:18	21°☾48'04	18.96122 AU
max. Earth dist.	-11958 Sep 10 j 05:04	25°II14'35	20.60733 AU	opposition		-11951 Apr 09 j 06:19	21°☾44'46	1°07'41
morning rise	-11958 Sep 24 j 13:05	26°II05'08		direct		-11951 Jun 23 j 19:36	19°☾48'33	
retrograde	-11958 Dec 27 j 09:06	29°II16'45		evening set		-11951 Sep 21 j 01:55	22°☾47'44	
min. Earth dist.	-11957 Mar 14 j 01:17	27°II19'56	18.64061 AU					
opposition	-11957 Mar 15 j 08:39	27°II16'47	1°21'05	conjunction		-11951 Oct 06 j 19:33	23°☾41'48	0°59'42
direct	-11957 May 30 j 11:14	25°II19'05		minimum elong		-11951 Oct 06 j 19:34	23°☾41'48	1°00'21
evening set	-11957 Aug 28 j 15:49	28°II23'31		max. Earth dist.		-11951 Oct 08 j 05:49	23°☾46'45	20.97969 AU
				morning rise		-11951 Oct 22 j 17:07	24°☾36'25	
conjunction	-11957 Sep 13 j 05:10	29°II18'12	1°12'39	retrograde		-11950 Jan 25 j 06:50	27°☾44'44	
minimum elong	-11957 Sep 13 j 05:10	29°II18'12	1°13'21	min. Earth dist.		-11950 Apr 12 j 07:40	25°☾48'26	18.99876 AU
max. Earth dist.	-11957 Sep 14 j 13:25	29°II22'58	20.67174 AU	opposition		-11950 Apr 13 j 15:29	25°☾45'15	1°04'15
	-11957 Sep 25 j 01:36	0°☾		direct		-11950 Jun 28 j 02:19	23°☾49'07	
morning rise	-11957 Sep 28 j 21:15	0°☾13'16		evening set		-11950 Sep 25 j 06:27	26°☾47'37	
retrograde	-11957 Dec 31 j 19:57	3°☾24'23						
opposition	-11956 Mar 18 j 22:14	1°☾24'32	1°19'48	conjunction		-11950 Oct 11 j 01:05	27°☾41'39	0°56'28
min. Earth dist.	-11956 Mar 17 j 15:06	1°☾27'40	18.70380 AU	minimum elong		-11950 Oct 11 j 01:06	27°☾41'39	0°57'06

Attention, astronomical year style is used: The year -11950 in astronomical counting style is the year 11951 BCE in historical counting style.

max. Earth dist.	-11950 Oct 12 j 11:15	27° $\overline{54}$ 6'34	21.01518 AU	morning rise	-11944 Nov 19 j 14:47	22° $\overline{19}$ 5'59	
morning rise	-11950 Oct 26 j 23:41	28° $\overline{53}$ 6'14		retrograde	-11943 Feb 22 j 12:55	25° $\overline{19}$ 26'27	
	-11950 Nov 22 j 16:57	0° $\overline{19}$		min. Earth dist.	-11943 May 10 j 10:54	23° $\overline{19}$ 29'52	19.15121 AU
retrograde	-11949 Jan 29 j 15:47	1° $\overline{19}$ 44'10		opposition	-11943 May 11 j 15:23	23° $\overline{19}$ 27'00	0°33'06
	-11949 Apr 11 j 14:03	30° $\overline{18}$ 5		direct	-11943 Jul 25 j 13:39	21° $\overline{19}$ 31'13	
opposition	-11949 Apr 17 j 23:48	29° $\overline{54}$ 4'38	1°00'31	evening set	-11943 Oct 22 j 13:10	24° $\overline{19}$ 27'20	
min. Earth dist.	-11949 Apr 16 j 15:15	29° $\overline{54}$ 7'53	19.03210 AU				
direct	-11949 Jul 02 j 09:33	27° $\overline{54}$ 48'34		conjunction	-11943 Nov 07 j 15:10	25° $\overline{19}$ 21'34	0°27'39
	-11949 Sep 15 j 03:37	0° $\overline{19}$		minimum elong	-11943 Nov 07 j 15:10	25° $\overline{19}$ 21'34	0°28'04
evening set	-11949 Sep 29 j 10:54	0° $\overline{19}$ 46'28		max. Earth dist.	-11943 Nov 08 j 21:34	25° $\overline{19}$ 25'52	21.15368 AU
				morning rise	-11943 Nov 23 j 21:39	26° $\overline{19}$ 16'25	
conjunction	-11949 Oct 15 j 06:27	1° $\overline{19}$ 40'29	0°52'59	retrograde	-11942 Feb 26 j 19:24	29° $\overline{19}$ 22'49	
minimum elong	-11949 Oct 15 j 06:28	1° $\overline{19}$ 40'29	0°53'35	opposition	-11942 May 15 j 20:56	27° $\overline{19}$ 23'24	0°27'51
max. Earth dist.	-11949 Oct 16 j 16:35	1° $\overline{19}$ 45'22	21.04646 AU	min. Earth dist.	-11942 May 14 j 18:34	27° $\overline{19}$ 26'04	19.15587 AU
morning rise	-11949 Oct 31 j 06:12	2° $\overline{19}$ 35'03		direct	-11942 Jul 29 j 16:45	25° $\overline{19}$ 27'38	
retrograde	-11948 Feb 02 j 22:16	5° $\overline{19}$ 42'37		evening set	-11942 Oct 26 j 18:18	28° $\overline{19}$ 23'45	
min. Earth dist.	-11948 Apr 20 j 00:23	3° $\overline{19}$ 46'11	19.06146 AU				
opposition	-11948 Apr 21 j 07:38	3° $\overline{19}$ 43'03	0°56'32	conjunction	-11942 Nov 11 j 21:28	29° $\overline{19}$ 18'05	0°22'51
direct	-11948 Jul 05 j 14:45	1° $\overline{19}$ 47'03		minimum elong	-11942 Nov 11 j 21:29	29° $\overline{19}$ 18'05	0°23'13
evening set	-11948 Oct 02 j 15:10	4° $\overline{19}$ 44'26		max. Earth dist.	-11942 Nov 13 j 02:14	29° $\overline{19}$ 22'09	21.15585 AU
					-11942 Nov 24 j 07:02	0° $\overline{19}$	
conjunction	-11948 Oct 18 j 11:46	5° $\overline{19}$ 38'25	0°49'16	morning rise	-11942 Nov 28 j 05:05	0° $\overline{19}$ 13'02	
minimum elong	-11948 Oct 18 j 11:47	5° $\overline{19}$ 38'26	0°49'51	retrograde	-11941 Mar 03 j 04:14	3° $\overline{19}$ 19'24	
max. Earth dist.	-11948 Oct 19 j 21:34	5° $\overline{19}$ 43'16	21.07403 AU	min. Earth dist.	-11941 May 19 j 00:29	1° $\overline{19}$ 22'36	19.15520 AU
morning rise	-11948 Nov 03 j 12:34	6° $\overline{19}$ 33'00		opposition	-11941 May 20 j 02:04	1° $\overline{19}$ 20'01	0°22'28
retrograde	-11947 Feb 06 j 07:05	9° $\overline{19}$ 40'14			-11941 Jun 25 j 11:11	30° $\overline{19}$ 8	
min. Earth dist.	-11947 Apr 24 j 06:55	7° $\overline{19}$ 43'52	19.08714 AU	direct	-11941 Aug 02 j 21:16	29° $\overline{19}$ 24'11	
opposition	-11947 Apr 25 j 14:41	7° $\overline{19}$ 40'40	0°52'17		-11941 Sep 09 j 09:06	0° $\overline{19}$	
direct	-11947 Jul 09 j 20:44	5° $\overline{19}$ 44'43		evening set	-11941 Oct 30 j 23:55	2° $\overline{19}$ 20'25	
evening set	-11947 Oct 06 j 19:25	8° $\overline{19}$ 41'40					
				conjunction	-11941 Nov 16 j 04:11	3° $\overline{19}$ 14'52	0°17'55
conjunction	-11947 Oct 22 j 16:59	9° $\overline{19}$ 35'41	0°45'20	minimum elong	-11941 Nov 16 j 04:11	3° $\overline{19}$ 14'52	0°18'16
minimum elong	-11947 Oct 22 j 17:00	9° $\overline{19}$ 35'41	0°45'52	max. Earth dist.	-11941 Nov 17 j 07:23	3° $\overline{19}$ 18'42	21.15223 AU
max. Earth dist.	-11947 Oct 24 j 02:36	9° $\overline{19}$ 40'28	21.09786 AU	morning rise	-11941 Dec 02 j 12:53	4° $\overline{19}$ 09'55	
morning rise	-11947 Nov 07 j 18:56	10° $\overline{19}$ 30'17		retrograde	-11940 Mar 06 j 11:01	7° $\overline{19}$ 16'16	
retrograde	-11946 Feb 10 j 12:58	13° $\overline{19}$ 37'15		min. Earth dist.	-11940 May 22 j 08:11	5° $\overline{19}$ 19'13	19.14855 AU
opposition	-11946 Apr 29 j 21:31	11° $\overline{19}$ 37'42	0°47'48	opposition	-11940 May 23 j 07:15	5° $\overline{19}$ 16'53	0°16'59
min. Earth dist.	-11946 Apr 28 j 15:09	11° $\overline{19}$ 40'45	19.10916 AU	direct	-11940 Aug 06 j 00:13	3° $\overline{19}$ 20'59	
direct	-11946 Jul 14 j 00:43	9° $\overline{19}$ 41'47		evening set	-11940 Nov 03 j 05:46	6° $\overline{19}$ 17'21	
evening set	-11946 Oct 10 j 23:30	12° $\overline{19}$ 38'24					
				conjunction	-11940 Nov 19 j 11:11	7° $\overline{19}$ 11'56	0°12'55
conjunction	-11946 Oct 26 j 22:14	13° $\overline{19}$ 32'26	0°41'11	minimum elong	-11940 Nov 19 j 11:11	7° $\overline{19}$ 11'56	0°13'13
minimum elong	-11946 Oct 26 j 22:14	13° $\overline{19}$ 32'26	0°41'43	behind sun begin	-11940 Nov 19 j 07:20	7° $\overline{19}$ 11'24	
max. Earth dist.	-11946 Oct 28 j 07:15	13° $\overline{19}$ 37'08	21.11816 AU	behind sun end	-11940 Nov 19 j 15:02	7° $\overline{19}$ 12'28	
morning rise	-11946 Nov 12 j 01:19	14° $\overline{19}$ 27'05		max. Earth dist.	-11940 Nov 20 j 12:13	7° $\overline{19}$ 15'28	21.14266 AU
	-11946 Nov 22 j 03:40	15° $\overline{19}$		morning rise	-11940 Dec 05 j 20:56	8° $\overline{19}$ 07'06	
retrograde	-11945 Feb 14 j 21:59	17° $\overline{19}$ 33'50		retrograde	-11939 Mar 10 j 19:48	11° $\overline{19}$ 13'30	
min. Earth dist.	-11945 May 02 j 21:16	15° $\overline{19}$ 37'22	19.12743 AU	opposition	-11939 May 27 j 12:10	9° $\overline{19}$ 14'04	0°11'24
opposition	-11945 May 04 j 03:50	15° $\overline{19}$ 34'18	0°43'06	min. Earth dist.	-11939 May 26 j 14:09	9° $\overline{19}$ 16'18	19.13584 AU
	-11945 May 18 j 14:02	15° $\overline{19}$ 8		direct	-11939 Aug 10 j 05:01	7° $\overline{19}$ 18'02	
direct	-11945 Jul 18 j 05:46	13° $\overline{19}$ 38'26		evening set	-11939 Nov 07 j 12:03	10° $\overline{19}$ 14'37	
	-11945 Sep 13 j 22:00	15° $\overline{19}$					
evening set	-11945 Oct 15 j 03:56	16° $\overline{19}$ 34'48		conjunction	-11939 Nov 23 j 18:33	11° $\overline{19}$ 09'21	0°07'52
				minimum elong	-11939 Nov 23 j 18:33	11° $\overline{19}$ 09'21	0°08'08
conjunction	-11945 Oct 31 j 03:43	17° $\overline{19}$ 28'54	0°36'50	behind sun begin	-11939 Nov 23 j 12:38	11° $\overline{19}$ 08'32	
minimum elong	-11945 Oct 31 j 03:44	17° $\overline{19}$ 28'54	0°37'19	behind sun end	-11939 Nov 24 j 00:29	11° $\overline{19}$ 10'09	
max. Earth dist.	-11945 Nov 01 j 12:10	17° $\overline{19}$ 33'30	21.13440 AU	max. Earth dist.	-11939 Nov 24 j 17:49	11° $\overline{19}$ 12'37	21.12692 AU
morning rise	-11945 Nov 16 j 07:58	18° $\overline{19}$ 23'35		morning rise	-11939 Dec 10 j 05:19	12° $\overline{19}$ 04'39	
retrograde	-11944 Feb 19 j 04:00	21° $\overline{19}$ 30'10		retrograde	-11938 Mar 15 j 02:29	15° $\overline{19}$ 11'05	
min. Earth dist.	-11944 May 06 j 05:01	19° $\overline{19}$ 33'34	19.14154 AU	opposition	-11938 May 31 j 17:06	13° $\overline{19}$ 11'36	0°05'46
opposition	-11944 May 07 j 09:44	19° $\overline{19}$ 30'41	0°38'11	min. Earth dist.	-11938 May 30 j 21:42	13° $\overline{19}$ 13'34	19.11709 AU
direct	-11944 Jul 21 j 09:08	17° $\overline{19}$ 34'52		direct	-11938 Aug 14 j 07:59	11° $\overline{19}$ 15'23	
evening set	-11944 Oct 18 j 08:28	20° $\overline{19}$ 31'04		evening set	-11938 Nov 11 j 18:36	14° $\overline{19}$ 12'15	
conjunction	-11944 Nov 03 j 09:25	21° $\overline{19}$ 25'13	0°32'19	conjunction	-11938 Nov 28 j 02:19	15° $\overline{19}$ 07'08	0°02'46
minimum elong	-11944 Nov 03 j 09:25	21° $\overline{19}$ 25'13	0°32'47	minimum elong	-11938 Nov 28 j 02:17	15° $\overline{19}$ 07'07	0°02'58
max. Earth dist.	-11944 Nov 04 j 16:45	21° $\overline{19}$ 29'40	21.14646 AU	behind sun begin	-11938 Nov 27 j 19:37	15° $\overline{19}$ 06'13	

Attention, astronomical year style is used: The year -11938 in astronomical counting style is the year 11939 BCE in historical counting style.

behind sun end	-11938 Nov 28 j 08:57	15° <u>00</u> 08'02		evening set	-11932 Dec 05 j 21:06	8° <u>00</u> 10'46	
max. Earth dist.	-11938 Nov 28 j 23:14	15° <u>00</u> 10'05	21.10549 AU				
morning rise	-11938 Dec 14 j 14:08	16° <u>00</u> 02'35		conjunction	-11932 Dec 22 j 10:44	9° <u>00</u> 06'51	-0°27'37
retrograde	-11937 Mar 19 j 11:29	19° <u>00</u> 09'06		minimum elong	-11932 Dec 22 j 10:44	9° <u>00</u> 06'51	0°27'41
opposition	-11937 Jun 04 j 21:51	17° <u>00</u> 09'30	0°00'06	max. Earth dist.	-11932 Dec 22 j 19:01	9° <u>00</u> 08'01	20.88432 AU
min. Earth dist.	-11937 Jun 04 j 03:42	17° <u>00</u> 11'21	19.09280 AU	morning rise	-11931 Jan 08 j 03:33	10° <u>00</u> 03'23	
desc. node	-11937 Jun 11 j 09:31	16° <u>00</u> 53'40		retrograde	-11931 Apr 12 j 16:30	13° <u>00</u> 11'17	
direct	-11937 Aug 18 j 12:59	15° <u>00</u> 13'03		opposition	-11931 Jun 28 j 03:38	11° <u>00</u> 11'03	-0°33'15
evening set	-11937 Nov 16 j 01:46	18° <u>00</u> 10'17		min. Earth dist.	-11931 Jun 27 j 20:47	11° <u>00</u> 11'46	18.86045 AU
				direct	-11931 Sep 10 j 16:37	9° <u>00</u> 12'58	
				evening set	-11931 Dec 10 j 07:51	12° <u>00</u> 14'04	
conjunction	-11937 Dec 02 j 10:31	19° <u>00</u> 05'20	-0°02'30				
minimum elong	-11937 Dec 02 j 10:31	19° <u>00</u> 05'20	0°02'20				
behind sun begin	-11937 Dec 02 j 03:49	19° <u>00</u> 04'24		conjunction	-11931 Dec 26 j 22:24	13° <u>00</u> 10'23	-0°32'24
behind sun end	-11937 Dec 02 j 17:13	19° <u>00</u> 06'15		minimum elong	-11931 Dec 26 j 22:23	13° <u>00</u> 10'23	0°32'32
max. Earth dist.	-11937 Dec 03 j 05:41	19° <u>00</u> 08'01	21.07856 AU	max. Earth dist.	-11931 Dec 27 j 04:52	13° <u>00</u> 11'18	20.83580 AU
morning rise	-11937 Dec 18 j 23:16	20° <u>00</u> 00'56		morning rise	-11930 Jan 12 j 15:43	14° <u>00</u> 07'08	
retrograde	-11936 Mar 22 j 18:28	23° <u>00</u> 07'33		retrograde	-11930 Apr 17 j 02:02	17° <u>00</u> 15'25	
min. Earth dist.	-11936 Jun 07 j 10:59	21° <u>00</u> 09'26	19.06341 AU	opposition	-11930 Jul 02 j 09:26	15° <u>00</u> 15'08	-0°38'29
opposition	-11936 Jun 08 j 02:31	21° <u>00</u> 07'51	-0°05'34	min. Earth dist.	-11930 Jul 02 j 05:11	15° <u>00</u> 15'35	18.81042 AU
direct	-11936 Aug 21 j 16:24	19° <u>00</u> 11'08		direct	-11930 Sep 14 j 21:59	13° <u>00</u> 16'46	
evening set	-11936 Nov 19 j 09:17	22° <u>00</u> 08'49		evening set	-11930 Dec 14 j 19:31	16° <u>00</u> 18'48	
conjunction	-11936 Dec 05 j 19:05	23° <u>00</u> 04'02	-0°07'37	conjunction	-11930 Dec 31 j 10:50	17° <u>00</u> 15'22	-0°37'03
minimum elong	-11936 Dec 05 j 19:05	23° <u>00</u> 04'02	0°07'30	minimum elong	-11930 Dec 31 j 10:50	17° <u>00</u> 15'22	0°37'14
behind sun begin	-11936 Dec 05 j 13:00	23° <u>00</u> 03'12		max. Earth dist.	-11930 Dec 31 j 14:11	17° <u>00</u> 15'51	20.78434 AU
behind sun end	-11936 Dec 06 j 01:11	23° <u>00</u> 04'52		morning rise	-11929 Jan 17 j 04:50	18° <u>00</u> 12'20	
max. Earth dist.	-11936 Dec 06 j 11:55	23° <u>00</u> 06'24	21.04706 AU	retrograde	-11929 Apr 21 j 13:59	21° <u>00</u> 21'03	
morning rise	-11936 Dec 22 j 08:48	23° <u>00</u> 59'48		opposition	-11929 Jul 06 j 15:40	19° <u>00</u> 20'43	-0°43'34
retrograde	-11935 Mar 27 j 03:31	27° <u>00</u> 06'36		min. Earth dist.	-11929 Jul 06 j 13:10	19° <u>00</u> 20'59	18.75732 AU
opposition	-11935 Jun 12 j 07:13	25° <u>00</u> 06'45	-0°11'13	direct	-11929 Sep 19 j 05:21	17° <u>00</u> 22'02	
min. Earth dist.	-11935 Jun 11 j 16:51	25° <u>00</u> 08'13	19.02978 AU	evening set	-11929 Dec 19 j 08:07	20° <u>00</u> 25'05	
direct	-11935 Aug 25 j 21:10	23° <u>00</u> 09'46					
evening set	-11935 Nov 23 j 17:11	26° <u>00</u> 07'57		conjunction	-11928 Jan 05 j 00:12	21° <u>00</u> 21'55	-0°41'33
				minimum elong	-11928 Jan 05 j 00:12	21° <u>00</u> 21'55	0°41'47
conjunction	-11935 Dec 10 j 04:01	27° <u>00</u> 03'23	-0°12'41	max. Earth dist.	-11928 Jan 05 j 01:33	21° <u>00</u> 22'06	20.72942 AU
minimum elong	-11935 Dec 10 j 04:00	27° <u>00</u> 03'23	0°12'37	morning rise	-11928 Jan 21 j 18:31	22° <u>00</u> 19'07	
behind sun begin	-11935 Dec 09 j 23:49	27° <u>00</u> 02'48		retrograde	-11928 Apr 25 j 00:22	25° <u>00</u> 28'16	
behind sun end	-11935 Dec 10 j 08:12	27° <u>00</u> 03'57		opposition	-11928 Jul 09 j 22:24	23° <u>00</u> 27'53	-0°48'27
max. Earth dist.	-11935 Dec 10 j 19:14	27° <u>00</u> 05'31	21.01140 AU	min. Earth dist.	-11928 Jul 09 j 22:40	23° <u>00</u> 27'52	18.70069 AU
morning rise	-11935 Dec 26 j 18:32	27° <u>00</u> 59'19		direct	-11928 Sep 22 j 11:37	21° <u>00</u> 28'54	
	-11934 Feb 06 j 04:37	0° <u>00</u> 00'00		evening set	-11928 Dec 22 j 21:37	24° <u>00</u> 33'00	
retrograde	-11934 Mar 31 j 11:28	1° <u>00</u> 06'19					
	-11934 May 24 j 22:39	30° <u>00</u> 00'00		conjunction	-11927 Jan 08 j 14:18	25° <u>00</u> 30'06	-0°45'51
opposition	-11934 Jun 16 j 12:06	29° <u>00</u> 06'22	-0°16'50	minimum elong	-11927 Jan 08 j 14:17	25° <u>00</u> 30'06	0°46'08
min. Earth dist.	-11934 Jun 16 j 00:11	29° <u>00</u> 07'35	18.99227 AU	max. Earth dist.	-11927 Jan 08 j 12:06	25° <u>00</u> 29'47	20.67111 AU
direct	-11934 Aug 30 j 01:14	27° <u>00</u> 09'06		morning rise	-11927 Jan 25 j 09:07	26° <u>00</u> 27'31	
	-11934 Nov 25 j 16:25	0° <u>00</u> 00'00		retrograde	-11927 Apr 29 j 13:22	29° <u>00</u> 37'10	
evening set	-11934 Nov 28 j 01:51	0° <u>00</u> 07'53		opposition	-11927 Jul 14 j 05:41	27° <u>00</u> 36'42	-0°53'07
				min. Earth dist.	-11927 Jul 14 j 07:57	27° <u>00</u> 36'28	18.64063 AU
conjunction	-11934 Dec 14 j 13:40	1° <u>00</u> 03'31	-0°17'44	direct	-11927 Sep 26 j 20:47	25° <u>00</u> 37'21	
minimum elong	-11934 Dec 14 j 13:39	1° <u>00</u> 03'31	0°17'43	evening set	-11927 Dec 27 j 11:50	28° <u>00</u> 42'34	
max. Earth dist.	-11934 Dec 15 j 02:24	1° <u>00</u> 05'19	20.97226 AU				
morning rise	-11934 Dec 31 j 05:04	1° <u>00</u> 59'39		conjunction	-11926 Jan 13 j 05:15	29° <u>00</u> 39'56	-0°49'57
retrograde	-11933 Apr 04 j 21:05	5° <u>00</u> 06'54		minimum elong	-11926 Jan 13 j 05:15	29° <u>00</u> 39'56	0°50'15
opposition	-11933 Jun 20 j 16:56	3° <u>00</u> 06'50	-0°22'24	max. Earth dist.	-11926 Jan 13 j 00:59	29° <u>00</u> 39'19	20.60910 AU
min. Earth dist.	-11933 Jun 20 j 06:17	3° <u>00</u> 07'56	18.95146 AU		-11926 Jan 19 j 00:27	0° <u>00</u> 00'00	
direct	-11933 Sep 03 j 06:04	1° <u>00</u> 09'17		morning rise	-11926 Jan 30 j 00:16	0° <u>00</u> 37'35	
evening set	-11933 Dec 02 j 11:11	4° <u>00</u> 08'46		retrograde	-11926 May 04 j 00:35	3° <u>00</u> 47'44	
				opposition	-11926 Jul 18 j 13:36	1° <u>00</u> 47'10	-0°57'32
conjunction	-11933 Dec 18 j 23:58	5° <u>00</u> 04'37	-0°22'43	min. Earth dist.	-11926 Jul 18 j 18:37	1° <u>00</u> 46'39	18.57682 AU
minimum elong	-11933 Dec 18 j 23:58	5° <u>00</u> 04'37	0°22'45		-11926 Sep 09 j 04:30	30° <u>00</u> 00'00	
max. Earth dist.	-11933 Dec 19 j 10:57	5° <u>00</u> 06'10	20.92977 AU	direct	-11926 Oct 01 j 04:46	29° <u>00</u> 47'25	
morning rise	-11932 Jan 04 j 16:02	6° <u>00</u> 00'57			-11926 Oct 23 j 05:05	0° <u>00</u> 00'00	
retrograde	-11932 Apr 08 j 05:51	9° <u>00</u> 08'29		evening set	-11925 Jan 01 j 03:11	2° <u>00</u> 53'48	
opposition	-11932 Jun 23 j 22:11	7° <u>00</u> 08'20	-0°27'52				
min. Earth dist.	-11932 Jun 23 j 13:59	7° <u>00</u> 09'11	18.90741 AU	conjunction	-11925 Jan 17 j 21:04	3° <u>00</u> 51'26	-0°53'47
direct	-11932 Sep 06 j 10:53	5° <u>00</u> 10'32		minimum elong	-11925 Jan 17 j 21:04	3° <u>00</u> 51'26	0°54'09

Attention, astronomical year style is used: The year -11925 in astronomical counting style is the year 11926 BCE in historical counting style.

max. Earth dist.	-11925 Jan 17 j 12:57	3°M.50'16	20.54361 AU	opposition	-11919 Aug 16 j 13:37	1°Z.48'04	-1°19'09
morning rise	-11925 Feb 03 j 16:28	4°M.49'20		min. Earth dist.	-11919 Aug 17 j 08:55	1°Z.46'00	18.07612 AU
retrograde	-11925 May 08 j 14:15	7°M.59'58			-11919 Oct 06 j 20:17	30°R.M.	
opposition	-11925 Jul 22 j 21:55	5°M.59'17	-1°01'39	direct	-11919 Oct 30 j 18:37	29°M.45'09	
min. Earth dist.	-11925 Jul 23 j 05:08	5°M.58'31	18.50974 AU		-11919 Nov 23 j 13:29	0°Z.	
direct	-11925 Oct 05 j 15:27	3°M.59'06		evening set	-11918 Feb 01 j 13:12	3°Z.00'43	
evening set	-11924 Jan 05 j 19:18	7°M.06'40		max. Earth dist.	-11918 Feb 17 j 09:15	3°Z.56'47	20.03998 AU
conjunction	-11924 Jan 22 j 13:47	8°M.04'36	-0°57'21	conjunction	-11918 Feb 18 j 08:58	4°Z.00'18	-1°11'55
minimum elong	-11924 Jan 22 j 13:47	8°M.04'36	0°57'45	minimum elong	-11918 Feb 18 j 08:57	4°Z.00'18	1°12'32
max. Earth dist.	-11924 Jan 22 j 03:45	8°M.03'09	20.47494 AU	morning rise	-11918 Mar 07 j 03:30	4°Z.59'48	
morning rise	-11924 Feb 08 j 09:10	9°M.02'43		retrograde	-11918 Jun 07 j 22:09	8°Z.14'27	
retrograde	-11924 May 12 j 02:37	12°M.13'52		opposition	-11918 Aug 21 j 02:54	6°Z.12'53	-1°20'37
opposition	-11924 Jul 26 j 06:58	10°M.13'02	-1°05'29	min. Earth dist.	-11918 Aug 21 j 23:26	6°Z.10'40	18.00524 AU
min. Earth dist.	-11924 Jul 26 j 16:40	10°M.12'01	18.43978 AU	direct	-11918 Nov 04 j 10:30	4°Z.09'35	
direct	-11924 Oct 09 j 01:31	8°M.12'24		evening set	-11917 Feb 06 j 11:22	7°Z.26'34	
evening set	-11923 Jan 09 j 12:08	11°M.21'12		max. Earth dist.	-11917 Feb 22 j 04:07	8°Z.22'26	19.96989 AU
conjunction	-11923 Jan 26 j 06:53	12°M.19'25	-1°00'38	conjunction	-11917 Feb 23 j 06:53	8°Z.26'26	-1°13'00
minimum elong	-11923 Jan 26 j 06:53	12°M.19'24	1°01'05	minimum elong	-11917 Feb 23 j 06:52	8°Z.26'26	1°13'38
max. Earth dist.	-11923 Jan 25 j 17:14	12°M.17'25	20.40393 AU	morning rise	-11917 Mar 12 j 01:06	9°Z.26'08	
morning rise	-11923 Feb 12 j 02:30	13°M.17'46		retrograde	-11917 Jun 12 j 15:45	12°Z.41'26	
retrograde	-11923 Mar 16 j 21:03	15°M.		opposition	-11917 Aug 25 j 17:03	10°Z.39'50	-1°21'38
opposition	-11923 May 16 j 16:40	16°M.29'28		min. Earth dist.	-11917 Aug 26 j 15:33	10°Z.37'24	17.93612 AU
min. Earth dist.	-11923 Jul 18 j 04:26	15°R.M.		direct	-11917 Nov 09 j 02:23	8°Z.36'09	
direct	-11923 Jul 30 j 16:31	14°M.28'28	-1°08'58	evening set	-11916 Feb 11 j 10:16	11°Z.54'36	
evening set	-11923 Jul 31 j 04:17	14°M.27'13	18.36795 AU	max. Earth dist.	-11916 Feb 27 j 02:22	12°Z.50'37	19.90160 AU
max. Earth dist.	-11923 Oct 13 j 13:11	12°M.27'21		conjunction	-11916 Feb 28 j 05:44	12°Z.54'43	-1°13'40
conjunction	-11922 Jan 03 j 01:06	15°M.		minimum elong	-11916 Feb 28 j 05:44	12°Z.54'43	1°14'19
minimum elong	-11922 Jan 14 j 05:49	15°M.37'26		morning rise	-11916 Mar 15 j 23:20	13°Z.54'38	
morning rise	-11922 Jan 30 j 09:56	16°M.33'43	20.33128 AU	retrograde	-11916 Jun 16 j 11:12	17°Z.10'35	
retrograde	-11922 Jan 31 j 01:04	16°M.35'55	-1°03'36	opposition	-11916 Aug 29 j 08:11	15°Z.08'59	-1°22'10
opposition	-11922 Jan 31 j 01:03	16°M.35'55	1°04'05	min. Earth dist.	-11916 Aug 30 j 07:36	15°Z.06'26	17.86872 AU
min. Earth dist.	-11922 Feb 16 j 20:30	17°M.34'30		direct	-11916 Nov 12 j 19:54	13°Z.04'58	
direct	-11922 May 21 j 06:36	20°M.46'45		evening set	-11915 Feb 15 j 09:59	16°Z.24'50	
evening set	-11922 Aug 04 j 02:38	18°M.45'36	-1°12'07	max. Earth dist.	-11915 Mar 02 j 23:00	17°Z.20'39	19.83505 AU
max. Earth dist.	-11922 Aug 04 j 16:31	18°M.44'07	18.29484 AU	conjunction	-11915 Mar 04 j 05:04	17°Z.25'12	-1°13'53
conjunction	-11922 Oct 18 j 01:18	16°M.44'01		minimum elong	-11915 Mar 04 j 05:04	17°Z.25'12	1°14'33
minimum elong	-11921 Jan 19 j 00:33	19°M.55'25		morning rise	-11915 Mar 20 j 22:10	18°Z.25'19	
morning rise	-11921 Feb 04 j 19:53	20°M.54'11	-1°06'14	retrograde	-11915 Jun 21 j 06:38	21°Z.41'55	
retrograde	-11921 Feb 04 j 19:53	20°M.54'11	1°06'45	opposition	-11915 Sep 03 j 00:18	19°Z.40'17	-1°22'11
opposition	-11921 Feb 04 j 01:14	20°M.51'26	20.25788 AU	min. Earth dist.	-11915 Sep 04 j 01:50	19°Z.37'32	17.80316 AU
min. Earth dist.	-11921 Feb 21 j 15:24	21°M.53'00		direct	-11915 Nov 17 j 13:20	17°Z.35'57	
direct	-11921 May 25 j 21:19	25°M.05'49		evening set	-11914 Feb 20 j 10:36	20°Z.57'14	
evening set	-11921 Aug 08 j 13:33	23°M.04'31	-1°14'52	max. Earth dist.	-11914 Mar 07 j 22:39	21°Z.53'09	19.77026 AU
max. Earth dist.	-11921 Aug 09 j 05:24	23°M.02'50	18.22145 AU	conjunction	-11914 Mar 09 j 05:27	21°Z.57'50	-1°13'38
conjunction	-11921 Oct 22 j 14:11	21°M.02'28		minimum elong	-11914 Mar 09 j 05:27	21°Z.57'50	1°14'18
minimum elong	-11920 Jan 23 j 19:52	24°M.15'14		morning rise	-11914 Mar 25 j 21:49	22°Z.58'08	
morning rise	-11920 Feb 09 j 15:31	25°M.14'16	-1°08'30	retrograde	-11914 Jun 26 j 03:47	26°Z.15'21	
retrograde	-11920 Feb 09 j 15:31	25°M.14'16	1°09'04	opposition	-11914 Sep 07 j 17:14	24°Z.13'43	-1°21'41
opposition	-11920 Feb 08 j 19:49	25°M.11'22	20.18438 AU	min. Earth dist.	-11914 Sep 08 j 19:31	24°Z.10'52	17.73916 AU
min. Earth dist.	-11920 Feb 26 j 10:39	26°M.13'19		direct	-11914 Nov 22 j 09:11	22°Z.09'04	
direct	-11920 May 29 j 12:53	29°M.26'44		evening set	-11913 Feb 25 j 12:11	25°Z.31'42	
evening set	-11920 Aug 12 j 01:11	27°M.25'19	-1°17'13	max. Earth dist.	-11913 Mar 12 j 21:17	26°Z.27'28	19.70702 AU
max. Earth dist.	-11920 Aug 12 j 18:38	27°M.23'27	18.14823 AU	conjunction	-11913 Mar 14 j 06:30	26°Z.32'31	-1°12'55
conjunction	-11920 Oct 26 j 04:20	25°M.22'49		minimum elong	-11913 Mar 14 j 06:30	26°Z.32'31	1°13'36
minimum elong	-11919 Jan 27 j 16:13	28°M.36'58		morning rise	-11913 Mar 30 j 22:08	27°Z.33'00	
morning rise	-11919 Feb 13 j 11:46	29°M.36'17	-1°10'24	retrograde	-11913 May 18 j 10:17	0°Z.	
retrograde	-11919 Feb 13 j 11:46	29°M.36'17	1°10'58	opposition	-11913 Jul 01 j 00:05	0°Z.50'48	
opposition	-11919 Feb 12 j 12:50	29°M.32'53	20.11157 AU	min. Earth dist.	-11913 Aug 14 j 10:50	30°R.Z.	
min. Earth dist.	-11919 Feb 20 j 03:57	0°Z.		direct	-11913 Sep 12 j 11:24	28°Z.49'09	-1°20'39
direct	-11919 Mar 02 j 06:47	0°Z.35'33		evening set	-11913 Sep 13 j 15:50	28°Z.46'03	17.67693 AU
evening set	-11919 Jun 03 j 04:43	3°Z.49'35		max. Earth dist.	-11913 Nov 27 j 04:12	26°Z.44'09	

Attention, astronomical year style is used: The year -11912 in astronomical counting style is the year 11913 BCE in historical counting style.

	-11912 Feb 28 j 07:40	0°♂		morning rise	-11906 May 03 j 09:37	0°♂20'47	
evening set	-11912 Mar 01 j 14:11	0°♂08'06		retrograde	-11906 Aug 02 j 13:39	3°♂♂41'45	
max. Earth dist.	-11912 Mar 16 j 22:04	1°♂♂03'55	19.64567 AU	opposition	-11906 Oct 14 j 17:39	1°♂♂39'39	-0°59'05
				min. Earth dist.	-11906 Oct 16 j 00:11	1°♂♂36'19	17.33069 AU
conjunction	-11912 Mar 18 j 08:01	1°♂♂09'07	-1°11'44		-11906 Nov 27 j 14:40	30°♂♂♂	
minimum elong	-11912 Mar 18 j 08:01	1°♂♂09'07	1°12'24	direct	-11906 Dec 30 j 07:24	29°♂♂32'46	
morning rise	-11912 Apr 03 j 22:49	2°♂♂09'44			-11905 Jan 31 j 12:33	0°♂♂	
retrograde	-11912 Jul 04 j 22:33	5°♂♂28'06		evening set	-11905 Apr 05 j 15:57	3°♂♂03'32	
opposition	-11912 Sep 16 j 06:22	3°♂♂26'24	-1°19'06	max. Earth dist.	-11905 Apr 20 j 17:20	3°♂♂59'51	19.31471 AU
min. Earth dist.	-11912 Sep 17 j 11:01	3°♂♂23'16	17.61656 AU				
direct	-11912 Dec 01 j 02:53	1°♂♂21'05		conjunction	-11905 Apr 22 j 04:05	4°♂♂05'19	-0°50'42
evening set	-11911 Mar 06 j 16:53	4°♂♂46'15		minimum elong	-11905 Apr 22 j 04:06	4°♂♂05'19	0°51'17
max. Earth dist.	-11911 Mar 21 j 22:37	5°♂♂41'59	19.58642 AU	morning rise	-11905 May 08 j 11:41	5°♂♂06'28	
				retrograde	-11905 Aug 07 j 12:51	8°♂♂27'46	
conjunction	-11911 Mar 23 j 10:06	5°♂♂47'26	-1°10'04	opposition	-11905 Oct 19 j 18:25	6°♂♂25'41	-0°54'09
minimum elong	-11911 Mar 23 j 10:06	5°♂♂47'26	1°10'45	min. Earth dist.	-11905 Oct 21 j 01:03	6°♂♂22'20	17.30193 AU
morning rise	-11911 Apr 09 j 00:01	6°♂♂48'12		direct	-11904 Jan 04 j 09:24	4°♂♂18'43	
retrograde	-11911 Jul 09 j 19:02	10°♂♂07'05		evening set	-11904 Apr 09 j 20:17	7°♂♂50'04	
opposition	-11911 Sep 21 j 02:11	8°♂♂05'19	-1°17'00	max. Earth dist.	-11904 Apr 24 j 20:28	8°♂♂46'23	19.28936 AU
min. Earth dist.	-11911 Sep 22 j 08:49	8°♂♂01'58	17.55873 AU				
direct	-11911 Dec 05 j 23:47	5°♂♂59'39		conjunction	-11904 Apr 26 j 07:09	8°♂♂51'51	-0°46'04
evening set	-11910 Mar 11 j 20:03	9°♂♂25'59		minimum elong	-11904 Apr 26 j 07:10	8°♂♂51'51	0°46'37
max. Earth dist.	-11910 Mar 27 j 00:25	10°♂♂21'45	19.53009 AU	morning rise	-11904 May 12 j 13:45	9°♂♂53'01	
				retrograde	-11904 Aug 11 j 14:03	13°♂♂14'37	
conjunction	-11910 Mar 28 j 12:37	10°♂♂27'20	-1°07'56	opposition	-11904 Oct 23 j 19:40	11°♂♂12'34	-0°48'48
minimum elong	-11910 Mar 28 j 12:37	10°♂♂27'21	1°08'37	min. Earth dist.	-11904 Oct 25 j 00:46	11°♂♂09'24	17.27985 AU
morning rise	-11910 Apr 14 j 01:41	11°♂♂28'13		direct	-11903 Jan 08 j 13:28	9°♂♂05'36	
retrograde	-11910 Jul 14 j 18:09	14°♂♂47'35		evening set	-11903 Apr 15 j 00:32	12°♂♂37'26	
opposition	-11910 Sep 25 j 22:50	12°♂♂45'43	-1°14'24	max. Earth dist.	-11903 Apr 30 j 02:08	13°♂♂34'06	19.27060 AU
min. Earth dist.	-11910 Sep 27 j 05:13	12°♂♂42'24	17.50394 AU				
direct	-11910 Dec 11 j 00:54	10°♂♂39'45		conjunction	-11903 May 01 j 10:28	13°♂♂39'13	-0°41'07
evening set	-11909 Mar 16 j 23:37	14°♂♂07'09		minimum elong	-11903 May 01 j 10:28	13°♂♂39'13	0°41'39
max. Earth dist.	-11909 Apr 01 j 02:49	15°♂♂02'58	19.47707 AU	morning rise	-11903 May 17 j 15:43	14°♂♂40'20	
					-11903 May 23 j 00:23	15°♂♂	
conjunction	-11909 Apr 02 j 15:26	15°♂♂08'39	-1°05'20	retrograde	-11903 Aug 16 j 14:43	18°♂♂02'12	
minimum elong	-11909 Apr 02 j 15:27	15°♂♂08'39	1°06'00	opposition	-11903 Oct 28 j 21:31	16°♂♂00'14	-0°43'06
morning rise	-11909 Apr 19 j 03:25	16°♂♂09'37		min. Earth dist.	-11903 Oct 30 j 02:12	15°♂♂57'07	17.26422 AU
retrograde	-11909 Jul 19 j 15:13	19°♂♂29'26			-11903 Nov 21 j 23:06	15°♂♂♂	
opposition	-11909 Sep 30 j 20:28	17°♂♂27'30	-1°11'18	direct	-11902 Jan 13 j 16:32	13°♂♂53'19	
min. Earth dist.	-11909 Oct 02 j 04:17	17°♂♂24'01	17.45302 AU		-11902 Mar 05 j 19:13	15°♂♂	
direct	-11909 Dec 15 j 23:56	15°♂♂21'14		evening set	-11902 Apr 20 j 04:57	17°♂♂25'32	
evening set	-11908 Mar 21 j 03:29	18°♂♂49'37		max. Earth dist.	-11902 May 05 j 05:25	18°♂♂22'10	19.25827 AU
max. Earth dist.	-11908 Apr 05 j 05:21	19°♂♂45'26	19.42845 AU				
				conjunction	-11902 May 06 j 13:32	18°♂♂27'15	-0°35'51
conjunction	-11908 Apr 06 j 18:24	19°♂♂51'13	-1°02'18	minimum elong	-11902 May 06 j 13:32	18°♂♂27'15	0°36'19
minimum elong	-11908 Apr 06 j 18:24	19°♂♂51'13	1°02'58	morning rise	-11902 May 22 j 17:45	19°♂♂28'20	
morning rise	-11908 Apr 23 j 05:29	20°♂♂52'16		retrograde	-11902 Aug 21 j 16:21	22°♂♂50'26	
retrograde	-11908 Jul 23 j 15:08	24°♂♂12'30		opposition	-11902 Nov 03 j 00:05	20°♂♂48'33	-0°37'04
opposition	-11908 Oct 04 j 18:44	22°♂♂10'29	-1°07'41	min. Earth dist.	-11902 Nov 04 j 03:21	20°♂♂45'36	17.25495 AU
min. Earth dist.	-11908 Oct 06 j 01:42	22°♂♂07'06	17.40677 AU	direct	-11901 Jan 18 j 20:23	18°♂♂41'43	
direct	-11908 Dec 20 j 02:54	20°♂♂03'57		evening set	-11901 Apr 25 j 08:59	22°♂♂14'12	
evening set	-11907 Mar 26 j 07:21	23°♂♂33'13		max. Earth dist.	-11901 May 10 j 11:00	23°♂♂11'10	19.25199 AU
max. Earth dist.	-11907 Apr 10 j 09:15	24°♂♂29'15	19.38472 AU				
				conjunction	-11901 May 11 j 16:28	23°♂♂15'51	-0°30'19
conjunction	-11907 Apr 11 j 21:30	24°♂♂34'54	-0°58'50	minimum elong	-11901 May 11 j 16:28	23°♂♂15'51	0°30'45
minimum elong	-11907 Apr 11 j 21:30	24°♂♂34'54	0°59'28	morning rise	-11901 May 27 j 19:19	24°♂♂16'50	
morning rise	-11907 Apr 28 j 07:23	25°♂♂36'01		retrograde	-11901 Aug 26 j 18:24	27°♂♂39'07	
retrograde	-11907 Jul 28 j 12:59	28°♂♂56'38		opposition	-11901 Nov 08 j 03:18	25°♂♂37'21	-0°30'46
opposition	-11907 Oct 09 j 17:56	26°♂♂54'34	-1°03'37	min. Earth dist.	-11901 Nov 09 j 05:29	25°♂♂34'31	17.25141 AU
min. Earth dist.	-11907 Oct 11 j 01:44	26°♂♂51'06	17.36577 AU	direct	-11900 Jan 24 j 00:57	23°♂♂30'39	
direct	-11907 Dec 25 j 03:24	24°♂♂47'50		evening set	-11900 Apr 29 j 13:00	27°♂♂03'13	
evening set	-11906 Mar 31 j 11:39	28°♂♂17'54					
max. Earth dist.	-11906 Apr 15 j 12:11	29°♂♂13'55	19.34667 AU	conjunction	-11900 May 15 j 19:04	28°♂♂04'46	-0°24'34
				minimum elong	-11900 May 15 j 19:05	28°♂♂04'46	0°24'58
conjunction	-11906 Apr 17 j 00:41	29°♂♂19'38	-0°54'58	max. Earth dist.	-11900 May 14 j 14:12	28°♂♂00'10	19.25134 AU
minimum elong	-11906 Apr 17 j 00:42	29°♂♂19'38	0°55'34	morning rise	-11900 May 31 j 20:50	29°♂♂05'39	
	-11906 Apr 27 j 18:49	0°♂♂			-11900 Jun 15 j 22:32	0°♂♂♂	



Attention, astronomical year style is used: The year -11900 in astronomical counting style is the year 11901 BCE in historical counting style.

retrograde	-11900 Aug 30 j 19:28	2° <del>✕</del> 28'04	
opposition	-11900 Nov 12 j 06:50	0° <del>✕</del> 26'22	-0°24'14
min. Earth dist.	-11900 Nov 13 j 07:49	0° <del>✕</del> 23'40	17.25351 AU
	-11900 Nov 22 j 12:44	30° <del>✕</del> ≈	
direct	-11899 Jan 28 j 05:03	28° <del>✕</del> ≈19'48	
	-11899 Apr 01 j 14:59	0° <del>✕</del>	
evening set	-11899 May 04 j 16:29	1° <del>✕</del> 52'20	
conjunction	-11899 May 20 j 21:25	2° <del>✕</del> 53'44	-0°18'39
minimum elong	-11899 May 20 j 21:26	2° <del>✕</del> 53'45	0°18'59
max. Earth dist.	-11899 May 19 j 19:05	2° <del>✕</del> 49'33	19.25607 AU
morning rise	-11899 Jun 05 j 21:55	3° <del>✕</del> 54'31	
retrograde	-11899 Sep 04 j 21:32	7° <del>✕</del> 16'58	
opposition	-11899 Nov 17 j 10:46	5° <del>✕</del> 15'20	-0°17'32
min. Earth dist.	-11899 Nov 18 j 10:01	5° <del>✕</del> 12'50	17.26059 AU