

direct	1100 Jan 09 j 16:10	7°834'06	conjunction	1105 May 18 j 08:43	2°II53'00	-0°05'01
evening set	1100 Apr 09 j 10:49	10°838'50	minimum elong	1105 May 18 j 08:43	2°II53'00	0°05'01
			behind sun begin	1105 May 18 j 02:08	2°II52'03	
conjunction	1100 Apr 25 j 22:53	11°835'56 -0°20'29	behind sun end	1105 May 18 j 15:17	2°II53'57	
minimum elong	1100 Apr 25 j 22:53	11°835'56 0°20'29	max. Earth dist.	1105 May 18 j 03:25	2°II52'15	20.23350 AU
max. Earth dist.	1100 Apr 26 j 03:06	11°836'32 20.55218 AU	morning rise	1105 Jun 04 j 02:43	3°II51'51	
morning rise	1100 May 12 j 13:51	12°833'29	retrograde	1105 Sep 06 j 08:01	7°II06'42	
	1100 Jul 03 j 00:51	15°8	opposition	1105 Nov 20 j 19:10	5°II04'39	-0°03'39
retrograde	1100 Aug 15 j 05:30	15°845'43	min. Earth dist.	1105 Nov 20 j 23:31	5°II04'11	18.20082 AU
	1100 Sep 28 j 01:32	15°88	direct	1106 Feb 03 j 09:45	3°II03'27	
opposition	1100 Oct 30 j 13:11	13°844'33 -0°21'03	evening set	1106 May 06 j 10:31	6°II14'24	
min. Earth dist.	1100 Oct 30 j 10:35	13°844'49 18.52193 AU				
direct	1101 Jan 13 j 00:57	11°845'23	conjunction	1106 May 23 j 03:27	7°II13'17	-0°01'42
evening set	1101 Apr 14 j 00:42	14°851'01	minimum elong	1106 May 23 j 03:25	7°II13'17	0°01'42
	1101 Apr 16 j 15:48	15°8	behind sun begin	1106 May 22 j 20:39	7°II12'18	
			behind sun end	1106 May 23 j 10:12	7°II14'15	
conjunction	1101 Apr 30 j 13:42	15°848'24 -0°17'35	max. Earth dist.	1106 May 22 j 21:10	7°II12'23	20.16862 AU
minimum elong	1101 Apr 30 j 13:43	15°848'24 0°17'34	morning rise	1106 Jun 08 j 21:40	8°II12'24	
max. Earth dist.	1101 Apr 30 j 15:51	15°848'42 20.49137 AU	retrograde	1106 Sep 10 j 23:49	11°II27'49	
morning rise	1101 May 17 j 05:25	16°846'12	asc. node	1106 Nov 21 j 16:03	9°II35'02	
retrograde	1101 Aug 19 j 19:55	19°858'56	opposition	1106 Nov 25 j 07:43	9°II25'40	0°00'02
opposition	1101 Nov 03 j 22:56	17°857'34 -0°17'46	min. Earth dist.	1106 Nov 25 j 13:51	9°II25'01	18.13637 AU
min. Earth dist.	1101 Nov 03 j 21:15	17°857'44 18.45989 AU	direct	1107 Feb 07 j 21:57	7°II24'07	
direct	1102 Jan 17 j 11:31	15°857'59	evening set	1107 May 11 j 05:40	10°II36'16	
evening set	1102 Apr 18 j 15:24	19°804'35				
			conjunction	1107 May 27 j 23:03	11°II35'26	0°01'45
conjunction	1102 May 05 j 05:17	20°802'15 -0°14'33	minimum elong	1107 May 27 j 23:05	11°II35'26	0°01'44
minimum elong	1102 May 05 j 05:16	20°802'15 0°14'34	behind sun begin	1107 May 27 j 16:18	11°II34'27	
behind sun begin	1102 May 05 j 02:34	20°801'52	behind sun end	1107 May 28 j 05:51	11°II36'25	
behind sun end	1102 May 05 j 07:59	20°802'38	max. Earth dist.	1107 May 27 j 14:25	11°II34'10	20.10477 AU
max. Earth dist.	1102 May 05 j 05:42	20°802'19 20.42829 AU	morning rise	1107 Jun 13 j 17:47	12°II34'49	
morning rise	1102 May 21 j 21:36	21°800'19	retrograde	1107 Sep 15 j 17:50	15°II50'49	
retrograde	1102 Aug 24 j 09:25	24°813'34	opposition	1107 Nov 29 j 20:44	13°II48'36	0°03'45
opposition	1102 Nov 08 j 09:21	22°812'00 -0°14'22	min. Earth dist.	1107 Nov 30 j 03:53	13°II47'50	18.07308 AU
min. Earth dist.	1102 Nov 08 j 09:56	22°811'56 18.39603 AU	direct	1108 Feb 12 j 13:02	11°II46'41	
direct	1103 Jan 21 j 21:34	20°812'01	evening set	1108 May 15 j 01:44	15°II00'06	
evening set	1103 Apr 23 j 06:46	23°819'37				
			conjunction	1108 May 31 j 19:48	15°II59'34	0°05'06
conjunction	1103 May 09 j 21:28	24°817'35 -0°11'27	minimum elong	1108 May 31 j 19:48	15°II59'34	0°05'07
minimum elong	1103 May 09 j 21:29	24°817'35 0°11'26	behind sun begin	1108 May 31 j 13:14	15°II58'37	
behind sun begin	1103 May 09 j 16:40	24°816'54	behind sun end	1108 Jun 01 j 02:23	16°II00'32	
behind sun end	1103 May 10 j 02:18	24°818'16	max. Earth dist.	1108 May 31 j 10:21	15°II58'11	20.04196 AU
max. Earth dist.	1103 May 09 j 19:51	24°817'21 20.36395 AU	morning rise	1108 Jun 17 j 14:34	16°II59'12	
morning rise	1103 May 26 j 14:30	25°815'55	retrograde	1108 Sep 19 j 10:59	20°II15'47	
retrograde	1103 Aug 29 j 00:48	28°829'41	opposition	1108 Dec 03 j 10:35	18°II13'32	0°07'28
opposition	1103 Nov 12 j 20:05	26°827'56 -0°10'52	min. Earth dist.	1108 Dec 03 j 19:28	18°II12'35	18.01083 AU
min. Earth dist.	1103 Nov 12 j 21:31	26°827'47 18.33121 AU	direct	1109 Feb 16 j 03:02	16°II11'19	
direct	1104 Jan 26 j 09:22	24°827'31	evening set	1109 May 19 j 22:53	19°II26'01	
evening set	1104 Apr 26 j 23:11	27°836'11				
			conjunction	1109 Jun 05 j 17:12	20°II25'45	0°08'26
conjunction	1104 May 13 j 14:43	28°834'28 -0°08'16	minimum elong	1109 Jun 05 j 17:12	20°II25'45	0°08'26
minimum elong	1104 May 13 j 14:43	28°834'28 0°08'16	behind sun begin	1109 Jun 05 j 11:17	20°II24'54	
behind sun begin	1104 May 13 j 08:46	28°833'37	behind sun end	1109 Jun 05 j 23:07	20°II26'37	
behind sun end	1104 May 13 j 20:40	28°835'19	max. Earth dist.	1109 Jun 05 j 05:03	20°II23'57	19.98031 AU
max. Earth dist.	1104 May 13 j 11:41	28°834'03 20.29873 AU	morning rise	1109 Jun 22 j 12:13	21°II25'38	
morning rise	1104 May 30 j 08:11	29°833'04	retrograde	1109 Sep 24 j 06:07	24°II42'49	
	1104 Jun 07 j 06:53	0°II	opposition	1109 Dec 08 j 01:04	22°II40'33	0°11'10
retrograde	1104 Sep 01 j 15:24	2°II47'21	min. Earth dist.	1109 Dec 08 j 11:17	22°II39'27	17.94976 AU
opposition	1104 Nov 16 j 07:19	0°II45'27 -0°07'17	direct	1110 Feb 20 j 19:44	20°II38'00	
min. Earth dist.	1104 Nov 16 j 10:52	0°II45'04 18.26587 AU	evening set	1110 May 24 j 20:53	23°II53'59	
	1104 Dec 04 j 13:47	30°88				
direct	1105 Jan 29 j 20:28	28°844'38	conjunction	1110 Jun 10 j 15:41	24°II54'01	0°11'45
	1105 Mar 25 j 15:08	0°II	minimum elong	1110 Jun 10 j 15:41	24°II54'01	0°11'45
evening set	1105 May 01 j 16:31	1°II54'25	behind sun begin	1110 Jun 10 j 11:00	24°II53'20	
			behind sun end	1110 Jun 10 j 20:21	24°II54'42	

max. Earth dist.	1110 Jun 10 j 02:49	24° $\Pi$ 52'06	19.91962 AU	retrograde	1116 Oct 26 j 09:40	26° $\mathfrak{D}$ 42'39	
morning rise	1110 Jun 27 j 10:32	25° $\Pi$ 54'06		opposition	1117 Jan 08 j 03:02	24° $\mathfrak{D}$ 40'01	0°34'39
retrograde	1110 Sep 29 j 01:08	29° $\Pi$ 11'52		min. Earth dist.	1117 Jan 08 j 22:11	24° $\mathfrak{D}$ 37'56	17.55850 AU
opposition	1110 Dec 12 j 16:22	27° $\Pi$ 09'35	0°14'51	direct	1117 Mar 24 j 10:23	22° $\mathfrak{D}$ 34'59	
min. Earth dist.	1110 Dec 13 j 04:12	27° $\Pi$ 08'19	17.88954 AU	evening set	1117 Jun 27 j 05:29	25° $\mathfrak{D}$ 59'09	
direct	1111 Feb 25 j 12:00	25° $\Pi$ 06'44					
evening set	1111 May 29 j 19:55	28° $\Pi$ 23'59		conjunction	1117 Jul 13 j 23:53	27° $\mathfrak{D}$ 00'39	0°32'22
				minimum elong	1117 Jul 13 j 23:53	27° $\mathfrak{D}$ 00'39	0°32'22
conjunction	1111 Jun 15 j 14:50	29° $\Pi$ 24'16	0°15'01	max. Earth dist.	1117 Jul 12 j 23:48	26° $\mathfrak{D}$ 56'56	19.53527 AU
minimum elong	1111 Jun 15 j 14:50	29° $\Pi$ 24'16	0°15'01	morning rise	1117 Jul 30 j 16:22	28° $\mathfrak{D}$ 01'53	
behind sun begin	1111 Jun 15 j 12:44	29° $\Pi$ 23'58			1117 Sep 05 j 00:59	0° $\mathcal{O}$	
behind sun end	1111 Jun 15 j 16:56	29° $\Pi$ 24'35		retrograde	1117 Oct 31 j 06:47	1° $\mathcal{O}$ 22'36	
max. Earth dist.	1111 Jun 14 j 22:58	29° $\Pi$ 21'53	19.85984 AU		1117 Dec 28 j 09:30	30° $\mathfrak{R}$ $\mathfrak{D}$	
	1111 Jun 25 j 12:10	0° $\mathfrak{D}$		opposition	1118 Jan 12 j 23:10	29° $\mathfrak{D}$ 19'54	0°37'20
morning rise	1111 Jul 02 j 09:49	0° $\mathfrak{D}$ 24'36		min. Earth dist.	1118 Jan 13 j 19:46	29° $\mathfrak{D}$ 17'39	17.51367 AU
retrograde	1111 Oct 03 j 21:15	3° $\mathfrak{D}$ 42'53		direct	1118 Mar 29 j 08:28	27° $\mathfrak{D}$ 14'32	
opposition	1111 Dec 17 j 08:27	1° $\mathfrak{D}$ 40'35	0°18'27		1118 Jun 21 j 03:21	0° $\mathcal{O}$	
min. Earth dist.	1111 Dec 17 j 21:55	1° $\mathfrak{D}$ 39'08	17.83023 AU	evening set	1118 Jul 02 j 08:50	0° $\mathcal{O}$ 39'41	
	1112 Jan 31 j 18:11	30° $\mathfrak{R}$ $\Pi$		max. Earth dist.	1118 Jul 18 j 02:49	1° $\mathcal{O}$ 37'35	19.49270 AU
direct	1112 Mar 01 j 06:01	29° $\Pi$ 37'22					
	1112 Mar 30 j 10:24	0° $\mathfrak{D}$		conjunction	1118 Jul 19 j 02:54	1° $\mathcal{O}$ 41'18	0°34'40
evening set	1112 Jun 02 j 19:49	2° $\mathfrak{D}$ 55'53		minimum elong	1118 Jul 19 j 02:54	1° $\mathcal{O}$ 41'18	0°34'40
				morning rise	1118 Aug 04 j 18:40	2° $\mathcal{O}$ 42'37	
conjunction	1112 Jun 19 j 15:03	3° $\mathfrak{D}$ 56'26	0°18'13	retrograde	1118 Nov 05 j 06:10	6° $\mathcal{O}$ 03'36	
minimum elong	1112 Jun 19 j 15:03	3° $\mathfrak{D}$ 56'26	0°18'13	opposition	1119 Jan 17 j 19:42	4° $\mathcal{O}$ 00'53	0°39'47
max. Earth dist.	1112 Jun 18 j 22:27	3° $\mathfrak{D}$ 53'55	19.80084 AU	min. Earth dist.	1119 Jan 18 j 15:53	3° $\mathcal{O}$ 58'40	17.47354 AU
morning rise	1112 Jul 06 j 09:40	4° $\mathfrak{D}$ 56'56		direct	1119 Apr 03 j 08:19	1° $\mathcal{O}$ 55'14	
retrograde	1112 Oct 07 j 18:21	8° $\mathfrak{D}$ 15'44		evening set	1119 Jul 07 j 12:42	5° $\mathcal{O}$ 21'17	
opposition	1112 Dec 21 j 01:11	6° $\mathfrak{D}$ 13'23	0°21'59	max. Earth dist.	1119 Jul 23 j 05:18	6° $\mathcal{O}$ 19'09	19.45506 AU
min. Earth dist.	1112 Dec 21 j 15:59	6° $\mathfrak{D}$ 11'47	17.77174 AU				
direct	1113 Mar 06 j 00:34	4° $\mathfrak{D}$ 09'49		conjunction	1119 Jul 24 j 06:13	6° $\mathcal{O}$ 23'00	0°36'44
evening set	1113 Jun 07 j 20:37	7° $\mathfrak{D}$ 29'33		minimum elong	1119 Jul 24 j 06:13	6° $\mathcal{O}$ 23'00	0°36'44
				morning rise	1119 Aug 09 j 21:11	7° $\mathcal{O}$ 24'22	
conjunction	1113 Jun 24 j 15:44	8° $\mathfrak{D}$ 30'19	0°21'20	retrograde	1119 Nov 10 j 03:46	10° $\mathcal{O}$ 45'36	
minimum elong	1113 Jun 24 j 15:44	8° $\mathfrak{D}$ 30'19	0°21'20	opposition	1120 Jan 22 j 17:07	8° $\mathcal{O}$ 42'53	0°41'59
max. Earth dist.	1113 Jun 23 j 20:13	8° $\mathfrak{D}$ 27'22	19.74301 AU	min. Earth dist.	1120 Jan 23 j 14:31	8° $\mathcal{O}$ 40'32	17.43870 AU
morning rise	1113 Jul 11 j 10:14	9° $\mathfrak{D}$ 31'02		direct	1120 Apr 07 j 07:37	6° $\mathcal{O}$ 37'01	
retrograde	1113 Oct 12 j 15:02	12° $\mathfrak{D}$ 50'17		evening set	1120 Jul 11 j 16:51	10° $\mathcal{O}$ 03'54	
opposition	1113 Dec 25 j 18:45	10° $\mathfrak{D}$ 47'53	0°25'23	max. Earth dist.	1120 Jul 27 j 08:44	11° $\mathcal{O}$ 01'49	19.42298 AU
min. Earth dist.	1113 Dec 26 j 11:13	10° $\mathfrak{D}$ 46'05	17.71479 AU				
direct	1114 Mar 10 j 19:36	8° $\mathfrak{D}$ 43'55		conjunction	1120 Jul 28 j 09:44	11° $\mathcal{O}$ 05'42	0°38'34
evening set	1114 Jun 12 j 21:45	12° $\mathfrak{D}$ 04'50		minimum elong	1120 Jul 28 j 09:44	11° $\mathcal{O}$ 05'42	0°38'35
				morning rise	1120 Aug 13 j 23:52	12° $\mathcal{O}$ 07'06	
conjunction	1114 Jun 29 j 17:01	13° $\mathfrak{D}$ 05'49	0°24'19		1120 Oct 13 j 00:22	15° $\mathcal{O}$	
minimum elong	1114 Jun 29 j 17:00	13° $\mathfrak{D}$ 05'49	0°24'19	retrograde	1120 Nov 14 j 03:54	15° $\mathcal{O}$ 28'33	
max. Earth dist.	1114 Jun 28 j 21:10	13° $\mathfrak{D}$ 02'48	19.68690 AU		1120 Dec 16 j 17:48	15° $\mathfrak{R}$ $\mathcal{O}$	
morning rise	1114 Jul 16 j 11:02	14° $\mathfrak{D}$ 06'41		opposition	1121 Jan 26 j 14:55	13° $\mathcal{O}$ 25'52	0°43'53
retrograde	1114 Oct 17 j 13:42	17° $\mathfrak{D}$ 26'22		min. Earth dist.	1121 Jan 27 j 11:30	13° $\mathcal{O}$ 23'37	17.40943 AU
opposition	1114 Dec 30 j 12:54	15° $\mathfrak{D}$ 23'53	0°28'39	direct	1121 Apr 12 j 09:08	11° $\mathcal{O}$ 19'51	
min. Earth dist.	1114 Dec 31 j 06:09	15° $\mathfrak{D}$ 22'01	17.65974 AU	evening set	1121 Jul 16 j 21:16	14° $\mathcal{O}$ 47'31	
direct	1115 Mar 15 j 15:58	13° $\mathfrak{D}$ 19'35			1121 Jul 20 j 07:05	15° $\mathcal{O}$	
evening set	1115 Jun 17 j 23:53	16° $\mathfrak{D}$ 41'37					
				conjunction	1121 Aug 02 j 13:28	15° $\mathcal{O}$ 49'21	0°40'09
conjunction	1115 Jul 04 j 18:52	17° $\mathfrak{D}$ 42'48	0°27'10	minimum elong	1121 Aug 02 j 13:28	15° $\mathcal{O}$ 49'21	0°40'09
minimum elong	1115 Jul 04 j 18:52	17° $\mathfrak{D}$ 42'48	0°27'11	max. Earth dist.	1121 Aug 01 j 12:32	15° $\mathcal{O}$ 45'28	19.39653 AU
max. Earth dist.	1115 Jul 03 j 20:35	17° $\mathfrak{D}$ 39'23	19.63310 AU	morning rise	1121 Aug 19 j 02:35	16° $\mathcal{O}$ 50'46	
morning rise	1115 Jul 21 j 12:34	18° $\mathfrak{D}$ 43'49		retrograde	1121 Nov 19 j 02:23	20° $\mathcal{O}$ 12'24	
retrograde	1115 Oct 22 j 10:34	22° $\mathfrak{D}$ 03'52		opposition	1122 Jan 31 j 13:31	18° $\mathcal{O}$ 09'49	0°45'31
opposition	1116 Jan 04 j 07:37	20° $\mathfrak{D}$ 01'19	0°31'45	min. Earth dist.	1122 Feb 01 j 11:09	18° $\mathcal{O}$ 07'27	17.38590 AU
min. Earth dist.	1116 Jan 05 j 02:35	19° $\mathfrak{D}$ 59'15	17.60748 AU	direct	1122 Apr 17 j 09:25	16° $\mathcal{O}$ 03'42	
direct	1116 Mar 19 j 12:24	17° $\mathfrak{D}$ 56'37		evening set	1122 Jul 22 j 01:46	19° $\mathcal{O}$ 32'04	
evening set	1116 Jun 22 j 02:27	21° $\mathfrak{D}$ 19'46					
				conjunction	1122 Aug 07 j 17:10	20° $\mathcal{O}$ 33'55	0°41'28
conjunction	1116 Jul 08 j 21:20	22° $\mathfrak{D}$ 21'07	0°29'52	minimum elong	1122 Aug 07 j 17:10	20° $\mathcal{O}$ 33'55	0°41'28
minimum elong	1116 Jul 08 j 21:19	22° $\mathfrak{D}$ 21'06	0°29'51	max. Earth dist.	1122 Aug 06 j 15:56	20° $\mathcal{O}$ 29'59	19.37584 AU
max. Earth dist.	1116 Jul 07 j 22:52	22° $\mathfrak{D}$ 17'40	19.58237 AU	morning rise	1122 Aug 24 j 05:27	21° $\mathcal{O}$ 35'20	
morning rise	1116 Jul 25 j 14:24	23° $\mathfrak{D}$ 22'15		retrograde	1122 Nov 24 j 03:11	24° $\mathcal{O}$ 57'07	

opposition	1123 Feb 05 j 12:29	22° $\Omega$ 54'39	0°46'51	minimum elong	1129 Sep 10 j 16:31	23° $\mathbb{N}$ 57'14	0°42'30
min. Earth dist.	1123 Feb 06 j 09:13	22° $\Omega$ 52'23	17.36783 AU	max. Earth dist.	1129 Sep 09 j 18:55	23° $\mathbb{N}$ 53'50	19.36305 AU
direct	1123 Apr 22 j 12:03	20° $\Omega$ 48'28		morning rise	1129 Sep 26 j 20:51	24° $\mathbb{N}$ 57'57	
evening set	1123 Jul 27 j 06:34	24° $\Omega$ 17'26		retrograde	1129 Dec 27 j 03:15	28° $\mathbb{N}$ 19'15	
				opposition	1130 Mar 10 j 17:03	26° $\mathbb{N}$ 17'28	0°46'52
conjunction	1123 Aug 12 j 21:11	25° $\Omega$ 19'18	0°42'31	min. Earth dist.	1130 Mar 11 j 12:03	26° $\mathbb{N}$ 15'25	17.37105 AU
minimum elong	1123 Aug 12 j 21:11	25° $\Omega$ 19'18	0°42'31	direct	1130 May 26 j 08:28	24° $\mathbb{N}$ 11'27	
max. Earth dist.	1123 Aug 11 j 20:34	25° $\Omega$ 15'27	19.36025 AU	evening set	1130 Aug 30 j 10:52	27° $\mathbb{N}$ 41'17	
morning rise	1123 Aug 29 j 08:17	26° $\Omega$ 20'40					
retrograde	1123 Nov 29 j 02:17	29° $\Omega$ 42'34		conjunction	1130 Sep 15 j 18:00	28° $\mathbb{N}$ 42'22	0°41'28
opposition	1124 Feb 10 j 12:04	27° $\Omega$ 40'13	0°47'51	minimum elong	1130 Sep 15 j 18:00	28° $\mathbb{N}$ 42'22	0°41'29
min. Earth dist.	1124 Feb 11 j 09:51	27° $\Omega$ 37'51	17.35476 AU	max. Earth dist.	1130 Sep 14 j 20:34	28° $\mathbb{N}$ 39'00	19.37965 AU
direct	1124 Apr 26 j 13:22	25° $\Omega$ 34'01		morning rise	1130 Oct 01 j 21:21	29° $\mathbb{N}$ 42'54	
evening set	1124 Jul 31 j 11:30	29° $\Omega$ 03'30			1130 Oct 06 j 13:37	0° $\Omega$	
	1124 Aug 15 j 15:10	0° $\mathbb{N}$		retrograde	1131 Jan 01 j 02:07	3° $\Omega$ 03'54	
max. Earth dist.	1124 Aug 15 j 23:44	0° $\mathbb{N}$ 01'21	19.34960 AU	opposition	1131 Mar 15 j 18:21	1° $\Omega$ 02'10	0°45'32
				min. Earth dist.	1131 Mar 16 j 12:24	1° $\Omega$ 00'14	17.39022 AU
conjunction	1124 Aug 17 j 01:03	0° $\mathbb{N}$ 05'19	0°43'16		1131 Apr 09 j 22:02	30° $\mathbb{R}$ $\mathbb{N}$	
minimum elong	1124 Aug 17 j 01:03	0° $\mathbb{N}$ 05'19	0°43'15	direct	1131 May 31 j 12:23	28° $\mathbb{N}$ 56'14	
morning rise	1124 Sep 02 j 11:13	1° $\mathbb{N}$ 06'38			1131 Jul 20 j 14:01	0° $\Omega$	
retrograde	1124 Dec 03 j 03:35	4° $\mathbb{N}$ 28'35		evening set	1131 Sep 04 j 12:49	2° $\Omega$ 25'41	
opposition	1125 Feb 14 j 12:09	2° $\mathbb{N}$ 26'21	0°48'32				
min. Earth dist.	1125 Feb 15 j 09:00	2° $\mathbb{N}$ 24'05	17.34643 AU	conjunction	1131 Sep 20 j 18:55	3° $\Omega$ 26'35	0°40'08
direct	1125 May 01 j 17:01	0° $\mathbb{N}$ 20'09		minimum elong	1131 Sep 20 j 18:55	3° $\Omega$ 26'35	0°40'08
evening set	1125 Aug 05 j 16:04	3° $\mathbb{N}$ 50'00		max. Earth dist.	1131 Sep 19 j 23:49	3° $\Omega$ 23'35	19.40145 AU
max. Earth dist.	1125 Aug 21 j 04:40	4° $\mathbb{N}$ 47'59	19.34344 AU	morning rise	1131 Oct 06 j 21:03	4° $\Omega$ 26'54	
				retrograde	1132 Jan 06 j 00:15	7° $\Omega$ 47'34	
conjunction	1125 Aug 22 j 04:47	4° $\mathbb{N}$ 51'45	0°43'43	opposition	1132 Mar 19 j 19:35	5° $\Omega$ 45'54	0°43'54
minimum elong	1125 Aug 22 j 04:46	4° $\mathbb{N}$ 51'45	0°43'44	min. Earth dist.	1132 Mar 20 j 12:04	5° $\Omega$ 44'08	17.41460 AU
morning rise	1125 Sep 07 j 13:39	5° $\mathbb{N}$ 53'00		direct	1132 Jun 04 j 16:48	3° $\Omega$ 40'06	
retrograde	1125 Dec 08 j 03:02	9° $\mathbb{N}$ 14'56		evening set	1132 Sep 08 j 14:11	7° $\Omega$ 09'05	
opposition	1126 Feb 19 j 12:45	7° $\mathbb{N}$ 12'50	0°48'53				
min. Earth dist.	1126 Feb 20 j 10:13	7° $\mathbb{N}$ 10'30	17.34248 AU	conjunction	1132 Sep 24 j 19:01	8° $\Omega$ 09'44	0°38'32
direct	1126 May 06 j 18:58	5° $\mathbb{N}$ 06'39		minimum elong	1132 Sep 24 j 19:01	8° $\Omega$ 09'44	0°38'32
evening set	1126 Aug 10 j 20:44	8° $\mathbb{N}$ 36'44		max. Earth dist.	1132 Sep 24 j 00:54	8° $\Omega$ 06'53	19.42868 AU
max. Earth dist.	1126 Aug 26 j 07:23	9° $\mathbb{N}$ 34'30	19.34172 AU	morning rise	1132 Oct 10 j 20:06	9° $\Omega$ 09'51	
				retrograde	1133 Jan 09 j 21:29	12° $\Omega$ 30'08	
conjunction	1126 Aug 27 j 08:15	9° $\mathbb{N}$ 38'25	0°43'52	opposition	1133 Mar 24 j 20:51	10° $\Omega$ 28'33	0°41'58
minimum elong	1126 Aug 27 j 08:15	9° $\mathbb{N}$ 38'25	0°43'52	min. Earth dist.	1133 Mar 25 j 12:13	10° $\Omega$ 26'54	17.44475 AU
morning rise	1126 Sep 12 j 16:10	10° $\mathbb{N}$ 39'33		direct	1133 Jun 09 j 19:55	8° $\Omega$ 22'56	
retrograde	1126 Dec 13 j 04:18	14° $\mathbb{N}$ 01'25		evening set	1133 Sep 13 j 14:29	11° $\Omega$ 51'19	
opposition	1127 Feb 24 j 13:23	11° $\mathbb{N}$ 59'25	0°48'53				
min. Earth dist.	1127 Feb 25 j 10:00	11° $\mathbb{N}$ 57'11	17.34295 AU	conjunction	1133 Sep 29 j 18:16	12° $\Omega$ 51'44	0°36'42
direct	1127 May 11 j 22:44	9° $\mathbb{N}$ 53'14		minimum elong	1133 Sep 29 j 18:16	12° $\Omega$ 51'44	0°36'42
evening set	1127 Aug 16 j 00:59	13° $\mathbb{N}$ 23'28		max. Earth dist.	1133 Sep 29 j 02:32	12° $\Omega$ 49'16	19.46173 AU
				morning rise	1133 Oct 15 j 18:17	13° $\Omega$ 51'37	
conjunction	1127 Sep 01 j 11:37	14° $\mathbb{N}$ 25'02	0°43'43	retrograde	1134 Jan 14 j 19:24	17° $\Omega$ 11'31	
minimum elong	1127 Sep 01 j 11:37	14° $\mathbb{N}$ 25'02	0°43'43	opposition	1134 Mar 29 j 21:49	15° $\Omega$ 10'03	0°39'47
max. Earth dist.	1127 Aug 31 j 12:20	14° $\mathbb{N}$ 21'22	19.34432 AU	min. Earth dist.	1134 Mar 30 j 10:56	15° $\Omega$ 08'39	17.48046 AU
morning rise	1127 Sep 17 j 18:13	15° $\mathbb{N}$ 26'03		direct	1134 Jun 14 j 23:50	13° $\Omega$ 04'40	
retrograde	1127 Dec 18 j 03:53	18° $\mathbb{N}$ 47'47		evening set	1134 Sep 18 j 14:16	16° $\Omega$ 32'24	
opposition	1128 Feb 29 j 14:33	16° $\mathbb{N}$ 45'53	0°48'33				
min. Earth dist.	1128 Mar 01 j 11:13	16° $\mathbb{N}$ 43'38	17.34767 AU	conjunction	1134 Oct 04 j 16:53	17° $\Omega$ 32'34	0°34'37
direct	1128 May 16 j 01:09	14° $\mathbb{N}$ 39'44		minimum elong	1134 Oct 04 j 16:53	17° $\Omega$ 32'34	0°34'36
evening set	1128 Aug 20 j 04:54	18° $\mathbb{N}$ 09'57		max. Earth dist.	1134 Oct 04 j 02:43	17° $\Omega$ 30'21	19.50024 AU
				morning rise	1134 Oct 20 j 15:53	18° $\Omega$ 32'13	
conjunction	1128 Sep 05 j 14:14	19° $\mathbb{N}$ 11'23	0°43'16	retrograde	1135 Jan 19 j 15:44	21° $\Omega$ 51'41	
minimum elong	1128 Sep 05 j 14:14	19° $\mathbb{N}$ 11'23	0°43'16	opposition	1135 Apr 03 j 22:35	19° $\Omega$ 50'23	0°37'20
max. Earth dist.	1128 Sep 04 j 14:33	19° $\mathbb{N}$ 07'39	19.35133 AU	min. Earth dist.	1135 Apr 04 j 10:48	19° $\Omega$ 49'05	17.52163 AU
morning rise	1128 Sep 21 j 19:49	20° $\mathbb{N}$ 12'15		direct	1135 Jun 20 j 01:02	17° $\Omega$ 45'17	
retrograde	1128 Dec 22 j 04:26	23° $\mathbb{N}$ 33'49		evening set	1135 Sep 23 j 13:12	21° $\Omega$ 12'17	
opposition	1129 Mar 05 j 15:46	21° $\mathbb{N}$ 31'58	0°47'52				
min. Earth dist.	1129 Mar 06 j 11:29	21° $\mathbb{N}$ 29'50	17.35701 AU	conjunction	1135 Oct 09 j 14:44	22° $\Omega$ 12'11	0°32'19
direct	1129 May 21 j 05:06	19° $\mathbb{N}$ 25'52		minimum elong	1135 Oct 09 j 14:44	22° $\Omega$ 12'11	0°32'19
evening set	1129 Aug 25 j 08:08	22° $\mathbb{N}$ 55'58		max. Earth dist.	1135 Oct 09 j 02:34	22° $\Omega$ 10'17	19.54401 AU
				morning rise	1135 Oct 25 j 12:47	23° $\Omega$ 11'35	
conjunction	1129 Sep 10 j 16:31	23° $\mathbb{N}$ 57'14	0°42'31	retrograde	1136 Jan 24 j 13:44	26° $\Omega$ 30'35	

opposition	1136 Apr 07 j 23:10	24° <u>♂</u> 29'29	0°34'39	min. Earth dist.	1142 May 06 j 19:29	21° <u>♂</u> 53'11	17.90500 AU
min. Earth dist.	1136 Apr 08 j 08:49	24° <u>♂</u> 28'27	17.56756 AU	direct	1142 Jul 23 j 02:23	19° <u>♂</u> 50'34	
direct	1136 Jun 24 j 03:45	22° <u>♂</u> 24'43		evening set	1142 Oct 25 j 05:26	23° <u>♂</u> 10'26	
evening set	1136 Sep 27 j 11:13	25° <u>♂</u> 50'53					
				conjunction	1142 Nov 10 j 00:24	24° <u>♂</u> 08'18	0°11'46
conjunction	1136 Oct 13 j 11:40	26° <u>♂</u> 50'31	0°29'49	minimum elong	1142 Nov 10 j 00:24	24° <u>♂</u> 08'18	0°11'46
minimum elong	1136 Oct 13 j 11:40	26° <u>♂</u> 50'31	0°29'49	behind sun begin	1142 Nov 09 j 19:43	24° <u>♂</u> 07'36	
max. Earth dist.	1136 Oct 13 j 01:35	26° <u>♂</u> 48'57	19.59212 AU	behind sun end	1142 Nov 10 j 05:05	24° <u>♂</u> 09'00	
morning rise	1136 Oct 29 j 08:44	27° <u>♂</u> 49'41		max. Earth dist.	1142 Nov 10 j 01:06	24° <u>♂</u> 08'24	19.93560 AU
	1136 Dec 08 j 21:31	0° <u>♂</u>		morning rise	1142 Nov 25 j 17:07	25° <u>♂</u> 05'51	
retrograde	1137 Jan 28 j 09:36	1° <u>♂</u> 08'13		retrograde	1143 Feb 25 j 02:49	28° <u>♂</u> 21'02	
	1137 Mar 22 j 11:41	30° <u>♂</u>		opposition	1143 May 11 j 17:14	26° <u>♂</u> 20'59	0°11'12
opposition	1137 Apr 12 j 23:41	29° <u>♂</u> 07'17	0°31'45	min. Earth dist.	1143 May 11 j 16:21	26° <u>♂</u> 21'05	17.96605 AU
min. Earth dist.	1137 Apr 13 j 08:35	29° <u>♂</u> 06'21	17.61766 AU	direct	1143 Jul 28 j 00:18	24° <u>♂</u> 18'43	
direct	1137 Jun 29 j 03:46	27° <u>♂</u> 02'53		evening set	1143 Oct 29 j 21:13	27° <u>♂</u> 37'22	
	1137 Sep 24 j 12:27	0° <u>♂</u>					
evening set	1137 Oct 02 j 08:30	0° <u>♂</u> 28'10		conjunction	1143 Nov 14 j 15:19	28° <u>♂</u> 34'55	0°08'27
				minimum elong	1143 Nov 14 j 15:19	28° <u>♂</u> 34'55	0°08'27
conjunction	1137 Oct 18 j 07:53	1° <u>♂</u> 27'30	0°27'08	behind sun begin	1143 Nov 14 j 09:32	28° <u>♂</u> 34'03	
minimum elong	1137 Oct 18 j 07:53	1° <u>♂</u> 27'30	0°27'09	behind sun end	1143 Nov 14 j 21:05	28° <u>♂</u> 35'47	
max. Earth dist.	1137 Oct 17 j 23:22	1° <u>♂</u> 26'11	19.64409 AU	max. Earth dist.	1143 Nov 14 j 16:47	28° <u>♂</u> 35'08	19.99710 AU
morning rise	1137 Nov 03 j 04:10	2° <u>♂</u> 26'24		morning rise	1143 Nov 30 j 07:43	29° <u>♂</u> 32'14	
retrograde	1138 Feb 02 j 06:54	5° <u>♂</u> 44'26			1143 Dec 08 j 04:08	0° <u>♂</u>	
opposition	1138 Apr 17 j 23:33	3° <u>♂</u> 43'42	0°28'40	retrograde	1144 Feb 29 j 20:05	2° <u>♂</u> 46'48	
min. Earth dist.	1138 Apr 18 j 05:50	3° <u>♂</u> 43'02	17.67111 AU	opposition	1144 May 15 j 14:10	0° <u>♂</u> 46'49	0°07'30
direct	1138 Jul 04 j 05:09	1° <u>♂</u> 39'39		min. Earth dist.	1144 May 15 j 10:40	0° <u>♂</u> 47'10	18.02793 AU
evening set	1138 Oct 07 j 04:56	5° <u>♂</u> 03'58			1144 Jun 04 j 00:09	30° <u>♂</u>	
				direct	1144 Jul 31 j 21:31	28° <u>♂</u> 44'51	
conjunction	1138 Oct 23 j 03:23	6° <u>♂</u> 03'02	0°24'18		1144 Sep 24 j 22:12	0° <u>♂</u>	
minimum elong	1138 Oct 23 j 03:23	6° <u>♂</u> 03'02	0°24'18	evening set	1144 Nov 02 j 11:42	2° <u>♂</u> 02'16	
max. Earth dist.	1138 Oct 22 j 21:05	6° <u>♂</u> 02'03	19.69890 AU				
morning rise	1138 Nov 07 j 22:45	7° <u>♂</u> 01'40		conjunction	1144 Nov 18 j 05:18	2° <u>♂</u> 59'32	0°05'08
retrograde	1139 Feb 07 j 02:03	10° <u>♂</u> 19'09		minimum elong	1144 Nov 18 j 05:18	2° <u>♂</u> 59'31	0°05'07
opposition	1139 Apr 22 j 23:22	8° <u>♂</u> 18'36	0°25'24	behind sun begin	1144 Nov 17 j 22:55	2° <u>♂</u> 58'35	
min. Earth dist.	1139 Apr 23 j 05:05	8° <u>♂</u> 18'00	17.72716 AU	behind sun end	1144 Nov 18 j 11:40	3° <u>♂</u> 00'28	
direct	1139 Jul 09 j 04:26	6° <u>♂</u> 14'56		max. Earth dist.	1144 Nov 18 j 09:44	3° <u>♂</u> 00'10	20.05934 AU
evening set	1139 Oct 12 j 00:30	9° <u>♂</u> 38'13		morning rise	1144 Dec 03 j 21:08	3° <u>♂</u> 56'34	
				retrograde	1145 Mar 05 j 10:51	7° <u>♂</u> 10'32	
conjunction	1139 Oct 27 j 21:53	10° <u>♂</u> 36'58	0°21'19	opposition	1145 May 20 j 10:29	5° <u>♂</u> 10'37	0°03'46
minimum elong	1139 Oct 27 j 21:53	10° <u>♂</u> 36'58	0°21'18	min. Earth dist.	1145 May 20 j 05:52	5° <u>♂</u> 11'05	18.09059 AU
max. Earth dist.	1139 Oct 27 j 16:43	10° <u>♂</u> 36'10	19.75607 AU	direct	1145 Aug 05 j 18:06	3° <u>♂</u> 09'00	
morning rise	1139 Nov 12 j 16:35	11° <u>♂</u> 35'20		evening set	1145 Nov 07 j 01:30	6° <u>♂</u> 25'09	
retrograde	1140 Feb 11 j 22:06	14° <u>♂</u> 52'17					
opposition	1140 Apr 26 j 22:37	12° <u>♂</u> 51'53	0°22'00	conjunction	1145 Nov 22 j 18:19	7° <u>♂</u> 22'07	0°01'46
min. Earth dist.	1140 Apr 27 j 01:39	12° <u>♂</u> 51'34	17.78516 AU	minimum elong	1145 Nov 22 j 18:19	7° <u>♂</u> 22'07	0°01'46
direct	1140 Jul 13 j 04:56	10° <u>♂</u> 48'35		behind sun begin	1145 Nov 22 j 11:46	7° <u>♂</u> 21'09	
evening set	1140 Oct 15 j 19:07	14° <u>♂</u> 10'46		behind sun end	1145 Nov 23 j 00:52	7° <u>♂</u> 23'05	
	1140 Oct 29 j 04:07	15° <u>♂</u>		max. Earth dist.	1145 Nov 22 j 23:37	7° <u>♂</u> 22'54	20.12253 AU
				morning rise	1145 Dec 08 j 10:00	8° <u>♂</u> 18'55	
conjunction	1140 Oct 31 j 15:41	15° <u>♂</u> 09'14	0°18'13	retrograde	1146 Mar 10 j 02:34	11° <u>♂</u> 32'17	
minimum elong	1140 Oct 31 j 15:41	15° <u>♂</u> 09'14	0°18'14	opposition	1146 May 25 j 05:47	9° <u>♂</u> 32'26	0°00'04
max. Earth dist.	1140 Oct 31 j 12:59	15° <u>♂</u> 08'49	19.81482 AU	min. Earth dist.	1146 May 24 j 22:42	9° <u>♂</u> 33'09	18.15435 AU
morning rise	1140 Nov 16 j 09:34	16° <u>♂</u> 07'19		desc. node	1146 May 31 j 09:55	9° <u>♂</u> 17'18	
retrograde	1141 Feb 15 j 15:55	19° <u>♂</u> 23'42		direct	1146 Aug 10 j 13:12	7° <u>♂</u> 31'08	
opposition	1141 May 01 j 21:30	17° <u>♂</u> 23'27	0°18'29	evening set	1146 Nov 11 j 14:15	10° <u>♂</u> 46'05	
min. Earth dist.	1141 May 01 j 23:56	17° <u>♂</u> 23'11	17.84459 AU				
direct	1141 Jul 18 j 03:30	15° <u>♂</u> 20'30		conjunction	1146 Nov 27 j 06:41	11° <u>♂</u> 42'47	-0°01'40
evening set	1141 Oct 20 j 12:46	18° <u>♂</u> 41'33		minimum elong	1146 Nov 27 j 06:41	11° <u>♂</u> 42'47	0°01'41
				behind sun begin	1146 Nov 27 j 00:08	11° <u>♂</u> 41'49	
conjunction	1141 Nov 05 j 08:24	19° <u>♂</u> 39'42	0°15'01	behind sun end	1146 Nov 27 j 13:14	11° <u>♂</u> 43'45	
minimum elong	1141 Nov 05 j 08:24	19° <u>♂</u> 39'42	0°15'01	max. Earth dist.	1146 Nov 27 j 15:00	11° <u>♂</u> 44'01	20.18672 AU
behind sun begin	1141 Nov 05 j 05:50	19° <u>♂</u> 39'19		morning rise	1146 Dec 12 j 21:53	12° <u>♂</u> 39'19	
behind sun end	1141 Nov 05 j 10:58	19° <u>♂</u> 40'05		retrograde	1147 Mar 14 j 15:48	15° <u>♂</u> 52'07	
max. Earth dist.	1141 Nov 05 j 06:30	19° <u>♂</u> 39'25	19.87486 AU	opposition	1147 May 30 j 00:39	13° <u>♂</u> 52'22	-0°03'37
morning rise	1141 Nov 21 j 01:50	20° <u>♂</u> 37'32		min. Earth dist.	1147 May 29 j 16:09	13° <u>♂</u> 53'14	18.21899 AU
retrograde	1142 Feb 20 j 10:40	23° <u>♂</u> 53'20		direct	1147 Aug 15 j 07:44	11° <u>♂</u> 51'27	
opposition	1142 May 06 j 19:38	21° <u>♂</u> 53'10	0°14'53	evening set	1147 Nov 16 j 02:11	15° <u>♂</u> 05'11	

conjunction	1147 Dec 01 j 17:57	16° $\mathring{A}$ 01'36	-0°04'59	opposition	1153 Jun 25 j 03:41	9° $\mathring{B}$ 18'14	-0°24'05
minimum elong	1147 Dec 01 j 17:57	16° $\mathring{A}$ 01'36	0°04'58	direct	1153 Sep 10 j 00:37	7° $\mathring{B}$ 19'38	
behind sun begin	1147 Dec 01 j 11:35	16° $\mathring{A}$ 00'40		evening set	1153 Dec 10 j 10:36	10° $\mathring{B}$ 26'44	
behind sun end	1147 Dec 02 j 00:19	16° $\mathring{A}$ 02'32					
max. Earth dist.	1147 Dec 02 j 03:07	16° $\mathring{A}$ 02'58	20.25181 AU	conjunction	1153 Dec 26 j 01:00	11° $\mathring{B}$ 21'46	-0°23'08
morning rise	1147 Dec 17 j 09:07	16° $\mathring{A}$ 57'55		minimum elong	1153 Dec 26 j 00:59	11° $\mathring{B}$ 21'46	0°23'09
retrograde	1148 Mar 18 j 06:40	20° $\mathring{A}$ 10'11		max. Earth dist.	1153 Dec 26 j 18:52	11° $\mathring{B}$ 24'24	20.62970 AU
opposition	1148 Jun 02 j 18:49	18° $\mathring{A}$ 10'32	-0°07'15	morning rise	1154 Jan 10 j 16:23	12° $\mathring{B}$ 16'56	
min. Earth dist.	1148 Jun 02 j 08:02	18° $\mathring{A}$ 11'38	18.28446 AU	retrograde	1154 Apr 13 j 08:08	15° $\mathring{B}$ 26'23	
direct	1148 Aug 19 j 00:29	16° $\mathring{A}$ 10'00		opposition	1154 Jun 29 j 17:56	13° $\mathring{B}$ 27'31	-0°27'05
evening set	1148 Nov 19 j 13:11	19° $\mathring{A}$ 22'34		min. Earth dist.	1154 Jun 28 j 23:44	13° $\mathring{B}$ 29'20	18.65759 AU
				direct	1154 Sep 14 j 11:31	11° $\mathring{B}$ 29'12	
				evening set	1154 Dec 14 j 17:57	14° $\mathring{B}$ 35'20	
conjunction	1148 Dec 05 j 04:45	20° $\mathring{A}$ 18'44	-0°08'12				
minimum elong	1148 Dec 05 j 04:45	20° $\mathring{A}$ 18'44	0°08'12	conjunction	1154 Dec 30 j 08:31	15° $\mathring{B}$ 30'11	-0°25'47
behind sun begin	1148 Dec 04 j 22:55	20° $\mathring{A}$ 17'53		minimum elong	1154 Dec 30 j 08:31	15° $\mathring{B}$ 30'11	0°25'46
behind sun end	1148 Dec 05 j 10:34	20° $\mathring{A}$ 19'35		max. Earth dist.	1154 Dec 31 j 04:13	15° $\mathring{B}$ 33'05	20.68430 AU
max. Earth dist.	1148 Dec 05 j 16:51	20° $\mathring{A}$ 20'32	20.31741 AU	morning rise	1155 Jan 14 j 23:59	16° $\mathring{B}$ 25'11	
morning rise	1148 Dec 20 j 19:37	21° $\mathring{A}$ 14'49		retrograde	1155 Apr 17 j 18:58	19° $\mathring{B}$ 34'14	
retrograde	1149 Mar 22 j 18:47	24° $\mathring{A}$ 26'33		opposition	1155 Jul 04 j 07:40	17° $\mathring{B}$ 35'25	-0°29'56
opposition	1149 Jun 07 j 12:12	22° $\mathring{A}$ 27'04	-0°10'48	min. Earth dist.	1155 Jul 03 j 12:18	17° $\mathring{B}$ 37'21	18.71027 AU
min. Earth dist.	1149 Jun 06 j 23:59	22° $\mathring{A}$ 28'18	18.35007 AU	direct	1155 Sep 19 j 00:34	15° $\mathring{B}$ 37'23	
direct	1149 Aug 23 j 16:49	20° $\mathring{A}$ 26'56		evening set	1155 Dec 19 j 00:48	18° $\mathring{B}$ 42'32	
evening set	1149 Nov 23 j 23:36	23° $\mathring{A}$ 38'21					
conjunction	1149 Dec 09 j 14:40	24° $\mathring{A}$ 34'15	-0°11'22	conjunction	1156 Jan 03 j 15:17	19° $\mathring{B}$ 37'13	-0°28'17
minimum elong	1149 Dec 09 j 14:40	24° $\mathring{A}$ 34'15	0°11'22	minimum elong	1156 Jan 03 j 15:17	19° $\mathring{B}$ 37'13	0°28'17
behind sun begin	1149 Dec 09 j 09:50	24° $\mathring{A}$ 33'33		max. Earth dist.	1156 Jan 04 j 10:47	19° $\mathring{B}$ 40'05	20.73502 AU
behind sun end	1149 Dec 09 j 19:30	24° $\mathring{A}$ 34'58		morning rise	1156 Jan 19 j 07:16	20° $\mathring{B}$ 32'05	
max. Earth dist.	1149 Dec 10 j 03:21	24° $\mathring{A}$ 36'09	20.38290 AU	retrograde	1156 Apr 21 j 05:48	23° $\mathring{B}$ 40'45	
morning rise	1149 Dec 25 j 05:40	25° $\mathring{A}$ 30'09		opposition	1156 Jul 07 j 20:52	21° $\mathring{B}$ 41'56	-0°32'36
retrograde	1150 Mar 27 j 08:31	28° $\mathring{A}$ 41'23		min. Earth dist.	1156 Jul 07 j 01:14	21° $\mathring{B}$ 43'54	18.75913 AU
opposition	1150 Jun 12 j 04:58	26° $\mathring{A}$ 42'02	-0°14'17	direct	1156 Sep 22 j 10:47	19° $\mathring{B}$ 44'08	
min. Earth dist.	1150 Jun 11 j 15:03	26° $\mathring{A}$ 43'26	18.41530 AU	evening set	1156 Dec 22 j 07:04	22° $\mathring{B}$ 48'21	
direct	1150 Aug 28 j 07:07	24° $\mathring{A}$ 42'18					
evening set	1150 Nov 28 j 09:07	27° $\mathring{A}$ 52'36		conjunction	1157 Jan 06 j 21:53	23° $\mathring{B}$ 42'52	-0°30'37
				minimum elong	1157 Jan 06 j 21:53	23° $\mathring{B}$ 42'52	0°30'37
conjunction	1150 Dec 14 j 00:05	28° $\mathring{A}$ 48'16	-0°14'28	max. Earth dist.	1157 Jan 07 j 19:03	23° $\mathring{B}$ 45'58	20.78189 AU
minimum elong	1150 Dec 14 j 00:05	28° $\mathring{A}$ 48'16	0°14'28	morning rise	1157 Jan 22 j 14:07	24° $\mathring{B}$ 37'38	
behind sun begin	1150 Dec 13 j 20:58	28° $\mathring{A}$ 47'49		retrograde	1157 Apr 25 j 15:34	27° $\mathring{B}$ 45'54	
behind sun end	1150 Dec 14 j 03:11	28° $\mathring{A}$ 48'43		opposition	1157 Jul 12 j 09:06	25° $\mathring{B}$ 47'04	-0°35'06
max. Earth dist.	1150 Dec 14 j 15:23	28° $\mathring{A}$ 50'33	20.44754 AU	min. Earth dist.	1157 Jul 11 j 12:19	25° $\mathring{B}$ 49'09	18.80405 AU
morning rise	1150 Dec 29 j 14:54	29° $\mathring{A}$ 43'57		direct	1157 Sep 26 j 22:17	23° $\mathring{B}$ 49'28	
	1151 Jan 03 j 05:48	0° $\mathring{B}$		evening set	1157 Dec 26 j 12:57	26° $\mathring{B}$ 52'48	
retrograde	1151 Mar 31 j 20:17	2° $\mathring{B}$ 54'42					
opposition	1151 Jun 16 j 21:07	0° $\mathring{B}$ 55'31	-0°17'40	conjunction	1158 Jan 11 j 03:51	27° $\mathring{B}$ 47'11	-0°32'48
min. Earth dist.	1151 Jun 16 j 05:51	0° $\mathring{B}$ 57'04	18.47924 AU	minimum elong	1158 Jan 11 j 03:51	27° $\mathring{B}$ 47'11	0°32'47
	1151 Jul 10 j 16:38	30° $\mathring{R}$ $\mathring{A}$		max. Earth dist.	1158 Jan 12 j 00:47	27° $\mathring{B}$ 50'14	20.82497 AU
direct	1151 Sep 01 j 22:15	28° $\mathring{A}$ 56'11		morning rise	1158 Jan 26 j 20:42	28° $\mathring{B}$ 41'50	
	1151 Oct 22 j 13:59	0° $\mathring{B}$			1158 Feb 20 j 04:57	0° $\mathring{\approx}$	
evening set	1151 Dec 02 j 18:16	2° $\mathring{B}$ 05'24		retrograde	1158 Apr 30 j 01:14	1° $\mathring{\approx}$ 49'46	
					1158 Jul 13 j 01:37	30° $\mathring{R}$ $\mathring{B}$	
conjunction	1151 Dec 18 j 08:51	3° $\mathring{B}$ 00'50	-0°17'28	opposition	1158 Jul 16 j 20:55	29° $\mathring{B}$ 50'53	-0°37'24
minimum elong	1151 Dec 18 j 08:50	3° $\mathring{B}$ 00'50	0°17'28	min. Earth dist.	1158 Jul 16 j 00:02	29° $\mathring{B}$ 52'58	18.84553 AU
max. Earth dist.	1151 Dec 19 j 00:31	3° $\mathring{B}$ 03'10	20.51068 AU	direct	1158 Oct 01 j 07:11	27° $\mathring{B}$ 53'26	
morning rise	1152 Jan 02 j 23:54	3° $\mathring{B}$ 56'20			1158 Dec 13 j 16:16	0° $\mathring{\approx}$	
retrograde	1152 Apr 04 j 08:56	7° $\mathring{B}$ 06'39		evening set	1158 Dec 30 j 18:09	0° $\mathring{\approx}$ 55'57	
opposition	1152 Jun 20 j 12:45	5° $\mathring{B}$ 07'35	-0°20'57				
min. Earth dist.	1152 Jun 19 j 20:19	5° $\mathring{B}$ 09'14	18.54151 AU	conjunction	1159 Jan 15 j 09:27	1° $\mathring{\approx}$ 50'14	-0°34'47
direct	1152 Sep 05 j 10:23	3° $\mathring{B}$ 08'37		minimum elong	1159 Jan 15 j 09:27	1° $\mathring{\approx}$ 50'14	0°34'48
evening set	1152 Dec 06 j 02:33	6° $\mathring{B}$ 16'45		max. Earth dist.	1159 Jan 16 j 08:09	1° $\mathring{\approx}$ 53'32	20.86474 AU
				morning rise	1159 Jan 31 j 02:38	2° $\mathring{\approx}$ 44'47	
conjunction	1152 Dec 21 j 17:11	7° $\mathring{B}$ 11'59	-0°20'21	retrograde	1159 May 04 j 10:23	5° $\mathring{\approx}$ 52'25	
minimum elong	1152 Dec 21 j 17:11	7° $\mathring{B}$ 11'59	0°20'21	min. Earth dist.	1159 Jul 20 j 09:46	3° $\mathring{\approx}$ 55'44	18.88373 AU
max. Earth dist.	1152 Dec 22 j 11:07	7° $\mathring{B}$ 14'39	20.57167 AU	opposition	1159 Jul 21 j 08:03	3° $\mathring{\approx}$ 53'30	-0°39'30
morning rise	1153 Jan 06 j 08:13	8° $\mathring{B}$ 07'18		direct	1159 Oct 05 j 17:07	1° $\mathring{\approx}$ 56'14	
retrograde	1153 Apr 08 j 20:29	11° $\mathring{B}$ 17'11		evening set	1160 Jan 03 j 23:15	4° $\mathring{\approx}$ 57'59	
min. Earth dist.	1153 Jun 24 j 10:02	9° $\mathring{B}$ 20'00	18.60110 AU				

conjunction	1160 Jan 19 j 14:43	5° $\approx$ 52'09 -0°36'36	morning rise	1166 Feb 27 j 18:38	0° $\mathbb{H}$ 44'51
minimum elong	1160 Jan 19 j 14:43	5° $\approx$ 52'09 0°36'36	retrograde	1166 Jun 01 j 23:27	3° $\mathbb{H}$ 51'43
max. Earth dist.	1160 Jan 20 j 13:16	5° $\approx$ 55'26 20.90145 AU	min. Earth dist.	1166 Aug 18 j 02:33	1° $\mathbb{H}$ 55'06 19.05966 AU
morning rise	1160 Feb 04 j 08:36	6° $\approx$ 46'39	opposition	1166 Aug 19 j 01:17	1° $\mathbb{H}$ 52'50 -0°48'14
retrograde	1160 May 07 j 19:07	9° $\approx$ 54'02		1166 Oct 22 j 06:28	30° $\mathbb{R}$ $\approx$
opposition	1160 Jul 24 j 18:42	7° $\approx$ 55'05 -0°41'23	direct	1166 Nov 02 j 16:00	29° $\approx$ 56'41
min. Earth dist.	1160 Jul 23 j 20:27	7° $\approx$ 57'18 18.91914 AU		1166 Nov 14 j 00:27	0° $\mathbb{H}$
direct	1160 Oct 09 j 00:37	5° $\approx$ 57'59	evening set	1167 Jan 31 j 06:05	2° $\mathbb{H}$ 55'18
evening set	1161 Jan 07 j 03:50	8° $\approx$ 59'04			
conjunction	1161 Jan 22 j 19:54	9° $\approx$ 53'09 -0°38'13	conjunction	1167 Feb 16 j 01:41	3° $\mathbb{H}$ 49'18 -0°43'51
minimum elong	1161 Jan 22 j 19:54	9° $\approx$ 53'09 0°38'14	minimum elong	1167 Feb 16 j 01:41	3° $\mathbb{H}$ 49'18 0°43'50
max. Earth dist.	1161 Jan 23 j 20:01	9° $\approx$ 56'39 20.93534 AU	max. Earth dist.	1167 Feb 17 j 02:34	3° $\mathbb{H}$ 52'52 21.06379 AU
morning rise	1161 Feb 07 j 14:15	10° $\approx$ 47'35	morning rise	1167 Mar 04 j 00:33	4° $\mathbb{H}$ 43'47
retrograde	1161 May 12 j 04:33	13° $\approx$ 54'46	retrograde	1167 Jun 06 j 08:35	7° $\mathbb{H}$ 50'42
min. Earth dist.	1161 Jul 28 j 05:09	11° $\approx$ 58'10 18.95150 AU	min. Earth dist.	1167 Aug 22 j 10:12	5° $\mathbb{H}$ 54'06 19.06743 AU
opposition	1161 Jul 29 j 04:42	11° $\approx$ 55'49 -0°43'04	opposition	1167 Aug 23 j 09:21	5° $\mathbb{H}$ 51'47 -0°48'35
direct	1161 Oct 13 j 09:04	9° $\approx$ 58'54	direct	1167 Nov 06 j 23:34	3° $\mathbb{H}$ 55'43
evening set	1162 Jan 11 j 08:25	12° $\approx$ 59'23	evening set	1168 Feb 04 j 10:53	6° $\mathbb{H}$ 54'08
conjunction	1162 Jan 27 j 00:46	13° $\approx$ 53'25 -0°39'39	conjunction	1168 Feb 20 j 07:06	7° $\mathbb{H}$ 48'11 -0°44'03
minimum elong	1162 Jan 27 j 00:46	13° $\approx$ 53'24 0°39'39	minimum elong	1168 Feb 20 j 07:06	7° $\mathbb{H}$ 48'11 0°44'04
max. Earth dist.	1162 Jan 28 j 00:33	13° $\approx$ 56'51 20.96611 AU	max. Earth dist.	1168 Feb 21 j 06:30	7° $\mathbb{H}$ 51'32 21.06874 AU
morning rise	1162 Feb 11 j 19:54	14° $\approx$ 47'49	morning rise	1168 Mar 07 j 07:01	8° $\mathbb{H}$ 42'44
	1162 Feb 15 j 10:52	15° $\approx$	retrograde	1168 Jun 09 j 16:37	11° $\mathbb{H}$ 49'44
retrograde	1162 May 16 j 12:28	17° $\approx$ 54'51	opposition	1168 Aug 26 j 17:15	9° $\mathbb{H}$ 50'44 -0°48'42
opposition	1162 Aug 02 j 14:19	15° $\approx$ 55'54 -0°44'33	min. Earth dist.	1168 Aug 25 j 19:47	9° $\mathbb{H}$ 52'53 19.06959 AU
min. Earth dist.	1162 Aug 01 j 15:11	15° $\approx$ 58'12 18.98078 AU	direct	1168 Nov 10 j 03:52	7° $\mathbb{H}$ 54'40
	1162 Aug 26 j 21:36	15° $\mathbb{R}$ $\approx$	evening set	1169 Feb 07 j 15:41	10° $\mathbb{H}$ 52'57
direct	1162 Oct 17 j 15:23	13° $\approx$ 59'09	conjunction	1169 Feb 23 j 12:55	11° $\mathbb{H}$ 47'05 -0°44'04
	1162 Dec 06 j 04:51	15° $\approx$	minimum elong	1169 Feb 23 j 12:55	11° $\mathbb{H}$ 47'05 0°44'03
evening set	1163 Jan 15 j 12:41	16° $\approx$ 59'08	max. Earth dist.	1169 Feb 24 j 12:18	11° $\mathbb{H}$ 50'26 21.06803 AU
conjunction	1163 Jan 31 j 05:42	17° $\approx$ 53'07 -0°40'54	morning rise	1169 Mar 11 j 13:37	12° $\mathbb{H}$ 41'42
minimum elong	1163 Jan 31 j 05:42	17° $\approx$ 53'07 0°40'54	retrograde	1169 Jun 14 j 01:13	15° $\mathbb{H}$ 48'46
max. Earth dist.	1163 Feb 01 j 06:49	17° $\approx$ 56'44 20.99374 AU	min. Earth dist.	1169 Aug 30 j 03:12	13° $\mathbb{H}$ 51'51 19.06589 AU
morning rise	1163 Feb 16 j 01:23	18° $\approx$ 47'29	opposition	1169 Aug 31 j 00:50	13° $\mathbb{H}$ 49'41 -0°48'35
retrograde	1163 May 20 j 22:23	21° $\approx$ 54'25	direct	1169 Nov 14 j 10:55	11° $\mathbb{H}$ 53'34
opposition	1163 Aug 06 j 23:31	19° $\approx$ 55'30 -0°45'48	evening set	1170 Feb 11 j 20:44	14° $\mathbb{H}$ 51'46
min. Earth dist.	1163 Aug 05 j 23:18	19° $\approx$ 57'55 19.00662 AU	conjunction	1170 Feb 27 j 18:39	15° $\mathbb{H}$ 45'58 -0°43'51
direct	1163 Oct 21 j 23:00	17° $\approx$ 58'56	minimum elong	1170 Feb 27 j 18:39	15° $\mathbb{H}$ 45'58 0°43'51
evening set	1164 Jan 19 j 16:57	20° $\approx$ 58'27	max. Earth dist.	1170 Feb 28 j 16:25	15° $\mathbb{H}$ 49'05 21.06153 AU
conjunction	1164 Feb 04 j 10:24	21° $\approx$ 52'25 -0°41'56	morning rise	1170 Mar 15 j 20:25	16° $\mathbb{H}$ 40'42
minimum elong	1164 Feb 04 j 10:24	21° $\approx$ 52'25 0°41'56	retrograde	1170 Jun 18 j 08:57	19° $\mathbb{H}$ 47'51
max. Earth dist.	1164 Feb 05 j 10:59	21° $\approx$ 55'57 21.01775 AU	opposition	1170 Sep 04 j 08:21	17° $\mathbb{H}$ 48'37 -0°48'13
morning rise	1164 Feb 20 j 07:00	22° $\approx$ 46'48	min. Earth dist.	1170 Sep 03 j 12:30	17° $\mathbb{H}$ 50'37 19.05672 AU
retrograde	1164 May 24 j 06:01	25° $\approx$ 53'41	direct	1170 Nov 18 j 15:26	15° $\mathbb{H}$ 52'25
min. Earth dist.	1164 Aug 09 j 09:09	23° $\approx$ 57'06 19.02875 AU	evening set	1171 Feb 16 j 01:50	18° $\mathbb{H}$ 50'35
opposition	1164 Aug 10 j 08:32	23° $\approx$ 54'46 -0°46'50	conjunction	1171 Mar 04 j 00:49	19° $\mathbb{H}$ 44'53 -0°43'25
direct	1164 Oct 25 j 04:12	21° $\approx$ 58'23	minimum elong	1171 Mar 04 j 00:49	19° $\mathbb{H}$ 44'53 0°43'25
evening set	1165 Jan 22 j 21:13	24° $\approx$ 57'32	max. Earth dist.	1171 Mar 04 j 22:39	19° $\mathbb{H}$ 48'01 21.04991 AU
conjunction	1165 Feb 07 j 15:27	25° $\approx$ 51'29 -0°42'47	morning rise	1171 Mar 20 j 03:25	20° $\mathbb{H}$ 39'43
minimum elong	1165 Feb 07 j 15:27	25° $\approx$ 51'29 0°42'47	retrograde	1171 Jun 22 j 17:29	23° $\mathbb{H}$ 47'00
max. Earth dist.	1165 Feb 08 j 16:56	25° $\approx$ 55'09 21.03780 AU	opposition	1171 Sep 08 j 15:32	21° $\mathbb{H}$ 47'36 -0°47'38
morning rise	1165 Feb 23 j 12:41	26° $\approx$ 45'53	min. Earth dist.	1171 Sep 07 j 19:29	21° $\mathbb{H}$ 49'38 19.04264 AU
retrograde	1165 May 28 j 15:41	29° $\approx$ 52'44	direct	1171 Nov 22 j 21:55	19° $\mathbb{H}$ 51'17
opposition	1165 Aug 14 j 16:53	27° $\approx$ 53'51 -0°47'39	evening set	1172 Feb 20 j 07:18	22° $\mathbb{H}$ 49'30
min. Earth dist.	1165 Aug 13 j 16:50	27° $\approx$ 56'15 19.04656 AU	conjunction	1172 Mar 07 j 07:04	23° $\mathbb{H}$ 43'55 -0°42'47
direct	1165 Oct 29 j 11:40	25° $\approx$ 57'36	minimum elong	1172 Mar 07 j 07:04	23° $\mathbb{H}$ 43'55 0°42'47
evening set	1166 Jan 27 j 01:43	28° $\approx$ 56'27	max. Earth dist.	1172 Mar 08 j 03:24	23° $\mathbb{H}$ 46'49 21.03358 AU
conjunction	1166 Feb 11 j 20:27	29° $\approx$ 50'25 -0°43'25	morning rise	1172 Mar 23 j 10:48	24° $\mathbb{H}$ 38'52
minimum elong	1166 Feb 11 j 20:27	29° $\approx$ 50'25 0°43'25	retrograde	1172 Jun 26 j 01:10	25° $\mathbb{H}$ 46'19
max. Earth dist.	1166 Feb 12 j 20:53	29° $\approx$ 53'55 21.05327 AU	opposition	1172 Sep 11 j 22:45	25° $\mathbb{H}$ 46'45 -0°46'48
	1166 Feb 14 j 15:10	0° $\mathbb{H}$	min. Earth dist.	1172 Sep 11 j 04:30	25° $\mathbb{H}$ 48'35 19.02420 AU
			direct	1172 Nov 26 j 02:11	23° $\mathbb{H}$ 50'16

evening set	1173 Feb 23 j 13:00	26° $\text{H}$ 48'37		max. Earth dist.	1179 Apr 06 j 06:17	21° $\text{Y}$ 54'40	20.81877 AU
				morning rise	1179 Apr 22 j 03:04	22° $\text{Y}$ 48'57	
conjunction	1173 Mar 11 j 13:52	27° $\text{H}$ 43'10 -0°41'56		retrograde	1179 Jul 25 j 22:26	25° $\text{Y}$ 58'44	
minimum elong	1173 Mar 11 j 13:52	27° $\text{H}$ 43'10 0°41'56		opposition	1179 Oct 11 j 01:21	23° $\text{Y}$ 58'19 -0°34'57	
max. Earth dist.	1173 Mar 12 j 10:12	27° $\text{H}$ 46'04 21.01316 AU		min. Earth dist.	1179 Oct 10 j 13:35	23° $\text{Y}$ 59'32 18.79707 AU	
morning rise	1173 Mar 27 j 18:27	28° $\text{H}$ 38'16		direct	1179 Dec 24 j 18:15	22° $\text{Y}$ 00'43	
	1173 Apr 22 j 22:03	0° $\text{Y}$		evening set	1180 Mar 23 j 19:32	25° $\text{Y}$ 02'10	
retrograde	1173 Jun 30 j 10:17	1° $\text{Y}$ 45'54					
	1173 Sep 10 j 12:46	30° $\text{R}$ $\text{H}$		conjunction	1180 Apr 09 j 03:25	25° $\text{Y}$ 58'08 -0°30'31	
min. Earth dist.	1173 Sep 15 j 11:09	29° $\text{H}$ 48'02 19.00181 AU		minimum elong	1180 Apr 09 j 03:25	25° $\text{Y}$ 58'08 0°30'31	
opposition	1173 Sep 16 j 05:32	29° $\text{H}$ 46'10 -0°45'46		max. Earth dist.	1180 Apr 09 j 14:52	25° $\text{Y}$ 59'47 20.77424 AU	
direct	1173 Nov 30 j 08:29	27° $\text{H}$ 49'33		morning rise	1180 Apr 25 j 14:57	26° $\text{Y}$ 54'38	
	1174 Feb 12 j 22:10	0° $\text{Y}$			1180 Jul 15 j 10:12	0° $\text{B}$	
evening set	1174 Feb 27 j 19:12	0° $\text{Y}$ 48'06		retrograde	1180 Jul 29 j 09:03	0° $\text{B}$ 04'52	
					1180 Aug 12 j 11:44	30° $\text{R}$ $\text{Y}$	
conjunction	1174 Mar 15 j 20:53	1° $\text{Y}$ 42'48 -0°40'52		opposition	1180 Oct 14 j 09:34	28° $\text{Y}$ 04'22 -0°32'26	
minimum elong	1174 Mar 15 j 20:53	1° $\text{Y}$ 42'48 0°40'52		min. Earth dist.	1180 Oct 14 j 00:25	28° $\text{Y}$ 05'19 18.75051 AU	
max. Earth dist.	1174 Mar 16 j 15:39	1° $\text{Y}$ 45'29 20.98895 AU		direct	1180 Dec 28 j 00:06	26° $\text{Y}$ 06'32	
morning rise	1174 Apr 01 j 02:34	2° $\text{Y}$ 38'03		evening set	1181 Mar 28 j 06:10	29° $\text{Y}$ 08'43	
retrograde	1174 Jul 04 j 18:12	5° $\text{Y}$ 45'57			1181 Apr 12 j 04:53	0° $\text{B}$	
opposition	1174 Sep 20 j 12:38	3° $\text{Y}$ 46'04 -0°44'29					
min. Earth dist.	1174 Sep 19 j 20:04	3° $\text{Y}$ 47'45 18.97591 AU		conjunction	1181 Apr 13 j 15:10	0° $\text{B}$ 04'57 -0°28'09	
direct	1174 Dec 04 j 12:30	1° $\text{Y}$ 49'17		minimum elong	1181 Apr 13 j 15:10	0° $\text{B}$ 04'57 0°28'08	
evening set	1175 Mar 04 j 01:32	4° $\text{Y}$ 48'06		max. Earth dist.	1181 Apr 14 j 01:11	0° $\text{B}$ 06'23 20.72568 AU	
				morning rise	1181 Apr 30 j 03:30	1° $\text{B}$ 01'41	
conjunction	1175 Mar 20 j 04:22	5° $\text{Y}$ 42'59 -0°39'37		retrograde	1181 Aug 02 j 22:33	4° $\text{B}$ 12'24	
minimum elong	1175 Mar 20 j 04:22	5° $\text{Y}$ 42'59 0°39'37		opposition	1181 Oct 18 j 17:53	2° $\text{B}$ 11'47 -0°29'45	
max. Earth dist.	1175 Mar 20 j 23:03	5° $\text{Y}$ 45'39 20.96146 AU		min. Earth dist.	1181 Oct 18 j 09:26	2° $\text{B}$ 12'39 18.69979 AU	
morning rise	1175 Apr 05 j 10:57	6° $\text{Y}$ 38'24		direct	1182 Jan 01 j 08:50	0° $\text{B}$ 13'40	
retrograde	1175 Jul 09 j 04:31	9° $\text{Y}$ 46'36		evening set	1182 Apr 01 j 17:39	3° $\text{B}$ 16'38	
opposition	1175 Sep 24 j 19:38	7° $\text{Y}$ 46'34 -0°43'00					
min. Earth dist.	1175 Sep 24 j 02:57	7° $\text{Y}$ 48'16 18.94669 AU		conjunction	1182 Apr 18 j 03:33	4° $\text{B}$ 13'08 -0°25'38	
direct	1175 Dec 08 j 18:51	5° $\text{Y}$ 49'38		minimum elong	1182 Apr 18 j 03:33	4° $\text{B}$ 13'08 0°25'38	
evening set	1176 Mar 07 j 08:42	8° $\text{Y}$ 48'50		max. Earth dist.	1182 Apr 18 j 11:11	4° $\text{B}$ 14'13 20.67292 AU	
				morning rise	1182 May 04 j 16:48	5° $\text{B}$ 10'07	
conjunction	1176 Mar 23 j 12:26	9° $\text{Y}$ 43'54 -0°38'10		retrograde	1182 Aug 07 j 09:44	8° $\text{B}$ 21'20	
minimum elong	1176 Mar 23 j 12:26	9° $\text{Y}$ 43'54 0°38'10		opposition	1182 Oct 23 j 02:46	6° $\text{B}$ 20'33 -0°26'53	
max. Earth dist.	1176 Mar 24 j 05:23	9° $\text{Y}$ 46'19 20.93063 AU		min. Earth dist.	1182 Oct 22 j 20:58	6° $\text{B}$ 21'09 18.64509 AU	
morning rise	1176 Apr 08 j 20:08	10° $\text{Y}$ 39'31		direct	1183 Jan 05 j 15:22	4° $\text{B}$ 22'07	
retrograde	1176 Jul 12 j 13:05	13° $\text{Y}$ 48'02		evening set	1183 Apr 06 j 05:39	7° $\text{B}$ 25'53	
opposition	1176 Sep 28 j 02:47	11° $\text{Y}$ 47'54 -0°41'18					
min. Earth dist.	1176 Sep 27 j 12:09	11° $\text{Y}$ 49'23 18.91428 AU		conjunction	1183 Apr 22 j 16:40	8° $\text{B}$ 22'40 -0°22'58	
direct	1176 Dec 11 j 23:12	9° $\text{Y}$ 50'48		minimum elong	1183 Apr 22 j 16:41	8° $\text{B}$ 22'40 0°22'57	
evening set	1177 Mar 11 j 16:18	12° $\text{Y}$ 50'26		max. Earth dist.	1183 Apr 22 j 22:44	8° $\text{B}$ 23'32 20.61653 AU	
				morning rise	1183 May 09 j 06:45	9° $\text{B}$ 19'55	
conjunction	1177 Mar 27 j 21:14	13° $\text{Y}$ 45'43 -0°36'32		retrograde	1183 Aug 12 j 00:31	12° $\text{B}$ 31'37	
minimum elong	1177 Mar 27 j 21:14	13° $\text{Y}$ 45'43 0°36'33		opposition	1183 Oct 27 j 11:48	10° $\text{B}$ 30'39 -0°23'51	
max. Earth dist.	1177 Mar 28 j 13:41	13° $\text{Y}$ 48'04 20.89672 AU		min. Earth dist.	1183 Oct 27 j 06:46	10° $\text{B}$ 31'11 18.58690 AU	
morning rise	1177 Apr 13 j 05:49	14° $\text{Y}$ 41'31		direct	1184 Jan 10 j 01:23	8° $\text{B}$ 31'52	
retrograde	1177 Jul 17 j 00:28	17° $\text{Y}$ 50'25		evening set	1184 Apr 09 j 18:44	11° $\text{B}$ 36'31	
opposition	1177 Oct 02 j 10:01	15° $\text{Y}$ 50'11 -0°39'23					
min. Earth dist.	1177 Oct 01 j 19:30	15° $\text{Y}$ 51'40 18.87864 AU		conjunction	1184 Apr 26 j 06:40	12° $\text{B}$ 33'35 -0°20'10	
direct	1177 Dec 16 j 05:46	13° $\text{Y}$ 52'56		minimum elong	1184 Apr 26 j 06:40	12° $\text{B}$ 33'35 0°20'10	
evening set	1178 Mar 16 j 00:36	16° $\text{Y}$ 53'06		max. Earth dist.	1184 Apr 26 j 10:29	12° $\text{B}$ 34'07 20.55681 AU	
				morning rise	1184 May 12 j 21:32	13° $\text{B}$ 31'06	
conjunction	1178 Apr 01 j 06:24	17° $\text{Y}$ 48'36 -0°34'42			1184 Jun 10 j 00:04	15° $\text{B}$	
minimum elong	1178 Apr 01 j 06:24	17° $\text{Y}$ 48'36 0°34'42		retrograde	1184 Aug 15 j 12:19	16° $\text{B}$ 43'17	
max. Earth dist.	1178 Apr 01 j 20:59	17° $\text{Y}$ 50'41 20.85941 AU			1184 Oct 23 j 17:42	15° $\text{R}$ $\text{B}$	
morning rise	1178 Apr 17 j 16:02	18° $\text{Y}$ 44'37		opposition	1184 Oct 30 j 21:13	14° $\text{B}$ 42'07 -0°20'41	
retrograde	1178 Jul 21 j 10:01	21° $\text{Y}$ 53'57		min. Earth dist.	1184 Oct 30 j 18:48	14° $\text{B}$ 42'22 18.52585 AU	
opposition	1178 Oct 06 j 17:40	19° $\text{Y}$ 53'37 -0°37'16		direct	1185 Jan 13 j 08:56	12° $\text{B}$ 42'57	
min. Earth dist.	1178 Oct 06 j 05:25	19° $\text{Y}$ 54'53 18.83963 AU			1185 Mar 30 j 15:32	15° $\text{B}$	
direct	1178 Dec 20 j 10:52	17° $\text{Y}$ 56'13		evening set	1185 Apr 14 j 08:28	15° $\text{B}$ 48'31	
evening set	1179 Mar 20 j 09:36	20° $\text{Y}$ 56'59					
				conjunction	1185 Apr 30 j 21:22	16° $\text{B}$ 45'53 -0°17'14	
conjunction	1179 Apr 05 j 16:33	21° $\text{Y}$ 52'42 -0°32'42		minimum elong	1185 Apr 30 j 21:22	16° $\text{B}$ 45'53 0°17'14	
minimum elong	1179 Apr 05 j 16:33	21° $\text{Y}$ 52'42 0°32'42		max. Earth dist.	1185 Apr 30 j 23:32	16° $\text{B}$ 46'11 20.49475 AU	

morning rise	1185 May 17 j 12:59	17° <b>8</b> 43'39	min. Earth dist.	1190 Nov 25 j 21:46	10° <b>II</b> 22'39	18.13872 AU
retrograde	1185 Aug 20 j 03:55	20° <b>8</b> 56'22	direct	1191 Feb 08 j 05:46	8° <b>II</b> 21'50	
opposition	1185 Nov 04 j 06:59	18° <b>8</b> 55'00 -0°17'23	evening set	1191 May 11 j 12:58	11° <b>II</b> 33'59	
min. Earth dist.	1185 Nov 04 j 05:15	18° <b>8</b> 55'11 18.46280 AU				
direct	1186 Jan 17 j 20:00	16° <b>8</b> 55'26	conjunction	1191 May 28 j 06:22	12° <b>II</b> 33'09 0°02'08	
evening set	1186 Apr 18 j 22:55	20° <b>8</b> 01'58	minimum elong	1191 May 28 j 06:21	12° <b>II</b> 33'09 0°02'08	
			behind sun begin	1191 May 27 j 23:35	12° <b>II</b> 32'11	
conjunction	1186 May 05 j 12:39	20° <b>8</b> 59'37 -0°14'13	behind sun end	1191 May 28 j 13:07	12° <b>II</b> 34'08	
minimum elong	1186 May 05 j 12:39	20° <b>8</b> 59'37 0°14'12	max. Earth dist.	1191 May 27 j 21:58	12° <b>II</b> 31'56 20.10709 AU	
behind sun begin	1186 May 05 j 09:36	20° <b>8</b> 59'11	morning rise	1191 Jun 14 j 01:01	13° <b>II</b> 32'32	
behind sun end	1186 May 05 j 15:42	21° <b>8</b> 00'04	retrograde	1191 Sep 16 j 01:34	16° <b>II</b> 48'37	
max. Earth dist.	1186 May 05 j 13:03	20° <b>8</b> 59'41 20.43087 AU	opposition	1191 Nov 30 j 04:46	14° <b>II</b> 46'27 0°04'10	
morning rise	1186 May 22 j 04:55	21° <b>8</b> 57'41	min. Earth dist.	1191 Nov 30 j 11:48	14° <b>II</b> 45'41 18.07521 AU	
retrograde	1186 Aug 24 j 16:50	25° <b>8</b> 10'55	direct	1192 Feb 12 j 20:16	12° <b>II</b> 44'37	
opposition	1186 Nov 08 j 17:21	23° <b>8</b> 09'21 -0°13'59	evening set	1192 May 15 j 09:09	15° <b>II</b> 58'02	
min. Earth dist.	1186 Nov 08 j 17:58	23° <b>8</b> 09'17 18.39835 AU				
direct	1187 Jan 22 j 04:58	21° <b>8</b> 09'23	conjunction	1192 Jun 01 j 03:08	16° <b>II</b> 57'30 0°05'29	
evening set	1187 Apr 23 j 14:18	24° <b>8</b> 16'57	minimum elong	1192 Jun 01 j 03:07	16° <b>II</b> 57'30 0°05'29	
			behind sun begin	1192 May 31 j 20:36	16° <b>II</b> 56'33	
conjunction	1187 May 10 j 04:55	25° <b>8</b> 14'54 -0°11'06	behind sun end	1192 Jun 01 j 09:39	16° <b>II</b> 58'27	
minimum elong	1187 May 10 j 04:55	25° <b>8</b> 14'54 0°11'06	max. Earth dist.	1192 May 31 j 17:37	16° <b>II</b> 56'06 20.04379 AU	
behind sun begin	1187 May 09 j 23:57	25° <b>8</b> 14'11	morning rise	1192 Jun 17 j 21:51	17° <b>II</b> 57'08	
behind sun end	1187 May 10 j 09:53	25° <b>8</b> 15'37	retrograde	1192 Sep 19 j 19:09	21° <b>II</b> 13'47	
max. Earth dist.	1187 May 10 j 03:33	25° <b>8</b> 14'43 20.36610 AU	opposition	1192 Dec 03 j 18:36	19° <b>II</b> 11'35 0°07'53	
morning rise	1187 May 26 j 21:50	26° <b>8</b> 13'14	min. Earth dist.	1192 Dec 04 j 03:42	19° <b>II</b> 10'36 18.01221 AU	
retrograde	1187 Aug 29 j 09:01	29° <b>8</b> 27'00	direct	1193 Feb 16 j 11:05	17° <b>II</b> 09'26	
opposition	1187 Nov 13 j 03:57	27° <b>8</b> 25'16 -0°10'28	evening set	1193 May 20 j 06:24	20° <b>II</b> 24'07	
min. Earth dist.	1187 Nov 13 j 05:14	27° <b>8</b> 25'07 18.33329 AU				
direct	1188 Jan 26 j 17:07	25° <b>8</b> 24'53	conjunction	1193 Jun 06 j 00:40	21° <b>II</b> 23'52 0°08'49	
evening set	1188 Apr 27 j 06:39	28° <b>8</b> 33'32	minimum elong	1193 Jun 06 j 00:40	21° <b>II</b> 23'52 0°08'50	
			behind sun begin	1193 Jun 05 j 18:52	21° <b>II</b> 23'01	
conjunction	1188 May 13 j 22:03	29° <b>8</b> 31'48 -0°07'54	behind sun end	1193 Jun 06 j 06:28	21° <b>II</b> 24'42	
minimum elong	1188 May 13 j 22:04	29° <b>8</b> 31'48 0°07'54	max. Earth dist.	1193 Jun 05 j 12:26	21° <b>II</b> 22'03 19.98112 AU	
behind sun begin	1188 May 13 j 16:01	29° <b>8</b> 30'56	morning rise	1193 Jun 22 j 19:39	22° <b>II</b> 23'44	
behind sun end	1188 May 14 j 04:06	29° <b>8</b> 32'40	retrograde	1193 Sep 24 j 14:05	25° <b>II</b> 40'59	
max. Earth dist.	1188 May 13 j 19:07	29° <b>8</b> 31'23 20.30079 AU	opposition	1193 Dec 08 j 09:14	23° <b>II</b> 38'43 0°11'36	
	1188 May 21 j 22:03	0° <b>II</b>	min. Earth dist.	1193 Dec 08 j 19:31	23° <b>II</b> 37'37 17.94983 AU	
morning rise	1188 May 30 j 15:28	0° <b>II</b> 30'23	direct	1194 Feb 21 j 03:22	21° <b>II</b> 36'13	
retrograde	1188 Sep 01 j 23:12	3° <b>II</b> 44'43	evening set	1194 May 25 j 04:21	24° <b>II</b> 52'10	
opposition	1188 Nov 16 j 15:19	1° <b>II</b> 42'49 -0°06'53				
min. Earth dist.	1188 Nov 16 j 18:47	1° <b>II</b> 42'27 18.26798 AU	conjunction	1194 Jun 10 j 23:06	25° <b>II</b> 52'12 0°12'07	
	1189 Jan 03 j 22:55	30° <b>R</b> 8	minimum elong	1194 Jun 10 j 23:06	25° <b>II</b> 52'12 0°12'07	
direct	1189 Jan 30 j 03:49	29° <b>8</b> 42'04	behind sun begin	1194 Jun 10 j 18:37	25° <b>II</b> 51'32	
	1189 Feb 25 j 06:23	0° <b>II</b>	behind sun end	1194 Jun 11 j 03:35	25° <b>II</b> 52'51	
evening set	1189 May 01 j 23:47	2° <b>II</b> 51'50	max. Earth dist.	1194 Jun 10 j 09:55	25° <b>II</b> 50'13 19.91881 AU	
			morning rise	1194 Jun 27 j 17:58	26° <b>II</b> 52'18	
conjunction	1189 May 18 j 15:53	3° <b>II</b> 50'24 -0°04'39		1194 Sep 09 j 23:11	0° <b>III</b>	
minimum elong	1189 May 18 j 15:53	3° <b>II</b> 50'24 0°04'40	retrograde	1194 Sep 29 j 09:14	0° <b>III</b> 10'06	
behind sun begin	1189 May 18 j 09:17	3° <b>II</b> 49'27		1194 Oct 18 j 22:53	30° <b>R</b> II	
behind sun end	1189 May 18 j 22:30	3° <b>II</b> 51'21	opposition	1194 Dec 13 j 00:42	28° <b>II</b> 07'47 0°15'16	
max. Earth dist.	1189 May 18 j 11:00	3° <b>II</b> 49'42 20.23565 AU	min. Earth dist.	1194 Dec 13 j 12:50	28° <b>II</b> 06'29 17.88774 AU	
morning rise	1189 Jun 04 j 09:48	4° <b>II</b> 49'15	direct	1195 Feb 25 j 20:01	26° <b>II</b> 04'55	
retrograde	1189 Sep 06 j 16:05	8° <b>II</b> 04'09	evening set	1195 May 30 j 03:31	29° <b>II</b> 22'08	
opposition	1189 Nov 21 j 03:06	6° <b>II</b> 02'08 -0°03'14		1195 Jun 09 j 17:48	0° <b>III</b>	
min. Earth dist.	1189 Nov 21 j 07:13	6° <b>II</b> 01'42 18.20305 AU				
direct	1190 Feb 03 j 17:01	4° <b>II</b> 01'00	conjunction	1195 Jun 15 j 22:24	0° <b>III</b> 22'25 0°15'23	
evening set	1190 May 06 j 17:53	7° <b>II</b> 11'57	minimum elong	1195 Jun 15 j 22:24	0° <b>III</b> 22'25 0°15'23	
			behind sun begin	1195 Jun 15 j 20:57	0° <b>III</b> 22'12	
conjunction	1190 May 23 j 10:42	8° <b>II</b> 10'49 -0°01'19	behind sun end	1195 Jun 15 j 23:51	0° <b>III</b> 22'38	
minimum elong	1190 May 23 j 10:42	8° <b>II</b> 10'49 0°01'19	max. Earth dist.	1195 Jun 15 j 06:10	0° <b>III</b> 19'59 19.85700 AU	
behind sun begin	1190 May 23 j 03:56	8° <b>II</b> 09'51	morning rise	1195 Jul 02 j 17:22	1° <b>III</b> 22'44	
behind sun end	1190 May 23 j 17:29	8° <b>II</b> 11'48	retrograde	1195 Oct 04 j 05:22	4° <b>III</b> 41'04	
max. Earth dist.	1190 May 23 j 04:36	8° <b>II</b> 09'57 20.17094 AU	opposition	1195 Dec 17 j 16:42	2° <b>III</b> 38'41 0°18'52	
morning rise	1190 Jun 09 j 04:55	9° <b>II</b> 09'56	min. Earth dist.	1195 Dec 18 j 06:18	2° <b>III</b> 37'12 17.82632 AU	
retrograde	1190 Sep 11 j 07:49	12° <b>II</b> 25'25	direct	1196 Mar 01 j 14:08	0° <b>III</b> 35'24	
asc. node	1190 Oct 11 j 21:24	12° <b>II</b> 01'40	evening set	1196 Jun 03 j 03:23	3° <b>III</b> 53'52	
opposition	1190 Nov 25 j 15:38	10° <b>II</b> 23'19 0°00'27				



conjunction	1196 Jun 19 j 22:36	4°☾54'25	0°18'35	retrograde	1202 Nov 05 j 14:45	7°♈00'45	
minimum elong	1196 Jun 19 j 22:36	4°☾54'25	0°18'35	opposition	1203 Jan 18 j 03:58	4°♈57'57	0°40'02
max. Earth dist.	1196 Jun 19 j 05:39	4°☾51'51	19.79591 AU	min. Earth dist.	1203 Jan 18 j 23:50	4°♈55'46	17.46389 AU
morning rise	1196 Jul 06 j 17:15	5°☾54'56		direct	1203 Apr 03 j 16:09	2°♈52'16	
retrograde	1196 Oct 08 j 01:49	9°☾13'44		evening set	1203 Jul 07 j 20:05	6°♈18'24	
opposition	1196 Dec 21 j 09:33	7°☾11'17	0°22'23				
min. Earth dist.	1196 Dec 22 j 00:36	7°☾09'39	17.76581 AU	conjunction	1203 Jul 24 j 13:37	7°♈20'10	0°36'56
direct	1197 Mar 06 j 08:41	5°☾07'38		minimum elong	1203 Jul 24 j 13:36	7°♈20'10	0°36'57
evening set	1197 Jun 08 j 04:00	8°☾27'18		max. Earth dist.	1203 Jul 23 j 12:55	7°♈16'20	19.44576 AU
				morning rise	1203 Aug 10 j 04:39	8°♈21'35	
conjunction	1197 Jun 24 j 23:05	9°☾28'04	0°21'41	retrograde	1203 Nov 10 j 12:28	11°♈43'00	
minimum elong	1197 Jun 24 j 23:05	9°☾28'04	0°21'40	opposition	1204 Jan 23 j 01:20	9°♈40'15	0°42'12
max. Earth dist.	1197 Jun 24 j 03:21	9°☾25'05	19.73618 AU	min. Earth dist.	1204 Jan 23 j 22:23	9°♈37'57	17.42974 AU
morning rise	1197 Jul 11 j 17:38	10°☾28'47		direct	1204 Apr 07 j 14:21	7°♈34'23	
retrograde	1197 Oct 12 j 22:39	13°☾48'04		evening set	1204 Jul 12 j 00:22	11°♈01'26	
opposition	1197 Dec 26 j 03:00	11°☾45'31	0°25'46				
min. Earth dist.	1197 Dec 26 j 19:28	11°☾43'44	17.70713 AU	conjunction	1204 Jul 28 j 17:19	12°♈03'16	0°38'45
direct	1198 Mar 11 j 04:11	9°☾41'27		minimum elong	1204 Jul 28 j 17:19	12°♈03'16	0°38'44
evening set	1198 Jun 13 j 05:12	13°☾02'19		max. Earth dist.	1204 Jul 27 j 16:48	11°♈59'28	19.41442 AU
max. Earth dist.	1198 Jun 29 j 04:28	14°☾00'16	19.67854 AU	morning rise	1204 Aug 14 j 07:32	13°♈04'44	
					1204 Sep 18 j 06:44	15°♈	
conjunction	1198 Jun 30 j 00:27	14°☾03'18	0°24'39	retrograde	1204 Nov 14 j 13:09	16°♈26'24	
minimum elong	1198 Jun 30 j 00:27	14°☾03'18	0°24'39		1205 Jan 12 j 23:02	15°♈♈	
morning rise	1198 Jul 16 j 18:30	15°☾04'11		opposition	1205 Jan 26 j 23:18	14°♈23'44	0°44'05
retrograde	1198 Oct 17 j 20:20	18°☾23'53		min. Earth dist.	1205 Jan 27 j 19:38	14°♈21'30	17.40113 AU
opposition	1198 Dec 30 j 21:02	16°☾21'16	0°29'01	direct	1205 Apr 12 j 16:27	12°♈17'46	
min. Earth dist.	1198 Dec 31 j 14:23	16°☾19'22	17.65078 AU		1205 Jul 04 j 08:39	15°♈	
direct	1199 Mar 16 j 00:31	14°☾16'49		evening set	1205 Jul 17 j 04:49	15°♈45'36	
evening set	1199 Jun 18 j 07:14	17°☾38'50					
max. Earth dist.	1199 Jul 04 j 03:50	18°☾36'35	19.62366 AU	conjunction	1205 Aug 02 j 21:04	16°♈47'29	0°40'19
				minimum elong	1205 Aug 02 j 21:04	16°♈47'29	0°40'19
conjunction	1199 Jul 05 j 02:13	18°☾40'01	0°27'29	max. Earth dist.	1205 Aug 01 j 20:21	16°♈43'38	19.38849 AU
minimum elong	1199 Jul 05 j 02:13	18°☾40'01	0°27'29	morning rise	1205 Aug 19 j 10:19	17°♈48'58	
morning rise	1199 Jul 21 j 20:00	19°☾41'03		retrograde	1205 Nov 19 j 11:15	21°♈10'51	
retrograde	1199 Oct 22 j 17:50	23°☾01'10		opposition	1206 Jan 31 j 21:59	19°♈08'17	0°45'41
opposition	1200 Jan 04 j 15:48	20°☾58'27	0°32'05	min. Earth dist.	1206 Feb 01 j 19:30	19°♈05'56	17.37795 AU
min. Earth dist.	1200 Jan 05 j 10:34	20°☾56'24	17.59766 AU	direct	1206 Apr 17 j 16:12	17°♈02'14	
direct	1200 Mar 19 j 20:52	18°☾53'38		evening set	1206 Jul 22 j 09:40	20°♈30'48	
evening set	1200 Jun 22 j 09:40	22°☾16'45		max. Earth dist.	1206 Aug 07 j 00:10	21°♈28'48	19.36790 AU
max. Earth dist.	1200 Jul 08 j 06:16	23°☾14'42	19.57227 AU				
				conjunction	1206 Aug 08 j 01:07	21°♈32'42	0°41'36
conjunction	1200 Jul 09 j 04:33	23°☾18'08	0°30'09	minimum elong	1206 Aug 08 j 01:07	21°♈32'42	0°41'36
minimum elong	1200 Jul 09 j 04:33	23°☾18'07	0°30'10	morning rise	1206 Aug 24 j 13:29	22°♈34'10	
morning rise	1200 Jul 25 j 21:39	24°☾19'17		retrograde	1206 Nov 24 j 12:26	25°♈56'12	
retrograde	1200 Oct 26 j 16:54	27°☾39'46		opposition	1207 Feb 05 j 20:59	23°♈53'46	0°46'59
opposition	1201 Jan 08 j 11:10	25°☾37'00	0°34'58	min. Earth dist.	1207 Feb 06 j 17:44	23°♈51'30	17.35980 AU
min. Earth dist.	1201 Jan 09 j 06:09	25°☾34'55	17.54827 AU	direct	1207 Apr 22 j 20:01	21°♈47'39	
direct	1201 Mar 24 j 19:08	23°☾31'51		evening set	1207 Jul 27 j 14:42	25°♈16'49	
evening set	1201 Jun 27 j 12:46	26°☾56'02		max. Earth dist.	1207 Aug 12 j 04:43	26°♈14'52	19.35203 AU
max. Earth dist.	1201 Jul 13 j 07:12	27°☾53'52	19.52504 AU				
				conjunction	1207 Aug 13 j 05:22	26°♈18'44	0°42'37
conjunction	1201 Jul 14 j 07:11	27°☾57'33	0°32'37	minimum elong	1207 Aug 13 j 05:22	26°♈18'44	0°42'37
minimum elong	1201 Jul 14 j 07:10	27°☾57'33	0°32'37	morning rise	1207 Aug 29 j 16:34	27°♈20'09	
morning rise	1201 Jul 30 j 23:44	28°☾58'50			1207 Oct 21 j 08:57	0°♈	
	1201 Aug 17 j 14:38	0°♈		retrograde	1207 Nov 29 j 11:18	0°♈42'17	
retrograde	1201 Oct 31 j 14:34	2°♈19'39			1208 Jan 08 j 13:26	30°♈♈	
opposition	1202 Jan 13 j 07:17	0°♈16'51	0°37'37	opposition	1208 Feb 10 j 20:51	28°♈39'57	0°47'57
min. Earth dist.	1202 Jan 14 j 03:29	0°♈14'38	17.50358 AU	min. Earth dist.	1208 Feb 11 j 18:43	28°♈37'34	17.34633 AU
	1202 Jan 19 j 17:34	30°♈☾		direct	1208 Apr 26 j 21:14	26°♈33'48	
direct	1202 Mar 29 j 15:57	28°☾11'24			1208 Jul 30 j 21:08	0°♈	
	1202 Jun 03 j 21:13	0°♈		evening set	1208 Jul 31 j 19:43	0°♈03'27	
evening set	1202 Jul 02 j 16:03	1°♈36'36		max. Earth dist.	1208 Aug 16 j 08:09	1°♈01'21	19.34086 AU
min. Earth dist.	1202 Jul 18 j 10:31	2°♈34'35	19.48279 AU				
				conjunction	1208 Aug 17 j 09:20	1°♈05'18	0°43'20
conjunction	1202 Jul 19 j 10:11	2°♈38'15	0°34'54	minimum elong	1208 Aug 17 j 09:20	1°♈05'18	0°43'21
minimum elong	1202 Jul 19 j 10:11	2°♈38'15	0°34'53	morning rise	1208 Sep 02 j 19:35	2°♈06'41	
morning rise	1202 Aug 05 j 02:00	3°♈39'36		retrograde	1208 Dec 03 j 12:36	5°♈28'51	

opposition	1209 Feb 14 j 21:02	3° <u>♏</u> 26'37	0°48'36	max. Earth dist.	1215 Sep 20 j 09:15	4° <u>♏</u> 24'06	19.39461 AU
min. Earth dist.	1209 Feb 15 j 17:54	3° <u>♏</u> 24'20	17.33740 AU				
direct	1209 May 02 j 01:29	1° <u>♏</u> 20'24		conjunction	1215 Sep 21 j 03:47	4° <u>♏</u> 27'01	0°39'58
evening set	1209 Aug 06 j 00:35	4° <u>♏</u> 50'24		minimum elong	1215 Sep 21 j 03:47	4° <u>♏</u> 27'01	0°39'58
				morning rise	1215 Oct 07 j 06:01	5° <u>♏</u> 27'22	
conjunction	1209 Aug 22 j 13:22	5° <u>♏</u> 52'13	0°43'46	retrograde	1216 Jan 06 j 09:12	8° <u>♏</u> 48'02	
minimum elong	1209 Aug 22 j 13:22	5° <u>♏</u> 52'13	0°43'45	opposition	1216 Mar 20 j 04:40	6° <u>♏</u> 46'17	0°43'42
max. Earth dist.	1209 Aug 21 j 13:12	5° <u>♏</u> 48'25	19.33410 AU	min. Earth dist.	1216 Mar 20 j 20:48	6° <u>♏</u> 44'33	17.40864 AU
morning rise	1209 Sep 07 j 22:20	6° <u>♏</u> 53'30		direct	1216 Jun 05 j 01:36	4° <u>♏</u> 40'24	
retrograde	1209 Dec 08 j 12:20	10° <u>♏</u> 15'37		evening set	1216 Sep 08 j 22:52	8° <u>♏</u> 09'22	
opposition	1210 Feb 19 j 21:39	8° <u>♏</u> 13'28	0°48'54	max. Earth dist.	1216 Sep 24 j 10:07	9° <u>♏</u> 07'16	19.42362 AU
min. Earth dist.	1210 Feb 20 j 19:15	8° <u>♏</u> 11'07	17.33292 AU				
direct	1210 May 07 j 03:31	6° <u>♏</u> 07'14		conjunction	1216 Sep 25 j 03:48	9° <u>♏</u> 10'03	0°38'21
evening set	1210 Aug 11 j 05:19	9° <u>♏</u> 37'27		minimum elong	1216 Sep 25 j 03:48	9° <u>♏</u> 10'03	0°38'21
				morning rise	1216 Oct 11 j 05:01	10° <u>♏</u> 10'11	
conjunction	1210 Aug 27 j 16:58	10° <u>♏</u> 39'10	0°43'53	retrograde	1217 Jan 10 j 06:55	13° <u>♏</u> 30'30	
minimum elong	1210 Aug 27 j 16:58	10° <u>♏</u> 39'10	0°43'53	opposition	1217 Mar 25 j 05:55	11° <u>♏</u> 28'52	0°41'45
max. Earth dist.	1210 Aug 26 j 16:09	10° <u>♏</u> 35'16	19.33194 AU	min. Earth dist.	1217 Mar 25 j 20:44	11° <u>♏</u> 27'16	17.44058 AU
morning rise	1210 Sep 13 j 01:00	11° <u>♏</u> 40'22		direct	1217 Jun 10 j 04:20	9° <u>♏</u> 23'12	
retrograde	1210 Dec 13 j 13:17	15° <u>♏</u> 02'22		evening set	1217 Sep 13 j 23:24	12° <u>♏</u> 51'38	
opposition	1211 Feb 24 j 22:28	13° <u>♏</u> 00'18	0°48'52				
min. Earth dist.	1211 Feb 25 j 19:00	12° <u>♏</u> 58'04	17.33299 AU	conjunction	1217 Sep 30 j 03:19	13° <u>♏</u> 52'04	0°36'29
direct	1211 May 12 j 07:33	10° <u>♏</u> 54'02		minimum elong	1217 Sep 30 j 03:19	13° <u>♏</u> 52'04	0°36'28
evening set	1211 Aug 16 j 09:39	14° <u>♏</u> 24'21		max. Earth dist.	1217 Sep 29 j 12:04	13° <u>♏</u> 49'41	19.45844 AU
				morning rise	1217 Oct 16 j 03:25	14° <u>♏</u> 51'59	
conjunction	1211 Sep 01 j 20:23	15° <u>♏</u> 25'58	0°43'42	retrograde	1218 Jan 15 j 05:01	18° <u>♏</u> 11'54	
minimum elong	1211 Sep 01 j 20:23	15° <u>♏</u> 25'58	0°43'42	opposition	1218 Mar 30 j 06:50	16° <u>♏</u> 10'27	0°39'31
max. Earth dist.	1211 Aug 31 j 21:12	15° <u>♏</u> 22'19	19.33428 AU	min. Earth dist.	1218 Mar 30 j 19:41	16° <u>♏</u> 09'04	17.47794 AU
morning rise	1211 Sep 18 j 03:05	16° <u>♏</u> 27'01		direct	1218 Jun 15 j 08:06	14° <u>♏</u> 05'04	
retrograde	1211 Dec 18 j 12:59	19° <u>♏</u> 48'51		evening set	1218 Sep 18 j 23:20	17° <u>♏</u> 32'52	
opposition	1212 Feb 29 j 23:37	17° <u>♏</u> 46'50	0°48'30				
min. Earth dist.	1212 Mar 01 j 20:18	17° <u>♏</u> 44'36	17.33765 AU	conjunction	1218 Oct 05 j 02:04	18° <u>♏</u> 33'04	0°34'22
direct	1212 May 16 j 10:26	15° <u>♏</u> 40'36		minimum elong	1218 Oct 05 j 02:04	18° <u>♏</u> 33'04	0°34'23
evening set	1212 Aug 20 j 13:39	19° <u>♏</u> 10'52		max. Earth dist.	1218 Oct 04 j 12:04	18° <u>♏</u> 30'52	19.49843 AU
				morning rise	1218 Oct 21 j 01:12	19° <u>♏</u> 32'44	
conjunction	1212 Sep 05 j 23:07	20° <u>♏</u> 12'20	0°43'12	retrograde	1219 Jan 20 j 01:50	22° <u>♏</u> 52'16	
minimum elong	1212 Sep 05 j 23:07	20° <u>♏</u> 12'20	0°43'12	opposition	1219 Apr 04 j 07:48	20° <u>♏</u> 51'00	0°37'03
max. Earth dist.	1212 Sep 04 j 23:37	20° <u>♏</u> 08'38	19.34148 AU	min. Earth dist.	1219 Apr 04 j 19:42	20° <u>♏</u> 49'44	17.52033 AU
morning rise	1212 Sep 22 j 04:51	21° <u>♏</u> 13'15		direct	1219 Jun 20 j 09:41	18° <u>♏</u> 45'57	
retrograde	1212 Dec 22 j 12:50	24° <u>♏</u> 34'51		evening set	1219 Sep 23 j 22:22	22° <u>♏</u> 13'02	
opposition	1213 Mar 06 j 00:49	22° <u>♏</u> 32'53	0°47'47				
min. Earth dist.	1213 Mar 06 j 20:17	22° <u>♏</u> 30'47	17.34738 AU	conjunction	1219 Oct 10 j 00:01	23° <u>♏</u> 12'58	0°32'03
direct	1213 May 21 j 14:16	20° <u>♏</u> 26'39		minimum elong	1219 Oct 10 j 00:01	23° <u>♏</u> 12'58	0°32'03
evening set	1213 Aug 25 j 16:46	23° <u>♏</u> 56'46		max. Earth dist.	1219 Oct 09 j 12:08	23° <u>♏</u> 11'07	19.54310 AU
max. Earth dist.	1213 Sep 10 j 04:04	24° <u>♏</u> 54'44	19.35377 AU	morning rise	1219 Oct 25 j 22:09	24° <u>♏</u> 12'24	
				retrograde	1220 Jan 24 j 23:36	27° <u>♏</u> 31'29	
conjunction	1213 Sep 11 j 01:18	24° <u>♏</u> 58'04	0°42'25	opposition	1220 Apr 08 j 08:31	25° <u>♏</u> 30'26	0°34'20
minimum elong	1213 Sep 11 j 01:18	24° <u>♏</u> 58'04	0°42'25	min. Earth dist.	1220 Apr 08 j 18:06	25° <u>♏</u> 29'25	17.56689 AU
morning rise	1213 Sep 27 j 05:47	25° <u>♏</u> 58'49		direct	1220 Jun 24 j 12:52	23° <u>♏</u> 25'45	
retrograde	1213 Dec 27 j 12:05	29° <u>♏</u> 20'09		evening set	1220 Sep 27 j 20:41	26° <u>♏</u> 52'02	
opposition	1214 Mar 11 j 02:09	27° <u>♏</u> 18'14	0°46'44				
min. Earth dist.	1214 Mar 11 j 21:00	27° <u>♏</u> 16'11	17.36220 AU	conjunction	1220 Oct 13 j 21:14	27° <u>♏</u> 51'41	0°29'32
direct	1214 May 26 j 17:59	25° <u>♏</u> 12'04		minimum elong	1220 Oct 13 j 21:14	27° <u>♏</u> 51'41	0°29'32
evening set	1214 Aug 30 j 19:34	28° <u>♏</u> 41'54		max. Earth dist.	1220 Oct 13 j 11:01	27° <u>♏</u> 50'06	19.59158 AU
max. Earth dist.	1214 Sep 15 j 05:45	29° <u>♏</u> 39'42	19.37135 AU	morning rise	1220 Oct 29 j 18:25	28° <u>♏</u> 50'52	
					1220 Nov 18 j 13:02	0° <u>♏</u>	
conjunction	1214 Sep 16 j 02:49	29° <u>♏</u> 43'01	0°41'20	retrograde	1221 Jan 28 j 19:29	2° <u>♏</u> 09'30	
minimum elong	1214 Sep 16 j 02:49	29° <u>♏</u> 43'01	0°41'19	opposition	1221 Apr 13 j 09:04	0° <u>♏</u> 08'39	0°31'25
	1214 Sep 20 j 14:46	0° <u>♏</u>		min. Earth dist.	1221 Apr 13 j 17:58	0° <u>♏</u> 07'43	17.61714 AU
morning rise	1214 Oct 02 j 06:17	0° <u>♏</u> 43'34			1221 Apr 16 j 19:04	30° <u>♏</u>	
retrograde	1215 Jan 01 j 10:33	4° <u>♏</u> 04'35		direct	1221 Jun 29 j 12:50	28° <u>♏</u> 04'19	
opposition	1215 Mar 16 j 03:18	2° <u>♏</u> 02'43	0°45'22		1221 Sep 06 j 10:48	0° <u>♏</u>	
min. Earth dist.	1215 Mar 16 j 20:55	2° <u>♏</u> 00'49	17.38261 AU	evening set	1221 Oct 02 j 18:04	1° <u>♏</u> 29'43	
	1215 May 20 j 15:23	30° <u>♏</u>					
direct	1215 May 31 j 21:35	29° <u>♏</u> 56'39		conjunction	1221 Oct 18 j 17:34	2° <u>♏</u> 29'06	0°26'50
	1215 Jun 12 j 04:01	0° <u>♏</u>		minimum elong	1221 Oct 18 j 17:34	2° <u>♏</u> 29'06	0°26'49
evening set	1215 Sep 04 j 21:34	3° <u>♏</u> 26'07		max. Earth dist.	1221 Oct 18 j 08:59	2° <u>♏</u> 27'46	19.64340 AU

morning rise	1221 Nov 03 j 13:57	3° $\mathbb{M}$ 28'01		behind sun end	1227 Nov 15 j 07:19	29° $\mathbb{M}$ 39'13	
retrograde	1222 Feb 02 j 17:02	6° $\mathbb{M}$ 46'09		max. Earth dist.	1227 Nov 15 j 02:55	29° $\mathbb{M}$ 38'33	19.99235 AU
opposition	1222 Apr 18 j 09:10	4° $\mathbb{M}$ 45'30	0°28'18		1227 Nov 20 j 22:39	0° $\mathbb{A}$	
min. Earth dist.	1222 Apr 18 j 15:35	4° $\mathbb{M}$ 44'49	17.67018 AU	morning rise	1227 Nov 30 j 17:54	0° $\mathbb{A}$ 35'40	
direct	1222 Jul 04 j 15:02	2° $\mathbb{M}$ 41'32		retrograde	1228 Mar 01 j 06:21	3° $\mathbb{A}$ 50'16	
evening set	1222 Oct 07 j 14:41	6° $\mathbb{M}$ 05'58		opposition	1228 May 15 j 23:52	1° $\mathbb{A}$ 50'15	0°07'01
				min. Earth dist.	1228 May 15 j 20:25	1° $\mathbb{A}$ 50'36	18.02334 AU
conjunction	1222 Oct 23 j 13:12	7° $\mathbb{M}$ 05'03	0°23'58		1228 Jul 10 j 14:24	30° $\mathbb{R}$ $\mathbb{M}$	
minimum elong	1222 Oct 23 j 13:12	7° $\mathbb{M}$ 05'03	0°23'57	direct	1228 Aug 01 j 07:49	29° $\mathbb{M}$ 48'15	
max. Earth dist.	1222 Oct 23 j 06:31	7° $\mathbb{M}$ 04'01	19.69762 AU		1228 Aug 22 j 16:40	0° $\mathbb{A}$	
morning rise	1222 Nov 08 j 08:39	8° $\mathbb{M}$ 03'43		evening set	1228 Nov 02 j 21:54	3° $\mathbb{A}$ 05'42	
retrograde	1223 Feb 07 j 11:35	11° $\mathbb{M}$ 21'19					
opposition	1223 Apr 23 j 09:00	9° $\mathbb{M}$ 20'50	0°25'01	conjunction	1228 Nov 18 j 15:32	4° $\mathbb{A}$ 03'00	0°04'42
min. Earth dist.	1223 Apr 23 j 14:54	9° $\mathbb{M}$ 20'13	17.72549 AU	minimum elong	1228 Nov 18 j 15:33	4° $\mathbb{A}$ 03'00	0°04'42
direct	1223 Jul 09 j 13:29	7° $\mathbb{M}$ 17'13		behind sun begin	1228 Nov 18 j 09:08	4° $\mathbb{A}$ 02'02	
evening set	1223 Oct 12 j 10:26	10° $\mathbb{M}$ 40'38		behind sun end	1228 Nov 18 j 21:58	4° $\mathbb{A}$ 03'57	
				max. Earth dist.	1228 Nov 18 j 20:01	4° $\mathbb{A}$ 03'39	20.05505 AU
conjunction	1223 Oct 28 j 07:55	11° $\mathbb{M}$ 39'25	0°20'57	morning rise	1228 Dec 04 j 07:26	5° $\mathbb{A}$ 00'03	
minimum elong	1223 Oct 28 j 07:55	11° $\mathbb{M}$ 39'25	0°20'58	retrograde	1229 Mar 05 j 20:43	8° $\mathbb{A}$ 14'02	
max. Earth dist.	1223 Oct 28 j 02:27	11° $\mathbb{M}$ 38'35	19.75395 AU	opposition	1229 May 20 j 20:03	6° $\mathbb{A}$ 14'05	0°03'18
morning rise	1223 Nov 13 j 02:42	12° $\mathbb{M}$ 37'49		min. Earth dist.	1229 May 20 j 15:32	6° $\mathbb{A}$ 14'32	18.08680 AU
	1223 Dec 28 j 21:29	15° $\mathbb{M}$		direct	1229 Aug 06 j 03:20	4° $\mathbb{A}$ 12'24	
retrograde	1224 Feb 12 j 08:42	15° $\mathbb{M}$ 54'52		evening set	1229 Nov 07 j 11:41	7° $\mathbb{A}$ 28'38	
	1224 Mar 30 j 17:53	15° $\mathbb{R}$ $\mathbb{M}$					
opposition	1224 Apr 27 j 08:20	13° $\mathbb{M}$ 54'31	0°21'35	conjunction	1229 Nov 23 j 04:35	8° $\mathbb{A}$ 25'37	0°01'19
min. Earth dist.	1224 Apr 27 j 11:35	13° $\mathbb{M}$ 54'11	17.78256 AU	minimum elong	1229 Nov 23 j 04:34	8° $\mathbb{A}$ 25'37	0°01'19
direct	1224 Jul 13 j 14:37	11° $\mathbb{M}$ 51'15		behind sun begin	1229 Nov 22 j 22:01	8° $\mathbb{A}$ 24'39	
	1224 Oct 12 j 10:36	15° $\mathbb{M}$		behind sun end	1229 Nov 23 j 11:07	8° $\mathbb{A}$ 26'35	
evening set	1224 Oct 16 j 05:03	15° $\mathbb{M}$ 13'34		max. Earth dist.	1229 Nov 23 j 10:01	8° $\mathbb{A}$ 26'25	20.11927 AU
				morning rise	1229 Dec 08 j 20:17	9° $\mathbb{A}$ 22'26	
conjunction	1224 Nov 01 j 01:43	16° $\mathbb{M}$ 12'03	0°17'50	retrograde	1230 Mar 10 j 12:25	12° $\mathbb{A}$ 35'48	
minimum elong	1224 Nov 01 j 01:43	16° $\mathbb{M}$ 12'03	0°17'49	desc. node	1230 Apr 13 j 19:19	12° $\mathbb{A}$ 06'45	
max. Earth dist.	1224 Oct 31 j 22:32	16° $\mathbb{M}$ 11'34	19.81172 AU	opposition	1230 May 25 j 15:30	10° $\mathbb{A}$ 35'56	-0°00'25
morning rise	1224 Nov 16 j 19:42	17° $\mathbb{M}$ 10'11		min. Earth dist.	1230 May 25 j 08:14	10° $\mathbb{A}$ 36'41	18.15170 AU
retrograde	1225 Feb 16 j 01:53	20° $\mathbb{M}$ 26'39		direct	1230 Aug 10 j 23:05	8° $\mathbb{A}$ 34'37	
opposition	1225 May 02 j 07:16	18° $\mathbb{M}$ 26'26	0°18'03	evening set	1230 Nov 12 j 00:25	11° $\mathbb{A}$ 49'38	
min. Earth dist.	1225 May 02 j 09:58	18° $\mathbb{M}$ 26'09	17.84099 AU				
direct	1225 Jul 18 j 12:08	16° $\mathbb{M}$ 23'30		conjunction	1230 Nov 27 j 16:54	12° $\mathbb{A}$ 46'20	-0°02'07
evening set	1225 Oct 20 j 22:52	19° $\mathbb{M}$ 44'39		minimum elong	1230 Nov 27 j 16:54	12° $\mathbb{A}$ 46'20	0°02'06
				behind sun begin	1230 Nov 27 j 10:21	12° $\mathbb{A}$ 45'22	
conjunction	1225 Nov 05 j 18:36	20° $\mathbb{M}$ 42'50	0°14'37	behind sun end	1230 Nov 27 j 23:27	12° $\mathbb{A}$ 47'18	
minimum elong	1225 Nov 05 j 18:36	20° $\mathbb{M}$ 42'50	0°14'38	max. Earth dist.	1230 Nov 28 j 01:23	12° $\mathbb{A}$ 47'36	20.18467 AU
behind sun begin	1225 Nov 05 j 15:40	20° $\mathbb{M}$ 42'23		morning rise	1230 Dec 13 j 08:09	13° $\mathbb{A}$ 42'54	
behind sun end	1225 Nov 05 j 21:32	20° $\mathbb{M}$ 43'16		retrograde	1231 Mar 15 j 02:03	16° $\mathbb{A}$ 55'42	
max. Earth dist.	1225 Nov 05 j 16:22	20° $\mathbb{M}$ 42'30	19.87083 AU	opposition	1231 May 30 j 10:24	14° $\mathbb{A}$ 55'57	-0°04'06
morning rise	1225 Nov 21 j 12:06	21° $\mathbb{M}$ 40'41		min. Earth dist.	1231 May 30 j 01:53	14° $\mathbb{A}$ 56'50	18.21754 AU
retrograde	1226 Feb 20 j 21:11	24° $\mathbb{M}$ 56'32		direct	1231 Aug 15 j 17:04	12° $\mathbb{A}$ 55'02	
opposition	1226 May 07 j 05:15	22° $\mathbb{M}$ 56'24	0°14'26	evening set	1231 Nov 16 j 12:29	16° $\mathbb{A}$ 08'50	
min. Earth dist.	1226 May 07 j 05:22	22° $\mathbb{M}$ 56'23	17.90058 AU				
direct	1226 Jul 23 j 12:23	20° $\mathbb{M}$ 53'47		conjunction	1231 Dec 02 j 04:21	17° $\mathbb{A}$ 05'15	-0°05'25
evening set	1226 Oct 25 j 15:36	24° $\mathbb{M}$ 13'44		minimum elong	1231 Dec 02 j 04:20	17° $\mathbb{A}$ 05'15	0°05'25
				behind sun begin	1231 Dec 01 j 22:01	17° $\mathbb{A}$ 04'20	
conjunction	1226 Nov 10 j 10:39	25° $\mathbb{M}$ 11'37	0°11'21	behind sun end	1231 Dec 02 j 10:39	17° $\mathbb{A}$ 06'11	
minimum elong	1226 Nov 10 j 10:39	25° $\mathbb{M}$ 11'37	0°11'21	max. Earth dist.	1231 Dec 02 j 13:38	17° $\mathbb{A}$ 06'39	20.25095 AU
behind sun begin	1226 Nov 10 j 05:48	25° $\mathbb{M}$ 10'54		morning rise	1231 Dec 17 j 19:33	18° $\mathbb{A}$ 01'35	
behind sun end	1226 Nov 10 j 15:31	25° $\mathbb{M}$ 12'21		retrograde	1232 Mar 18 j 16:28	21° $\mathbb{A}$ 13'50	
max. Earth dist.	1226 Nov 10 j 11:02	25° $\mathbb{M}$ 11'41	19.93095 AU	opposition	1232 Jun 03 j 04:35	19° $\mathbb{A}$ 14'14	-0°07'44
morning rise	1226 Nov 26 j 03:28	26° $\mathbb{M}$ 09'13		min. Earth dist.	1232 Jun 02 j 17:40	19° $\mathbb{A}$ 15'21	18.28408 AU
retrograde	1227 Feb 25 j 12:58	29° $\mathbb{M}$ 24'26		direct	1232 Aug 19 j 10:07	17° $\mathbb{A}$ 13'42	
opposition	1227 May 12 j 02:57	27° $\mathbb{M}$ 24'22	0°10'45	evening set	1232 Nov 19 j 23:30	20° $\mathbb{A}$ 26'19	
min. Earth dist.	1227 May 12 j 02:19	27° $\mathbb{M}$ 24'26	17.96128 AU				
direct	1227 Jul 28 j 09:06	25° $\mathbb{M}$ 22'03		conjunction	1232 Dec 05 j 15:08	21° $\mathbb{A}$ 22'29	-0°08'39
evening set	1227 Oct 30 j 07:16	28° $\mathbb{M}$ 40'46		minimum elong	1232 Dec 05 j 15:08	21° $\mathbb{A}$ 22'29	0°08'38
				behind sun begin	1232 Dec 05 j 09:25	21° $\mathbb{A}$ 21'39	
conjunction	1227 Nov 15 j 01:27	29° $\mathbb{M}$ 38'21	0°08'02	behind sun end	1232 Dec 05 j 20:51	21° $\mathbb{A}$ 23'20	
minimum elong	1227 Nov 15 j 01:26	29° $\mathbb{M}$ 38'21	0°08'02	max. Earth dist.	1232 Dec 06 j 03:18	21° $\mathbb{A}$ 24'19	20.31743 AU
behind sun begin	1227 Nov 14 j 19:34	29° $\mathbb{M}$ 37'28		morning rise	1232 Dec 21 j 06:04	22° $\mathbb{A}$ 18'36	

retrograde	1233 Mar 23 j 05:36	25° $\mathring{A}$ 30'19	min. Earth dist.	1239 Jul 03 j 22:59	18° $\mathring{B}$ 41'16	18.70712 AU
opposition	1233 Jun 07 j 22:09	23° $\mathring{A}$ 30'52 -0°11'18	direct	1239 Sep 19 j 11:25	16° $\mathring{B}$ 41'16	
min. Earth dist.	1233 Jun 07 j 10:04	23° $\mathring{A}$ 32'06 18.35035 AU	evening set	1239 Dec 19 j 11:41	19° $\mathring{B}$ 46'27	
direct	1233 Aug 24 j 02:30	21° $\mathring{A}$ 30'45				
evening set	1233 Nov 24 j 10:05	24° $\mathring{A}$ 42'13	conjunction	1240 Jan 04 j 02:11	20° $\mathring{B}$ 41'07 -0°28'40	
			minimum elong	1240 Jan 04 j 02:11	20° $\mathring{B}$ 41'07 0°28'39	
conjunction	1233 Dec 10 j 01:12	25° $\mathring{A}$ 38'07 -0°11'49	max. Earth dist.	1240 Jan 04 j 21:18	20° $\mathring{B}$ 43'56 20.73153 AU	
minimum elong	1233 Dec 10 j 01:12	25° $\mathring{A}$ 38'07 0°11'49	morning rise	1240 Jan 19 j 18:10	21° $\mathring{B}$ 36'00	
behind sun begin	1233 Dec 09 j 20:33	25° $\mathring{A}$ 37'27	retrograde	1240 Apr 21 j 15:29	24° $\mathring{B}$ 44'37	
behind sun end	1233 Dec 10 j 05:51	25° $\mathring{A}$ 38'48	min. Earth dist.	1240 Jul 07 j 11:30	22° $\mathring{B}$ 47'42 18.75540 AU	
max. Earth dist.	1233 Dec 10 j 13:50	25° $\mathring{A}$ 40'01 20.38337 AU	opposition	1240 Jul 08 j 07:00	22° $\mathring{B}$ 45'45 -0°33'01	
morning rise	1233 Dec 25 j 16:13	26° $\mathring{A}$ 34'01	direct	1240 Sep 22 j 21:19	20° $\mathring{B}$ 47'52	
retrograde	1234 Mar 27 j 18:58	29° $\mathring{A}$ 45'14	evening set	1240 Dec 22 j 17:46	23° $\mathring{B}$ 52'06	
opposition	1234 Jun 12 j 14:56	27° $\mathring{A}$ 45'56 -0°14'47				
min. Earth dist.	1234 Jun 12 j 01:04	27° $\mathring{A}$ 47'20 18.41585 AU	conjunction	1241 Jan 07 j 08:36	24° $\mathring{B}$ 46'38 -0°30'58	
direct	1234 Aug 28 j 17:33	25° $\mathring{A}$ 46'13	minimum elong	1241 Jan 07 j 08:36	24° $\mathring{B}$ 46'38 0°30'59	
evening set	1234 Nov 28 j 19:50	28° $\mathring{A}$ 56'33	max. Earth dist.	1241 Jan 08 j 05:40	24° $\mathring{B}$ 49'43 20.77808 AU	
			morning rise	1241 Jan 23 j 00:50	25° $\mathring{B}$ 41'23	
conjunction	1234 Dec 14 j 10:50	29° $\mathring{A}$ 52'14 -0°14'54	retrograde	1241 Apr 26 j 01:20	28° $\mathring{B}$ 49'38	
minimum elong	1234 Dec 14 j 10:49	29° $\mathring{A}$ 52'14 0°14'54	opposition	1241 Jul 12 j 19:15	26° $\mathring{B}$ 50'45 -0°35'28	
behind sun begin	1234 Dec 14 j 08:06	29° $\mathring{A}$ 51'50	min. Earth dist.	1241 Jul 11 j 22:37	26° $\mathring{B}$ 52'49 18.80033 AU	
behind sun end	1234 Dec 14 j 13:32	29° $\mathring{A}$ 52'38	direct	1241 Sep 27 j 08:46	24° $\mathring{B}$ 53'04	
max. Earth dist.	1234 Dec 15 j 02:00	29° $\mathring{A}$ 54'30 20.44809 AU	evening set	1241 Dec 26 j 23:33	27° $\mathring{B}$ 56'26	
	1234 Dec 16 j 14:42	0° $\mathring{B}$				
morning rise	1234 Dec 30 j 01:39	0° $\mathring{B}$ 47'55	conjunction	1242 Jan 11 j 14:24	28° $\mathring{B}$ 50'49 -0°33'07	
retrograde	1235 Apr 01 j 07:14	3° $\mathring{B}$ 58'40	minimum elong	1242 Jan 11 j 14:24	28° $\mathring{B}$ 50'49 0°33'07	
opposition	1235 Jun 17 j 07:18	1° $\mathring{B}$ 59'30 -0°18'10	max. Earth dist.	1242 Jan 12 j 11:22	28° $\mathring{B}$ 53'53 20.82148 AU	
min. Earth dist.	1235 Jun 16 j 16:20	2° $\mathring{B}$ 01'01 18.47968 AU	morning rise	1242 Jan 27 j 07:11	29° $\mathring{B}$ 45'28	
direct	1235 Sep 02 j 08:24	0° $\mathring{B}$ 00'11		1242 Jan 31 j 13:52	0° $\mathring{B}$	
evening set	1235 Dec 03 j 05:00	3° $\mathring{B}$ 09'25	retrograde	1242 Apr 30 j 10:40	2° $\mathring{B}$ 53'23	
			min. Earth dist.	1242 Jul 16 j 09:54	0° $\mathring{B}$ 56'34 18.84246 AU	
conjunction	1235 Dec 18 j 19:36	4° $\mathring{B}$ 04'52 -0°17'54	opposition	1242 Jul 17 j 06:55	0° $\mathring{B}$ 54'28 -0°37'44	
minimum elong	1235 Dec 18 j 19:36	4° $\mathring{B}$ 04'52 0°17'54		1242 Aug 09 j 21:00	30° $\mathring{R}$ $\mathring{B}$	
max. Earth dist.	1235 Dec 19 j 11:00	4° $\mathring{B}$ 07'09 20.51090 AU	direct	1242 Oct 01 j 16:51	28° $\mathring{B}$ 56'59	
morning rise	1236 Jan 03 j 10:40	5° $\mathring{B}$ 00'22		1242 Nov 21 j 05:17	0° $\mathring{B}$	
retrograde	1236 Apr 04 j 19:56	8° $\mathring{B}$ 10'40	evening set	1242 Dec 31 j 04:46	1° $\mathring{B}$ 59'32	
opposition	1236 Jun 20 j 23:01	6° $\mathring{B}$ 11'37 -0°21'26				
min. Earth dist.	1236 Jun 20 j 06:46	6° $\mathring{B}$ 13'15 18.54140 AU	conjunction	1243 Jan 15 j 20:02	2° $\mathring{B}$ 53'48 -0°35'05	
direct	1236 Sep 05 j 21:57	4° $\mathring{B}$ 12'39	minimum elong	1243 Jan 15 j 20:02	2° $\mathring{B}$ 53'48 0°35'05	
evening set	1236 Dec 06 j 13:31	7° $\mathring{B}$ 20'50	max. Earth dist.	1243 Jan 16 j 18:57	2° $\mathring{B}$ 57'08 20.86219 AU	
			morning rise	1243 Jan 31 j 13:09	3° $\mathring{B}$ 48'21	
conjunction	1236 Dec 22 j 04:10	8° $\mathring{B}$ 16'04 -0°20'47	retrograde	1243 May 04 j 20:04	6° $\mathring{B}$ 55'59	
minimum elong	1236 Dec 22 j 04:10	8° $\mathring{B}$ 16'04 0°20'48	opposition	1243 Jul 21 j 17:59	4° $\mathring{B}$ 57'04 -0°39'48	
max. Earth dist.	1236 Dec 22 j 21:42	8° $\mathring{B}$ 18'40 20.57113 AU	min. Earth dist.	1243 Jul 20 j 19:40	4° $\mathring{B}$ 59'17 18.88183 AU	
morning rise	1237 Jan 06 j 19:11	9° $\mathring{B}$ 11'23	direct	1243 Oct 06 j 03:11	2° $\mathring{B}$ 59'46	
retrograde	1237 Apr 09 j 07:08	12° $\mathring{B}$ 21'14	evening set	1244 Jan 04 j 09:43	6° $\mathring{B}$ 01'34	
opposition	1237 Jun 25 j 13:53	10° $\mathring{B}$ 22'17 -0°24'34				
min. Earth dist.	1237 Jun 24 j 20:42	10° $\mathring{B}$ 24'01 18.60010 AU	conjunction	1244 Jan 20 j 01:10	6° $\mathring{B}$ 55'44 -0°36'52	
direct	1237 Sep 10 j 11:10	8° $\mathring{B}$ 23'39	minimum elong	1244 Jan 20 j 01:10	6° $\mathring{B}$ 55'44 0°36'52	
evening set	1237 Dec 10 j 21:37	11° $\mathring{B}$ 30'49	max. Earth dist.	1244 Jan 20 j 23:53	6° $\mathring{B}$ 59'03 20.90021 AU	
			morning rise	1244 Feb 04 j 19:00	7° $\mathring{B}$ 50'14	
conjunction	1237 Dec 26 j 12:02	12° $\mathring{B}$ 25'51 -0°23'33	retrograde	1244 May 08 j 05:17	10° $\mathring{B}$ 57'37	
minimum elong	1237 Dec 26 j 12:01	12° $\mathring{B}$ 25'51 0°23'32	min. Earth dist.	1244 Jul 24 j 06:10	9° $\mathring{B}$ 00'56 18.91858 AU	
max. Earth dist.	1237 Dec 27 j 05:21	12° $\mathring{B}$ 28'24 20.62815 AU	opposition	1244 Jul 25 j 04:36	8° $\mathring{B}$ 58'41 -0°41'40	
morning rise	1238 Jan 11 j 03:24	13° $\mathring{B}$ 21'00	direct	1244 Oct 09 j 09:59	7° $\mathring{B}$ 01'35	
retrograde	1238 Apr 13 j 18:44	16° $\mathring{B}$ 30'26	evening set	1245 Jan 07 j 14:19	10° $\mathring{B}$ 02'44	
min. Earth dist.	1238 Jun 29 j 10:19	14° $\mathring{B}$ 33'21 18.65548 AU				
opposition	1238 Jun 30 j 04:16	14° $\mathring{B}$ 31'33 -0°27'33	conjunction	1245 Jan 23 j 06:21	10° $\mathring{B}$ 56'49 -0°38'27	
direct	1238 Sep 14 j 23:05	12° $\mathring{B}$ 33'12	minimum elong	1245 Jan 23 j 06:21	10° $\mathring{B}$ 56'49 0°38'26	
evening set	1238 Dec 15 j 04:50	15° $\mathring{B}$ 39'21	max. Earth dist.	1245 Jan 24 j 06:42	11° $\mathring{B}$ 00'21 20.93545 AU	
			morning rise	1245 Feb 08 j 00:37	11° $\mathring{B}$ 51'15	
conjunction	1238 Dec 30 j 19:25	16° $\mathring{B}$ 34'12 -0°26'11	retrograde	1245 May 12 j 14:03	14° $\mathring{B}$ 58'25	
minimum elong	1238 Dec 30 j 19:25	16° $\mathring{B}$ 34'12 0°26'11	opposition	1245 Jul 29 j 14:25	12° $\mathring{B}$ 59'31 -0°43'19	
max. Earth dist.	1238 Dec 31 j 14:41	16° $\mathring{B}$ 37'02 20.68165 AU	min. Earth dist.	1245 Jul 28 j 14:54	13° $\mathring{B}$ 01'52 18.95227 AU	
morning rise	1239 Jan 15 j 10:52	17° $\mathring{B}$ 29'12	direct	1245 Oct 13 j 19:08	11° $\mathring{B}$ 02'37	
retrograde	1239 Apr 18 j 05:09	20° $\mathring{B}$ 38'13	evening set	1246 Jan 11 j 18:54	14° $\mathring{B}$ 03'10	
opposition	1239 Jul 04 j 17:59	18° $\mathring{B}$ 39'22 -0°30'22				

conjunction	1246 Jan 27 j 11:12	14° $\approx$ 57'11	-0°39'52	morning rise	1252 Mar 07 j 17:21	9° $\times$ 46'12	
minimum elong	1246 Jan 27 j 11:12	14° $\approx$ 57'11	0°39'52	retrograde	1252 Jun 10 j 01:46	12° $\times$ 53'04	
max. Earth dist.	1246 Jan 28 j 11:03	15° $\approx$ 00'38	20.96754 AU	min. Earth dist.	1252 Aug 26 j 05:54	10° $\times$ 56'09	19.07115 AU
	1246 Jan 28 j 06:39	15° $\approx$		opposition	1252 Aug 27 j 03:14	10° $\times$ 54'01	-0°48'42
morning rise	1246 Feb 12 j 06:17	15° $\approx$ 51'35		direct	1252 Nov 10 j 14:25	8° $\times$ 57'52	
retrograde	1246 May 16 j 23:19	18° $\approx$ 58'37		evening set	1253 Feb 08 j 02:00	11° $\times$ 56'03	
min. Earth dist.	1246 Aug 02 j 00:51	17° $\approx$ 02'03	18.98277 AU				
opposition	1246 Aug 03 j 00:07	16° $\approx$ 59'43	-0°44'45	conjunction	1253 Feb 23 j 23:10	12° $\times$ 50'08	-0°44'03
direct	1246 Oct 18 j 01:01	15° $\approx$ 03'01		minimum elong	1253 Feb 23 j 23:10	12° $\times$ 50'08	0°44'03
evening set	1247 Jan 15 j 23:01	18° $\approx$ 03'01		max. Earth dist.	1253 Feb 24 j 22:29	12° $\times$ 53'28	21.06936 AU
				morning rise	1253 Mar 11 j 23:46	13° $\times$ 44'44	
conjunction	1247 Jan 31 j 16:00	18° $\approx$ 57'00	-0°41'04	retrograde	1253 Jun 14 j 10:55	16° $\times$ 51'39	
minimum elong	1247 Jan 31 j 16:00	18° $\approx$ 57'00	0°41'04	opposition	1253 Aug 31 j 10:36	14° $\times$ 52'28	-0°48'33
max. Earth dist.	1247 Feb 01 j 17:15	19° $\approx$ 00'39	20.99623 AU	min. Earth dist.	1253 Aug 30 j 13:09	14° $\times$ 54'38	19.06709 AU
morning rise	1247 Feb 16 j 11:37	19° $\approx$ 51'23		direct	1253 Nov 14 j 21:04	12° $\times$ 56'16	
retrograde	1247 May 21 j 07:42	22° $\approx$ 58'18		evening set	1254 Feb 12 j 06:56	15° $\times$ 54'21	
min. Earth dist.	1247 Aug 06 j 09:10	21° $\approx$ 01'50	19.00950 AU				
opposition	1247 Aug 07 j 09:21	20° $\approx$ 59'26	-0°45'59	conjunction	1254 Feb 28 j 04:47	16° $\times$ 48'32	-0°43'48
direct	1247 Oct 22 j 09:06	19° $\approx$ 02'54		minimum elong	1254 Feb 28 j 04:47	16° $\times$ 48'32	0°43'48
evening set	1248 Jan 20 j 03:26	22° $\approx$ 02'27		max. Earth dist.	1254 Mar 01 j 02:33	16° $\times$ 51'38	21.06285 AU
				morning rise	1254 Mar 16 j 06:28	17° $\times$ 43'13	
conjunction	1248 Feb 04 j 20:49	22° $\approx$ 56'24	-0°42'05	retrograde	1254 Jun 18 j 17:57	20° $\times$ 50'14	
minimum elong	1248 Feb 04 j 20:49	22° $\approx$ 56'24	0°42'05	opposition	1254 Sep 04 j 18:03	18° $\times$ 50'55	-0°48'09
max. Earth dist.	1248 Feb 05 j 21:15	22° $\approx$ 59'55	21.02095 AU	min. Earth dist.	1254 Sep 03 j 22:09	18° $\times$ 52'55	19.05829 AU
morning rise	1248 Feb 20 j 17:21	23° $\approx$ 50'47		direct	1254 Nov 19 j 01:14	16° $\times$ 54'37	
retrograde	1248 May 24 j 16:38	26° $\approx$ 57'37		evening set	1255 Feb 16 j 11:45	19° $\times$ 52'40	
opposition	1248 Aug 10 j 18:15	24° $\approx$ 58'46	-0°46'59				
min. Earth dist.	1248 Aug 09 j 18:53	25° $\approx$ 01'06	19.03218 AU	conjunction	1255 Mar 04 j 10:40	20° $\times$ 46'57	-0°43'20
direct	1248 Oct 25 j 14:29	23° $\approx$ 02'24		minimum elong	1255 Mar 04 j 10:40	20° $\times$ 46'57	0°43'21
evening set	1249 Jan 23 j 07:42	26° $\approx$ 01'33		max. Earth dist.	1255 Mar 05 j 08:49	20° $\times$ 50'07	21.05188 AU
				morning rise	1255 Mar 20 j 13:11	21° $\times$ 41'45	
conjunction	1249 Feb 08 j 01:53	26° $\approx$ 55'30	-0°42'54	retrograde	1255 Jun 23 j 03:07	24° $\times$ 48'53	
minimum elong	1249 Feb 08 j 01:52	26° $\approx$ 55'30	0°42'54	min. Earth dist.	1255 Sep 08 j 04:59	22° $\times$ 51'28	19.04516 AU
max. Earth dist.	1249 Feb 09 j 03:12	26° $\approx$ 59'09	21.04129 AU	opposition	1255 Sep 09 j 01:09	22° $\times$ 49'26	-0°47'32
morning rise	1249 Feb 23 j 23:01	27° $\approx$ 49'53		direct	1255 Nov 23 j 07:59	20° $\times$ 53'02	
	1249 Apr 09 j 22:40	0° $\times$		evening set	1256 Feb 20 j 17:10	23° $\times$ 51'09	
retrograde	1249 May 29 j 01:10	0° $\times$ 56'41					
	1249 Jul 18 j 18:59	30° $\times$		conjunction	1256 Mar 07 j 16:50	24° $\times$ 45'32	-0°42'40
min. Earth dist.	1249 Aug 14 j 02:55	29° $\approx$ 00'13	19.05003 AU	minimum elong	1256 Mar 07 j 16:50	24° $\times$ 45'32	0°42'40
opposition	1249 Aug 15 j 02:46	28° $\approx$ 57'50	-0°47'45	max. Earth dist.	1256 Mar 08 j 13:25	24° $\times$ 48'29	21.03678 AU
direct	1249 Oct 29 j 21:31	27° $\approx$ 01'36		morning rise	1256 Mar 23 j 20:29	25° $\times$ 40'28	
evening set	1250 Jan 27 j 12:10	0° $\times$ 00'26		retrograde	1256 Jun 26 j 10:33	28° $\times$ 47'48	
	1250 Jan 27 j 09:06	0° $\times$		opposition	1256 Sep 12 j 08:07	26° $\times$ 48'11	-0°46'41
				min. Earth dist.	1256 Sep 11 j 13:37	26° $\times$ 50'03	19.02823 AU
conjunction	1250 Feb 12 j 06:49	0° $\times$ 54'22	-0°43'30	direct	1256 Nov 26 j 11:45	24° $\times$ 51'41	
minimum elong	1250 Feb 12 j 06:49	0° $\times$ 54'22	0°43'30	evening set	1257 Feb 23 j 22:42	27° $\times$ 49'56	
max. Earth dist.	1250 Feb 13 j 06:54	0° $\times$ 57'50	21.05656 AU				
morning rise	1250 Feb 28 j 04:54	1° $\times$ 48'48		conjunction	1257 Mar 11 j 23:30	28° $\times$ 44'28	-0°41'48
retrograde	1250 Jun 02 j 09:15	4° $\times$ 55'36		minimum elong	1257 Mar 11 j 23:30	28° $\times$ 44'28	0°41'48
opposition	1250 Aug 19 j 11:14	2° $\times$ 56'43	-0°48'18	max. Earth dist.	1257 Mar 12 j 20:14	28° $\times$ 47'26	21.01806 AU
min. Earth dist.	1250 Aug 18 j 12:35	2° $\times$ 58'59	19.06270 AU	morning rise	1257 Mar 28 j 03:58	29° $\times$ 39'32	
direct	1250 Nov 03 j 02:52	1° $\times$ 00'33			1257 Apr 03 j 08:45	0° $\gamma$	
evening set	1251 Jan 31 j 16:38	3° $\times$ 59'07		retrograde	1257 Jun 30 j 19:50	2° $\gamma$ 47'04	
				opposition	1257 Sep 16 j 14:59	0° $\gamma$ 47'21	-0°45'36
conjunction	1251 Feb 16 j 12:11	4° $\times$ 53'06	-0°43'54	min. Earth dist.	1257 Sep 15 j 20:14	0° $\gamma$ 49'15	19.00767 AU
minimum elong	1251 Feb 16 j 12:11	4° $\times$ 53'06	0°43'54		1257 Oct 06 j 16:16	30° $\times$	
max. Earth dist.	1251 Feb 17 j 12:46	4° $\times$ 56'37	21.06647 AU	direct	1257 Nov 30 j 18:13	28° $\times$ 50'45	
morning rise	1251 Mar 04 j 10:57	5° $\times$ 47'33			1258 Jan 22 j 13:27	0° $\gamma$	
retrograde	1251 Jun 06 j 18:22	8° $\times$ 54'23		evening set	1258 Feb 28 j 04:40	1° $\gamma$ 49'13	
opposition	1251 Aug 23 j 19:17	6° $\times$ 55'26	-0°48'37				
min. Earth dist.	1251 Aug 22 j 20:24	6° $\times$ 57'43	19.06974 AU	conjunction	1258 Mar 16 j 06:15	2° $\gamma$ 43'54	-0°40'43
direct	1251 Nov 07 j 09:30	4° $\times$ 59'18		minimum elong	1258 Mar 16 j 06:15	2° $\gamma$ 43'54	0°40'44
evening set	1252 Feb 04 j 21:19	7° $\times$ 57'39		max. Earth dist.	1258 Mar 17 j 01:21	2° $\gamma$ 46'37	20.99578 AU
				morning rise	1258 Apr 01 j 11:51	3° $\gamma$ 39'07	
conjunction	1252 Feb 20 j 17:30	8° $\times$ 51'40	-0°44'05	retrograde	1258 Jul 05 j 04:02	6° $\gamma$ 46'57	
minimum elong	1252 Feb 20 j 17:30	8° $\times$ 51'40	0°44'04	opposition	1258 Sep 20 j 22:05	4° $\gamma$ 47'06	-0°44'18
max. Earth dist.	1252 Feb 21 j 16:32	8° $\times$ 54'58	21.07069 AU	min. Earth dist.	1258 Sep 20 j 05:02	4° $\gamma$ 48'50	18.98374 AU

direct	1258 Dec 04 j 22:10	2°♈50'24		minimum elong	1265 Apr 14 j 00:24	1°♈06'37	0°27'51
evening set	1259 Mar 04 j 11:02	5°♈49'09		max. Earth dist.	1265 Apr 14 j 10:20	1°♈08'03	20.73750 AU
				morning rise	1265 Apr 30 j 12:36	2°♈03'19	
conjunction	1259 Mar 20 j 13:47	6°♈44'01	-0°39'27	retrograde	1265 Aug 03 j 07:14	5°♈13'56	
minimum elong	1259 Mar 20 j 13:47	6°♈44'01	0°39'26	opposition	1265 Oct 19 j 03:09	3°♈13'22	-0°29'24
max. Earth dist.	1259 Mar 21 j 08:53	6°♈46'45	20.97026 AU	min. Earth dist.	1265 Oct 18 j 18:51	3°♈14'14	18.71110 AU
morning rise	1259 Apr 05 j 20:15	7°♈39'25		direct	1266 Jan 01 j 17:59	1°♈15'20	
retrograde	1259 Jul 09 j 13:50	10°♈47'32		evening set	1266 Apr 02 j 02:41	4°♈18'09	
min. Earth dist.	1259 Sep 24 j 11:52	8°♈49'21	18.95645 AU				
opposition	1259 Sep 25 j 04:58	8°♈47'37	-0°42'47	conjunction	1266 Apr 18 j 12:30	5°♈14'36	-0°25'19
direct	1259 Dec 09 j 04:26	6°♈50'47		minimum elong	1266 Apr 18 j 12:30	5°♈14'36	0°25'18
evening set	1260 Mar 07 j 18:07	9°♈49'56		max. Earth dist.	1266 Apr 18 j 19:55	5°♈15'40	20.68381 AU
				morning rise	1266 May 05 j 01:40	6°♈11'33	
conjunction	1260 Mar 23 j 21:45	10°♈44'58	-0°37'59	retrograde	1266 Aug 07 j 18:49	9°♈22'38	
minimum elong	1260 Mar 23 j 21:45	10°♈44'58	0°37'59	opposition	1266 Oct 23 j 11:58	7°♈21'52	-0°26'31
max. Earth dist.	1260 Mar 24 j 14:57	10°♈47'26	20.94128 AU	min. Earth dist.	1266 Oct 23 j 06:21	7°♈22'27	18.65553 AU
morning rise	1260 Apr 09 j 05:22	11°♈40'34		direct	1267 Jan 06 j 01:18	5°♈23'28	
retrograde	1260 Jul 12 j 22:54	14°♈49'03		evening set	1267 Apr 06 j 14:39	8°♈27'04	
opposition	1260 Sep 28 j 12:12	12°♈49'02	-0°41'04				
min. Earth dist.	1260 Sep 27 j 21:11	12°♈50'34	18.92570 AU	conjunction	1267 Apr 23 j 01:36	9°♈23'48	-0°22'38
direct	1260 Dec 12 j 08:39	10°♈52'05		minimum elong	1267 Apr 23 j 01:36	9°♈23'48	0°22'39
evening set	1261 Mar 12 j 01:40	13°♈51'41		max. Earth dist.	1267 Apr 23 j 07:42	9°♈24'41	20.62669 AU
				morning rise	1267 May 09 j 15:34	10°♈21'00	
conjunction	1261 Mar 28 j 06:27	14°♈46'56	-0°36'19	retrograde	1267 Aug 12 j 08:23	13°♈32'33	
minimum elong	1261 Mar 28 j 06:27	14°♈46'56	0°36'19	opposition	1267 Oct 27 j 20:48	11°♈31'35	-0°23'29
max. Earth dist.	1261 Mar 28 j 23:18	14°♈49'20	20.90878 AU	min. Earth dist.	1267 Oct 27 j 15:50	11°♈32'06	18.59684 AU
morning rise	1261 Apr 13 j 14:53	15°♈42'43		direct	1268 Jan 10 j 10:34	9°♈32'48	
retrograde	1261 Jul 17 j 09:38	18°♈51'35		evening set	1268 Apr 10 j 03:33	12°♈37'15	
opposition	1261 Oct 02 j 19:20	16°♈51'30	-0°39'08				
min. Earth dist.	1261 Oct 02 j 04:34	16°♈53'01	18.89123 AU	conjunction	1268 Apr 26 j 15:21	13°♈34'16	-0°19'49
direct	1261 Dec 16 j 15:25	14°♈54'25		minimum elong	1268 Apr 26 j 15:21	13°♈34'16	0°19'49
evening set	1262 Mar 16 j 10:03	17°♈54'33		max. Earth dist.	1268 Apr 26 j 19:07	13°♈34'49	20.56665 AU
				morning rise	1268 May 13 j 06:10	14°♈31'44	
conjunction	1262 Apr 01 j 15:42	18°♈50'01	-0°34'28		1268 May 21 j 16:57	15°♈	
minimum elong	1262 Apr 01 j 15:42	18°♈50'01	0°34'28	retrograde	1268 Aug 15 j 20:51	17°♈43'46	
max. Earth dist.	1262 Apr 02 j 06:22	18°♈52'07	20.87241 AU	opposition	1268 Oct 31 j 06:13	15°♈42'35	-0°20'18
morning rise	1262 Apr 18 j 01:13	19°♈46'01		min. Earth dist.	1268 Oct 31 j 03:48	15°♈42'50	18.53569 AU
retrograde	1262 Jul 21 j 19:27	22°♈55'18			1268 Nov 17 j 14:02	15°♈	
opposition	1262 Oct 07 j 02:58	20°♈55'09	-0°36'59	direct	1269 Jan 13 j 18:53	13°♈43'24	
min. Earth dist.	1262 Oct 06 j 14:38	20°♈56'24	18.85285 AU		1269 Mar 10 j 04:57	15°♈	
direct	1262 Dec 20 j 20:03	18°♈57'53		evening set	1269 Apr 14 j 17:00	16°♈48'46	
evening set	1263 Mar 20 j 18:59	21°♈58'37					
				conjunction	1269 May 01 j 05:48	17°♈46'04	-0°16'53
conjunction	1263 Apr 06 j 01:50	22°♈54'18	-0°32'26	minimum elong	1269 May 01 j 05:47	17°♈46'04	0°16'53
minimum elong	1263 Apr 06 j 01:50	22°♈54'18	0°32'26	max. Earth dist.	1269 May 01 j 08:15	17°♈46'25	20.50462 AU
max. Earth dist.	1263 Apr 06 j 15:40	22°♈56'17	20.83197 AU	morning rise	1269 May 17 j 21:17	18°♈43'48	
morning rise	1263 Apr 22 j 12:12	23°♈50'32		retrograde	1269 Aug 20 j 11:22	21°♈56'20	
retrograde	1263 Jul 26 j 07:40	27°♈00'15		opposition	1269 Nov 04 j 15:51	19°♈54'57	-0°16'59
opposition	1263 Oct 11 j 10:42	25°♈00'00	-0°34'39	min. Earth dist.	1269 Nov 04 j 13:55	19°♈55'09	18.47284 AU
min. Earth dist.	1263 Oct 10 j 22:59	25°♈01'12	18.81010 AU	direct	1270 Jan 18 j 05:28	17°♈55'23	
direct	1263 Dec 25 j 03:44	23°♈02'31		evening set	1270 Apr 19 j 07:25	21°♈01'43	
evening set	1264 Mar 24 j 04:57	26°♈03'54					
				conjunction	1270 May 05 j 21:01	21°♈59'18	-0°13'51
conjunction	1264 Apr 09 j 12:42	26°♈59'51	-0°30'14	minimum elong	1270 May 05 j 21:01	21°♈59'18	0°13'51
minimum elong	1264 Apr 09 j 12:42	26°♈59'51	0°30'13	behind sun begin	1270 May 05 j 17:40	21°♈58'50	
max. Earth dist.	1264 Apr 09 j 23:55	27°♈01'27	20.78694 AU	behind sun end	1270 May 06 j 00:22	21°♈59'47	
morning rise	1264 Apr 26 j 00:06	27°♈56'18		max. Earth dist.	1270 May 05 j 21:29	21°♈59'22	20.44113 AU
	1264 Jun 06 j 19:40	0°♈		morning rise	1270 May 22 j 13:12	22°♈57'18	
retrograde	1264 Jul 29 j 18:12	1°♈06'28		retrograde	1270 Aug 25 j 00:30	26°♈10'22	
	1264 Sep 22 j 03:57	30°♈		opposition	1270 Nov 09 j 02:04	24°♈08'48	-0°13'35
opposition	1264 Oct 14 j 18:47	29°♈06'05	-0°32'07	min. Earth dist.	1270 Nov 09 j 02:30	24°♈08'45	18.40893 AU
min. Earth dist.	1264 Oct 14 j 09:49	29°♈07'00	18.76280 AU	direct	1271 Jan 22 j 14:34	22°♈08'50	
direct	1264 Dec 28 j 09:35	27°♈08'20		evening set	1271 Apr 23 j 22:34	25°♈16'12	
	1265 Mar 25 j 12:52	0°♈					
evening set	1265 Mar 28 j 15:29	0°♈10'26		conjunction	1271 May 10 j 13:07	26°♈14'06	-0°10'44
				minimum elong	1271 May 10 j 13:07	26°♈14'06	0°10'43
conjunction	1265 Apr 14 j 00:24	1°♈06'37	-0°27'51	behind sun begin	1271 May 10 j 08:00	26°♈13'22	

behind sun end	1271 May 10 j 18:15	26° <b>8</b> 14'50		retrograde	1276 Sep 20 j 03:47	22° <b>II</b> 11'59	
max. Earth dist.	1271 May 10 j 12:06	26° <b>8</b> 13'57	20.37697 AU	opposition	1276 Dec 04 j 03:18	20° <b>II</b> 09'54	0°08'19
morning rise	1271 May 27 j 05:57	27° <b>8</b> 12'22		min. Earth dist.	1276 Dec 04 j 12:35	20° <b>II</b> 08'54	18.02366 AU
	1271 Jul 28 j 14:15	0° <b>II</b>		direct	1277 Feb 16 j 18:12	18° <b>II</b> 07'52	
retrograde	1271 Aug 29 j 16:36	0° <b>II</b> 25'59		evening set	1277 May 20 j 14:17	21° <b>II</b> 22'27	
	1271 Sep 30 j 23:24	30° <b>8</b>					
opposition	1271 Nov 13 j 12:41	28° <b>8</b> 24'15	-0°10'04	conjunction	1277 Jun 06 j 08:29	22° <b>II</b> 22'10	0°09'12
min. Earth dist.	1271 Nov 13 j 13:35	28° <b>8</b> 24'10	18.34451 AU	minimum elong	1277 Jun 06 j 08:29	22° <b>II</b> 22'10	0°09'12
direct	1272 Jan 27 j 02:29	26° <b>8</b> 23'55		behind sun begin	1277 Jun 06 j 02:47	22° <b>II</b> 21'20	
evening set	1272 Apr 27 j 14:49	29° <b>8</b> 32'22		behind sun end	1277 Jun 06 j 14:10	22° <b>II</b> 23'00	
	1272 May 05 j 13:39	0° <b>II</b>		max. Earth dist.	1277 Jun 05 j 20:14	22° <b>II</b> 20'21	19.99182 AU
				morning rise	1277 Jun 23 j 03:24	23° <b>II</b> 22'01	
conjunction	1272 May 14 j 06:06	0° <b>II</b> 30'35	-0°07'32	retrograde	1277 Sep 24 j 23:29	26° <b>II</b> 39'14	
minimum elong	1272 May 14 j 06:06	0° <b>II</b> 30'34	0°07'32	opposition	1277 Dec 08 j 17:56	24° <b>II</b> 37'04	0°12'02
behind sun begin	1272 May 13 j 23:59	0° <b>II</b> 29'42		min. Earth dist.	1277 Dec 09 j 04:19	24° <b>II</b> 35'57	17.95969 AU
behind sun end	1272 May 14 j 12:13	0° <b>II</b> 31'27		direct	1278 Feb 21 j 11:38	22° <b>II</b> 34'40	
max. Earth dist.	1272 May 14 j 03:18	0° <b>II</b> 30'11	20.31235 AU	evening set	1278 May 25 j 12:19	25° <b>II</b> 50'31	
morning rise	1272 May 30 j 23:25	1° <b>II</b> 29'07					
retrograde	1272 Sep 02 j 06:51	4° <b>II</b> 43'18		conjunction	1278 Jun 11 j 06:59	26° <b>II</b> 50'31	0°12'30
opposition	1272 Nov 16 j 23:55	2° <b>II</b> 41'27	-0°06'29	minimum elong	1278 Jun 11 j 06:59	26° <b>II</b> 50'31	0°12'31
min. Earth dist.	1272 Nov 17 j 03:05	2° <b>II</b> 41'07	18.27990 AU	behind sun begin	1278 Jun 11 j 02:43	26° <b>II</b> 49'53	
direct	1273 Jan 30 j 12:33	0° <b>II</b> 40'46		behind sun end	1278 Jun 11 j 11:15	26° <b>II</b> 51'08	
evening set	1273 May 02 j 07:53	3° <b>II</b> 50'21		max. Earth dist.	1278 Jun 10 j 17:31	26° <b>II</b> 48'30	19.92776 AU
				morning rise	1278 Jun 28 j 01:48	27° <b>II</b> 50'35	
conjunction	1273 May 18 j 23:55	4° <b>II</b> 48'52	-0°04'17		1278 Aug 08 j 21:37	0° <b>III</b>	
minimum elong	1273 May 18 j 23:55	4° <b>II</b> 48'52	0°04'17	retrograde	1278 Sep 29 j 17:26	1° <b>III</b> 08'21	
behind sun begin	1273 May 18 j 17:16	4° <b>II</b> 47'55			1278 Nov 21 j 19:30	30° <b>8</b> <b>II</b>	
behind sun end	1273 May 19 j 06:34	4° <b>II</b> 49'50		opposition	1278 Dec 13 j 09:14	29° <b>II</b> 06'06	0°15'41
max. Earth dist.	1273 May 18 j 19:23	4° <b>II</b> 48'14	20.24794 AU	min. Earth dist.	1278 Dec 13 j 21:42	29° <b>II</b> 04'46	17.89577 AU
morning rise	1273 Jun 04 j 17:45	5° <b>II</b> 47'41		direct	1279 Feb 26 j 03:49	27° <b>II</b> 03'19	
retrograde	1273 Sep 07 j 00:27	9° <b>II</b> 02'28			1279 May 24 j 14:49	0° <b>III</b>	
opposition	1273 Nov 21 j 11:43	7° <b>II</b> 00'31	-0°02'50	evening set	1279 May 30 j 11:19	0° <b>III</b> 20'25	
min. Earth dist.	1273 Nov 21 j 15:25	7° <b>II</b> 00'08	18.21560 AU				
direct	1274 Feb 04 j 01:53	4° <b>II</b> 59'29		conjunction	1279 Jun 16 j 06:10	1° <b>III</b> 20'41	0°15'46
evening set	1274 May 07 j 01:50	8° <b>II</b> 10'17		minimum elong	1279 Jun 16 j 06:10	1° <b>III</b> 20'41	0°15'45
				max. Earth dist.	1279 Jun 15 j 13:49	1° <b>III</b> 18'14	19.86413 AU
conjunction	1274 May 23 j 18:33	9° <b>II</b> 09'07	-0°00'56	morning rise	1279 Jul 03 j 01:07	2° <b>III</b> 20'59	
minimum elong	1274 May 23 j 18:34	9° <b>II</b> 09'07	0°00'56	retrograde	1279 Oct 04 j 13:34	5° <b>III</b> 39'17	
behind sun begin	1274 May 23 j 11:48	9° <b>II</b> 08'08		opposition	1279 Dec 18 j 01:12	3° <b>III</b> 36'56	0°19'17
behind sun end	1274 May 24 j 01:20	9° <b>II</b> 10'05		min. Earth dist.	1279 Dec 18 j 14:54	3° <b>III</b> 35'27	17.83255 AU
max. Earth dist.	1274 May 23 j 12:35	9° <b>II</b> 08'15	20.18370 AU	direct	1280 Mar 01 j 22:36	1° <b>III</b> 33'42	
morning rise	1274 Jun 09 j 12:45	10° <b>II</b> 08'12		evening set	1280 Jun 03 j 11:00	4° <b>III</b> 52'04	
asc. node	1274 Aug 31 j 10:15	13° <b>II</b> 20'18					
retrograde	1274 Sep 11 j 16:10	13° <b>II</b> 23'36		conjunction	1280 Jun 20 j 06:09	5° <b>III</b> 52'35	0°18'57
opposition	1274 Nov 26 j 00:18	11° <b>II</b> 21'36	0°00'52	minimum elong	1280 Jun 20 j 06:09	5° <b>III</b> 52'35	0°18'57
min. Earth dist.	1274 Nov 26 j 06:17	11° <b>II</b> 20'57	18.15150 AU	max. Earth dist.	1280 Jun 19 j 13:04	5° <b>III</b> 50'00	19.80132 AU
direct	1275 Feb 08 j 13:18	9° <b>II</b> 20'14		morning rise	1280 Jul 07 j 00:45	6° <b>III</b> 53'04	
evening set	1275 May 11 j 21:01	12° <b>II</b> 32'16		retrograde	1280 Oct 08 j 09:17	10° <b>III</b> 11'51	
				opposition	1280 Dec 21 j 17:52	8° <b>III</b> 09'24	0°22'47
conjunction	1275 May 28 j 14:19	13° <b>II</b> 31'24	0°02'31	min. Earth dist.	1280 Dec 22 j 09:09	8° <b>III</b> 07'45	17.77050 AU
minimum elong	1275 May 28 j 14:19	13° <b>II</b> 31'24	0°02'31	direct	1281 Mar 06 j 16:59	6° <b>III</b> 05'47	
behind sun begin	1275 May 28 j 07:33	13° <b>II</b> 30'25		evening set	1281 Jun 08 j 11:32	9° <b>III</b> 25'20	
behind sun end	1275 May 28 j 21:05	13° <b>II</b> 32'23		max. Earth dist.	1281 Jun 24 j 10:52	10° <b>III</b> 23'05	19.74027 AU
max. Earth dist.	1275 May 28 j 06:08	13° <b>II</b> 30'12	20.11980 AU				
morning rise	1275 Jun 14 j 08:55	14° <b>II</b> 30'45		conjunction	1281 Jun 25 j 06:36	10° <b>III</b> 26'05	0°22'01
retrograde	1275 Sep 16 j 11:04	17° <b>II</b> 46'46		minimum elong	1281 Jun 25 j 06:35	10° <b>III</b> 26'05	0°22'02
opposition	1275 Nov 30 j 13:19	15° <b>II</b> 44'43	0°04'35	morning rise	1281 Jul 12 j 01:08	11° <b>III</b> 26'46	
min. Earth dist.	1275 Nov 30 j 20:17	15° <b>II</b> 43'58	18.08764 AU	retrograde	1281 Oct 13 j 06:11	14° <b>III</b> 46'01	
direct	1276 Feb 13 j 04:41	13° <b>II</b> 43'01		opposition	1281 Dec 26 j 11:08	12° <b>III</b> 43'27	0°26'09
evening set	1276 May 15 j 17:13	16° <b>II</b> 56'20		min. Earth dist.	1281 Dec 27 j 03:34	12° <b>III</b> 41'40	17.71067 AU
				direct	1282 Mar 11 j 12:40	10° <b>III</b> 39'24	
conjunction	1276 Jun 01 j 11:06	17° <b>II</b> 55'46	0°05'52	evening set	1282 Jun 13 j 12:31	14° <b>III</b> 00'08	
minimum elong	1276 Jun 01 j 11:05	17° <b>II</b> 55'46	0°05'52	max. Earth dist.	1282 Jun 29 j 11:52	14° <b>III</b> 58'05	19.68163 AU
behind sun begin	1276 Jun 01 j 04:37	17° <b>II</b> 54'50					
behind sun end	1276 Jun 01 j 17:33	17° <b>II</b> 56'43		conjunction	1282 Jun 30 j 07:46	15° <b>III</b> 01'06	0°24'59
max. Earth dist.	1276 Jun 01 j 01:27	17° <b>II</b> 54'21	20.05581 AU	minimum elong	1282 Jun 30 j 07:46	15° <b>III</b> 01'06	0°24'59
morning rise	1276 Jun 18 j 05:46	18° <b>II</b> 55'22		morning rise	1282 Jul 17 j 01:50	16° <b>III</b> 01'58	

retrograde	1282 Oct 18 j 03:39	19° $\mathring{O}$ 21'38			1289 Feb 04 j 01:03	15° $\mathring{R}$ $\mathring{O}$	
opposition	1282 Dec 31 j 05:07	17° $\mathring{O}$ 18'59	0°29'22	direct	1289 Apr 12 j 23:29	13° $\mathring{O}$ 14'20	
min. Earth dist.	1282 Dec 31 j 22:34	17° $\mathring{O}$ 17'04	17.65349 AU		1289 Jun 17 j 03:34	15° $\mathring{O}$	
direct	1283 Mar 16 j 08:30	15° $\mathring{O}$ 14'31		evening set	1289 Jul 17 j 11:48	16° $\mathring{O}$ 42'07	
evening set	1283 Jun 18 j 14:27	18° $\mathring{O}$ 36'25		max. Earth dist.	1289 Aug 02 j 03:07	17° $\mathring{O}$ 40'07	19.38990 AU
max. Earth dist.	1283 Jul 04 j 11:09	19° $\mathring{O}$ 34'11	19.62609 AU				
				conjunction	1289 Aug 03 j 04:05	17° $\mathring{O}$ 44'00	0°40'28
conjunction	1283 Jul 05 j 09:25	19° $\mathring{O}$ 37'35	0°27'47	minimum elong	1289 Aug 03 j 04:05	17° $\mathring{O}$ 44'00	0°40'27
minimum elong	1283 Jul 05 j 09:24	19° $\mathring{O}$ 37'35	0°27'48	morning rise	1289 Aug 19 j 17:25	18° $\mathring{O}$ 45'29	
morning rise	1283 Jul 22 j 03:12	20° $\mathring{O}$ 38'36		retrograde	1289 Nov 19 j 19:16	22° $\mathring{O}$ 07'22	
retrograde	1283 Oct 23 j 01:19	23° $\mathring{O}$ 58'40		opposition	1290 Feb 01 j 05:33	20° $\mathring{O}$ 04'47	0°45'50
opposition	1284 Jan 04 j 23:41	21° $\mathring{O}$ 55'55	0°32'25	min. Earth dist.	1290 Feb 02 j 03:11	20° $\mathring{O}$ 02'25	17.37876 AU
min. Earth dist.	1284 Jan 05 j 18:17	21° $\mathring{O}$ 53'53	17.59991 AU	direct	1290 Apr 17 j 23:53	17° $\mathring{O}$ 58'44	
direct	1284 Mar 20 j 05:16	19° $\mathring{O}$ 51'04		evening set	1290 Jul 22 j 16:41	21° $\mathring{O}$ 27'14	
evening set	1284 Jun 22 j 16:47	23° $\mathring{O}$ 14'05		max. Earth dist.	1290 Aug 07 j 07:06	22° $\mathring{O}$ 25'13	19.36790 AU
conjunction	1284 Jul 09 j 11:40	24° $\mathring{O}$ 15'25	0°30'25	conjunction	1290 Aug 08 j 08:14	22° $\mathring{O}$ 29'09	0°41'43
minimum elong	1284 Jul 09 j 11:40	24° $\mathring{O}$ 15'25	0°30'25	minimum elong	1290 Aug 08 j 08:14	22° $\mathring{O}$ 29'09	0°41'44
max. Earth dist.	1284 Jul 08 j 13:40	24° $\mathring{O}$ 12'03	19.57443 AU	morning rise	1290 Aug 24 j 20:40	23° $\mathring{O}$ 30'37	
morning rise	1284 Jul 26 j 04:47	25° $\mathring{O}$ 16'34		retrograde	1290 Nov 24 j 20:05	26° $\mathring{O}$ 52'40	
retrograde	1284 Oct 26 j 23:56	28° $\mathring{O}$ 37'00		opposition	1291 Feb 06 j 04:43	24° $\mathring{O}$ 50'11	0°47'06
opposition	1285 Jan 08 j 19:02	26° $\mathring{O}$ 34'12	0°35'15	min. Earth dist.	1291 Feb 07 j 01:39	24° $\mathring{O}$ 47'54	17.35894 AU
min. Earth dist.	1285 Jan 09 j 13:55	26° $\mathring{O}$ 32'08	17.55044 AU	direct	1291 Apr 23 j 02:45	22° $\mathring{O}$ 44'02	
direct	1285 Mar 25 j 02:20	24° $\mathring{O}$ 29'02		evening set	1291 Jul 27 j 21:46	26° $\mathring{O}$ 13'10	
evening set	1285 Jun 27 j 19:36	27° $\mathring{O}$ 53'05		max. Earth dist.	1291 Aug 12 j 11:19	27° $\mathring{O}$ 11'08	19.35018 AU
conjunction	1285 Jul 14 j 14:01	28° $\mathring{O}$ 54'35	0°32'52	conjunction	1291 Aug 13 j 12:29	27° $\mathring{O}$ 15'04	0°42'42
minimum elong	1285 Jul 14 j 14:01	28° $\mathring{O}$ 54'35	0°32'52	minimum elong	1291 Aug 13 j 12:29	27° $\mathring{O}$ 15'04	0°42'43
max. Earth dist.	1285 Jul 13 j 14:17	28° $\mathring{O}$ 50'56	19.52726 AU	morning rise	1291 Aug 29 j 23:46	28° $\mathring{O}$ 16'31	
morning rise	1285 Jul 31 j 06:39	29° $\mathring{O}$ 55'51			1291 Sep 29 j 15:26	0° $\mathring{N}$	
	1285 Aug 01 j 10:17	0° $\mathring{O}$		retrograde	1291 Nov 29 j 19:13	1° $\mathring{N}$ 38'39	
retrograde	1285 Oct 31 j 22:11	3° $\mathring{O}$ 16'39			1292 Feb 02 j 01:52	30° $\mathring{R}$ $\mathring{O}$	
opposition	1286 Jan 13 j 15:05	1° $\mathring{O}$ 13'48	0°37'53	opposition	1292 Feb 11 j 04:33	29° $\mathring{O}$ 36'16	0°48'02
min. Earth dist.	1286 Jan 14 j 10:58	1° $\mathring{O}$ 11'37	17.50587 AU	min. Earth dist.	1292 Feb 12 j 02:38	29° $\mathring{O}$ 33'51	17.34350 AU
	1286 Feb 12 j 16:25	30° $\mathring{R}$ $\mathring{O}$		direct	1292 Apr 27 j 04:33	27° $\mathring{O}$ 30'03	
direct	1286 Mar 30 j 00:24	29° $\mathring{O}$ 08'21			1292 Jul 15 j 05:55	0° $\mathring{N}$	
	1286 May 13 j 14:44	0° $\mathring{O}$		evening set	1292 Aug 01 j 02:51	0° $\mathring{N}$ 59'40	
evening set	1286 Jul 02 j 22:57	2° $\mathring{O}$ 33'26					
				conjunction	1292 Aug 17 j 16:35	2° $\mathring{N}$ 01'33	0°43'24
conjunction	1286 Jul 19 j 17:07	3° $\mathring{O}$ 35'04	0°35'07	minimum elong	1292 Aug 17 j 16:35	2° $\mathring{N}$ 01'33	0°43'23
minimum elong	1286 Jul 19 j 17:07	3° $\mathring{O}$ 35'04	0°35'07	max. Earth dist.	1292 Aug 16 j 15:02	1° $\mathring{N}$ 57'32	19.33701 AU
max. Earth dist.	1286 Jul 18 j 17:46	3° $\mathring{O}$ 31'28	19.48519 AU	morning rise	1292 Sep 03 j 02:55	3° $\mathring{N}$ 02'56	
morning rise	1286 Aug 05 j 08:58	4° $\mathring{O}$ 36'25		retrograde	1292 Dec 03 j 20:16	6° $\mathring{N}$ 25'07	
retrograde	1286 Nov 05 j 21:26	7° $\mathring{O}$ 57'31		opposition	1293 Feb 15 j 04:42	4° $\mathring{N}$ 22'48	0°48'39
opposition	1287 Jan 18 j 11:35	5° $\mathring{O}$ 54'42	0°40'16	min. Earth dist.	1293 Feb 16 j 01:45	4° $\mathring{N}$ 20'30	17.33255 AU
min. Earth dist.	1287 Jan 19 j 07:19	5° $\mathring{O}$ 52'32	17.46637 AU	direct	1293 May 02 j 08:43	2° $\mathring{N}$ 16'32	
direct	1287 Apr 03 j 23:13	3° $\mathring{O}$ 49'02		evening set	1293 Aug 06 j 07:35	5° $\mathring{N}$ 46'30	
evening set	1287 Jul 08 j 02:58	7° $\mathring{O}$ 15'05					
				conjunction	1293 Aug 22 j 20:29	6° $\mathring{N}$ 48'20	0°43'47
conjunction	1287 Jul 24 j 20:31	8° $\mathring{O}$ 16'50	0°37'09	minimum elong	1293 Aug 22 j 20:29	6° $\mathring{N}$ 48'20	0°43'48
minimum elong	1287 Jul 24 j 20:31	8° $\mathring{O}$ 16'50	0°37'08	max. Earth dist.	1293 Aug 21 j 19:48	6° $\mathring{N}$ 44'28	19.32828 AU
max. Earth dist.	1287 Jul 23 j 19:53	8° $\mathring{O}$ 13'01	19.44830 AU	morning rise	1293 Sep 08 j 05:36	7° $\mathring{N}$ 49'39	
morning rise	1287 Aug 10 j 11:39	9° $\mathring{O}$ 18'15		retrograde	1293 Dec 08 j 19:21	11° $\mathring{N}$ 11'48	
retrograde	1287 Nov 10 j 20:06	12° $\mathring{O}$ 39'39		opposition	1294 Feb 20 j 05:19	9° $\mathring{N}$ 09'34	0°48'55
opposition	1288 Jan 23 j 09:00	10° $\mathring{O}$ 36'53	0°42'24	min. Earth dist.	1294 Feb 21 j 03:09	9° $\mathring{N}$ 07'11	17.32615 AU
min. Earth dist.	1288 Jan 24 j 05:50	10° $\mathring{O}$ 34'36	17.43219 AU	direct	1294 May 07 j 11:04	7° $\mathring{N}$ 03'15	
direct	1288 Apr 07 j 22:27	8° $\mathring{O}$ 31'03		evening set	1294 Aug 11 j 12:21	10° $\mathring{N}$ 33'28	
evening set	1288 Jul 12 j 07:08	11° $\mathring{O}$ 58'01		max. Earth dist.	1294 Aug 26 j 22:59	11° $\mathring{N}$ 31'16	19.32433 AU
max. Earth dist.	1288 Jul 27 j 23:50	12° $\mathring{O}$ 56'04	19.41667 AU				
				conjunction	1294 Aug 28 j 00:07	11° $\mathring{N}$ 35'13	0°43'52
conjunction	1288 Jul 29 j 00:09	12° $\mathring{O}$ 59'51	0°38'56	minimum elong	1294 Aug 28 j 00:07	11° $\mathring{N}$ 35'13	0°43'52
minimum elong	1288 Jul 29 j 00:09	12° $\mathring{O}$ 59'51	0°38'56	morning rise	1294 Sep 13 j 08:17	12° $\mathring{N}$ 36'26	
morning rise	1288 Aug 14 j 14:24	14° $\mathring{O}$ 01'18		retrograde	1294 Dec 13 j 20:25	15° $\mathring{N}$ 58'30	
	1288 Aug 31 j 07:39	15° $\mathring{O}$		opposition	1295 Feb 25 j 05:58	13° $\mathring{N}$ 56'19	0°48'51
retrograde	1288 Nov 14 j 20:18	17° $\mathring{O}$ 22'58		min. Earth dist.	1295 Feb 26 j 02:37	13° $\mathring{N}$ 54'04	17.32461 AU
opposition	1289 Jan 27 j 06:56	15° $\mathring{O}$ 20'18	0°44'16	direct	1295 May 12 j 15:29	11° $\mathring{N}$ 49'58	
min. Earth dist.	1289 Jan 28 j 03:17	15° $\mathring{O}$ 18'04	17.40303 AU	evening set	1295 Aug 16 j 16:40	15° $\mathring{N}$ 20'19	



max. Earth dist.	1295 Sep 01 j 04:05	16° <u>18</u> '16	19.32530 AU	morning rise	1301 Oct 16 j 11:12	15° <u>49</u> '37	
				retrograde	1302 Jan 15 j 13:38	19° <u>49</u> '43	
conjunction	1295 Sep 02 j 03:32	16° <u>18</u> '21'57	0°43'39	opposition	1302 Mar 30 j 14:36	17° <u>48</u> '18	0°39'17
minimum elong	1295 Sep 02 j 03:32	16° <u>18</u> '21'57	0°43'39	min. Earth dist.	1302 Mar 31 j 03:24	17° <u>46</u> '56	17.47227 AU
morning rise	1295 Sep 18 j 10:23	17° <u>18</u> '23'03		direct	1302 Jun 15 j 14:58	15° <u>42</u> '59	
retrograde	1295 Dec 18 j 19:44	20° <u>18</u> '44'58		evening set	1302 Sep 19 j 07:02	18° <u>43</u> '57	
opposition	1296 Mar 01 j 07:08	18° <u>18</u> '42'51	0°48'26				
min. Earth dist.	1296 Mar 02 j 03:59	18° <u>18</u> '40'35	17.32817 AU	conjunction	1302 Oct 05 j 09:52	19° <u>43</u> '12	0°34'09
direct	1296 May 16 j 18:02	16° <u>18</u> '36'30		minimum elong	1302 Oct 05 j 09:52	19° <u>43</u> '12	0°34'08
evening set	1296 Aug 20 j 20:30	20° <u>18</u> '06'50		max. Earth dist.	1302 Oct 04 j 19:57	19° <u>42</u> '90	19.49318 AU
max. Earth dist.	1296 Sep 05 j 06:35	21° <u>18</u> '04'38	19.33165 AU	morning rise	1302 Oct 21 j 09:07	20° <u>43</u> '55	
				retrograde	1303 Jan 20 j 10:18	23° <u>45</u> '36	
conjunction	1296 Sep 06 j 06:06	21° <u>18</u> '08'20	0°43'07	opposition	1303 Apr 04 j 15:37	21° <u>49</u> '23	0°36'46
minimum elong	1296 Sep 06 j 06:06	21° <u>18</u> '08'20	0°43'08	min. Earth dist.	1303 Apr 05 j 03:25	21° <u>48</u> '07	17.51538 AU
morning rise	1296 Sep 22 j 12:00	22° <u>18</u> '09'17		direct	1303 Jun 20 j 16:57	19° <u>44</u> '22	
retrograde	1296 Dec 22 j 20:20	25° <u>18</u> '31'00		evening set	1303 Sep 24 j 06:19	23° <u>41</u> '37	
opposition	1297 Mar 06 j 08:17	23° <u>18</u> '28'56	0°47'41				
min. Earth dist.	1297 Mar 07 j 03:38	23° <u>18</u> '26'50	17.33733 AU	conjunction	1303 Oct 10 j 08:06	24° <u>41</u> '35	0°31'48
direct	1297 May 21 j 21:52	21° <u>18</u> '22'37		minimum elong	1303 Oct 10 j 08:06	24° <u>41</u> '35	0°31'48
evening set	1297 Aug 25 j 23:46	24° <u>18</u> '52'49		max. Earth dist.	1303 Oct 09 j 20:25	24° <u>40</u> '46	19.53838 AU
max. Earth dist.	1297 Sep 10 j 11:16	25° <u>18</u> '50'50	19.34367 AU	morning rise	1303 Oct 26 j 06:20	25° <u>41</u> '10	
				retrograde	1304 Jan 25 j 08:14	28° <u>43</u> '16	
conjunction	1297 Sep 11 j 08:25	25° <u>18</u> '54'10	0°42'18	opposition	1304 Apr 08 j 16:31	26° <u>42</u> '91	0°34'02
minimum elong	1297 Sep 11 j 08:25	25° <u>18</u> '54'10	0°42'18	min. Earth dist.	1304 Apr 09 j 02:14	26° <u>42</u> '81	17.56230 AU
morning rise	1297 Sep 27 j 13:01	26° <u>18</u> '54'57		direct	1304 Jun 24 j 20:13	24° <u>42</u> '35	
	1297 Dec 03 j 15:44	0° <u>42</u> '		evening set	1304 Sep 28 j 04:44	27° <u>43</u> '59	
retrograde	1297 Dec 27 j 19:21	0° <u>42</u> '16'24					
	1298 Jan 21 j 06:41	30° <u>42</u> ' <u>18</u>		conjunction	1304 Oct 14 j 05:23	28° <u>43</u> '50'41	0°29'15
opposition	1298 Mar 11 j 09:30	28° <u>42</u> '14'25	0°46'36	minimum elong	1304 Oct 14 j 05:23	28° <u>43</u> '50'41	0°29'14
min. Earth dist.	1298 Mar 12 j 04:21	28° <u>42</u> '12'22	17.35226 AU	max. Earth dist.	1304 Oct 13 j 19:03	28° <u>42</u> '49'04	19.58700 AU
direct	1298 May 27 j 00:43	26° <u>42</u> '08'11		morning rise	1304 Oct 30 j 02:42	29° <u>42</u> '49'54	
evening set	1298 Aug 31 j 02:39	29° <u>42</u> '38'08			1304 Nov 01 j 21:05	0° <u>42</u> '	
	1298 Sep 05 j 23:53	0° <u>42</u> '		retrograde	1305 Jan 29 j 04:10	3° <u>42</u> '08'38	
				opposition	1305 Apr 13 j 17:11	1° <u>42</u> '07'47	0°31'05
conjunction	1298 Sep 16 j 10:01	0° <u>42</u> '39'17	0°41'12	min. Earth dist.	1305 Apr 14 j 02:10	1° <u>42</u> '06'50	17.61249 AU
minimum elong	1298 Sep 16 j 10:01	0° <u>42</u> '39'17	0°41'12		1305 May 12 j 00:00	30° <u>42</u> ' <u>42</u>	
max. Earth dist.	1298 Sep 15 j 13:06	0° <u>42</u> '36'00	19.36171 AU	direct	1305 Jun 29 j 20:51	29° <u>42</u> '03'26	
morning rise	1298 Oct 02 j 13:38	1° <u>42</u> '39'54			1305 Aug 16 j 01:45	0° <u>42</u> '	
retrograde	1299 Jan 01 j 18:50	5° <u>42</u> '01'04		evening set	1305 Oct 03 j 02:23	2° <u>42</u> '28'56	
opposition	1299 Mar 16 j 10:49	2° <u>42</u> '59'09	0°45'12				
min. Earth dist.	1299 Mar 17 j 04:03	2° <u>42</u> '57'18	17.37340 AU	conjunction	1305 Oct 19 j 02:01	3° <u>42</u> '28'21	0°26'31
direct	1299 Jun 01 j 04:08	0° <u>42</u> '53'04		minimum elong	1305 Oct 19 j 02:01	3° <u>42</u> '28'21	0°26'31
evening set	1299 Sep 05 j 04:42	4° <u>42</u> '22'40		max. Earth dist.	1305 Oct 18 j 17:23	3° <u>42</u> '27'00	19.63858 AU
				morning rise	1305 Nov 03 j 22:27	4° <u>42</u> '27'18	
conjunction	1299 Sep 21 j 11:02	5° <u>42</u> '23'38	0°39'49	retrograde	1306 Feb 03 j 01:20	7° <u>42</u> '45'29	
minimum elong	1299 Sep 21 j 11:02	5° <u>42</u> '23'38	0°39'48	opposition	1306 Apr 18 j 17:14	5° <u>42</u> '44'48	0°27'56
max. Earth dist.	1299 Sep 20 j 16:50	5° <u>42</u> '20'46	19.38594 AU	min. Earth dist.	1306 Apr 18 j 23:57	5° <u>42</u> '44'06	17.66514 AU
morning rise	1299 Oct 07 j 13:22	6° <u>42</u> '24'01		direct	1306 Jul 04 j 22:46	3° <u>42</u> '40'48	
retrograde	1300 Jan 06 j 17:28	9° <u>42</u> '44'52		evening set	1306 Oct 07 j 23:12	7° <u>42</u> '05'19	
opposition	1300 Mar 20 j 12:13	7° <u>42</u> '43'06	0°43'31				
min. Earth dist.	1300 Mar 21 j 04:08	7° <u>42</u> '41'23	17.40058 AU	conjunction	1306 Oct 23 j 21:49	8° <u>42</u> '04'25	0°23'38
direct	1300 Jun 05 j 08:03	5° <u>42</u> '37'13		minimum elong	1306 Oct 23 j 21:49	8° <u>42</u> '04'25	0°23'38
evening set	1300 Sep 09 j 06:15	9° <u>42</u> '06'22		max. Earth dist.	1306 Oct 23 j 14:49	8° <u>42</u> '03'20	19.69231 AU
				morning rise	1306 Nov 08 j 17:23	9° <u>42</u> '03'06	
conjunction	1300 Sep 25 j 11:19	10° <u>42</u> '07'06	0°38'10	retrograde	1307 Feb 07 j 20:21	12° <u>42</u> '20'44	
minimum elong	1300 Sep 25 j 11:19	10° <u>42</u> '07'06	0°38'10	opposition	1307 Apr 23 j 17:14	10° <u>42</u> '20'12	0°24'38
max. Earth dist.	1300 Sep 24 j 17:49	10° <u>42</u> '04'21	19.41626 AU	min. Earth dist.	1307 Apr 23 j 23:21	10° <u>42</u> '19'33	17.71988 AU
morning rise	1300 Oct 11 j 12:40	11° <u>42</u> '07'17		direct	1307 Jul 09 j 22:26	8° <u>42</u> '16'31	
retrograde	1301 Jan 10 j 15:18	14° <u>42</u> '27'47		evening set	1307 Oct 12 j 18:57	11° <u>42</u> '39'58	
opposition	1301 Mar 25 j 13:26	12° <u>42</u> '26'10	0°41'32				
min. Earth dist.	1301 Mar 26 j 03:55	12° <u>42</u> '24'37	17.43384 AU	conjunction	1307 Oct 28 j 16:34	12° <u>42</u> '38'47	0°20'36
direct	1301 Jun 10 j 10:56	10° <u>42</u> '20'33		minimum elong	1307 Oct 28 j 16:34	12° <u>42</u> '38'47	0°20'36
evening set	1301 Sep 14 j 06:53	13° <u>42</u> '49'09		max. Earth dist.	1307 Oct 28 j 10:59	12° <u>42</u> '37'55	19.74799 AU
				morning rise	1307 Nov 13 j 11:25	13° <u>42</u> '37'12	
conjunction	1301 Sep 30 j 10:58	14° <u>42</u> '49'39	0°36'16		1307 Dec 07 j 16:39	15° <u>42</u> '	
minimum elong	1301 Sep 30 j 10:58	14° <u>42</u> '49'39	0°36'17	retrograde	1308 Feb 12 j 16:26	16° <u>42</u> '54'15	
max. Earth dist.	1301 Sep 29 j 20:03	14° <u>42</u> '47'19	19.45231 AU		1308 Apr 25 j 05:29	15° <u>42</u> ' <u>18</u>	

opposition	1308 Apr 27 j 16:35	14° $\mathcal{M}$ 53'50	0°21'11	conjunction	1313 Nov 23 j 13:24	9° $\mathcal{Z}$ 24'35	0°00'56
min. Earth dist.	1308 Apr 27 j 20:06	14° $\mathcal{M}$ 53'28	17.77626 AU	minimum elong	1313 Nov 23 j 13:24	9° $\mathcal{Z}$ 24'35	0°00'56
direct	1308 Jul 13 j 23:13	12° $\mathcal{M}$ 50'28		behind sun begin	1313 Nov 23 j 06:51	9° $\mathcal{Z}$ 23'37	
	1308 Sep 25 j 10:08	15° $\mathcal{M}$		behind sun end	1313 Nov 23 j 19:56	9° $\mathcal{Z}$ 25'33	
evening set	1308 Oct 16 j 13:44	16° $\mathcal{M}$ 12'48		max. Earth dist.	1313 Nov 23 j 18:57	9° $\mathcal{Z}$ 25'24	20.11570 AU
				morning rise	1313 Dec 09 j 05:09	10° $\mathcal{Z}$ 21'25	
conjunction	1308 Nov 01 j 10:30	17° $\mathcal{M}$ 11'19	0°17'28	desc. node	1314 Mar 03 j 00:27	13° $\mathcal{Z}$ 33'14	
minimum elong	1308 Nov 01 j 10:30	17° $\mathcal{M}$ 11'19	0°17'29	retrograde	1314 Mar 10 j 22:00	13° $\mathcal{Z}$ 34'51	
max. Earth dist.	1308 Nov 01 j 07:02	17° $\mathcal{M}$ 10'47	19.80515 AU	opposition	1314 May 25 j 23:47	11° $\mathcal{Z}$ 35'03	-0°00'51
morning rise	1308 Nov 17 j 04:36	18° $\mathcal{M}$ 09'28		min. Earth dist.	1314 May 25 j 16:14	11° $\mathcal{Z}$ 35'49	18.14876 AU
retrograde	1309 Feb 16 j 09:56	21° $\mathcal{M}$ 25'54		direct	1314 Aug 11 j 06:42	9° $\mathcal{Z}$ 33'46	
opposition	1309 May 02 j 15:21	19° $\mathcal{M}$ 25'35	0°17'38	evening set	1314 Nov 12 j 09:21	12° $\mathcal{Z}$ 48'55	
min. Earth dist.	1309 May 02 j 18:19	19° $\mathcal{M}$ 25'16	17.83422 AU				
direct	1309 Jul 18 j 21:33	17° $\mathcal{M}$ 22'32		conjunction	1314 Nov 28 j 01:56	13° $\mathcal{Z}$ 45'40	-0°02'30
evening set	1309 Oct 21 j 07:29	20° $\mathcal{M}$ 43'42		minimum elong	1314 Nov 28 j 01:55	13° $\mathcal{Z}$ 45'40	0°02'30
				behind sun begin	1314 Nov 27 j 19:22	13° $\mathcal{Z}$ 44'42	
conjunction	1309 Nov 06 j 03:22	21° $\mathcal{M}$ 41'55	0°14'15	behind sun end	1314 Nov 28 j 08:27	13° $\mathcal{Z}$ 46'37	
minimum elong	1309 Nov 06 j 03:22	21° $\mathcal{M}$ 41'55	0°14'15	max. Earth dist.	1314 Nov 28 j 10:24	13° $\mathcal{Z}$ 46'56	20.18240 AU
behind sun begin	1309 Nov 06 j 00:07	21° $\mathcal{M}$ 41'25		morning rise	1314 Dec 13 j 17:13	14° $\mathcal{Z}$ 42'15	
behind sun end	1309 Nov 06 j 06:37	21° $\mathcal{M}$ 42'24		retrograde	1315 Mar 15 j 11:22	17° $\mathcal{Z}$ 55'08	
max. Earth dist.	1309 Nov 06 j 01:07	21° $\mathcal{M}$ 41'34	19.86394 AU	opposition	1315 May 30 j 18:53	15° $\mathcal{Z}$ 55'29	-0°04'32
morning rise	1309 Nov 21 j 20:58	22° $\mathcal{M}$ 39'48		min. Earth dist.	1315 May 30 j 10:18	15° $\mathcal{Z}$ 56'22	18.21581 AU
retrograde	1310 Feb 21 j 04:53	25° $\mathcal{M}$ 55'36		direct	1315 Aug 16 j 00:45	13° $\mathcal{Z}$ 54'39	
opposition	1310 May 07 j 13:29	23° $\mathcal{M}$ 55'22	0°14'00	evening set	1315 Nov 16 j 21:28	17° $\mathcal{Z}$ 08'36	
min. Earth dist.	1310 May 07 j 13:40	23° $\mathcal{M}$ 55'21	17.89366 AU				
direct	1310 Jul 23 j 20:46	21° $\mathcal{M}$ 52'37		conjunction	1315 Dec 02 j 13:24	18° $\mathcal{Z}$ 05'04	-0°05'48
evening set	1310 Oct 26 j 00:08	25° $\mathcal{M}$ 12'36		minimum elong	1315 Dec 02 j 13:24	18° $\mathcal{Z}$ 05'04	0°05'47
				behind sun begin	1315 Dec 02 j 07:07	18° $\mathcal{Z}$ 04'08	
conjunction	1310 Nov 10 j 19:16	26° $\mathcal{M}$ 10'31	0°10'58	behind sun end	1315 Dec 02 j 19:40	18° $\mathcal{Z}$ 05'59	
minimum elong	1310 Nov 10 j 19:17	26° $\mathcal{M}$ 10'31	0°10'58	max. Earth dist.	1315 Dec 02 j 22:44	18° $\mathcal{Z}$ 06'28	20.24970 AU
behind sun begin	1310 Nov 10 j 14:16	26° $\mathcal{M}$ 09'46		morning rise	1315 Dec 18 j 04:39	19° $\mathcal{Z}$ 01'25	
behind sun end	1310 Nov 11 j 00:17	26° $\mathcal{M}$ 11'16		retrograde	1316 Mar 19 j 03:08	22° $\mathcal{Z}$ 13'47	
max. Earth dist.	1310 Nov 10 j 19:38	26° $\mathcal{M}$ 10'34	19.92415 AU	opposition	1316 Jun 03 j 13:12	20° $\mathcal{Z}$ 14'18	-0°08'09
morning rise	1310 Nov 26 j 12:11	27° $\mathcal{M}$ 08'07		min. Earth dist.	1316 Jun 03 j 02:13	20° $\mathcal{Z}$ 15'25	18.28315 AU
	1311 Jan 27 j 07:17	0° $\mathcal{Z}$		direct	1316 Aug 19 j 18:28	18° $\mathcal{Z}$ 13'52	
retrograde	1311 Feb 25 j 20:41	0° $\mathcal{Z}$ 23'19		evening set	1316 Nov 20 j 08:48	21° $\mathcal{Z}$ 26'40	
	1311 Mar 28 j 04:47	30° $\mathcal{R}$ $\mathcal{M}$					
opposition	1311 May 12 j 11:10	28° $\mathcal{M}$ 23'10	0°10'19	conjunction	1316 Dec 06 j 00:28	22° $\mathcal{Z}$ 22'52	-0°09'01
min. Earth dist.	1311 May 12 j 10:30	28° $\mathcal{M}$ 23'14	17.95477 AU	minimum elong	1316 Dec 06 j 00:28	22° $\mathcal{Z}$ 22'52	0°09'02
direct	1311 Jul 28 j 18:01	26° $\mathcal{M}$ 20'45		behind sun begin	1316 Dec 05 j 18:51	22° $\mathcal{Z}$ 22'03	
evening set	1311 Oct 30 j 15:53	29° $\mathcal{M}$ 39'30		behind sun end	1316 Dec 06 j 06:05	22° $\mathcal{Z}$ 23'42	
	1311 Nov 05 j 07:44	0° $\mathcal{Z}$		max. Earth dist.	1316 Dec 06 j 12:31	22° $\mathcal{Z}$ 24'41	20.31676 AU
conjunction	1311 Nov 15 j 10:10	0° $\mathcal{Z}$ 37'07	0°07'39	morning rise	1316 Dec 21 j 15:26	23° $\mathcal{Z}$ 19'00	
minimum elong	1311 Nov 15 j 10:10	0° $\mathcal{Z}$ 37'07	0°07'39	retrograde	1317 Mar 23 j 15:07	26° $\mathcal{Z}$ 30'50	
behind sun begin	1311 Nov 15 j 04:13	0° $\mathcal{Z}$ 36'13		opposition	1317 Jun 08 j 06:47	24° $\mathcal{Z}$ 31'31	-0°11'43
behind sun end	1311 Nov 15 j 16:08	0° $\mathcal{Z}$ 38'00		min. Earth dist.	1317 Jun 07 j 19:00	24° $\mathcal{Z}$ 32'43	18.34983 AU
max. Earth dist.	1311 Nov 15 j 11:48	0° $\mathcal{Z}$ 37'20	19.98624 AU	direct	1317 Aug 24 j 10:51	22° $\mathcal{Z}$ 31'30	
morning rise	1311 Dec 01 j 02:42	1° $\mathcal{Z}$ 34'27		evening set	1317 Nov 24 j 19:34	25° $\mathcal{Z}$ 43'09	
retrograde	1312 Mar 01 j 14:40	4° $\mathcal{Z}$ 49'03					
opposition	1312 May 16 j 08:02	2° $\mathcal{Z}$ 48'59	0°06'36	conjunction	1317 Dec 10 j 10:43	26° $\mathcal{Z}$ 39'06	-0°12'12
min. Earth dist.	1312 May 16 j 04:20	2° $\mathcal{Z}$ 49'22	18.01780 AU	minimum elong	1317 Dec 10 j 10:43	26° $\mathcal{Z}$ 39'06	0°12'11
direct	1312 Aug 01 j 15:20	0° $\mathcal{Z}$ 46'55		behind sun begin	1317 Dec 10 j 06:14	26° $\mathcal{Z}$ 38'26	
evening set	1312 Nov 03 j 06:30	4° $\mathcal{Z}$ 04'27		behind sun end	1317 Dec 10 j 15:12	26° $\mathcal{Z}$ 39'45	
				max. Earth dist.	1317 Dec 10 j 23:11	26° $\mathcal{Z}$ 40'57	20.38290 AU
conjunction	1312 Nov 19 j 00:14	5° $\mathcal{Z}$ 01'46	0°04'19	morning rise	1317 Dec 26 j 01:45	27° $\mathcal{Z}$ 35'01	
minimum elong	1312 Nov 19 j 00:14	5° $\mathcal{Z}$ 01'46	0°04'19		1318 Feb 13 j 08:57	0° $\mathcal{Z}$	
behind sun begin	1312 Nov 18 j 17:47	5° $\mathcal{Z}$ 00'48		retrograde	1318 Mar 28 j 05:28	0° $\mathcal{Z}$ 46'21	
behind sun end	1312 Nov 19 j 06:41	5° $\mathcal{Z}$ 02'44			1318 May 11 j 17:46	30° $\mathcal{R}$ $\mathcal{Z}$	
max. Earth dist.	1312 Nov 19 j 04:46	5° $\mathcal{Z}$ 02'25	20.05013 AU	opposition	1318 Jun 12 j 23:50	28° $\mathcal{Z}$ 47'10	-0°15'12
morning rise	1312 Dec 04 j 16:13	5° $\mathcal{Z}$ 58'51		min. Earth dist.	1318 Jun 12 j 10:09	28° $\mathcal{Z}$ 48'33	18.41530 AU
retrograde	1313 Mar 06 j 05:14	9° $\mathcal{Z}$ 12'51		direct	1318 Aug 29 j 02:18	26° $\mathcal{Z}$ 47'33	
opposition	1313 May 21 j 04:22	7° $\mathcal{Z}$ 12'55	0°02'52	evening set	1318 Nov 29 j 05:24	29° $\mathcal{Z}$ 58'04	
min. Earth dist.	1313 May 20 j 23:37	7° $\mathcal{Z}$ 13'24	18.08255 AU		1318 Nov 29 j 18:40	0° $\mathcal{Z}$	
direct	1313 Aug 06 j 11:03	5° $\mathcal{Z}$ 11'14		conjunction	1318 Dec 14 j 20:24	0° $\mathcal{Z}$ 53'46	-0°15'17
evening set	1313 Nov 07 j 20:25	8° $\mathcal{Z}$ 27'34		minimum elong	1318 Dec 14 j 20:24	0° $\mathcal{Z}$ 53'46	0°15'17
				behind sun begin	1318 Dec 14 j 18:04	0° $\mathcal{Z}$ 53'26	

behind sun end	1318 Dec 14 j 22:44	0° $\overline{3}$ 54'06		evening set	1325 Dec 27 j 09:24	28° $\overline{3}$ 58'18	
max. Earth dist.	1318 Dec 15 j 11:20	0° $\overline{3}$ 56'00	20.44735 AU				
morning rise	1318 Dec 30 j 11:14	1° $\overline{3}$ 49'28		conjunction	1326 Jan 12 j 00:13	29° $\overline{3}$ 52'41	-0°33'22
retrograde	1319 Apr 01 j 16:57	5° $\overline{3}$ 00'20		minimum elong	1326 Jan 12 j 00:13	29° $\overline{3}$ 52'41	0°33'22
opposition	1319 Jun 17 j 16:20	3° $\overline{3}$ 01'16	-0°18'35	max. Earth dist.	1326 Jan 12 j 21:09	29° $\overline{3}$ 55'44	20.81808 AU
min. Earth dist.	1319 Jun 17 j 01:50	3° $\overline{3}$ 02'44	18.47867 AU		1326 Jan 14 j 02:18	0° $\approx$	
direct	1319 Sep 02 j 17:29	1° $\overline{3}$ 02'01		morning rise	1326 Jan 27 j 16:58	0° $\approx$ 47'19	
evening set	1319 Dec 03 j 14:49	4° $\overline{3}$ 11'25		retrograde	1326 Apr 30 j 19:45	3° $\approx$ 55'09	
				opposition	1326 Jul 17 j 15:56	1° $\approx$ 56'11	-0°38'00
conjunction	1319 Dec 19 j 05:27	5° $\overline{3}$ 06'53	-0°18'17	min. Earth dist.	1326 Jul 16 j 18:41	1° $\approx$ 58'18	18.83963 AU
minimum elong	1319 Dec 19 j 05:27	5° $\overline{3}$ 06'53	0°18'17		1326 Sep 24 j 17:32	30° $\overline{R}$ $\overline{3}$	
max. Earth dist.	1319 Dec 19 j 20:28	5° $\overline{3}$ 09'07	20.50950 AU	direct	1326 Oct 02 j 03:23	29° $\overline{3}$ 58'36	
morning rise	1320 Jan 03 j 20:30	6° $\overline{3}$ 02'24			1326 Oct 09 j 13:27	0° $\approx$	
retrograde	1320 Apr 05 j 05:44	9° $\overline{3}$ 12'46		evening set	1326 Dec 31 j 14:28	3° $\approx$ 01'09	
opposition	1320 Jun 21 j 08:03	7° $\overline{3}$ 13'48	-0°21'50				
min. Earth dist.	1320 Jun 20 j 16:09	7° $\overline{3}$ 15'24	18.53957 AU	conjunction	1327 Jan 16 j 05:44	3° $\approx$ 55'25	-0°35'19
direct	1320 Sep 06 j 06:40	5° $\overline{3}$ 14'52		minimum elong	1327 Jan 16 j 05:43	3° $\approx$ 55'25	0°35'19
evening set	1320 Dec 06 j 23:23	8° $\overline{3}$ 23'10		max. Earth dist.	1327 Jan 17 j 04:42	3° $\approx$ 58'46	20.85996 AU
				morning rise	1327 Jan 31 j 22:48	4° $\approx$ 49'58	
conjunction	1320 Dec 22 j 14:04	9° $\overline{3}$ 18'26	-0°21'09	retrograde	1327 May 05 j 04:48	7° $\approx$ 57'31	
minimum elong	1320 Dec 22 j 14:04	9° $\overline{3}$ 18'26	0°21'09	min. Earth dist.	1327 Jul 21 j 04:39	6° $\approx$ 00'48	18.88020 AU
max. Earth dist.	1320 Dec 23 j 07:11	9° $\overline{3}$ 20'58	20.56876 AU	opposition	1327 Jul 22 j 03:02	5° $\approx$ 58'33	-0°40'03
morning rise	1321 Jan 07 j 05:05	10° $\overline{3}$ 13'46		direct	1327 Oct 06 j 12:34	4° $\approx$ 01'12	
retrograde	1321 Apr 09 j 16:42	13° $\overline{3}$ 23'39		evening set	1328 Jan 04 j 19:30	7° $\approx$ 03'01	
opposition	1321 Jun 25 j 23:07	11° $\overline{3}$ 24'45	-0°24'57				
min. Earth dist.	1321 Jun 25 j 06:28	11° $\overline{3}$ 26'25	18.59719 AU	conjunction	1328 Jan 20 j 10:56	7° $\approx$ 57'11	-0°37'04
direct	1321 Sep 10 j 20:46	9° $\overline{3}$ 26'06		minimum elong	1328 Jan 20 j 10:55	7° $\approx$ 57'11	0°37'03
evening set	1321 Dec 11 j 07:28	12° $\overline{3}$ 33'20		max. Earth dist.	1328 Jan 21 j 09:38	8° $\approx$ 00'28	20.89920 AU
				morning rise	1328 Feb 05 j 04:44	8° $\approx$ 51'39	
conjunction	1321 Dec 26 j 21:54	13° $\overline{3}$ 28'23	-0°23'54	retrograde	1328 May 08 j 13:53	11° $\approx$ 58'59	
minimum elong	1321 Dec 26 j 21:54	13° $\overline{3}$ 28'23	0°23'55	opposition	1328 Jul 25 j 13:32	10° $\approx$ 00'03	-0°41'52
max. Earth dist.	1321 Dec 27 j 14:51	13° $\overline{3}$ 30'53	20.62472 AU	min. Earth dist.	1328 Jul 24 j 14:53	10° $\approx$ 02'18	18.91814 AU
morning rise	1322 Jan 11 j 13:16	14° $\overline{3}$ 23'33		direct	1328 Oct 09 j 19:57	8° $\approx$ 02'54	
retrograde	1322 Apr 14 j 04:11	17° $\overline{3}$ 32'59		evening set	1329 Jan 08 j 00:04	11° $\approx$ 04'04	
opposition	1322 Jun 30 j 13:29	15° $\overline{3}$ 34'05	-0°27'55				
min. Earth dist.	1322 Jun 29 j 19:48	15° $\overline{3}$ 35'52	18.65156 AU	conjunction	1329 Jan 23 j 16:05	11° $\approx$ 58'09	-0°38'38
direct	1322 Sep 15 j 08:32	13° $\overline{3}$ 35'41		minimum elong	1329 Jan 23 j 16:05	11° $\approx$ 58'09	0°38'38
evening set	1322 Dec 15 j 14:46	16° $\overline{3}$ 41'53		max. Earth dist.	1329 Jan 24 j 16:29	12° $\approx$ 01'41	20.93554 AU
				morning rise	1329 Feb 08 j 10:19	12° $\approx$ 52'34	
conjunction	1322 Dec 31 j 05:22	17° $\overline{3}$ 36'44	-0°26'31		1329 Mar 23 j 20:02	15° $\approx$	
minimum elong	1322 Dec 31 j 05:22	17° $\overline{3}$ 36'44	0°26'31	retrograde	1329 May 12 j 23:05	15° $\approx$ 59'42	
max. Earth dist.	1323 Jan 01 j 00:24	17° $\overline{3}$ 39'32	20.67739 AU		1329 Jul 04 j 02:33	15° $\overline{R}$ $\approx$	
morning rise	1323 Jan 15 j 20:50	18° $\overline{3}$ 31'45		opposition	1329 Jul 29 j 23:34	14° $\approx$ 00'49	-0°43'30
retrograde	1323 Apr 18 j 14:14	21° $\overline{3}$ 40'44		min. Earth dist.	1329 Jul 29 j 00:03	14° $\approx$ 03'10	18.95279 AU
min. Earth dist.	1323 Jul 04 j 08:33	19° $\overline{3}$ 43'41	18.70263 AU	direct	1329 Oct 14 j 04:10	12° $\approx$ 03'54	
opposition	1323 Jul 05 j 03:10	19° $\overline{3}$ 41'49	-0°30'43		1330 Jan 10 j 20:45	15° $\approx$	
direct	1323 Sep 19 j 21:06	17° $\overline{3}$ 43'39		evening set	1330 Jan 12 j 04:34	15° $\approx$ 04'29	
evening set	1323 Dec 19 j 21:28	20° $\overline{3}$ 48'49					
				conjunction	1330 Jan 27 j 20:50	15° $\approx$ 58'29	-0°40'01
conjunction	1324 Jan 04 j 12:00	21° $\overline{3}$ 43'30	-0°28'58	minimum elong	1330 Jan 27 j 20:50	15° $\approx$ 58'29	0°40'00
minimum elong	1324 Jan 04 j 12:00	21° $\overline{3}$ 43'30	0°28'59	max. Earth dist.	1330 Jan 28 j 20:42	16° $\approx$ 01'56	20.96844 AU
max. Earth dist.	1324 Jan 05 j 06:58	21° $\overline{3}$ 46'17	20.72698 AU	morning rise	1330 Feb 12 j 15:52	16° $\approx$ 52'53	
morning rise	1324 Jan 20 j 03:58	22° $\overline{3}$ 38'22		retrograde	1330 May 17 j 07:42	19° $\approx$ 59'53	
retrograde	1324 Apr 22 j 00:51	25° $\overline{3}$ 46'57		min. Earth dist.	1330 Aug 02 j 10:00	18° $\approx$ 03'21	18.98393 AU
opposition	1324 Jul 08 j 16:09	23° $\overline{3}$ 48'00	-0°33'20	opposition	1330 Aug 03 j 09:20	18° $\approx$ 01'02	-0°44'54
min. Earth dist.	1324 Jul 07 j 20:41	23° $\overline{3}$ 49'57	18.75091 AU	direct	1330 Oct 18 j 10:16	16° $\approx$ 04'20	
direct	1324 Sep 23 j 07:42	21° $\overline{3}$ 50'00		evening set	1331 Jan 16 j 08:53	19° $\approx$ 04'23	
evening set	1324 Dec 23 j 03:37	24° $\overline{3}$ 54'14					
				conjunction	1331 Feb 01 j 01:49	19° $\approx$ 58'21	-0°41'12
conjunction	1325 Jan 07 j 18:26	25° $\overline{3}$ 48'46	-0°31'15	minimum elong	1331 Feb 01 j 01:49	19° $\approx$ 58'21	0°41'12
minimum elong	1325 Jan 07 j 18:26	25° $\overline{3}$ 48'46	0°31'15	max. Earth dist.	1331 Feb 02 j 03:05	20° $\approx$ 02'00	20.99758 AU
max. Earth dist.	1325 Jan 08 j 15:28	25° $\overline{3}$ 51'51	20.77379 AU	morning rise	1331 Feb 16 j 21:22	20° $\approx$ 52'43	
morning rise	1325 Jan 23 j 10:36	26° $\overline{3}$ 43'31		retrograde	1331 May 21 j 17:07	23° $\approx$ 59'38	
retrograde	1325 Apr 26 j 10:00	29° $\overline{3}$ 51'41		opposition	1331 Aug 07 j 18:36	22° $\approx$ 00'48	-0°46'06
min. Earth dist.	1325 Jul 12 j 07:42	27° $\overline{3}$ 54'46	18.79643 AU	min. Earth dist.	1331 Aug 06 j 18:41	22° $\approx$ 03'12	19.01094 AU
opposition	1325 Jul 13 j 04:14	27° $\overline{3}$ 52'43	-0°35'46	direct	1331 Oct 22 j 18:02	20° $\approx$ 04'19	
direct	1325 Sep 27 j 18:19	25° $\overline{3}$ 54'56		evening set	1332 Jan 20 j 13:19	23° $\approx$ 03'54	

conjunction	1332 Feb 05 j 06:39	23° $\approx$ 57'51	-0°42'11	retrograde	1338 Jun 19 j 03:28	21° $\approx$ 51'35	
minimum elong	1332 Feb 05 j 06:39	23° $\approx$ 57'51	0°42'11	min. Earth dist.	1338 Sep 04 j 06:57	19° $\approx$ 54'14	19.05640 AU
max. Earth dist.	1332 Feb 06 j 06:55	24° $\approx$ 01'21	21.02234 AU	opposition	1338 Sep 05 j 03:04	19° $\approx$ 52'12	-0°48'01
morning rise	1332 Feb 21 j 03:07	24° $\approx$ 52'13		direct	1338 Nov 19 j 11:04	17° $\approx$ 55'52	
retrograde	1332 May 25 j 01:37	27° $\approx$ 59'05		evening set	1339 Feb 16 j 21:04	20° $\approx$ 53'54	
min. Earth dist.	1332 Aug 10 j 04:28	26° $\approx$ 02'35	19.03338 AU				
opposition	1332 Aug 11 j 03:38	26° $\approx$ 00'16	-0°47'04	conjunction	1339 Mar 04 j 19:52	21° $\approx$ 48'10	-0°43'12
direct	1332 Oct 25 j 23:10	24° $\approx$ 03'55		minimum elong	1339 Mar 04 j 19:52	21° $\approx$ 48'10	0°43'12
evening set	1333 Jan 23 j 17:40	27° $\approx$ 03'08		max. Earth dist.	1339 Mar 05 j 18:12	21° $\approx$ 51'22	21.05037 AU
				morning rise	1339 Mar 20 j 22:17	22° $\approx$ 42'57	
conjunction	1333 Feb 08 j 11:46	27° $\approx$ 57'04	-0°42'57	retrograde	1339 Jun 23 j 11:35	25° $\approx$ 50'04	
minimum elong	1333 Feb 08 j 11:46	27° $\approx$ 57'04	0°42'58	opposition	1339 Sep 09 j 09:59	23° $\approx$ 50'33	-0°47'22
max. Earth dist.	1333 Feb 09 j 12:52	28° $\approx$ 00'41	21.04216 AU	min. Earth dist.	1339 Sep 08 j 13:39	23° $\approx$ 52'36	19.04419 AU
morning rise	1333 Feb 24 j 08:48	28° $\approx$ 51'27		direct	1339 Nov 23 j 16:57	21° $\approx$ 54'08	
	1333 Mar 17 j 20:18	0° $\approx$		evening set	1340 Feb 21 j 02:20	24° $\approx$ 52'13	
retrograde	1333 May 29 j 10:35	1° $\approx$ 58'16					
opposition	1333 Aug 15 j 12:07	29° $\approx$ 59'27	-0°47'48	conjunction	1340 Mar 08 j 01:54	25° $\approx$ 46'36	-0°42'30
min. Earth dist.	1333 Aug 14 j 12:42	0° $\approx$ 01'48	19.05051 AU	minimum elong	1340 Mar 08 j 01:54	25° $\approx$ 46'36	0°42'31
	1333 Aug 15 j 06:39	30° $\approx$		max. Earth dist.	1340 Mar 08 j 22:38	25° $\approx$ 49'33	21.03637 AU
direct	1333 Oct 30 j 06:55	28° $\approx$ 03'14		morning rise	1340 Mar 24 j 05:27	26° $\approx$ 41'31	
	1334 Jan 08 j 12:52	0° $\approx$		retrograde	1340 Jun 26 j 19:19	29° $\approx$ 48'48	
evening set	1334 Jan 27 j 22:12	1° $\approx$ 02'07		opposition	1340 Sep 12 j 17:00	27° $\approx$ 49'10	-0°46'29
				min. Earth dist.	1340 Sep 11 j 22:09	27° $\approx$ 51'04	19.02844 AU
conjunction	1334 Feb 12 j 16:48	1° $\approx$ 56'04	-0°43'32	direct	1340 Nov 26 j 21:15	25° $\approx$ 52'38	
minimum elong	1334 Feb 12 j 16:47	1° $\approx$ 56'03	0°43'32	evening set	1341 Feb 24 j 07:43	28° $\approx$ 50'52	
max. Earth dist.	1334 Feb 13 j 16:28	1° $\approx$ 59'27	21.05657 AU				
morning rise	1334 Feb 28 j 14:48	2° $\approx$ 50'28		conjunction	1341 Mar 12 j 08:23	29° $\approx$ 45'22	-0°41'36
retrograde	1334 Jun 02 j 19:11	5° $\approx$ 57'17		minimum elong	1341 Mar 12 j 08:23	29° $\approx$ 45'22	0°41'37
opposition	1334 Aug 19 j 20:36	3° $\approx$ 58'25	-0°48'19	max. Earth dist.	1341 Mar 13 j 05:29	29° $\approx$ 48'23	21.01886 AU
min. Earth dist.	1334 Aug 18 j 22:16	4° $\approx$ 00'39	19.06219 AU		1341 Mar 16 j 14:44	0° $\approx$	
direct	1334 Nov 03 j 11:40	2° $\approx$ 02'14		morning rise	1341 Mar 28 j 12:43	0° $\approx$ 40'25	
evening set	1335 Feb 01 j 02:29	5° $\approx$ 00'50		retrograde	1341 Jul 01 j 04:26	3° $\approx$ 47'55	
				opposition	1341 Sep 16 j 23:47	1° $\approx$ 48'11	-0°45'23
conjunction	1335 Feb 16 j 21:59	5° $\approx$ 54'49	-0°43'54	min. Earth dist.	1341 Sep 16 j 04:47	1° $\approx$ 50'06	19.00914 AU
minimum elong	1335 Feb 16 j 21:59	5° $\approx$ 54'49	0°43'53		1341 Nov 12 j 21:08	30° $\approx$	
max. Earth dist.	1335 Feb 17 j 22:14	5° $\approx$ 58'17	21.06542 AU	direct	1341 Dec 01 j 03:06	29° $\approx$ 51'35	
morning rise	1335 Mar 04 j 20:42	6° $\approx$ 49'16			1341 Dec 19 j 02:21	0° $\approx$	
retrograde	1335 Jun 07 j 03:24	9° $\approx$ 56'05		evening set	1342 Feb 28 j 13:44	2° $\approx$ 50'01	
min. Earth dist.	1335 Aug 23 j 06:08	7° $\approx$ 59'23	19.06815 AU				
opposition	1335 Aug 24 j 04:38	7° $\approx$ 57'08	-0°48'36	conjunction	1342 Mar 16 j 15:12	3° $\approx$ 44'40	-0°40'31
direct	1335 Nov 07 j 19:14	6° $\approx$ 00'59		minimum elong	1342 Mar 16 j 15:12	3° $\approx$ 44'40	0°40'30
evening set	1336 Feb 05 j 07:06	8° $\approx$ 59'20		max. Earth dist.	1342 Mar 17 j 10:32	3° $\approx$ 47'26	20.99793 AU
				morning rise	1342 Apr 01 j 20:41	4° $\approx$ 39'53	
conjunction	1336 Feb 21 j 03:13	9° $\approx$ 53'21	-0°44'02	retrograde	1342 Jul 05 j 12:27	7° $\approx$ 47'39	
minimum elong	1336 Feb 21 j 03:13	9° $\approx$ 53'21	0°44'03	opposition	1342 Sep 21 j 06:50	5° $\approx$ 47'49	-0°44'03
max. Earth dist.	1336 Feb 22 j 01:52	9° $\approx$ 56'35	21.06872 AU	min. Earth dist.	1342 Sep 20 j 13:31	5° $\approx$ 49'34	18.98652 AU
morning rise	1336 Mar 08 j 03:00	10° $\approx$ 47'52		direct	1342 Dec 05 j 07:03	3° $\approx$ 51'06	
retrograde	1336 Jun 10 j 11:52	13° $\approx$ 54'42		evening set	1343 Mar 04 j 19:59	6° $\approx$ 49'50	
opposition	1336 Aug 27 j 12:19	11° $\approx$ 55'37	-0°48'38				
min. Earth dist.	1336 Aug 26 j 15:10	11° $\approx$ 57'44	19.06888 AU	conjunction	1343 Mar 20 j 22:39	7° $\approx$ 44'40	-0°39'13
direct	1336 Nov 10 j 23:48	9° $\approx$ 59'25		minimum elong	1343 Mar 20 j 22:39	7° $\approx$ 44'40	0°39'13
evening set	1337 Feb 08 j 11:36	12° $\approx$ 57'36		max. Earth dist.	1343 Mar 21 j 18:07	7° $\approx$ 47'27	20.97362 AU
				morning rise	1343 Apr 06 j 05:00	8° $\approx$ 40'03	
conjunction	1337 Feb 24 j 08:42	13° $\approx$ 51'41	-0°43'58	retrograde	1343 Jul 09 j 22:45	11° $\approx$ 48'07	
minimum elong	1337 Feb 24 j 08:42	13° $\approx$ 51'41	0°43'58	opposition	1343 Sep 25 j 13:47	9° $\approx$ 48'13	-0°42'31
max. Earth dist.	1337 Feb 25 j 07:53	13° $\approx$ 55'00	21.06697 AU	min. Earth dist.	1343 Sep 24 j 20:35	9° $\approx$ 49'57	18.96029 AU
morning rise	1337 Mar 12 j 09:13	14° $\approx$ 46'17		direct	1343 Dec 09 j 13:17	7° $\approx$ 51'24	
retrograde	1337 Jun 14 j 19:27	17° $\approx$ 53'09		evening set	1344 Mar 08 j 03:08	10° $\approx$ 50'30	
opposition	1337 Aug 31 j 19:42	15° $\approx$ 53'56	-0°48'27				
min. Earth dist.	1337 Aug 30 j 22:19	15° $\approx$ 56'05	19.06472 AU	conjunction	1344 Mar 24 j 06:38	11° $\approx$ 45'31	-0°37'43
direct	1337 Nov 15 j 06:27	13° $\approx$ 57'41		minimum elong	1344 Mar 24 j 06:38	11° $\approx$ 45'31	0°37'43
evening set	1338 Feb 12 j 16:15	16° $\approx$ 55'45		max. Earth dist.	1344 Mar 24 j 23:58	11° $\approx$ 48'00	20.94557 AU
				morning rise	1344 Apr 09 j 14:08	12° $\approx$ 41'05	
conjunction	1338 Feb 28 j 14:00	17° $\approx$ 49'55	-0°43'41	retrograde	1344 Jul 13 j 07:27	15° $\approx$ 49'31	
minimum elong	1338 Feb 28 j 14:00	17° $\approx$ 49'55	0°43'42	opposition	1344 Sep 28 j 20:54	13° $\approx$ 49'32	-0°40'46
max. Earth dist.	1338 Mar 01 j 11:45	17° $\approx$ 53'01	21.06065 AU	min. Earth dist.	1344 Sep 28 j 05:51	13° $\approx$ 51'04	18.93032 AU
morning rise	1338 Mar 16 j 15:37	18° $\approx$ 44'36		direct	1344 Dec 12 j 17:29	11° $\approx$ 52'36	

evening set	1345 Mar 12 j 10:43	14° $\Upsilon$ 52'10		max. Earth dist.	1351 Apr 23 j 16:26	10° $\mathcal{B}$ 23'43	20.63028 AU
				morning rise	1351 May 09 j 23:52	11° $\mathcal{B}$ 19'58	
conjunction	1345 Mar 28 j 15:24	15° $\Upsilon$ 47'23	-0°36'02	retrograde	1351 Aug 12 j 16:25	14° $\mathcal{B}$ 31'26	
minimum elong	1345 Mar 28 j 15:24	15° $\Upsilon$ 47'23	0°36'03	opposition	1351 Oct 28 j 05:30	12° $\mathcal{B}$ 30'27	-0°23'04
max. Earth dist.	1345 Mar 29 j 08:24	15° $\Upsilon$ 49'49	20.91364 AU	min. Earth dist.	1351 Oct 28 j 00:16	12° $\mathcal{B}$ 31'00	18.60073 AU
morning rise	1345 Apr 13 j 23:43	16° $\Upsilon$ 43'09		direct	1352 Jan 10 j 20:17	10° $\mathcal{B}$ 31'41	
retrograde	1345 Jul 17 j 18:41	19° $\Upsilon$ 51'57		evening set	1352 Apr 10 j 11:53	13° $\mathcal{B}$ 36'03	
opposition	1345 Oct 03 j 04:12	17° $\Upsilon$ 51'54	-0°38'48				
min. Earth dist.	1345 Oct 02 j 13:31	17° $\Upsilon$ 53'24	18.89620 AU	conjunction	1352 Apr 26 j 23:33	14° $\mathcal{B}$ 33'02	-0°19'26
direct	1345 Dec 17 j 00:16	15° $\Upsilon$ 54'50		minimum elong	1352 Apr 26 j 23:33	14° $\mathcal{B}$ 33'02	0°19'27
evening set	1346 Mar 16 j 19:02	18° $\Upsilon$ 54'55		max. Earth dist.	1352 Apr 27 j 03:35	14° $\mathcal{B}$ 33'36	20.57091 AU
					1352 May 04 j 17:33	15° $\mathcal{B}$	
conjunction	1346 Apr 02 j 00:34	19° $\Upsilon$ 50'21	-0°34'10	morning rise	1352 May 13 j 14:15	15° $\mathcal{B}$ 30'28	
minimum elong	1346 Apr 02 j 00:34	19° $\Upsilon$ 50'21	0°34'10	retrograde	1352 Aug 16 j 04:08	18° $\mathcal{B}$ 42'26	
max. Earth dist.	1346 Apr 02 j 15:07	19° $\Upsilon$ 52'26	20.87734 AU	opposition	1352 Oct 31 j 14:45	16° $\mathcal{B}$ 41'16	-0°19'53
morning rise	1346 Apr 18 j 10:00	20° $\Upsilon$ 46'20		min. Earth dist.	1352 Oct 31 j 12:01	16° $\mathcal{B}$ 41'33	18.54043 AU
retrograde	1346 Jul 22 j 04:23	23° $\Upsilon$ 55'34			1352 Dec 18 j 19:39	15° $\mathcal{R}$ $\mathcal{B}$	
opposition	1346 Oct 07 j 11:56	21° $\Upsilon$ 55'24	-0°36'39	direct	1353 Jan 14 j 03:39	14° $\mathcal{B}$ 42'07	
min. Earth dist.	1346 Oct 06 j 23:41	21° $\Upsilon$ 56'39	18.85763 AU		1353 Feb 09 j 06:36	15° $\mathcal{B}$	
direct	1346 Dec 21 j 05:24	19° $\Upsilon$ 58'09		evening set	1353 Apr 15 j 01:13	17° $\mathcal{B}$ 47'25	
evening set	1347 Mar 21 j 04:04	22° $\Upsilon$ 58'48					
				conjunction	1353 May 01 j 13:55	18° $\mathcal{B}$ 44'41	-0°16'30
conjunction	1347 Apr 06 j 10:49	23° $\Upsilon$ 54'29	-0°32'07	minimum elong	1353 May 01 j 13:55	18° $\mathcal{B}$ 44'41	0°16'30
minimum elong	1347 Apr 06 j 10:49	23° $\Upsilon$ 54'29	0°32'07	max. Earth dist.	1353 May 01 j 16:54	18° $\mathcal{B}$ 45'07	20.50987 AU
max. Earth dist.	1347 Apr 07 j 00:31	23° $\Upsilon$ 56'27	20.83649 AU	morning rise	1353 May 18 j 05:17	19° $\mathcal{B}$ 42'23	
morning rise	1347 Apr 22 j 21:04	24° $\Upsilon$ 50'41		retrograde	1353 Aug 20 j 19:23	22° $\mathcal{B}$ 54'53	
retrograde	1347 Jul 26 j 16:23	28° $\Upsilon$ 00'19		opposition	1353 Nov 05 j 00:20	20° $\mathcal{B}$ 53'32	-0°16'34
opposition	1347 Oct 11 j 19:37	26° $\Upsilon$ 00'03	-0°34'17	min. Earth dist.	1353 Nov 04 j 22:01	20° $\mathcal{B}$ 53'47	18.47867 AU
min. Earth dist.	1347 Oct 11 j 08:02	26° $\Upsilon$ 01'15	18.81431 AU	direct	1354 Jan 18 j 14:04	18° $\mathcal{B}$ 54'02	
direct	1347 Dec 25 j 13:09	24° $\Upsilon$ 02'35		evening set	1354 Apr 19 j 15:25	22° $\mathcal{B}$ 00'18	
evening set	1348 Mar 24 j 13:57	27° $\Upsilon$ 03'52					
				conjunction	1354 May 06 j 04:56	22° $\mathcal{B}$ 57'53	-0°13'28
conjunction	1348 Apr 09 j 21:36	27° $\Upsilon$ 59'47	-0°29'53	minimum elong	1354 May 06 j 04:55	22° $\mathcal{B}$ 57'53	0°13'28
minimum elong	1348 Apr 09 j 21:36	27° $\Upsilon$ 59'47	0°29'54	behind sun begin	1354 May 06 j 01:16	22° $\mathcal{B}$ 57'21	
max. Earth dist.	1348 Apr 10 j 08:30	28° $\Upsilon$ 01'20	20.79085 AU	behind sun end	1354 May 06 j 08:34	22° $\mathcal{B}$ 58'24	
morning rise	1348 Apr 26 j 08:56	28° $\Upsilon$ 56'13		max. Earth dist.	1354 May 06 j 05:45	22° $\mathcal{B}$ 58'00	20.44752 AU
	1348 May 16 j 04:54	0° $\mathcal{B}$		morning rise	1354 May 22 j 21:03	23° $\mathcal{B}$ 55'51	
retrograde	1348 Jul 30 j 02:47	2° $\mathcal{B}$ 06'17		retrograde	1354 Aug 25 j 08:45	27° $\mathcal{B}$ 08'55	
opposition	1348 Oct 15 j 03:48	0° $\mathcal{B}$ 05'52	-0°31'44	opposition	1354 Nov 09 j 10:37	25° $\mathcal{B}$ 07'25	-0°13'09
min. Earth dist.	1348 Oct 14 j 18:50	0° $\mathcal{B}$ 06'47	18.76640 AU	min. Earth dist.	1354 Nov 09 j 10:41	25° $\mathcal{B}$ 07'24	18.41590 AU
	1348 Oct 17 j 12:40	30° $\mathcal{R}$ $\Upsilon$		direct	1355 Jan 22 j 22:57	23° $\mathcal{B}$ 07'32	
direct	1348 Dec 28 j 19:08	28° $\Upsilon$ 08'06		evening set	1355 Apr 24 j 06:33	26° $\mathcal{B}$ 14'51	
	1349 Mar 07 j 01:32	0° $\mathcal{B}$					
evening set	1349 Mar 29 j 00:13	1° $\mathcal{B}$ 10'04		conjunction	1355 May 10 j 21:01	27° $\mathcal{B}$ 12'44	-0°10'21
				minimum elong	1355 May 10 j 21:01	27° $\mathcal{B}$ 12'44	0°10'21
conjunction	1349 Apr 14 j 09:02	2° $\mathcal{B}$ 06'14	-0°27'30	behind sun begin	1355 May 10 j 15:45	27° $\mathcal{B}$ 11'59	
minimum elong	1349 Apr 14 j 09:02	2° $\mathcal{B}$ 06'14	0°27'29	behind sun end	1355 May 11 j 02:17	27° $\mathcal{B}$ 13'29	
max. Earth dist.	1349 Apr 14 j 19:00	2° $\mathcal{B}$ 07'40	20.74088 AU	max. Earth dist.	1355 May 10 j 20:33	27° $\mathcal{B}$ 12'40	20.38449 AU
morning rise	1349 Apr 30 j 21:08	3° $\mathcal{B}$ 02'54		morning rise	1355 May 27 j 13:44	28° $\mathcal{B}$ 10'59	
retrograde	1349 Aug 03 j 15:25	6° $\mathcal{B}$ 13'26			1355 Jul 01 j 16:22	0° $\mathcal{I}$	
opposition	1349 Oct 19 j 12:04	4° $\mathcal{B}$ 12'50	-0°29'00	retrograde	1355 Aug 30 j 00:50	1° $\mathcal{I}$ 24'36	
min. Earth dist.	1349 Oct 19 j 03:41	4° $\mathcal{B}$ 13'42	18.71434 AU		1355 Oct 30 j 01:08	30° $\mathcal{R}$ $\mathcal{B}$	
direct	1350 Jan 02 j 03:59	2° $\mathcal{B}$ 14'46		opposition	1355 Nov 13 j 21:06	29° $\mathcal{B}$ 22'59	-0°09'39
evening set	1350 Apr 02 j 11:24	5° $\mathcal{B}$ 17'28		min. Earth dist.	1355 Nov 13 j 21:39	29° $\mathcal{B}$ 22'55	18.35256 AU
				direct	1356 Jan 27 j 10:14	27° $\mathcal{B}$ 22'46	
conjunction	1350 Apr 18 j 21:05	6° $\mathcal{B}$ 13'54	-0°24'57		1356 Apr 18 j 16:52	0° $\mathcal{I}$	
minimum elong	1350 Apr 18 j 21:05	6° $\mathcal{B}$ 13'54	0°24'58	evening set	1356 Apr 27 j 22:45	0° $\mathcal{I}$ 31'11	
max. Earth dist.	1350 Apr 19 j 04:30	6° $\mathcal{B}$ 14'57	20.68707 AU				
morning rise	1350 May 05 j 10:11	7° $\mathcal{B}$ 10'49		conjunction	1356 May 14 j 13:56	1° $\mathcal{I}$ 29'22	-0°07'10
retrograde	1350 Aug 08 j 02:24	10° $\mathcal{B}$ 21'48		minimum elong	1356 May 14 j 13:56	1° $\mathcal{I}$ 29'22	0°07'09
opposition	1350 Oct 23 j 20:42	8° $\mathcal{B}$ 21'01	-0°26'06	behind sun begin	1356 May 14 j 07:44	1° $\mathcal{I}$ 28'29	
min. Earth dist.	1350 Oct 23 j 14:55	8° $\mathcal{B}$ 21'37	18.65892 AU	behind sun end	1356 May 14 j 20:09	1° $\mathcal{I}$ 30'16	
direct	1351 Jan 06 j 10:29	6° $\mathcal{B}$ 22'36		max. Earth dist.	1356 May 14 j 11:26	1° $\mathcal{I}$ 29'02	20.32091 AU
evening set	1351 Apr 06 j 23:09	9° $\mathcal{B}$ 26'06		morning rise	1356 May 31 j 07:13	2° $\mathcal{I}$ 27'54	
				retrograde	1356 Sep 02 j 15:49	5° $\mathcal{I}$ 42'07	
conjunction	1351 Apr 23 j 10:00	10° $\mathcal{B}$ 22'48	-0°22'16	opposition	1356 Nov 17 j 08:28	3° $\mathcal{I}$ 40'23	-0°06'03
minimum elong	1351 Apr 23 j 10:00	10° $\mathcal{B}$ 22'48	0°22'15	min. Earth dist.	1356 Nov 17 j 11:25	3° $\mathcal{I}$ 40'04	18.28886 AU

direct	1357 Jan 30 j 20:40	1° $\Pi$ 39'50		behind sun end	1362 Jun 11 j 19:03	27° $\Pi$ 50'32	
evening set	1357 May 02 j 15:41	4° $\Pi$ 49'24		max. Earth dist.	1362 Jun 11 j 01:09	27° $\Pi$ 47'53	19.93226 AU
				morning rise	1362 Jun 28 j 09:50	28° $\Pi$ 50'00	
conjunction	1357 May 19 j 07:39	5° $\Pi$ 47'54	-0°03'54		1362 Jul 19 j 07:09	0° $\Theta$	
minimum elong	1357 May 19 j 07:38	5° $\Pi$ 47'54	0°03'55	retrograde	1362 Sep 30 j 01:56	2° $\Theta$ 07'42	
behind sun begin	1357 May 19 j 00:57	5° $\Pi$ 46'56		opposition	1362 Dec 13 j 17:57	0° $\Theta$ 05'26	0°16'06
behind sun end	1357 May 19 j 14:19	5° $\Pi$ 48'52		min. Earth dist.	1362 Dec 14 j 06:35	0° $\Theta$ 04'04	17.89949 AU
max. Earth dist.	1357 May 19 j 03:37	5° $\Pi$ 47'21	20.25720 AU		1362 Dec 15 j 20:17	30° $\kappa$ $\Pi$	
morning rise	1357 Jun 05 j 01:24	6° $\Pi$ 46'42		direct	1363 Feb 26 j 12:26	28° $\Pi$ 02'37	
retrograde	1357 Sep 07 j 08:58	10° $\Pi$ 01'31			1363 May 06 j 20:46	0° $\Theta$	
opposition	1357 Nov 21 j 20:18	7° $\Pi$ 59'43	-0°02'24	evening set	1363 May 30 j 19:22	1° $\Theta$ 19'35	
min. Earth dist.	1357 Nov 21 j 23:50	7° $\Pi$ 59'20	18.22499 AU				
direct	1358 Feb 04 j 09:28	5° $\Pi$ 58'51		conjunction	1363 Jun 16 j 14:09	2° $\Theta$ 19'49	0°16'07
evening set	1358 May 07 j 09:51	9° $\Pi$ 09'36		minimum elong	1363 Jun 16 j 14:09	2° $\Theta$ 19'49	0°16'08
				max. Earth dist.	1363 Jun 15 j 21:40	2° $\Theta$ 17'21	19.86720 AU
conjunction	1358 May 24 j 02:29	10° $\Pi$ 08'25	-0°00'32	morning rise	1363 Jul 03 j 09:04	3° $\Theta$ 20'06	
minimum elong	1358 May 24 j 02:27	10° $\Pi$ 08'25	0°00'32	retrograde	1363 Oct 04 j 21:51	6° $\Theta$ 38'19	
behind sun begin	1358 May 23 j 19:42	10° $\Pi$ 07'26		opposition	1363 Dec 18 j 09:46	4° $\Theta$ 35'54	0°19'40
behind sun end	1358 May 24 j 09:12	10° $\Pi$ 09'23		min. Earth dist.	1363 Dec 18 j 23:24	4° $\Theta$ 34'26	17.83502 AU
max. Earth dist.	1358 May 23 j 20:32	10° $\Pi$ 07'34	20.19310 AU	direct	1364 Mar 02 j 07:10	2° $\Theta$ 32'39	
morning rise	1358 Jun 09 j 20:35	11° $\Pi$ 07'29		evening set	1364 Jun 03 j 18:59	5° $\Theta$ 50'51	
asc. node	1358 Jul 20 j 07:13	13° $\Pi$ 11'31					
retrograde	1358 Sep 12 j 01:09	14° $\Pi$ 22'55		conjunction	1364 Jun 20 j 14:05	6° $\Theta$ 51'21	0°19'17
opposition	1358 Nov 26 j 08:49	12° $\Pi$ 21'02	0°01'18	minimum elong	1364 Jun 20 j 14:05	6° $\Theta$ 51'21	0°19'17
min. Earth dist.	1358 Nov 26 j 14:56	12° $\Pi$ 20'23	18.16073 AU	max. Earth dist.	1364 Jun 19 j 20:51	6° $\Theta$ 48'45	19.80336 AU
direct	1359 Feb 08 j 21:54	10° $\Pi$ 19'49		morning rise	1364 Jul 07 j 08:41	7° $\Theta$ 51'49	
evening set	1359 May 12 j 05:06	13° $\Pi$ 31'49		retrograde	1364 Oct 08 j 17:24	11° $\Theta$ 10'31	
				opposition	1364 Dec 22 j 02:26	9° $\Theta$ 08'00	0°23'09
conjunction	1359 May 28 j 22:18	14° $\Pi$ 30'56	0°02'54	min. Earth dist.	1364 Dec 22 j 17:44	9° $\Theta$ 06'20	17.77217 AU
minimum elong	1359 May 28 j 22:19	14° $\Pi$ 30'56	0°02'54	direct	1365 Mar 07 j 01:03	7° $\Theta$ 04'19	
behind sun begin	1359 May 28 j 15:34	14° $\Pi$ 29'57		evening set	1365 Jun 08 j 19:14	10° $\Theta$ 23'43	
behind sun end	1359 May 29 j 05:04	14° $\Pi$ 31'55					
max. Earth dist.	1359 May 28 j 14:13	14° $\Pi$ 29'45	20.12865 AU	conjunction	1365 Jun 25 j 14:18	11° $\Theta$ 24'27	0°22'21
morning rise	1359 Jun 14 j 16:49	15° $\Pi$ 30'16		minimum elong	1365 Jun 25 j 14:18	11° $\Theta$ 24'27	0°22'21
retrograde	1359 Sep 16 j 19:14	18° $\Pi$ 46'18		max. Earth dist.	1365 Jun 24 j 18:42	11° $\Theta$ 21'28	19.74169 AU
opposition	1359 Nov 30 j 22:01	16° $\Pi$ 44'21	0°05'01	morning rise	1365 Jul 12 j 08:52	12° $\Theta$ 25'07	
min. Earth dist.	1359 Dec 01 j 05:02	16° $\Pi$ 43'36	18.09599 AU	retrograde	1365 Oct 13 j 14:14	15° $\Theta$ 44'18	
direct	1360 Feb 13 j 12:39	14° $\Pi$ 42'46		opposition	1365 Dec 26 j 19:40	13° $\Theta$ 41'39	0°26'30
evening set	1360 May 16 j 01:19	17° $\Pi$ 56'01		min. Earth dist.	1365 Dec 27 j 11:51	13° $\Theta$ 39'53	17.71189 AU
				direct	1366 Mar 11 j 21:08	11° $\Theta$ 37'33	
conjunction	1360 Jun 01 j 19:02	18° $\Pi$ 55'25	0°06'15	evening set	1366 Jun 13 j 20:14	14° $\Theta$ 58'09	
minimum elong	1360 Jun 01 j 19:03	18° $\Pi$ 55'25	0°06'15				
behind sun begin	1360 Jun 01 j 12:39	18° $\Pi$ 54'29		conjunction	1366 Jun 30 j 15:28	15° $\Theta$ 59'06	0°25'17
behind sun end	1360 Jun 02 j 01:27	18° $\Pi$ 56'21		minimum elong	1366 Jun 30 j 15:28	15° $\Theta$ 59'06	0°25'17
max. Earth dist.	1360 Jun 01 j 09:07	18° $\Pi$ 53'57	20.06345 AU	max. Earth dist.	1366 Jun 29 j 19:44	15° $\Theta$ 56'06	19.68277 AU
morning rise	1360 Jun 18 j 13:39	19° $\Pi$ 55'00		morning rise	1366 Jul 17 j 09:33	16° $\Theta$ 59'57	
retrograde	1360 Sep 20 j 12:36	23° $\Pi$ 11'37		retrograde	1366 Oct 18 j 11:12	20° $\Theta$ 19'34	
opposition	1360 Dec 04 j 12:02	21° $\Pi$ 09'34	0°08'45	opposition	1366 Dec 31 j 13:30	18° $\Theta$ 16'50	0°29'41
min. Earth dist.	1360 Dec 04 j 21:30	21° $\Pi$ 08'33	18.03057 AU	min. Earth dist.	1367 Jan 01 j 06:51	18° $\Theta$ 14'56	17.65468 AU
direct	1361 Feb 17 j 03:19	19° $\Pi$ 07'36		direct	1367 Mar 16 j 16:51	16° $\Theta$ 12'21	
evening set	1361 May 20 j 22:27	22° $\Pi$ 22'06		evening set	1367 Jun 18 j 22:06	19° $\Theta$ 34'07	
conjunction	1361 Jun 06 j 16:35	23° $\Pi$ 21'47	0°09'35	conjunction	1367 Jul 05 j 17:02	20° $\Theta$ 35'16	0°28'04
minimum elong	1361 Jun 06 j 16:36	23° $\Pi$ 21'47	0°09'35	minimum elong	1367 Jul 05 j 17:02	20° $\Theta$ 35'16	0°28'03
behind sun begin	1361 Jun 06 j 11:02	23° $\Pi$ 20'59		max. Earth dist.	1367 Jul 04 j 19:04	20° $\Theta$ 31'55	19.62741 AU
behind sun end	1361 Jun 06 j 22:09	23° $\Pi$ 22'36		morning rise	1367 Jul 22 j 10:51	21° $\Theta$ 36'17	
max. Earth dist.	1361 Jun 06 j 04:08	23° $\Pi$ 19'56	19.99793 AU	retrograde	1367 Oct 23 j 08:50	24° $\Theta$ 56'19	
morning rise	1361 Jun 23 j 11:27	24° $\Pi$ 21'36		opposition	1368 Jan 05 j 08:08	22° $\Theta$ 53'31	0°32'42
retrograde	1361 Sep 25 j 07:26	27° $\Pi$ 38'48		min. Earth dist.	1368 Jan 06 j 02:17	22° $\Theta$ 51'32	17.60145 AU
opposition	1361 Dec 09 j 02:35	25° $\Pi$ 36'38	0°12'27	direct	1368 Mar 20 j 13:39	20° $\Theta$ 48'41	
min. Earth dist.	1361 Dec 09 j 13:01	25° $\Pi$ 35'30	17.96498 AU	evening set	1368 Jun 23 j 00:14	24° $\Theta$ 11'36	
direct	1362 Feb 21 j 20:07	23° $\Pi$ 34'14					
evening set	1362 May 25 j 20:24	26° $\Pi$ 49'58		conjunction	1368 Jul 09 j 19:06	25° $\Theta$ 12'56	0°30'40
				minimum elong	1368 Jul 09 j 19:06	25° $\Theta$ 12'56	0°30'41
conjunction	1362 Jun 11 j 15:01	27° $\Pi$ 49'57	0°12'53	max. Earth dist.	1368 Jul 08 j 21:30	25° $\Theta$ 09'37	19.57621 AU
minimum elong	1362 Jun 11 j 15:01	27° $\Pi$ 49'57	0°12'52	morning rise	1368 Jul 26 j 12:14	26° $\Theta$ 14'04	
behind sun begin	1362 Jun 11 j 10:58	27° $\Pi$ 49'21		retrograde	1368 Oct 27 j 07:41	29° $\Theta$ 34'31	

opposition	1369 Jan 09 j 03:27	27° $\mathring{O}$ 31'42	0°35'31	evening set	1375 Jul 28 j 05:43	27° $\mathring{O}$ 12'25	
min. Earth dist.	1369 Jan 09 j 22:04	27° $\mathring{O}$ 29'40	17.55255 AU				
direct	1369 Mar 25 j 11:05	25° $\mathring{O}$ 26'35		conjunction	1375 Aug 13 j 20:29	28° $\mathring{O}$ 14'21	0°42'46
evening set	1369 Jun 28 j 03:11	28° $\mathring{O}$ 50'36		minimum elong	1375 Aug 13 j 20:29	28° $\mathring{O}$ 14'21	0°42'45
				max. Earth dist.	1375 Aug 12 j 18:59	28° $\mathring{O}$ 10'21	19.34876 AU
conjunction	1369 Jul 14 j 21:36	29° $\mathring{O}$ 52'05	0°33'06	morning rise	1375 Aug 30 j 07:53	29° $\mathring{O}$ 15'48	
minimum elong	1369 Jul 14 j 21:36	29° $\mathring{O}$ 52'05	0°33'05		1375 Sep 11 j 16:30	0° $\mathring{N}$	
max. Earth dist.	1369 Jul 13 j 22:10	29° $\mathring{O}$ 48'29	19.52972 AU	retrograde	1375 Nov 30 j 03:30	2° $\mathring{N}$ 38'01	
	1369 Jul 17 j 00:57	0° $\mathring{O}$		opposition	1376 Feb 11 j 13:09	0° $\mathring{N}$ 35'37	0°48'05
morning rise	1369 Jul 31 j 14:17	0° $\mathring{O}$ 53'21		min. Earth dist.	1376 Feb 12 j 11:27	0° $\mathring{N}$ 33'10	17.34124 AU
retrograde	1369 Nov 01 j 05:54	4° $\mathring{O}$ 14'11			1376 Feb 25 j 07:21	30° $\mathring{R}$ $\mathring{O}$	
opposition	1370 Jan 13 j 23:22	2° $\mathring{O}$ 11'23	0°38'07	direct	1376 Apr 27 j 12:31	28° $\mathring{O}$ 29'24	
min. Earth dist.	1370 Jan 14 j 18:53	2° $\mathring{O}$ 09'15	17.50863 AU		1376 Jun 26 j 12:45	0° $\mathring{N}$	
direct	1370 Mar 30 j 08:07	0° $\mathring{O}$ 06'00		evening set	1376 Aug 01 j 10:38	1° $\mathring{N}$ 59'00	
evening set	1370 Jul 03 j 06:32	3° $\mathring{O}$ 31'05		max. Earth dist.	1376 Aug 16 j 22:53	2° $\mathring{N}$ 56'53	19.33393 AU
max. Earth dist.	1370 Jul 19 j 01:46	4° $\mathring{O}$ 29'11	19.48821 AU				
				conjunction	1376 Aug 18 j 00:28	3° $\mathring{N}$ 00'54	0°43'25
conjunction	1370 Jul 20 j 00:45	4° $\mathring{O}$ 32'44	0°35'19	minimum elong	1376 Aug 18 j 00:28	3° $\mathring{N}$ 00'54	0°43'25
minimum elong	1370 Jul 20 j 00:45	4° $\mathring{O}$ 32'44	0°35'19	morning rise	1376 Sep 03 j 10:54	4° $\mathring{N}$ 02'18	
morning rise	1370 Aug 05 j 16:39	5° $\mathring{O}$ 34'05		retrograde	1376 Dec 04 j 04:39	7° $\mathring{N}$ 24'33	
retrograde	1370 Nov 06 j 06:36	8° $\mathring{O}$ 55'16		opposition	1377 Feb 15 j 13:13	5° $\mathring{N}$ 22'11	0°48'39
opposition	1371 Jan 18 j 20:02	6° $\mathring{O}$ 52'32	0°40'29	min. Earth dist.	1377 Feb 16 j 10:28	5° $\mathring{N}$ 19'51	17.32866 AU
min. Earth dist.	1371 Jan 19 j 15:39	6° $\mathring{O}$ 50'23	17.46949 AU	direct	1377 May 02 j 17:17	3° $\mathring{N}$ 15'52	
direct	1371 Apr 04 j 07:24	4° $\mathring{O}$ 46'58		evening set	1377 Aug 06 j 15:30	6° $\mathring{N}$ 45'49	
evening set	1371 Jul 08 j 10:36	8° $\mathring{O}$ 13'03		max. Earth dist.	1377 Aug 22 j 03:34	7° $\mathring{N}$ 43'45	19.32369 AU
max. Earth dist.	1371 Jul 24 j 03:41	9° $\mathring{O}$ 11'01	19.45144 AU				
				conjunction	1377 Aug 23 j 04:28	7° $\mathring{N}$ 47'39	0°43'46
conjunction	1371 Jul 25 j 04:09	9° $\mathring{O}$ 14'48	0°37'19	minimum elong	1377 Aug 23 j 04:28	7° $\mathring{N}$ 47'39	0°43'45
minimum elong	1371 Jul 25 j 04:09	9° $\mathring{O}$ 14'48	0°37'20	morning rise	1377 Sep 08 j 13:42	8° $\mathring{N}$ 48'59	
morning rise	1371 Aug 10 j 19:21	10° $\mathring{O}$ 16'14		retrograde	1377 Dec 09 j 03:24	12° $\mathring{N}$ 11'10	
retrograde	1371 Nov 11 j 04:50	13° $\mathring{O}$ 37'45		opposition	1378 Feb 20 j 13:38	10° $\mathring{N}$ 08'50	0°48'52
opposition	1372 Jan 23 j 17:25	11° $\mathring{O}$ 35'05	0°42'35	min. Earth dist.	1378 Feb 21 j 11:43	10° $\mathring{N}$ 06'25	17.32094 AU
min. Earth dist.	1372 Jan 24 j 14:11	11° $\mathring{O}$ 32'48	17.43519 AU	direct	1378 May 07 j 19:25	8° $\mathring{N}$ 02'26	
direct	1372 Apr 08 j 05:42	9° $\mathring{O}$ 29'21		evening set	1378 Aug 11 j 20:14	11° $\mathring{N}$ 32'37	
evening set	1372 Jul 12 j 14:56	12° $\mathring{O}$ 56'22		max. Earth dist.	1378 Aug 27 j 07:01	12° $\mathring{N}$ 30'26	19.31860 AU
max. Earth dist.	1372 Jul 28 j 07:51	13° $\mathring{O}$ 54'27	19.41938 AU				
				conjunction	1378 Aug 28 j 08:06	12° $\mathring{N}$ 34'23	0°43'48
conjunction	1372 Jul 29 j 07:59	13° $\mathring{O}$ 58'12	0°39'05	minimum elong	1378 Aug 28 j 08:06	12° $\mathring{N}$ 34'23	0°43'49
minimum elong	1372 Jul 29 j 07:59	13° $\mathring{O}$ 58'12	0°39'05	morning rise	1378 Sep 13 j 16:23	13° $\mathring{N}$ 35'37	
morning rise	1372 Aug 14 j 22:17	14° $\mathring{O}$ 59'41		retrograde	1378 Dec 14 j 04:25	16° $\mathring{N}$ 57'41	
	1372 Aug 15 j 00:25	15° $\mathring{O}$		opposition	1379 Feb 25 j 14:18	14° $\mathring{N}$ 55'22	0°48'45
retrograde	1372 Nov 15 j 05:59	18° $\mathring{O}$ 21'28		min. Earth dist.	1379 Feb 26 j 11:00	14° $\mathring{N}$ 53'07	17.31844 AU
opposition	1373 Jan 27 j 15:25	16° $\mathring{O}$ 18'52	0°44'25	direct	1379 May 13 j 00:05	12° $\mathring{N}$ 48'54	
min. Earth dist.	1373 Jan 28 j 11:57	16° $\mathring{O}$ 16'37	17.40532 AU	evening set	1379 Aug 17 j 00:24	16° $\mathring{N}$ 19'12	
	1373 Mar 01 j 02:57	15° $\mathring{R}$ $\mathring{O}$		max. Earth dist.	1379 Sep 01 j 11:55	17° $\mathring{N}$ 17'10	19.31880 AU
direct	1373 Apr 13 j 07:01	14° $\mathring{O}$ 13'02					
	1373 May 25 j 18:14	15° $\mathring{O}$		conjunction	1379 Sep 02 j 11:20	17° $\mathring{N}$ 20'51	0°43'33
evening set	1373 Jul 17 j 19:35	17° $\mathring{O}$ 40'50		minimum elong	1379 Sep 02 j 11:20	17° $\mathring{N}$ 20'51	0°43'33
max. Earth dist.	1373 Aug 02 j 10:45	18° $\mathring{O}$ 38'50	19.39161 AU	morning rise	1379 Sep 18 j 18:18	18° $\mathring{N}$ 21'57	
				retrograde	1379 Dec 19 j 03:18	21° $\mathring{N}$ 43'51	
conjunction	1373 Aug 03 j 11:55	18° $\mathring{O}$ 42'45	0°40'35	opposition	1380 Mar 01 j 15:22	19° $\mathring{N}$ 41'35	0°48'18
minimum elong	1373 Aug 03 j 11:55	18° $\mathring{O}$ 42'45	0°40'36	min. Earth dist.	1380 Mar 02 j 12:13	19° $\mathring{N}$ 39'19	17.32151 AU
morning rise	1373 Aug 20 j 01:21	19° $\mathring{O}$ 44'15		direct	1380 May 17 j 02:22	17° $\mathring{N}$ 35'07	
retrograde	1373 Nov 20 j 04:10	23° $\mathring{O}$ 06'15		evening set	1380 Aug 21 j 04:16	21° $\mathring{N}$ 05'23	
opposition	1374 Feb 01 j 14:11	21° $\mathring{O}$ 03'43	0°45'57				
min. Earth dist.	1374 Feb 02 j 11:58	21° $\mathring{O}$ 01'20	17.37978 AU	conjunction	1380 Sep 06 j 13:58	22° $\mathring{N}$ 06'54	0°42'59
direct	1374 Apr 18 j 07:15	18° $\mathring{O}$ 57'44		minimum elong	1380 Sep 06 j 13:58	22° $\mathring{N}$ 06'54	0°42'59
evening set	1374 Jul 23 j 00:35	22° $\mathring{O}$ 26'17		max. Earth dist.	1380 Sep 05 j 14:39	22° $\mathring{N}$ 03'13	19.32494 AU
				morning rise	1380 Sep 22 j 19:59	23° $\mathring{N}$ 07'52	
conjunction	1374 Aug 08 j 16:11	23° $\mathring{O}$ 28'13	0°41'49	retrograde	1380 Dec 23 j 03:53	26° $\mathring{N}$ 29'33	
minimum elong	1374 Aug 08 j 16:11	23° $\mathring{O}$ 28'13	0°41'48	opposition	1381 Mar 06 j 16:20	24° $\mathring{N}$ 27'20	0°47'30
max. Earth dist.	1374 Aug 07 j 14:59	23° $\mathring{O}$ 24'16	19.36813 AU	min. Earth dist.	1381 Mar 07 j 11:27	24° $\mathring{N}$ 25'16	17.33073 AU
morning rise	1374 Aug 25 j 04:40	24° $\mathring{O}$ 29'42		direct	1381 May 22 j 06:33	22° $\mathring{N}$ 20'53	
retrograde	1374 Nov 25 j 05:14	27° $\mathring{O}$ 51'50		evening set	1381 Aug 26 j 07:27	25° $\mathring{N}$ 51'02	
opposition	1375 Feb 06 j 13:17	25° $\mathring{O}$ 49'23	0°47'11				
min. Earth dist.	1375 Feb 07 j 10:29	25° $\mathring{O}$ 47'03	17.35834 AU	conjunction	1381 Sep 11 j 16:14	26° $\mathring{N}$ 52'23	0°42'08
direct	1375 Apr 23 j 10:59	23° $\mathring{O}$ 43'17		minimum elong	1381 Sep 11 j 16:14	26° $\mathring{N}$ 52'23	0°42'08

max. Earth dist.	1381 Sep 10 j 19:16	26° <u>14</u> 49'05	19.33726 AU	min. Earth dist.	1388 Apr 09 j 10:44	27° <u>02</u> 26'43	17.55692 AU
morning rise	1381 Sep 27 j 20:57	27° <u>10</u> 53'11		direct	1388 Jun 25 j 03:50	25° <u>02</u> 23'07	
	1381 Nov 05 j 13:54	0° <u>00</u>		evening set	1388 Sep 28 j 13:09	28° <u>02</u> 49'38	
retrograde	1381 Dec 28 j 02:37	1° <u>00</u> 14'38					
	1382 Feb 20 j 23:07	30° <u>08</u>		conjunction	1388 Oct 14 j 13:54	29° <u>02</u> 49'22	0°28'54
opposition	1382 Mar 11 j 17:38	29° <u>10</u> 12'30	0°46'24	minimum elong	1388 Oct 14 j 13:54	29° <u>02</u> 49'22	0°28'54
min. Earth dist.	1382 Mar 12 j 12:16	29° <u>10</u> 10'29	17.34616 AU	max. Earth dist.	1388 Oct 14 j 03:07	29° <u>02</u> 47'41	19.58117 AU
direct	1382 May 27 j 09:02	27° <u>10</u> 06'10			1388 Oct 17 j 09:52	0° <u>00</u>	
	1382 Aug 21 j 10:32	0° <u>00</u>		morning rise	1388 Oct 30 j 11:21	0° <u>00</u> 48'37	
evening set	1382 Aug 31 j 10:21	0° <u>00</u> 36'05		retrograde	1389 Jan 29 j 13:14	4° <u>00</u> 07'26	
				opposition	1389 Apr 14 j 01:21	2° <u>00</u> 06'35	0°30'41
conjunction	1382 Sep 16 j 17:48	1° <u>00</u> 37'16	0°41'00	min. Earth dist.	1389 Apr 14 j 10:30	2° <u>00</u> 05'37	17.60622 AU
minimum elong	1382 Sep 16 j 17:48	1° <u>00</u> 37'16	0°40'59	direct	1389 Jun 30 j 04:58	0° <u>00</u> 02'14	
max. Earth dist.	1382 Sep 15 j 21:07	1° <u>00</u> 34'00	19.35596 AU	evening set	1389 Oct 03 j 10:53	3° <u>00</u> 27'52	
morning rise	1382 Oct 02 j 21:32	2° <u>00</u> 37'53					
retrograde	1383 Jan 02 j 02:25	5° <u>00</u> 59'03		conjunction	1389 Oct 19 j 10:40	4° <u>00</u> 27'19	0°26'08
opposition	1383 Mar 16 j 18:50	3° <u>00</u> 57'03	0°44'58	minimum elong	1389 Oct 19 j 10:40	4° <u>00</u> 27'19	0°26'08
min. Earth dist.	1383 Mar 17 j 11:39	3° <u>00</u> 55'14	17.36804 AU	max. Earth dist.	1389 Oct 19 j 01:46	4° <u>00</u> 25'56	19.63182 AU
direct	1383 Jun 01 j 12:51	1° <u>00</u> 50'52		morning rise	1389 Nov 04 j 07:12	5° <u>00</u> 26'18	
evening set	1383 Sep 05 j 12:29	5° <u>00</u> 20'29		retrograde	1390 Feb 03 j 09:59	8° <u>00</u> 44'35	
				opposition	1390 Apr 19 j 01:37	6° <u>00</u> 43'53	0°27'31
conjunction	1383 Sep 21 j 18:58	6° <u>00</u> 21'28	0°39'35	min. Earth dist.	1390 Apr 19 j 08:36	6° <u>00</u> 43'09	17.65791 AU
minimum elong	1383 Sep 21 j 18:58	6° <u>00</u> 21'28	0°39'36	direct	1390 Jul 05 j 07:30	4° <u>00</u> 39'52	
max. Earth dist.	1383 Sep 21 j 00:59	6° <u>00</u> 18'38	19.38101 AU	evening set	1390 Oct 08 j 07:43	8° <u>00</u> 04'30	
morning rise	1383 Oct 07 j 21:25	7° <u>00</u> 21'53					
retrograde	1384 Jan 07 j 01:01	10° <u>00</u> 42'44		conjunction	1390 Oct 24 j 06:26	9° <u>00</u> 03'39	0°23'14
opposition	1384 Mar 20 j 20:14	8° <u>00</u> 40'55	0°43'15	minimum elong	1390 Oct 24 j 06:26	9° <u>00</u> 03'39	0°23'14
min. Earth dist.	1384 Mar 21 j 12:02	8° <u>00</u> 39'13	17.39599 AU	max. Earth dist.	1390 Oct 23 j 23:01	9° <u>00</u> 02'30	19.68466 AU
direct	1384 Jun 05 j 15:25	6° <u>00</u> 35'00		morning rise	1390 Nov 09 j 02:07	10° <u>00</u> 02'23	
evening set	1384 Sep 09 j 14:00	10° <u>00</u> 04'11		retrograde	1391 Feb 08 j 04:44	13° <u>00</u> 20'06	
				opposition	1391 Apr 24 j 01:36	11° <u>00</u> 19'32	0°24'11
conjunction	1384 Sep 25 j 19:11	11° <u>00</u> 04'56	0°37'55	min. Earth dist.	1391 Apr 24 j 07:51	11° <u>00</u> 18'53	17.71188 AU
minimum elong	1384 Sep 25 j 19:11	11° <u>00</u> 04'56	0°37'55	direct	1391 Jul 10 j 06:38	9° <u>00</u> 15'49	
max. Earth dist.	1384 Sep 25 j 01:47	11° <u>00</u> 02'12	19.41195 AU	evening set	1391 Oct 13 j 03:33	12° <u>00</u> 39'24	
morning rise	1384 Oct 11 j 20:43	12° <u>00</u> 05'09					
retrograde	1385 Jan 11 j 00:07	15° <u>00</u> 25'42		conjunction	1391 Oct 29 j 01:19	13° <u>00</u> 38'15	0°20'12
opposition	1385 Mar 25 j 21:29	13° <u>00</u> 24'03	0°41'14	minimum elong	1391 Oct 29 j 01:19	13° <u>00</u> 38'15	0°20'12
min. Earth dist.	1385 Mar 26 j 11:46	13° <u>00</u> 22'31	17.42964 AU	max. Earth dist.	1391 Oct 28 j 19:37	13° <u>00</u> 37'22	19.73977 AU
direct	1385 Jun 10 j 18:46	11° <u>00</u> 18'25		morning rise	1391 Nov 13 j 20:17	14° <u>00</u> 36'42	
evening set	1385 Sep 14 j 14:50	14° <u>00</u> 47'05			1391 Nov 20 j 07:48	15° <u>00</u>	
				retrograde	1392 Feb 13 j 01:01	17° <u>00</u> 53'49	
conjunction	1385 Sep 30 j 19:03	15° <u>00</u> 47'37	0°36'00	opposition	1392 Apr 28 j 00:53	15° <u>00</u> 53'22	0°20'44
minimum elong	1385 Sep 30 j 19:03	15° <u>00</u> 47'37	0°35'59	min. Earth dist.	1392 Apr 28 j 04:35	15° <u>00</u> 52'59	17.76791 AU
max. Earth dist.	1385 Sep 30 j 04:11	15° <u>00</u> 45'17	19.44815 AU		1392 May 20 j 00:33	15° <u>00</u> 08	
morning rise	1385 Oct 16 j 19:23	16° <u>00</u> 47'36		direct	1392 Jul 14 j 07:54	13° <u>00</u> 49'56	
retrograde	1386 Jan 15 j 21:57	20° <u>00</u> 07'45			1392 Sep 05 j 04:30	15° <u>00</u>	
opposition	1386 Mar 30 j 22:36	18° <u>00</u> 06'21	0°38'57	evening set	1392 Oct 16 j 22:15	17° <u>00</u> 12'23	
min. Earth dist.	1386 Mar 31 j 11:35	18° <u>00</u> 04'57	17.46803 AU				
direct	1386 Jun 15 j 21:52	16° <u>00</u> 01'01		conjunction	1392 Nov 01 j 19:09	18° <u>00</u> 10'56	0°17'03
evening set	1386 Sep 19 j 15:11	19° <u>00</u> 29'05		minimum elong	1392 Nov 01 j 19:09	18° <u>00</u> 10'56	0°17'02
				max. Earth dist.	1392 Nov 01 j 15:28	18° <u>00</u> 10'23	19.79683 AU
conjunction	1386 Oct 05 j 18:07	20° <u>00</u> 29'21	0°33'50	morning rise	1392 Nov 17 j 13:24	19° <u>00</u> 09'07	
minimum elong	1386 Oct 05 j 18:07	20° <u>00</u> 29'21	0°33'51	retrograde	1393 Feb 16 j 18:19	22° <u>00</u> 25'37	
max. Earth dist.	1386 Oct 05 j 03:57	20° <u>00</u> 27'08	19.48879 AU	opposition	1393 May 02 j 23:43	20° <u>00</u> 25'15	0°17'10
morning rise	1386 Oct 21 j 17:31	21° <u>00</u> 29'06		min. Earth dist.	1393 May 03 j 02:42	20° <u>00</u> 24'57	17.82603 AU
retrograde	1387 Jan 20 j 19:49	24° <u>00</u> 48'52		direct	1393 Jul 19 j 05:25	18° <u>00</u> 22'07	
opposition	1387 Apr 04 j 23:48	22° <u>00</u> 47'39	0°36'25	evening set	1393 Oct 21 j 16:01	21° <u>00</u> 43'24	
min. Earth dist.	1387 Apr 05 j 11:36	22° <u>00</u> 46'23	17.51075 AU				
direct	1387 Jun 21 j 00:33	20° <u>00</u> 42'38		conjunction	1393 Nov 06 j 12:00	22° <u>00</u> 41'38	0°13'49
evening set	1387 Sep 24 j 14:28	24° <u>00</u> 09'59		minimum elong	1393 Nov 06 j 12:00	22° <u>00</u> 41'38	0°13'49
				behind sun begin	1393 Nov 06 j 08:27	22° <u>00</u> 41'06	
conjunction	1387 Oct 10 j 16:23	25° <u>00</u> 09'59	0°31'28	behind sun end	1393 Nov 06 j 15:34	22° <u>00</u> 42'10	
minimum elong	1387 Oct 10 j 16:23	25° <u>00</u> 09'59	0°31'27	max. Earth dist.	1393 Nov 06 j 09:56	22° <u>00</u> 41'19	19.85606 AU
max. Earth dist.	1387 Oct 10 j 04:33	25° <u>00</u> 08'08	19.53339 AU	morning rise	1393 Nov 22 j 05:40	23° <u>00</u> 39'32	
morning rise	1387 Oct 26 j 14:43	26° <u>00</u> 09'30		retrograde	1394 Feb 21 j 13:13	26° <u>00</u> 55'24	
retrograde	1388 Jan 25 j 17:01	29° <u>00</u> 28'48		opposition	1394 May 07 j 21:44	24° <u>00</u> 55'07	0°13'32
opposition	1388 Apr 09 j 00:45	27° <u>00</u> 27'47	0°33'39	min. Earth dist.	1394 May 07 j 21:49	24° <u>00</u> 55'06	17.88627 AU



direct	1394 Jul 24 j 05:19	22° $\mathbb{M}$ 52'18		conjunction	1399 Dec 02 j 22:29	19° $\mathbb{A}$ 05'27	-0°06'14
evening set	1394 Oct 26 j 08:46	26° $\mathbb{M}$ 12'22		minimum elong	1399 Dec 02 j 22:30	19° $\mathbb{A}$ 05'27	0°06'14
				behind sun begin	1399 Dec 02 j 16:17	19° $\mathbb{A}$ 04'32	
conjunction	1394 Nov 11 j 03:59	27° $\mathbb{M}$ 10'18	0°10'32	behind sun end	1399 Dec 03 j 04:42	19° $\mathbb{A}$ 06'22	
minimum elong	1394 Nov 11 j 03:58	27° $\mathbb{M}$ 10'18	0°10'31	max. Earth dist.	1399 Dec 03 j 07:52	19° $\mathbb{A}$ 06'51	20.24988 AU
behind sun begin	1394 Nov 10 j 22:48	27° $\mathbb{M}$ 09'31		morning rise	1399 Dec 18 j 13:47	20° $\mathbb{A}$ 01'49	
behind sun end	1394 Nov 11 j 09:09	27° $\mathbb{M}$ 11'05		retrograde	1400 Mar 19 j 11:23	23° $\mathbb{A}$ 14'10	
max. Earth dist.	1394 Nov 11 j 04:27	27° $\mathbb{M}$ 10'22	19.91743 AU	opposition	1400 Jun 03 j 21:33	21° $\mathbb{A}$ 14'43	-0°08'39
morning rise	1394 Nov 26 j 20:57	28° $\mathbb{M}$ 07'56		min. Earth dist.	1400 Jun 03 j 10:41	21° $\mathbb{A}$ 15'49	18.28346 AU
	1394 Dec 31 j 07:57	0° $\mathbb{A}$		direct	1400 Aug 20 j 02:39	19° $\mathbb{A}$ 14'17	
retrograde	1395 Feb 26 j 05:32	1° $\mathbb{A}$ 23'10		evening set	1400 Nov 20 j 17:55	22° $\mathbb{A}$ 27'09	
	1395 Apr 27 j 16:01	30° $\mathbb{R}$ $\mathbb{M}$					
opposition	1395 May 12 j 19:27	29° $\mathbb{M}$ 22'59	0°09'50	conjunction	1400 Dec 06 j 09:39	23° $\mathbb{A}$ 23'21	-0°09'27
min. Earth dist.	1395 May 12 j 18:33	29° $\mathbb{M}$ 23'04	17.94886 AU	minimum elong	1400 Dec 06 j 09:38	23° $\mathbb{A}$ 23'21	0°09'27
direct	1395 Jul 29 j 01:34	27° $\mathbb{M}$ 20'30		behind sun begin	1400 Dec 06 j 04:09	23° $\mathbb{A}$ 22'33	
	1395 Oct 19 j 19:12	0° $\mathbb{A}$		behind sun end	1400 Dec 06 j 15:08	23° $\mathbb{A}$ 24'10	
evening set	1395 Oct 31 j 00:26	0° $\mathbb{A}$ 39'21		max. Earth dist.	1400 Dec 06 j 21:29	23° $\mathbb{A}$ 25'08	20.31704 AU
				morning rise	1400 Dec 22 j 00:38	24° $\mathbb{A}$ 19'29	
conjunction	1395 Nov 15 j 18:49	1° $\mathbb{A}$ 36'58	0°07'13	retrograde	1401 Mar 24 j 00:31	27° $\mathbb{A}$ 31'19	
minimum elong	1395 Nov 15 j 18:49	1° $\mathbb{A}$ 36'58	0°07'13	opposition	1401 Jun 08 j 15:22	25° $\mathbb{A}$ 32'01	-0°12'12
behind sun begin	1395 Nov 15 j 12:46	1° $\mathbb{A}$ 36'04		min. Earth dist.	1401 Jun 08 j 03:53	25° $\mathbb{A}$ 33'11	18.34999 AU
behind sun end	1395 Nov 16 j 00:52	1° $\mathbb{A}$ 37'52		direct	1401 Aug 24 j 19:10	23° $\mathbb{A}$ 32'01	
max. Earth dist.	1395 Nov 15 j 20:51	1° $\mathbb{A}$ 37'15	19.98120 AU	evening set	1401 Nov 25 j 04:47	26° $\mathbb{A}$ 43'42	
morning rise	1395 Dec 01 j 11:24	2° $\mathbb{A}$ 34'20					
retrograde	1396 Mar 01 j 22:58	5° $\mathbb{A}$ 48'58		conjunction	1401 Dec 10 j 19:58	27° $\mathbb{A}$ 39'39	-0°12'37
opposition	1396 May 16 j 16:19	3° $\mathbb{A}$ 48'53	0°06'07	minimum elong	1401 Dec 10 j 19:58	27° $\mathbb{A}$ 39'40	0°12'38
min. Earth dist.	1396 May 16 j 12:20	3° $\mathbb{A}$ 49'18	18.01362 AU	behind sun begin	1401 Dec 10 j 15:42	27° $\mathbb{A}$ 39'02	
direct	1396 Aug 01 j 23:55	1° $\mathbb{A}$ 46'47		behind sun end	1401 Dec 11 j 00:14	27° $\mathbb{A}$ 40'17	
evening set	1396 Nov 03 j 15:14	5° $\mathbb{A}$ 04'24		max. Earth dist.	1401 Dec 11 j 08:09	27° $\mathbb{A}$ 41'29	20.38276 AU
				morning rise	1401 Dec 26 j 10:59	28° $\mathbb{A}$ 35'35	
conjunction	1396 Nov 19 j 09:02	6° $\mathbb{A}$ 01'45	0°03'53		1402 Jan 21 j 03:43	0° $\mathbb{B}$	
minimum elong	1396 Nov 19 j 09:02	6° $\mathbb{A}$ 01'45	0°03'53	retrograde	1402 Mar 28 j 14:27	1° $\mathbb{B}$ 46'54	
behind sun begin	1396 Nov 19 j 02:33	6° $\mathbb{A}$ 00'47			1402 Jun 08 j 07:05	30° $\mathbb{R}$ $\mathbb{A}$	
behind sun end	1396 Nov 19 j 15:31	6° $\mathbb{A}$ 02'43		opposition	1402 Jun 13 j 08:27	29° $\mathbb{A}$ 47'44	-0°15'41
max. Earth dist.	1396 Nov 19 j 13:46	6° $\mathbb{A}$ 02'26	20.04686 AU	min. Earth dist.	1402 Jun 12 j 18:58	29° $\mathbb{A}$ 49'06	18.41479 AU
morning rise	1396 Dec 05 j 01:04	6° $\mathbb{A}$ 58'51		direct	1402 Aug 29 j 11:08	27° $\mathbb{A}$ 48'06	
retrograde	1397 Mar 06 j 14:05	10° $\mathbb{A}$ 12'52			1402 Nov 12 j 04:14	0° $\mathbb{B}$	
opposition	1397 May 21 j 12:30	8° $\mathbb{A}$ 12'56	0°02'23	evening set	1402 Nov 29 j 14:50	0° $\mathbb{B}$ 58'40	
min. Earth dist.	1397 May 21 j 07:41	8° $\mathbb{A}$ 13'26	18.08012 AU				
direct	1397 Aug 06 j 18:55	6° $\mathbb{A}$ 11'14		conjunction	1402 Dec 15 j 05:53	1° $\mathbb{B}$ 54'23	-0°15'42
evening set	1397 Nov 08 j 05:13	9° $\mathbb{A}$ 27'40		minimum elong	1402 Dec 15 j 05:52	1° $\mathbb{B}$ 54'23	0°15'42
				behind sun begin	1402 Dec 15 j 04:06	1° $\mathbb{B}$ 54'07	
conjunction	1397 Nov 23 j 22:16	10° $\mathbb{A}$ 24'41	0°00'29	behind sun end	1402 Dec 15 j 07:39	1° $\mathbb{B}$ 54'38	
minimum elong	1397 Nov 23 j 22:18	10° $\mathbb{A}$ 24'42	0°00'29	max. Earth dist.	1402 Dec 15 j 20:18	1° $\mathbb{B}$ 56'32	20.44635 AU
behind sun begin	1397 Nov 23 j 15:46	10° $\mathbb{A}$ 23'43		morning rise	1402 Dec 30 j 20:42	2° $\mathbb{B}$ 50'05	
behind sun end	1397 Nov 24 j 04:50	10° $\mathbb{A}$ 25'40		retrograde	1403 Apr 02 j 02:26	6° $\mathbb{B}$ 00'55	
max. Earth dist.	1397 Nov 24 j 04:09	10° $\mathbb{A}$ 25'33	20.11407 AU	min. Earth dist.	1403 Jun 17 j 10:59	4° $\mathbb{B}$ 03'17	18.47717 AU
morning rise	1397 Dec 09 j 14:06	11° $\mathbb{A}$ 21'33		opposition	1403 Jun 18 j 01:02	4° $\mathbb{B}$ 01'52	-0°19'03
desc. node	1398 Jan 13 j 22:57	13° $\mathbb{A}$ 14'53		direct	1403 Sep 03 j 02:15	2° $\mathbb{B}$ 02'35	
retrograde	1398 Mar 11 j 06:17	14° $\mathbb{A}$ 34'59		evening set	1403 Dec 04 j 00:16	5° $\mathbb{B}$ 12'02	
opposition	1398 May 26 j 08:06	12° $\mathbb{A}$ 35'13	-0°01'20				
min. Earth dist.	1398 May 26 j 00:27	12° $\mathbb{A}$ 36'00	18.14775 AU	conjunction	1403 Dec 19 j 14:57	6° $\mathbb{B}$ 07'31	-0°18'41
direct	1398 Aug 11 j 14:59	10° $\mathbb{A}$ 33'56		minimum elong	1403 Dec 19 j 14:57	6° $\mathbb{B}$ 07'31	0°18'41
evening set	1398 Nov 12 j 18:10	13° $\mathbb{A}$ 49'09		max. Earth dist.	1403 Dec 20 j 05:25	6° $\mathbb{B}$ 09'40	20.50737 AU
				morning rise	1404 Jan 04 j 06:01	7° $\mathbb{B}$ 03'02	
conjunction	1398 Nov 28 j 10:47	14° $\mathbb{A}$ 45'55	-0°02'56	retrograde	1404 Apr 05 j 15:34	10° $\mathbb{B}$ 13'23	
minimum elong	1398 Nov 28 j 10:47	14° $\mathbb{A}$ 45'55	0°02'56	opposition	1404 Jun 21 j 16:49	8° $\mathbb{B}$ 14'24	-0°22'17
behind sun begin	1398 Nov 28 j 04:15	14° $\mathbb{A}$ 44'57		min. Earth dist.	1404 Jun 21 j 01:13	8° $\mathbb{B}$ 15'58	18.53677 AU
behind sun end	1398 Nov 28 j 17:18	14° $\mathbb{A}$ 46'52		direct	1404 Sep 06 j 16:29	6° $\mathbb{B}$ 15'25	
max. Earth dist.	1398 Nov 28 j 19:23	14° $\mathbb{A}$ 47'12	20.18193 AU	evening set	1404 Dec 07 j 08:56	9° $\mathbb{B}$ 23'47	
morning rise	1398 Dec 14 j 02:08	15° $\mathbb{A}$ 42'30					
retrograde	1399 Mar 15 j 20:23	18° $\mathbb{A}$ 55'24		conjunction	1404 Dec 22 j 23:39	10° $\mathbb{B}$ 19'03	-0°21'33
opposition	1399 May 31 j 03:17	16° $\mathbb{A}$ 55'47	-0°05'01	minimum elong	1404 Dec 22 j 23:39	10° $\mathbb{B}$ 19'03	0°21'34
min. Earth dist.	1399 May 30 j 18:49	16° $\mathbb{A}$ 56'39	18.21573 AU	max. Earth dist.	1404 Dec 23 j 16:10	10° $\mathbb{B}$ 21'30	20.56533 AU
direct	1399 Aug 16 j 08:56	14° $\mathbb{A}$ 54'58		morning rise	1405 Jan 07 j 14:40	11° $\mathbb{B}$ 14'23	
evening set	1399 Nov 17 j 06:30	18° $\mathbb{A}$ 08'58		retrograde	1405 Apr 10 j 01:51	14° $\mathbb{B}$ 24'15	
				opposition	1405 Jun 26 j 07:47	12° $\mathbb{B}$ 25'19	-0°25'24

min. Earth dist.	1405 Jun 25 j 15:39	12° <del>3</del> 26'57	18.59318 AU	conjunction	1412 Jan 20 j 20:36	8° <del>5</del> 59'06	-0°37'19
direct	1405 Sep 11 j 06:04	10° <del>3</del> 26'37		minimum elong	1412 Jan 20 j 20:36	8° <del>5</del> 59'06	0°37'20
evening set	1405 Dec 11 j 17:02	13° <del>3</del> 33'55		max. Earth dist.	1412 Jan 21 j 19:17	9° <del>0</del> 02'24	20.89724 AU
				morning rise	1412 Feb 05 j 14:23	9° <del>5</del> 53'36	
conjunction	1405 Dec 27 j 07:31	14° <del>3</del> 28'58	-0°24'18	retrograde	1412 May 08 j 23:55	13° <del>0</del> 01'02	
minimum elong	1405 Dec 27 j 07:31	14° <del>3</del> 28'58	0°24'17	opposition	1412 Jul 25 j 22:46	11° <del>0</del> 02'12	-0°42'09
max. Earth dist.	1405 Dec 28 j 00:02	14° <del>3</del> 31'25	20.62030 AU	min. Earth dist.	1412 Jul 25 j 00:07	11° <del>0</del> 04'28	18.91637 AU
morning rise	1406 Jan 11 j 22:53	15° <del>3</del> 24'09		direct	1412 Oct 10 j 04:31	9° <del>0</del> 05'08	
retrograde	1406 Apr 14 j 13:48	18° <del>3</del> 33'34		evening set	1413 Jan 08 j 09:53	12° <del>0</del> 06'27	
opposition	1406 Jun 30 j 22:13	16° <del>3</del> 34'38	-0°28'20				
min. Earth dist.	1406 Jun 30 j 04:45	16° <del>3</del> 36'23	18.64677 AU	conjunction	1413 Jan 24 j 01:51	13° <del>0</del> 00'33	-0°38'52
direct	1406 Sep 15 j 18:24	14° <del>3</del> 36'10		minimum elong	1413 Jan 24 j 01:51	13° <del>0</del> 00'33	0°38'51
evening set	1406 Dec 16 j 00:11	17° <del>3</del> 42'25		max. Earth dist.	1413 Jan 25 j 02:11	13° <del>0</del> 04'05	20.93387 AU
				morning rise	1413 Feb 08 j 20:01	13° <del>0</del> 55'00	
conjunction	1406 Dec 31 j 14:49	18° <del>3</del> 37'18	-0°26'53		1413 Feb 28 j 22:38	15° <del>0</del>	
minimum elong	1406 Dec 31 j 14:49	18° <del>3</del> 37'18	0°26'53	retrograde	1413 May 13 j 08:26	17° <del>0</del> 02'15	
max. Earth dist.	1407 Jan 01 j 09:37	18° <del>3</del> 40'04	20.67243 AU	min. Earth dist.	1413 Jul 29 j 09:37	15° <del>0</del> 05'46	18.95115 AU
morning rise	1407 Jan 16 j 06:17	19° <del>3</del> 32'19		opposition	1413 Jul 30 j 08:52	15° <del>0</del> 03'27	-0°43'44
retrograde	1407 Apr 18 j 23:10	22° <del>3</del> 41'18			1413 Jul 31 j 19:25	15° <del>0</del>	
opposition	1407 Jul 05 j 11:57	20° <del>3</del> 42'22	-0°31'07	direct	1413 Oct 14 j 13:06	13° <del>0</del> 06'37	
min. Earth dist.	1407 Jul 04 j 17:38	20° <del>3</del> 44'12	18.69764 AU		1413 Dec 22 j 15:34	15° <del>0</del>	
direct	1407 Sep 20 j 06:37	18° <del>3</del> 44'08		evening set	1414 Jan 12 j 14:37	16° <del>0</del> 07'20	
evening set	1407 Dec 20 j 07:00	21° <del>3</del> 49'25					
				conjunction	1414 Jan 28 j 06:50	17° <del>0</del> 01'22	-0°40'13
conjunction	1408 Jan 04 j 21:32	22° <del>3</del> 44'06	-0°29'19	minimum elong	1414 Jan 28 j 06:50	17° <del>0</del> 01'22	0°40'14
minimum elong	1408 Jan 04 j 21:32	22° <del>3</del> 44'06	0°29'18	max. Earth dist.	1414 Jan 29 j 06:28	17° <del>0</del> 04'47	20.96677 AU
max. Earth dist.	1408 Jan 05 j 16:25	22° <del>3</del> 46'53	20.72210 AU	morning rise	1414 Feb 13 j 01:49	17° <del>0</del> 55'46	
morning rise	1408 Jan 20 j 13:29	23° <del>3</del> 39'00		retrograde	1414 May 17 j 18:19	21° <del>0</del> 02'53	
retrograde	1408 Apr 22 j 09:50	26° <del>3</del> 47'35		opposition	1414 Aug 03 j 18:48	19° <del>0</del> 04'06	-0°45'07
min. Earth dist.	1408 Jul 08 j 05:20	24° <del>3</del> 50'35	18.74629 AU	min. Earth dist.	1414 Aug 02 j 19:36	19° <del>0</del> 06'25	18.98209 AU
opposition	1408 Jul 09 j 00:48	24° <del>3</del> 48'38	-0°33'43	direct	1414 Oct 18 j 19:49	17° <del>0</del> 07'28	
direct	1408 Sep 23 j 16:27	22° <del>3</del> 50'38		evening set	1415 Jan 16 j 19:00	20° <del>0</del> 07'39	
evening set	1408 Dec 23 j 13:07	25° <del>3</del> 54'59					
				conjunction	1415 Feb 01 j 11:53	21° <del>0</del> 01'38	-0°41'22
conjunction	1409 Jan 08 j 03:57	26° <del>3</del> 49'32	-0°31'35	minimum elong	1415 Feb 01 j 11:53	21° <del>0</del> 01'38	0°41'22
minimum elong	1409 Jan 08 j 03:57	26° <del>3</del> 49'32	0°31'35	max. Earth dist.	1415 Feb 02 j 12:50	21° <del>0</del> 05'14	20.99543 AU
max. Earth dist.	1409 Jan 09 j 01:00	26° <del>3</del> 52'37	20.76950 AU	morning rise	1415 Feb 17 j 07:23	21° <del>0</del> 56'01	
morning rise	1409 Jan 23 j 20:05	27° <del>3</del> 44'17		retrograde	1415 May 22 j 02:45	25° <del>0</del> 03'00	
	1409 Mar 11 j 07:42	0° <del>0</del>		min. Earth dist.	1415 Aug 07 j 04:43	23° <del>0</del> 06'35	19.00836 AU
retrograde	1409 Apr 26 j 18:53	0° <del>0</del> 52'31		opposition	1415 Aug 08 j 04:14	23° <del>0</del> 04'14	-0°46'17
	1409 Jun 14 j 04:52	30° <del>0</del>		direct	1415 Oct 23 j 03:26	21° <del>0</del> 07'46	
opposition	1409 Jul 13 j 13:06	28° <del>3</del> 53'36	-0°36'07	evening set	1416 Jan 20 j 23:39	24° <del>0</del> 07'28	
min. Earth dist.	1409 Jul 12 j 16:41	28° <del>3</del> 55'38	18.79255 AU				
direct	1409 Sep 28 j 03:31	26° <del>3</del> 55'50		conjunction	1416 Feb 05 j 16:55	25° <del>0</del> 01'25	-0°42'19
evening set	1409 Dec 27 j 18:51	29° <del>3</del> 59'20		minimum elong	1416 Feb 05 j 16:55	25° <del>0</del> 01'25	0°42'20
	1409 Dec 27 j 23:35	0° <del>0</del>		max. Earth dist.	1416 Feb 06 j 16:40	25° <del>0</del> 04'51	21.01921 AU
				morning rise	1416 Feb 21 j 13:19	25° <del>0</del> 55'48	
conjunction	1410 Jan 12 j 09:41	0° <del>0</del> 53'44	-0°33'40	retrograde	1416 May 25 j 11:51	29° <del>0</del> 02'42	
minimum elong	1410 Jan 12 j 09:40	0° <del>0</del> 53'44	0°33'40	opposition	1416 Aug 11 j 13:13	27° <del>0</del> 03'55	-0°47'12
max. Earth dist.	1410 Jan 13 j 06:41	0° <del>0</del> 56'48	20.81462 AU	min. Earth dist.	1416 Aug 10 j 14:22	27° <del>0</del> 06'11	19.02962 AU
morning rise	1410 Jan 28 j 02:24	1° <del>0</del> 48'23		direct	1416 Oct 26 j 09:40	25° <del>0</del> 07'33	
retrograde	1410 May 01 j 04:59	4° <del>0</del> 56'19		evening set	1417 Jan 24 j 04:04	28° <del>0</del> 06'50	
min. Earth dist.	1410 Jul 17 j 03:32	2° <del>0</del> 59'33	18.83659 AU				
opposition	1410 Jul 18 j 00:54	2° <del>0</del> 57'25	-0°38'20	conjunction	1417 Feb 08 j 22:08	29° <del>0</del> 00'47	-0°43'04
direct	1410 Oct 02 j 11:30	0° <del>0</del> 59'52		minimum elong	1417 Feb 08 j 22:08	29° <del>0</del> 00'47	0°43'04
evening set	1411 Jan 01 j 00:06	4° <del>0</del> 02'35		max. Earth dist.	1417 Feb 09 j 22:41	29° <del>0</del> 04'19	21.03769 AU
				morning rise	1417 Feb 24 j 19:06	29° <del>0</del> 55'10	
conjunction	1411 Jan 16 j 15:22	4° <del>0</del> 56'52	-0°35'35		1417 Feb 26 j 05:39	0° <del>0</del>	
minimum elong	1411 Jan 16 j 15:22	4° <del>0</del> 56'52	0°35'35	retrograde	1417 May 29 j 20:15	3° <del>0</del> 02'00	
max. Earth dist.	1411 Jan 17 j 14:24	5° <del>0</del> 00'13	20.85732 AU	opposition	1417 Aug 15 j 21:55	1° <del>0</del> 03'09	-0°47'55
morning rise	1411 Feb 01 j 08:24	5° <del>0</del> 51'26		min. Earth dist.	1417 Aug 14 j 22:57	1° <del>0</del> 05'27	19.04528 AU
retrograde	1411 May 05 j 13:51	8° <del>0</del> 59'06			1417 Sep 12 j 17:42	30° <del>0</del>	
opposition	1411 Jul 22 j 12:03	7° <del>0</del> 00'13	-0°40'20	direct	1417 Oct 30 j 16:44	29° <del>0</del> 06'52	
min. Earth dist.	1411 Jul 21 j 13:49	7° <del>0</del> 02'27	18.87794 AU		1417 Dec 15 j 20:17	0° <del>0</del>	
direct	1411 Oct 06 j 21:23	5° <del>0</del> 02'56		evening set	1418 Jan 28 j 08:29	2° <del>0</del> 05'47	
evening set	1412 Jan 05 j 05:10	8° <del>0</del> 04'55					
				conjunction	1418 Feb 13 j 03:02	2° <del>0</del> 59'43	-0°43'36

minimum elong	1418 Feb 13 j 03:02	2° <del>✕</del> 59'43	0°43'36	opposition	1424 Sep 13 j 02:39	28° <del>✕</del> 51'22	-0°46'18
max. Earth dist.	1418 Feb 14 j 02:12	3° <del>✕</del> 03'03	21.05064 AU	direct	1424 Nov 27 j 06:30	26° <del>✕</del> 54'49	
morning rise	1418 Mar 01 j 00:59	3° <del>✕</del> 54'08		evening set	1425 Feb 24 j 17:48	29° <del>✕</del> 53'06	
retrograde	1418 Jun 03 j 04:21	7° <del>✕</del> 00'56			1425 Feb 26 j 19:06	0° <del>♀</del>	
min. Earth dist.	1418 Aug 19 j 08:21	5° <del>✕</del> 04'12	19.05554 AU				
opposition	1418 Aug 20 j 06:26	5° <del>✕</del> 01'59	-0°48'23	conjunction	1425 Mar 12 j 18:25	0° <del>♀</del> 47'38	-0°41'26
direct	1418 Nov 03 j 22:34	3° <del>✕</del> 05'43		minimum elong	1425 Mar 12 j 18:25	0° <del>♀</del> 47'38	0°41'25
evening set	1419 Feb 01 j 12:49	6° <del>✕</del> 04'18		max. Earth dist.	1425 Mar 13 j 15:39	0° <del>♀</del> 50'40	21.01451 AU
				morning rise	1425 Mar 28 j 22:40	1° <del>♀</del> 42'42	
conjunction	1419 Feb 17 j 08:17	6° <del>✕</del> 58'17	-0°43'56	retrograde	1425 Jul 01 j 14:20	4° <del>♀</del> 50'14	
minimum elong	1419 Feb 17 j 08:17	6° <del>✕</del> 58'17	0°43'56	opposition	1425 Sep 17 j 09:35	2° <del>♀</del> 50'31	-0°45'10
max. Earth dist.	1419 Feb 18 j 08:13	7° <del>✕</del> 01'43	21.05823 AU	min. Earth dist.	1425 Sep 16 j 14:27	2° <del>♀</del> 52'27	19.00529 AU
morning rise	1419 Mar 05 j 06:56	7° <del>✕</del> 52'44		direct	1425 Dec 01 j 12:39	0° <del>♀</del> 53'55	
retrograde	1419 Jun 07 j 12:52	10° <del>✕</del> 59'30		evening set	1426 Feb 28 j 23:42	3° <del>♀</del> 52'26	
opposition	1419 Aug 24 j 14:19	9° <del>✕</del> 00'26	-0°48'37				
min. Earth dist.	1419 Aug 23 j 16:11	9° <del>✕</del> 02'39	19.06052 AU	conjunction	1426 Mar 17 j 01:07	4° <del>♀</del> 47'06	-0°40'18
direct	1419 Nov 08 j 05:13	7° <del>✕</del> 04'08		minimum elong	1426 Mar 17 j 01:07	4° <del>♀</del> 47'06	0°40'18
evening set	1420 Feb 05 j 17:18	10° <del>✕</del> 02'29		max. Earth dist.	1426 Mar 17 j 20:32	4° <del>♀</del> 49'52	20.99455 AU
				morning rise	1426 Apr 02 j 06:33	5° <del>♀</del> 42'20	
conjunction	1420 Feb 21 j 13:22	10° <del>✕</del> 56'30	-0°44'02	retrograde	1426 Jul 05 j 23:38	8° <del>♀</del> 50'11	
minimum elong	1420 Feb 21 j 13:22	10° <del>✕</del> 56'30	0°44'02	opposition	1426 Sep 21 j 16:44	6° <del>♀</del> 50'23	-0°43'48
max. Earth dist.	1420 Feb 22 j 11:52	10° <del>✕</del> 59'43	21.06085 AU	min. Earth dist.	1426 Sep 20 j 23:14	6° <del>♀</del> 52'09	18.98348 AU
morning rise	1420 Mar 08 j 13:06	11° <del>✕</del> 51'01		direct	1426 Dec 05 j 16:46	4° <del>♀</del> 53'43	
retrograde	1420 Jun 10 j 20:13	14° <del>✕</del> 57'48		evening set	1427 Mar 05 j 06:07	7° <del>♀</del> 52'32	
opposition	1420 Aug 27 j 22:04	12° <del>✕</del> 58'35	-0°48'37				
min. Earth dist.	1420 Aug 27 j 00:58	13° <del>✕</del> 00'42	19.06090 AU	conjunction	1427 Mar 21 j 08:43	8° <del>♀</del> 47'24	-0°38'58
direct	1420 Nov 11 j 10:01	11° <del>✕</del> 02'15		minimum elong	1427 Mar 21 j 08:43	8° <del>♀</del> 47'24	0°38'57
evening set	1421 Feb 08 j 21:41	14° <del>✕</del> 00'25		max. Earth dist.	1427 Mar 22 j 04:15	8° <del>♀</del> 50'11	20.97086 AU
				morning rise	1427 Apr 06 j 14:59	9° <del>♀</del> 42'47	
conjunction	1421 Feb 24 j 18:42	14° <del>✕</del> 54'30	-0°43'56	retrograde	1427 Jul 10 j 08:59	12° <del>♀</del> 50'58	
minimum elong	1421 Feb 24 j 18:42	14° <del>✕</del> 54'30	0°43'56	opposition	1427 Sep 25 j 23:40	10° <del>♀</del> 51'07	-0°42'14
max. Earth dist.	1421 Feb 25 j 17:59	14° <del>✕</del> 57'50	21.05902 AU	min. Earth dist.	1427 Sep 25 j 06:29	10° <del>♀</del> 52'52	18.95769 AU
morning rise	1421 Mar 12 j 19:07	15° <del>✕</del> 49'05		direct	1427 Dec 09 j 22:48	8° <del>♀</del> 54'22	
retrograde	1421 Jun 15 j 04:47	18° <del>✕</del> 55'55		evening set	1428 Mar 08 j 13:20	11° <del>♀</del> 53'35	
min. Earth dist.	1421 Aug 31 j 08:05	16° <del>✕</del> 58'43	19.05699 AU				
opposition	1421 Sep 01 j 05:24	16° <del>✕</del> 56'35	-0°48'22	conjunction	1428 Mar 24 j 16:46	12° <del>♀</del> 48'37	-0°37'27
direct	1421 Nov 15 j 16:31	15° <del>✕</del> 00'12		minimum elong	1428 Mar 24 j 16:46	12° <del>♀</del> 48'37	0°37'27
evening set	1422 Feb 13 j 02:24	17° <del>✕</del> 58'16		max. Earth dist.	1428 Mar 25 j 10:00	12° <del>♀</del> 51'05	20.94301 AU
				morning rise	1428 Apr 10 j 00:11	13° <del>♀</del> 44'12	
conjunction	1422 Mar 01 j 00:05	18° <del>✕</del> 52'25	-0°43'37	retrograde	1428 Jul 13 j 18:36	16° <del>♀</del> 52'45	
minimum elong	1422 Mar 01 j 00:05	18° <del>✕</del> 52'25	0°43'36	opposition	1428 Sep 29 j 07:01	14° <del>♀</del> 52'49	-0°40'27
max. Earth dist.	1422 Mar 01 j 21:55	18° <del>✕</del> 55'33	21.05323 AU	min. Earth dist.	1428 Sep 28 j 15:57	14° <del>♀</del> 54'21	18.92766 AU
morning rise	1422 Mar 17 j 01:36	19° <del>✕</del> 47'06		direct	1428 Dec 13 j 03:37	12° <del>♀</del> 55'57	
retrograde	1422 Jun 19 j 12:24	22° <del>✕</del> 54'03		evening set	1429 Mar 12 j 20:54	15° <del>♀</del> 55'37	
opposition	1422 Sep 05 j 12:42	20° <del>✕</del> 54'35	-0°47'55				
min. Earth dist.	1422 Sep 04 j 16:28	20° <del>✕</del> 56'37	19.04943 AU	conjunction	1429 Mar 29 j 01:29	16° <del>♀</del> 50'51	-0°35'44
direct	1422 Nov 19 j 20:26	18° <del>✕</del> 58'09		minimum elong	1429 Mar 29 j 01:29	16° <del>♀</del> 50'51	0°35'43
evening set	1423 Feb 17 j 07:07	21° <del>✕</del> 56'12		max. Earth dist.	1429 Mar 29 j 18:25	16° <del>♀</del> 53'17	20.91070 AU
				morning rise	1429 Apr 14 j 09:42	17° <del>♀</del> 46'38	
conjunction	1423 Mar 05 j 05:52	22° <del>✕</del> 50'28	-0°43'05	retrograde	1429 Jul 18 j 05:00	20° <del>♀</del> 55'34	
minimum elong	1423 Mar 05 j 05:52	22° <del>✕</del> 50'28	0°43'05	opposition	1429 Oct 03 j 14:26	18° <del>♀</del> 55'33	-0°38'27
max. Earth dist.	1423 Mar 06 j 04:22	22° <del>✕</del> 53'41	21.04386 AU	min. Earth dist.	1429 Oct 02 j 23:55	18° <del>♀</del> 57'02	18.89290 AU
morning rise	1423 Mar 21 j 08:12	23° <del>✕</del> 45'15		direct	1429 Dec 17 j 10:26	16° <del>♀</del> 58'32	
retrograde	1423 Jun 23 j 21:06	26° <del>✕</del> 52'21		evening set	1430 Mar 17 j 05:24	19° <del>♀</del> 58'41	
opposition	1423 Sep 09 j 19:43	24° <del>✕</del> 52'47	-0°47'13				
min. Earth dist.	1423 Sep 08 j 23:18	24° <del>✕</del> 54'51	19.03819 AU	conjunction	1430 Apr 02 j 10:51	20° <del>♀</del> 54'08	-0°33'50
direct	1423 Nov 24 j 02:52	22° <del>✕</del> 56'18		minimum elong	1430 Apr 02 j 10:51	20° <del>♀</del> 54'08	0°33'50
evening set	1424 Feb 21 j 12:24	25° <del>✕</del> 54'26		max. Earth dist.	1430 Apr 03 j 01:07	20° <del>♀</del> 56'11	20.87358 AU
				morning rise	1430 Apr 18 j 20:12	21° <del>♀</del> 50'08	
conjunction	1424 Mar 08 j 11:53	26° <del>✕</del> 48'48	-0°42'21	retrograde	1430 Jul 22 j 14:53	24° <del>♀</del> 59'27	
minimum elong	1424 Mar 08 j 11:53	26° <del>✕</del> 48'48	0°42'21	opposition	1430 Oct 07 j 22:09	22° <del>♀</del> 59'19	-0°36'15
max. Earth dist.	1424 Mar 09 j 08:41	26° <del>✕</del> 51'47	21.03090 AU	min. Earth dist.	1430 Oct 07 j 10:04	23° <del>♀</del> 00'33	18.85337 AU
morning rise	1424 Mar 24 j 15:20	27° <del>✕</del> 43'43		direct	1430 Dec 21 j 15:51	21° <del>♀</del> 02'04	
	1424 May 11 j 16:01	0° <del>♀</del>		evening set	1431 Mar 21 j 14:21	24° <del>♀</del> 02'47	
retrograde	1424 Jun 27 j 05:33	0° <del>♀</del> 51'02					
	1424 Aug 13 j 22:06	30° <del>♂</del>		conjunction	1431 Apr 06 j 21:03	24° <del>♀</del> 58'28	-0°31'45
min. Earth dist.	1424 Sep 12 j 07:35	28° <del>✕</del> 53'18	19.02353 AU	minimum elong	1431 Apr 06 j 21:03	24° <del>♀</del> 58'28	0°31'45

max. Earth dist.	1431 Apr 07 j 10:37	25° $\Upsilon$ 00'25	20.83171 AU	morning rise	1437 May 18 j 14:42	20° $\mathcal{B}$ 45'25	
morning rise	1431 Apr 23 j 07:14	25° $\Upsilon$ 54'40		retrograde	1437 Aug 21 j 04:31	23° $\mathcal{B}$ 57'54	
retrograde	1431 Jul 27 j 02:23	29° $\Upsilon$ 04'23		opposition	1437 Nov 05 j 10:25	21° $\mathcal{B}$ 56'29	-0°16'03
opposition	1431 Oct 12 j 05:57	27° $\Upsilon$ 04'05	-0°33'52	min. Earth dist.	1437 Nov 05 j 07:32	21° $\mathcal{B}$ 56'47	18.47787 AU
min. Earth dist.	1431 Oct 11 j 18:33	27° $\Upsilon$ 05'15	18.80904 AU	direct	1438 Jan 19 j 00:37	19° $\mathcal{B}$ 56'57	
direct	1431 Dec 25 j 23:41	25° $\Upsilon$ 06'35		evening set	1438 Apr 20 j 01:07	23° $\mathcal{B}$ 03'09	
evening set	1432 Mar 25 j 00:08	28° $\Upsilon$ 07'54					
conjunction	1432 Apr 10 j 07:41	29° $\Upsilon$ 03'49	-0°29'30	conjunction	1438 May 06 j 14:31	24° $\mathcal{B}$ 00'43	-0°13'00
minimum elong	1432 Apr 10 j 07:41	29° $\Upsilon$ 03'49	0°29'29	minimum elong	1438 May 06 j 14:31	24° $\mathcal{B}$ 00'43	0°13'00
max. Earth dist.	1432 Apr 10 j 18:29	29° $\Upsilon$ 05'22	20.78522 AU	behind sun begin	1438 May 06 j 10:33	24° $\mathcal{B}$ 00'09	
morning rise	1432 Apr 26 j 18:56	0° $\mathcal{B}$ 00'15		behind sun end	1438 May 06 j 18:29	24° $\mathcal{B}$ 01'16	
	1432 Apr 26 j 17:10	0° $\mathcal{B}$		max. Earth dist.	1438 May 06 j 15:47	24° $\mathcal{B}$ 00'53	20.44771 AU
retrograde	1432 Jul 30 j 12:31	3° $\mathcal{B}$ 10'22		morning rise	1438 May 23 j 06:35	24° $\mathcal{B}$ 58'40	
opposition	1432 Oct 15 j 14:00	1° $\mathcal{B}$ 09'53	-0°31'17	retrograde	1438 Aug 25 j 17:47	28° $\mathcal{B}$ 11'42	
min. Earth dist.	1432 Oct 15 j 05:05	1° $\mathcal{B}$ 10'48	18.76051 AU	opposition	1438 Nov 09 j 20:36	26° $\mathcal{B}$ 10'10	-0°12'38
	1432 Nov 14 j 18:49	30° $\mathcal{R}\Upsilon$		min. Earth dist.	1438 Nov 09 j 20:09	26° $\mathcal{B}$ 10'13	18.41710 AU
direct	1432 Dec 29 j 05:51	29° $\Upsilon$ 12'04		direct	1439 Jan 23 j 09:09	24° $\mathcal{B}$ 10'18	
	1433 Feb 10 j 15:08	0° $\mathcal{B}$		evening set	1439 Apr 24 j 16:15	27° $\mathcal{B}$ 17'34	
evening set	1433 Mar 29 j 10:21	2° $\mathcal{B}$ 14'02		conjunction	1439 May 11 j 06:39	28° $\mathcal{B}$ 15'25	-0°09'53
conjunction	1433 Apr 14 j 19:05	3° $\mathcal{B}$ 10'12	-0°27'05	minimum elong	1439 May 11 j 06:39	28° $\mathcal{B}$ 15'25	0°09'53
minimum elong	1433 Apr 14 j 19:05	3° $\mathcal{B}$ 10'12	0°27'05	behind sun begin	1439 May 11 j 01:12	28° $\mathcal{B}$ 14'39	
max. Earth dist.	1433 Apr 15 j 05:12	3° $\mathcal{B}$ 11'39	20.73493 AU	behind sun end	1439 May 11 j 12:05	28° $\mathcal{B}$ 16'12	
morning rise	1433 May 01 j 07:06	4° $\mathcal{B}$ 06'52		max. Earth dist.	1439 May 11 j 06:48	28° $\mathcal{B}$ 15'27	20.38666 AU
retrograde	1433 Aug 04 j 00:55	7° $\mathcal{B}$ 17'24		morning rise	1439 May 27 j 23:17	29° $\mathcal{B}$ 13'39	
opposition	1433 Oct 19 j 22:12	5° $\mathcal{B}$ 16'43	-0°28'32		1439 Jun 10 j 21:15	0° $\mathcal{I}$	
min. Earth dist.	1433 Oct 19 j 13:48	5° $\mathcal{B}$ 17'35	18.70846 AU	retrograde	1439 Aug 30 j 10:30	2° $\mathcal{I}$ 27'16	
direct	1434 Jan 02 j 14:10	3° $\mathcal{B}$ 18'35		opposition	1439 Nov 14 j 07:15	0° $\mathcal{I}$ 25'38	-0°09'07
evening set	1434 Apr 02 j 21:19	6° $\mathcal{B}$ 21'15		min. Earth dist.	1439 Nov 14 j 07:16	0° $\mathcal{I}$ 25'38	18.35563 AU
conjunction	1434 Apr 19 j 06:56	7° $\mathcal{B}$ 17'41	-0°24'31		1439 Nov 24 j 11:48	30° $\mathcal{R}\mathcal{B}$	
minimum elong	1434 Apr 19 j 06:56	7° $\mathcal{B}$ 17'41	0°24'30	direct	1440 Jan 27 j 21:04	28° $\mathcal{B}$ 25'28	
max. Earth dist.	1434 Apr 19 j 14:30	7° $\mathcal{B}$ 18'46	20.68142 AU		1440 Mar 29 j 18:08	0° $\mathcal{I}$	
morning rise	1434 May 05 j 19:59	8° $\mathcal{B}$ 14'36		evening set	1440 Apr 28 j 08:26	1° $\mathcal{I}$ 33'50	
retrograde	1434 Aug 08 j 12:05	11° $\mathcal{B}$ 25'35		conjunction	1440 May 14 j 23:29	2° $\mathcal{I}$ 32'00	-0°06'41
opposition	1434 Oct 24 j 06:49	9° $\mathcal{B}$ 24'41	-0°25'37	minimum elong	1440 May 14 j 23:30	2° $\mathcal{I}$ 32'00	0°06'41
min. Earth dist.	1434 Oct 24 j 00:49	9° $\mathcal{B}$ 25'19	18.65362 AU	behind sun begin	1440 May 14 j 17:11	2° $\mathcal{I}$ 31'06	
direct	1435 Jan 06 j 21:17	7° $\mathcal{B}$ 26'11		behind sun end	1440 May 15 j 05:48	2° $\mathcal{I}$ 32'54	
evening set	1435 Apr 07 j 09:01	10° $\mathcal{B}$ 29'39		max. Earth dist.	1440 May 14 j 21:25	2° $\mathcal{I}$ 31'43	20.32480 AU
conjunction	1435 Apr 23 j 19:47	11° $\mathcal{B}$ 26'21	-0°21'49	morning rise	1440 May 31 j 16:42	3° $\mathcal{I}$ 30'30	
minimum elong	1435 Apr 23 j 19:47	11° $\mathcal{B}$ 26'21	0°21'49	retrograde	1440 Sep 03 j 00:51	6° $\mathcal{I}$ 44'43	
max. Earth dist.	1435 Apr 24 j 02:37	11° $\mathcal{B}$ 27'20	20.62544 AU	opposition	1440 Nov 17 j 18:37	4° $\mathcal{I}$ 43'02	-0°05'31
morning rise	1435 May 10 j 09:33	12° $\mathcal{B}$ 23'31		min. Earth dist.	1440 Nov 17 j 21:11	4° $\mathcal{I}$ 42'45	18.29345 AU
	1435 Jul 06 j 08:30	15° $\mathcal{B}$		direct	1441 Jan 31 j 06:44	2° $\mathcal{I}$ 42'33	
retrograde	1435 Aug 13 j 01:26	15° $\mathcal{B}$ 34'58		evening set	1441 May 03 j 01:33	5° $\mathcal{I}$ 52'05	
	1435 Sep 20 j 06:01	15° $\mathcal{R}\mathcal{B}$		conjunction	1441 May 19 j 17:25	6° $\mathcal{I}$ 50'33	-0°03'25
opposition	1435 Oct 28 j 15:27	13° $\mathcal{B}$ 33'53	-0°22'34	minimum elong	1441 May 19 j 17:25	6° $\mathcal{I}$ 50'33	0°03'25
min. Earth dist.	1435 Oct 28 j 09:56	13° $\mathcal{B}$ 34'28	18.59652 AU	behind sun begin	1441 May 19 j 10:42	6° $\mathcal{I}$ 49'35	
direct	1436 Jan 11 j 06:21	11° $\mathcal{B}$ 35'02		behind sun end	1441 May 20 j 00:08	6° $\mathcal{I}$ 51'31	
evening set	1436 Apr 10 j 21:41	14° $\mathcal{B}$ 39'21		max. Earth dist.	1441 May 19 j 13:52	6° $\mathcal{I}$ 50'04	20.26232 AU
	1436 Apr 16 j 22:25	15° $\mathcal{B}$		morning rise	1441 Jun 05 j 11:05	7° $\mathcal{I}$ 49'20	
conjunction	1436 Apr 27 j 09:15	15° $\mathcal{B}$ 36'20	-0°18'59	retrograde	1441 Sep 07 j 19:12	11° $\mathcal{I}$ 04'09	
minimum elong	1436 Apr 27 j 09:14	15° $\mathcal{B}$ 36'20	0°18'59	opposition	1441 Nov 22 j 06:26	9° $\mathcal{I}$ 02'25	-0°01'51
max. Earth dist.	1436 Apr 27 j 13:35	15° $\mathcal{B}$ 36'57	20.56744 AU	min. Earth dist.	1441 Nov 22 j 09:44	9° $\mathcal{I}$ 02'04	18.23049 AU
morning rise	1436 May 13 j 23:53	16° $\mathcal{B}$ 33'45		direct	1442 Feb 04 j 20:09	7° $\mathcal{I}$ 01'36	
retrograde	1436 Aug 16 j 13:44	19° $\mathcal{B}$ 45'42		evening set	1442 May 07 j 19:47	10° $\mathcal{I}$ 12'21	
opposition	1436 Nov 01 j 00:47	17° $\mathcal{B}$ 44'26	-0°19'22	conjunction	1442 May 24 j 12:17	11° $\mathcal{I}$ 11'08	-0°00'02
min. Earth dist.	1436 Oct 31 j 21:35	17° $\mathcal{B}$ 44'46	18.53780 AU	minimum elong	1442 May 24 j 12:17	11° $\mathcal{I}$ 11'08	0°00'02
direct	1437 Jan 14 j 14:11	15° $\mathcal{B}$ 45'14		behind sun begin	1442 May 24 j 06:56	11° $\mathcal{I}$ 10'22	
evening set	1437 Apr 15 j 10:47	18° $\mathcal{B}$ 50'28		behind sun end	1442 May 24 j 17:38	11° $\mathcal{I}$ 11'53	
conjunction	1437 May 01 j 23:25	19° $\mathcal{B}$ 47'44	-0°16'03	max. Earth dist.	1442 May 24 j 06:25	11° $\mathcal{I}$ 10'18	20.19876 AU
minimum elong	1437 May 01 j 23:25	19° $\mathcal{B}$ 47'44	0°16'03	asc. node	1442 May 27 j 03:52	11° $\mathcal{I}$ 20'33	
max. Earth dist.	1437 May 02 j 03:00	19° $\mathcal{B}$ 48'14	20.50811 AU	morning rise	1442 Jun 10 j 06:22	12° $\mathcal{I}$ 10'11	
				retrograde	1442 Sep 12 j 10:58	15° $\mathcal{I}$ 25'37	
				opposition	1442 Nov 26 j 19:09	13° $\mathcal{I}$ 23'49	0°01'51

min. Earth dist.	1442 Nov 27 j 01:12	13° $\Pi$ 23'10	18.16639 AU	max. Earth dist.	1448 Jun 20 j 06:29	7° $\mathfrak{C}$ 51'30	19.80655 AU
direct	1443 Feb 09 j 07:40	11° $\Pi$ 22'39		morning rise	1448 Jul 07 j 18:01	8° $\mathfrak{C}$ 54'31	
evening set	1443 May 12 j 15:03	14° $\Pi$ 34'38		retrograde	1448 Oct 09 j 03:00	12° $\mathfrak{C}$ 13'14	
				opposition	1448 Dec 22 j 12:34	10° $\mathfrak{C}$ 10'43	0°23'37
conjunction	1443 May 29 j 08:12	15° $\Pi$ 33'43	0°03'24	min. Earth dist.	1448 Dec 23 j 03:45	10° $\mathfrak{C}$ 09'04	17.77551 AU
minimum elong	1443 May 29 j 08:12	15° $\Pi$ 33'43	0°03'24	direct	1449 Mar 07 j 11:06	8° $\mathfrak{C}$ 07'04	
behind sun begin	1443 May 29 j 01:28	15° $\Pi$ 32'44		evening set	1449 Jun 09 j 04:37	11° $\mathfrak{C}$ 26'25	
behind sun end	1443 May 29 j 14:55	15° $\Pi$ 34'41					
max. Earth dist.	1443 May 29 j 00:13	15° $\Pi$ 32'33	20.13411 AU	conjunction	1449 Jun 25 j 23:39	12° $\mathfrak{C}$ 27'07	0°22'46
morning rise	1443 Jun 15 j 02:36	16° $\Pi$ 33'02		minimum elong	1449 Jun 25 j 23:39	12° $\mathfrak{C}$ 27'07	0°22'46
retrograde	1443 Sep 17 j 06:12	19° $\Pi$ 49'04		max. Earth dist.	1449 Jun 25 j 04:29	12° $\mathfrak{C}$ 24'13	19.74524 AU
opposition	1443 Dec 01 j 08:18	17° $\Pi$ 47'10	0°05'34	morning rise	1449 Jul 12 j 18:12	13° $\mathfrak{C}$ 27'47	
min. Earth dist.	1443 Dec 01 j 15:17	17° $\Pi$ 46'25	18.10117 AU	retrograde	1449 Oct 13 j 23:51	16° $\mathfrak{C}$ 46'58	
direct	1444 Feb 13 j 23:04	15° $\Pi$ 45'39		opposition	1449 Dec 27 j 05:36	14° $\mathfrak{C}$ 44'19	0°26'57
evening set	1444 May 16 j 11:17	18° $\Pi$ 58'51		min. Earth dist.	1449 Dec 27 j 21:26	14° $\mathfrak{C}$ 42'36	17.71577 AU
				direct	1450 Mar 12 j 06:57	12° $\mathfrak{C}$ 40'16	
conjunction	1444 Jun 02 j 04:57	19° $\Pi$ 58'14	0°06'44	evening set	1450 Jun 14 j 05:31	16° $\mathfrak{C}$ 00'49	
minimum elong	1444 Jun 02 j 04:56	19° $\Pi$ 58'14	0°06'45	max. Earth dist.	1450 Jun 30 j 05:20	16° $\mathfrak{C}$ 58'48	19.68701 AU
behind sun begin	1444 Jun 01 j 22:38	19° $\Pi$ 57'19					
behind sun end	1444 Jun 02 j 11:15	19° $\Pi$ 59'09		conjunction	1450 Jul 01 j 00:43	17° $\mathfrak{C}$ 01'45	0°25'40
max. Earth dist.	1444 Jun 01 j 18:51	19° $\Pi$ 56'45	20.06831 AU	minimum elong	1450 Jul 01 j 00:43	17° $\mathfrak{C}$ 01'45	0°25'40
morning rise	1444 Jun 18 j 23:31	20° $\Pi$ 57'48		morning rise	1450 Jul 17 j 18:48	18° $\mathfrak{C}$ 02'35	
retrograde	1444 Sep 20 j 22:45	24° $\Pi$ 14'25		retrograde	1450 Oct 18 j 20:33	21° $\mathfrak{C}$ 22'12	
opposition	1444 Dec 04 j 22:23	22° $\Pi$ 12'25	0°09'17	opposition	1450 Dec 31 j 23:33	19° $\mathfrak{C}$ 19'29	0°30'06
min. Earth dist.	1444 Dec 05 j 07:56	22° $\Pi$ 11'23	18.03506 AU	min. Earth dist.	1451 Jan 01 j 16:36	19° $\mathfrak{C}$ 17'38	17.65938 AU
direct	1445 Feb 17 j 12:41	20° $\Pi$ 10'29		direct	1451 Mar 17 j 02:34	17° $\mathfrak{C}$ 15'04	
evening set	1445 May 21 j 08:11	23° $\Pi$ 24'55		evening set	1451 Jun 19 j 07:15	20° $\mathfrak{C}$ 36'46	
				max. Earth dist.	1451 Jul 05 j 04:39	21° $\mathfrak{C}$ 34'37	19.63257 AU
conjunction	1445 Jun 07 j 02:19	24° $\Pi$ 24'36	0°10'04				
minimum elong	1445 Jun 07 j 02:19	24° $\Pi$ 24'36	0°10'03	conjunction	1451 Jul 06 j 02:09	21° $\mathfrak{C}$ 37'54	0°28'26
behind sun begin	1445 Jun 06 j 20:55	24° $\Pi$ 23'49		minimum elong	1451 Jul 06 j 02:09	21° $\mathfrak{C}$ 37'54	0°28'26
behind sun end	1445 Jun 07 j 07:42	24° $\Pi$ 25'23		morning rise	1451 Jul 22 j 19:57	22° $\mathfrak{C}$ 38'53	
max. Earth dist.	1445 Jun 06 j 14:00	24° $\Pi$ 22'46	20.00207 AU	retrograde	1451 Oct 23 j 18:44	25° $\mathfrak{C}$ 58'57	
morning rise	1445 Jun 23 j 21:09	25° $\Pi$ 24'25		opposition	1452 Jan 05 j 18:04	23° $\mathfrak{C}$ 56'11	0°33'06
retrograde	1445 Sep 25 j 18:33	28° $\Pi$ 41'35		min. Earth dist.	1452 Jan 06 j 11:42	23° $\mathfrak{C}$ 54'15	17.60714 AU
opposition	1445 Dec 09 j 12:57	26° $\Pi$ 39'27	0°12'59	direct	1452 Mar 20 j 23:31	21° $\mathfrak{C}$ 51'25	
min. Earth dist.	1445 Dec 09 j 23:21	26° $\Pi$ 38'20	17.96874 AU	evening set	1452 Jun 23 j 09:26	25° $\mathfrak{C}$ 14'16	
direct	1446 Feb 22 j 06:02	24° $\Pi$ 37'07		max. Earth dist.	1452 Jul 09 j 07:07	26° $\mathfrak{C}$ 12'20	19.58244 AU
evening set	1446 May 26 j 06:09	27° $\Pi$ 52'47					
max. Earth dist.	1446 Jun 11 j 10:53	28° $\Pi$ 50'41	19.93576 AU	conjunction	1452 Jul 10 j 04:19	26° $\mathfrak{C}$ 15'35	0°31'01
				minimum elong	1452 Jul 10 j 04:19	26° $\mathfrak{C}$ 15'35	0°31'00
conjunction	1446 Jun 12 j 00:43	28° $\Pi$ 52'45	0°13'21	morning rise	1452 Jul 26 j 21:27	27° $\mathfrak{C}$ 16'43	
minimum elong	1446 Jun 12 j 00:43	28° $\Pi$ 52'45	0°13'21		1452 Sep 20 j 14:07	0° $\mathfrak{Q}$	
behind sun begin	1446 Jun 11 j 21:00	28° $\Pi$ 52'12		retrograde	1452 Oct 27 j 17:03	0° $\mathfrak{Q}$ 37'10	
behind sun end	1446 Jun 12 j 04:26	28° $\Pi$ 53'18			1452 Dec 04 j 09:10	30° $\mathfrak{R}\mathfrak{C}$	
morning rise	1446 Jun 28 j 19:32	29° $\Pi$ 52'47		opposition	1453 Jan 09 j 13:23	28° $\mathfrak{C}$ 34'25	0°35'53
	1446 Jun 30 j 20:58	0° $\mathfrak{C}$		min. Earth dist.	1453 Jan 10 j 07:42	28° $\mathfrak{C}$ 32'25	17.55928 AU
retrograde	1446 Sep 30 j 11:56	3° $\mathfrak{C}$ 10'29		direct	1453 Mar 25 j 20:07	26° $\mathfrak{C}$ 29'23	
opposition	1446 Dec 14 j 04:09	1° $\mathfrak{C}$ 08'13	0°16'37	evening set	1453 Jun 28 j 12:21	29° $\mathfrak{C}$ 53'20	
min. Earth dist.	1446 Dec 14 j 16:52	1° $\mathfrak{C}$ 06'51	17.90279 AU		1453 Jun 30 j 08:42	0° $\mathfrak{Q}$	
	1447 Jan 11 j 02:54	30° $\mathfrak{R}\mathfrak{I}$		max. Earth dist.	1453 Jul 14 j 07:40	0° $\mathfrak{Q}$ 51'15	19.53689 AU
direct	1447 Feb 26 j 22:06	29° $\Pi$ 05'27					
	1447 Apr 13 j 22:30	0° $\mathfrak{C}$		conjunction	1453 Jul 15 j 06:47	0° $\mathfrak{Q}$ 54'49	0°33'25
evening set	1447 May 31 j 04:59	2° $\mathfrak{C}$ 22'22		minimum elong	1453 Jul 15 j 06:47	0° $\mathfrak{Q}$ 54'49	0°33'25
				morning rise	1453 Jul 31 j 23:31	1° $\mathfrak{Q}$ 56'04	
conjunction	1447 Jun 16 j 23:46	3° $\mathfrak{C}$ 22'35	0°16'35	retrograde	1453 Nov 01 j 16:20	5° $\mathfrak{Q}$ 16'54	
minimum elong	1447 Jun 16 j 23:46	3° $\mathfrak{C}$ 22'35	0°16'34	opposition	1454 Jan 14 j 09:23	3° $\mathfrak{Q}$ 14'10	0°38'28
max. Earth dist.	1447 Jun 16 j 07:35	3° $\mathfrak{C}$ 20'09	19.87040 AU	min. Earth dist.	1454 Jan 15 j 04:31	3° $\mathfrak{Q}$ 12'05	17.51606 AU
morning rise	1447 Jul 03 j 18:40	4° $\mathfrak{C}$ 22'51		direct	1454 Mar 30 j 18:14	1° $\mathfrak{Q}$ 08'54	
retrograde	1447 Oct 05 j 08:04	7° $\mathfrak{C}$ 41'04		evening set	1454 Jul 03 j 15:51	4° $\mathfrak{Q}$ 33'55	
opposition	1447 Dec 18 j 19:58	5° $\mathfrak{C}$ 38'40	0°20'10	max. Earth dist.	1454 Jul 19 j 11:19	5° $\mathfrak{Q}$ 32'02	19.49579 AU
min. Earth dist.	1447 Dec 19 j 09:26	5° $\mathfrak{C}$ 37'12	17.83818 AU				
direct	1448 Mar 02 j 16:48	3° $\mathfrak{C}$ 35'27		conjunction	1454 Jul 20 j 10:03	5° $\mathfrak{Q}$ 35'32	0°35'37
evening set	1448 Jun 04 j 04:21	6° $\mathfrak{C}$ 53'35		minimum elong	1454 Jul 20 j 10:03	5° $\mathfrak{Q}$ 35'32	0°35'37
				morning rise	1454 Aug 06 j 01:58	6° $\mathfrak{Q}$ 36'53	
conjunction	1448 Jun 20 j 23:24	7° $\mathfrak{C}$ 54'04	0°19'43	retrograde	1454 Nov 06 j 15:39	9° $\mathfrak{Q}$ 58'04	
minimum elong	1448 Jun 20 j 23:24	7° $\mathfrak{C}$ 54'04	0°19'44	opposition	1455 Jan 19 j 06:01	7° $\mathfrak{Q}$ 55'24	0°40'48

min. Earth dist.	1455 Jan 20 j 01:36	7°Ω53'15	17.47707 AU	conjunction	1461 Aug 23 j 13:56	8°Π49'20	0°43'47
direct	1455 Apr 04 j 16:42	5°Ω49'56		minimum elong	1461 Aug 23 j 13:56	8°Π49'20	0°43'48
evening set	1455 Jul 08 j 20:03	9°Ω15'56		max. Earth dist.	1461 Aug 22 j 12:46	8°Π45'24	19.32436 AU
				morning rise	1461 Sep 08 j 23:17	9°Π50'40	
conjunction	1455 Jul 25 j 13:36	10°Ω17'41	0°37'35	retrograde	1461 Dec 09 j 13:00	13°Π12'47	
minimum elong	1455 Jul 25 j 13:36	10°Ω17'40	0°37'35	opposition	1462 Feb 20 j 23:26	11°Π10'23	0°48'52
max. Earth dist.	1455 Jul 24 j 13:05	10°Ω13'53	19.45888 AU	min. Earth dist.	1462 Feb 21 j 21:33	11°Π07'59	17.32128 AU
morning rise	1455 Aug 11 j 04:51	11°Ω19'05		direct	1462 May 08 j 04:57	9°Π03'56	
retrograde	1455 Nov 11 j 15:14	14°Ω40'35		evening set	1462 Aug 12 j 05:29	12°Π34'02	
opposition	1456 Jan 24 j 03:31	12°Ω37'58	0°42'52				
min. Earth dist.	1456 Jan 25 j 00:10	12°Ω35'43	17.44234 AU	conjunction	1462 Aug 28 j 17:26	13°Π35'47	0°43'47
direct	1456 Apr 08 j 16:07	10°Ω32'19		minimum elong	1462 Aug 28 j 17:26	13°Π35'47	0°43'47
evening set	1456 Jul 13 j 00:19	13°Ω59'14		max. Earth dist.	1462 Aug 27 j 16:25	13°Π31'51	19.31872 AU
				morning rise	1462 Sep 14 j 01:47	14°Π37'01	
conjunction	1456 Jul 29 j 17:24	15°Ω01'03	0°39'19	retrograde	1462 Dec 14 j 13:39	17°Π59'02	
minimum elong	1456 Jul 29 j 17:24	15°Ω01'03	0°39'19	opposition	1463 Feb 25 j 23:56	15°Π56'40	0°48'43
max. Earth dist.	1456 Jul 28 j 17:14	14°Ω57'18	19.42606 AU	min. Earth dist.	1463 Feb 26 j 20:32	15°Π54'25	17.31846 AU
	1456 Jul 29 j 10:36	15°Ω		direct	1463 May 13 j 09:49	13°Π50'10	
morning rise	1456 Aug 15 j 07:44	16°Ω02'31		evening set	1463 Aug 17 j 09:37	17°Π20'23	
retrograde	1456 Nov 15 j 15:17	19°Ω24'16					
opposition	1457 Jan 28 j 01:36	17°Ω21'42	0°44'40	conjunction	1463 Sep 02 j 20:38	18°Π22'02	0°43'29
min. Earth dist.	1457 Jan 28 j 22:13	17°Ω19'27	17.41145 AU	minimum elong	1463 Sep 02 j 20:38	18°Π22'02	0°43'29
direct	1457 Apr 13 j 17:02	15°Ω15'53		max. Earth dist.	1463 Sep 01 j 21:13	18°Π18'22	19.31886 AU
evening set	1457 Jul 18 j 05:11	18°Ω43'36		morning rise	1463 Sep 19 j 03:42	19°Π23'09	
				retrograde	1463 Dec 19 j 12:25	22°Π45'02	
conjunction	1457 Aug 03 j 21:30	19°Ω45'29	0°40'47	opposition	1464 Mar 02 j 00:55	20°Π42'43	0°48'12
minimum elong	1457 Aug 03 j 21:30	19°Ω45'29	0°40'46	min. Earth dist.	1464 Mar 02 j 21:39	20°Π40'28	17.32174 AU
max. Earth dist.	1457 Aug 02 j 19:59	19°Ω41'30	19.39710 AU	direct	1464 May 17 j 12:08	18°Π36'14	
morning rise	1457 Aug 20 j 10:59	20°Ω46'58		evening set	1464 Aug 21 j 13:16	22°Π06'27	
retrograde	1457 Nov 20 j 14:28	24°Ω08'54					
opposition	1458 Feb 02 j 00:13	22°Ω06'23	0°46'09	conjunction	1464 Sep 06 j 23:05	23°Π07'58	0°42'53
min. Earth dist.	1458 Feb 02 j 22:04	22°Ω03'59	17.38459 AU	minimum elong	1464 Sep 06 j 23:05	23°Π07'58	0°42'53
direct	1458 Apr 18 j 17:33	20°Ω00'24		max. Earth dist.	1464 Sep 05 j 23:59	23°Π04'20	19.32538 AU
evening set	1458 Jul 23 j 10:10	23°Ω28'50		morning rise	1464 Sep 23 j 05:12	24°Π08'56	
max. Earth dist.	1458 Aug 08 j 00:26	24°Ω26'47	19.37223 AU	retrograde	1464 Dec 23 j 12:57	27°Π30'38	
				opposition	1465 Mar 07 j 01:51	25°Π28'24	0°47'22
conjunction	1458 Aug 09 j 01:49	24°Ω30'44	0°41'58	min. Earth dist.	1465 Mar 07 j 20:41	25°Π26'22	17.33146 AU
minimum elong	1458 Aug 09 j 01:49	24°Ω30'44	0°41'58	direct	1465 May 22 j 15:56	23°Π21'59	
morning rise	1458 Aug 25 j 14:20	25°Ω32'13		evening set	1465 Aug 26 j 16:31	26°Π52'06	
retrograde	1458 Nov 25 j 15:00	28°Ω54'17		max. Earth dist.	1465 Sep 11 j 04:33	27°Π50'12	19.33833 AU
opposition	1459 Feb 06 j 23:24	26°Ω51'48	0°47'20				
min. Earth dist.	1459 Feb 07 j 20:45	26°Ω49'28	17.36173 AU	conjunction	1465 Sep 12 j 01:23	27°Π53'29	0°41'59
direct	1459 Apr 23 j 20:31	24°Ω45'41		minimum elong	1465 Sep 12 j 01:23	27°Π53'29	0°41'58
evening set	1459 Jul 28 j 15:11	28°Ω14'42		morning rise	1465 Sep 28 j 06:11	28°Π54'17	
max. Earth dist.	1459 Aug 13 j 04:08	29°Ω12'34	19.35147 AU		1465 Oct 16 j 20:09	0°Ω	
				retrograde	1465 Dec 28 j 12:08	2°Ω15'45	
conjunction	1459 Aug 14 j 05:58	29°Ω16'36	0°42'53	opposition	1466 Mar 12 j 02:58	0°Ω13'40	0°46'13
minimum elong	1459 Aug 14 j 05:58	29°Ω16'36	0°42'53	min. Earth dist.	1466 Mar 12 j 21:32	0°Ω11'39	17.34757 AU
	1459 Aug 25 j 20:04	0°Π			1466 Mar 17 j 09:15	30°RΠ	
morning rise	1459 Aug 30 j 17:26	0°Π18'03		direct	1466 May 27 j 18:12	28°Π07'22	
retrograde	1459 Nov 30 j 13:53	3°Π40'13			1466 Aug 03 j 08:50	0°Ω	
opposition	1460 Feb 11 j 23:08	1°Π37'45	0°48'11	evening set	1466 Aug 31 j 19:24	1°Ω37'19	
min. Earth dist.	1460 Feb 12 j 21:31	1°Π35'19	17.34333 AU	max. Earth dist.	1466 Sep 16 j 06:27	2°Ω35'16	19.35772 AU
	1460 Mar 25 j 16:03	30°RΩ					
direct	1460 Apr 27 j 22:16	29°Ω31'30		conjunction	1466 Sep 17 j 02:58	2°Ω38'30	0°40'49
	1460 May 30 j 20:05	0°Π		minimum elong	1466 Sep 17 j 02:58	2°Ω38'30	0°40'49
evening set	1460 Aug 01 j 20:08	3°Π01'00		morning rise	1466 Oct 03 j 06:49	3°Ω39'09	
max. Earth dist.	1460 Aug 17 j 08:21	3°Π58'51	19.33546 AU	retrograde	1467 Jan 02 j 12:08	7°Ω00'21	
				opposition	1467 Mar 17 j 04:10	4°Ω58'25	0°44'45
conjunction	1460 Aug 18 j 10:02	4°Π02'53	0°43'29	min. Earth dist.	1467 Mar 17 j 20:51	4°Ω56'37	17.36999 AU
minimum elong	1460 Aug 18 j 10:02	4°Π02'53	0°43'29	direct	1467 Jun 01 j 21:08	2°Ω52'20	
morning rise	1460 Sep 03 j 20:32	5°Π04'16		evening set	1467 Sep 05 j 21:25	6°Ω21'58	
retrograde	1460 Dec 04 j 14:23	8°Π26'27		max. Earth dist.	1467 Sep 21 j 10:10	7°Ω20'10	19.38310 AU
opposition	1461 Feb 15 j 23:01	6°Π24'01	0°48'42				
min. Earth dist.	1461 Feb 16 j 20:22	6°Π21'41	17.32971 AU	conjunction	1467 Sep 22 j 04:01	7°Ω22'58	0°39'22
direct	1461 May 03 j 02:35	4°Π17'39		minimum elong	1467 Sep 22 j 04:01	7°Ω22'58	0°39'22
evening set	1461 Aug 07 j 00:53	7°Π47'30		morning rise	1467 Oct 08 j 06:35	8°Ω23'24	

retrograde	1468 Jan 07 j 11:14	11° <u>♂</u> 44'20		evening set	1474 Oct 08 j 17:06	9° <u>♂</u> 06'08	
opposition	1468 Mar 21 j 05:35	9° <u>♂</u> 42'35	0°42'59				
min. Earth dist.	1468 Mar 21 j 21:32	9° <u>♂</u> 40'52	17.39804 AU	conjunction	1474 Oct 24 j 15:55	10° <u>♂</u> 05'18	0°22'48
direct	1468 Jun 06 j 00:18	7° <u>♂</u> 36'44		minimum elong	1474 Oct 24 j 15:55	10° <u>♂</u> 05'18	0°22'48
evening set	1468 Sep 09 j 23:08	11° <u>♂</u> 05'58		max. Earth dist.	1474 Oct 24 j 08:05	10° <u>♂</u> 04'05	19.67888 AU
max. Earth dist.	1468 Sep 25 j 10:56	12° <u>♂</u> 03'59	19.41386 AU	morning rise	1474 Nov 09 j 11:44	11° <u>♂</u> 04'02	
				retrograde	1475 Feb 08 j 13:51	14° <u>♂</u> 21'41	
conjunction	1468 Sep 26 j 04:25	12° <u>♂</u> 06'44	0°37'40	opposition	1475 Apr 24 j 10:43	12° <u>♂</u> 20'59	0°23'42
minimum elong	1468 Sep 26 j 04:25	12° <u>♂</u> 06'44	0°37'40	min. Earth dist.	1475 Apr 24 j 17:09	12° <u>♂</u> 20'19	17.70560 AU
morning rise	1468 Oct 12 j 06:03	13° <u>♂</u> 06'58		direct	1475 Jul 10 j 16:39	10° <u>♂</u> 17'06	
retrograde	1469 Jan 11 j 09:42	16° <u>♂</u> 27'33		evening set	1475 Oct 13 j 12:42	13° <u>♂</u> 40'38	
opposition	1469 Mar 26 j 06:42	14° <u>♂</u> 25'59	0°40'56				
min. Earth dist.	1469 Mar 26 j 21:07	14° <u>♂</u> 24'26	17.43127 AU	conjunction	1475 Oct 29 j 10:37	14° <u>♂</u> 39'30	0°19'45
direct	1469 Jun 11 j 02:59	12° <u>♂</u> 20'24		minimum elong	1475 Oct 29 j 10:37	14° <u>♂</u> 39'30	0°19'44
evening set	1469 Sep 15 j 00:04	15° <u>♂</u> 49'07		max. Earth dist.	1475 Oct 29 j 04:52	14° <u>♂</u> 38'37	19.73311 AU
					1475 Nov 03 j 22:33	15° <u>♂</u>	
conjunction	1469 Oct 01 j 04:23	16° <u>♂</u> 49'40	0°35'42	morning rise	1475 Nov 14 j 05:41	15° <u>♂</u> 37'57	
minimum elong	1469 Oct 01 j 04:23	16° <u>♂</u> 49'40	0°35'42	retrograde	1476 Feb 13 j 09:32	18° <u>♂</u> 55'00	
max. Earth dist.	1469 Sep 30 j 13:24	16° <u>♂</u> 47'19	19.44936 AU	opposition	1476 Apr 28 j 09:55	16° <u>♂</u> 54'24	0°20'14
morning rise	1469 Oct 17 j 04:49	17° <u>♂</u> 49'40		min. Earth dist.	1476 Apr 28 j 13:47	16° <u>♂</u> 54'00	17.76100 AU
retrograde	1470 Jan 16 j 08:14	21° <u>♂</u> 09'52			1476 Jun 25 j 15:34	15° <u>♂</u>	
opposition	1470 Mar 31 j 08:01	19° <u>♂</u> 08'29	0°38'37	direct	1476 Jul 14 j 17:35	14° <u>♂</u> 50'49	
min. Earth dist.	1470 Mar 31 j 21:22	19° <u>♂</u> 07'03	17.46876 AU		1476 Aug 02 j 12:33	15° <u>♂</u>	
direct	1470 Jun 16 j 07:05	17° <u>♂</u> 03'11		evening set	1476 Oct 17 j 07:28	18° <u>♂</u> 13'13	
evening set	1470 Sep 20 j 00:25	20° <u>♂</u> 31'16					
				conjunction	1476 Nov 02 j 04:27	19° <u>♂</u> 11'46	0°16'35
conjunction	1470 Oct 06 j 03:26	21° <u>♂</u> 31'33	0°33'31	minimum elong	1476 Nov 02 j 04:27	19° <u>♂</u> 11'46	0°16'36
minimum elong	1470 Oct 06 j 03:26	21° <u>♂</u> 31'33	0°33'30	max. Earth dist.	1476 Nov 02 j 00:38	19° <u>♂</u> 11'11	19.78986 AU
max. Earth dist.	1470 Oct 05 j 12:58	21° <u>♂</u> 29'18	19.48888 AU	morning rise	1476 Nov 17 j 22:47	20° <u>♂</u> 09'58	
morning rise	1470 Oct 22 j 02:56	22° <u>♂</u> 31'19		retrograde	1477 Feb 17 j 02:45	23° <u>♂</u> 26'24	
retrograde	1471 Jan 21 j 05:05	25° <u>♂</u> 51'06		opposition	1477 May 03 j 08:32	21° <u>♂</u> 25'53	0°16'39
opposition	1471 Apr 05 j 09:11	23° <u>♂</u> 49'53	0°36'02	min. Earth dist.	1477 May 03 j 11:28	21° <u>♂</u> 25'35	17.81919 AU
min. Earth dist.	1471 Apr 05 j 21:13	23° <u>♂</u> 48'36	17.51018 AU	direct	1477 Jul 19 j 15:33	19° <u>♂</u> 22'36	
direct	1471 Jun 21 j 09:39	21° <u>♂</u> 44'52		evening set	1477 Oct 22 j 01:13	22° <u>♂</u> 43'52	
evening set	1471 Sep 24 j 23:52	25° <u>♂</u> 12'13					
				conjunction	1477 Nov 06 j 21:19	23° <u>♂</u> 42'07	0°13'21
conjunction	1471 Oct 11 j 01:54	26° <u>♂</u> 12'14	0°31'06	minimum elong	1477 Nov 06 j 21:19	23° <u>♂</u> 42'07	0°13'21
minimum elong	1471 Oct 11 j 01:54	26° <u>♂</u> 12'14	0°31'07	behind sun begin	1477 Nov 06 j 17:27	23° <u>♂</u> 41'32	
max. Earth dist.	1471 Oct 10 j 13:49	26° <u>♂</u> 10'21	19.53206 AU	behind sun end	1477 Nov 07 j 01:11	23° <u>♂</u> 42'42	
morning rise	1471 Oct 27 j 00:18	27° <u>♂</u> 11'45		max. Earth dist.	1477 Nov 06 j 19:26	23° <u>♂</u> 41'50	19.84951 AU
	1471 Dec 23 j 12:08	0° <u>♂</u>		morning rise	1477 Nov 22 j 15:02	24° <u>♂</u> 40'02	
retrograde	1472 Jan 26 j 02:42	0° <u>♂</u> 31'03		retrograde	1478 Feb 21 j 21:41	27° <u>♂</u> 55'51	
	1472 Feb 29 j 15:06	30° <u>♂</u>		opposition	1478 May 08 j 06:38	25° <u>♂</u> 55'27	0°13'01
opposition	1472 Apr 09 j 10:05	28° <u>♂</u> 30'00	0°33'14	min. Earth dist.	1478 May 08 j 06:33	25° <u>♂</u> 55'28	17.88016 AU
min. Earth dist.	1472 Apr 09 j 20:33	28° <u>♂</u> 28'53	17.55486 AU	direct	1478 Jul 24 j 14:51	23° <u>♂</u> 52'32	
direct	1472 Jun 25 j 13:16	26° <u>♂</u> 25'17		evening set	1478 Oct 26 j 17:54	27° <u>♂</u> 12'37	
evening set	1472 Sep 28 j 22:31	29° <u>♂</u> 51'47					
	1472 Oct 01 j 04:13	0° <u>♂</u>		conjunction	1478 Nov 11 j 13:11	28° <u>♂</u> 10'34	0°10'04
				minimum elong	1478 Nov 11 j 13:11	28° <u>♂</u> 10'34	0°10'05
conjunction	1472 Oct 14 j 23:23	0° <u>♂</u> 51'32	0°28'30	behind sun begin	1478 Nov 11 j 07:52	28° <u>♂</u> 09'46	
minimum elong	1472 Oct 14 j 23:23	0° <u>♂</u> 51'32	0°28'30	behind sun end	1478 Nov 11 j 18:30	28° <u>♂</u> 11'21	
max. Earth dist.	1472 Oct 14 j 12:06	0° <u>♂</u> 49'46	19.57829 AU	max. Earth dist.	1478 Nov 11 j 13:44	28° <u>♂</u> 10'38	19.91185 AU
morning rise	1472 Oct 30 j 20:57	1° <u>♂</u> 50'48		morning rise	1478 Nov 27 j 06:15	29° <u>♂</u> 08'13	
retrograde	1473 Jan 29 j 22:31	5° <u>♂</u> 09'35			1478 Dec 12 j 02:28	0° <u>♂</u>	
opposition	1473 Apr 14 j 10:42	3° <u>♂</u> 08'39	0°30'14	retrograde	1479 Feb 26 j 13:39	2° <u>♂</u> 23'26	
min. Earth dist.	1473 Apr 14 j 20:09	3° <u>♂</u> 07'39	17.60254 AU	opposition	1479 May 13 j 04:18	0° <u>♂</u> 23'11	0°09'19
direct	1473 Jun 30 j 14:28	1° <u>♂</u> 04'12		min. Earth dist.	1479 May 13 j 03:10	0° <u>♂</u> 23'18	17.94389 AU
evening set	1473 Oct 03 j 20:15	4° <u>♂</u> 29'49			1479 May 22 j 13:16	30° <u>♂</u>	
				direct	1479 Jul 29 j 11:01	28° <u>♂</u> 20'40	
conjunction	1473 Oct 19 j 20:08	5° <u>♂</u> 29'16	0°25'44		1479 Oct 01 j 06:02	0° <u>♂</u>	
minimum elong	1473 Oct 19 j 20:09	5° <u>♂</u> 29'16	0°25'44	evening set	1479 Oct 31 j 09:43	1° <u>♂</u> 39'33	
max. Earth dist.	1473 Oct 19 j 10:58	5° <u>♂</u> 27'50	19.62734 AU				
morning rise	1473 Nov 04 j 16:45	6° <u>♂</u> 28'16		conjunction	1479 Nov 16 j 04:13	2° <u>♂</u> 37'12	0°06'45
retrograde	1474 Feb 03 j 19:09	9° <u>♂</u> 46'30		minimum elong	1479 Nov 16 j 04:12	2° <u>♂</u> 37'12	0°06'45
opposition	1474 Apr 19 j 10:49	7° <u>♂</u> 45'42	0°27'02	behind sun begin	1479 Nov 15 j 22:04	2° <u>♂</u> 36'17	
min. Earth dist.	1474 Apr 19 j 18:14	7° <u>♂</u> 44'55	17.65272 AU	behind sun end	1479 Nov 16 j 10:21	2° <u>♂</u> 38'07	
direct	1474 Jul 05 j 16:52	5° <u>♂</u> 41'32		max. Earth dist.	1479 Nov 16 j 06:25	2° <u>♂</u> 37'31	19.97687 AU

morning rise	1479 Dec 01 j 20:51	3°♂34'35		conjunction	1485 Dec 11 j 05:59	28°♂41'55	-0°13'05
retrograde	1480 Mar 02 j 08:10	6°♂49'14		minimum elong	1485 Dec 11 j 05:58	28°♂41'55	0°13'05
opposition	1480 May 17 j 01:03	4°♂49'09	0°05'36	behind sun begin	1485 Dec 11 j 01:57	28°♂41'20	
min. Earth dist.	1480 May 16 j 20:53	4°♂49'35	18.00992 AU	behind sun end	1485 Dec 11 j 10:00	28°♂42'30	
direct	1480 Aug 02 j 08:24	2°♂47'02		max. Earth dist.	1485 Dec 11 j 17:57	28°♂43'42	20.38198 AU
evening set	1480 Nov 04 j 00:34	6°♂04'46		morning rise	1485 Dec 26 j 21:00	29°♂37'51	
					1486 Jan 02 j 05:58	0°♂	
conjunction	1480 Nov 19 j 18:26	7°♂02'07	0°03'25	retrograde	1486 Mar 29 j 00:55	2°♂49'13	
minimum elong	1480 Nov 19 j 18:27	7°♂02'07	0°03'25	opposition	1486 Jun 13 j 17:43	0°♂50'07	-0°16'11
behind sun begin	1480 Nov 19 j 11:56	7°♂01'09		min. Earth dist.	1486 Jun 13 j 04:28	0°♂51'27	18.41386 AU
behind sun end	1480 Nov 20 j 00:58	7°♂03'06			1486 Jul 05 j 00:36	30°♂♂	
max. Earth dist.	1480 Nov 19 j 23:09	7°♂02'48	20.04378 AU	direct	1486 Aug 29 j 20:40	28°♂50'30	
morning rise	1480 Dec 05 j 10:34	7°♂59'15			1486 Oct 21 j 19:37	0°♂	
retrograde	1481 Mar 06 j 22:56	11°♂13'19		evening set	1486 Nov 30 j 00:45	2°♂01'09	
opposition	1481 May 21 j 21:25	9°♂13'26	0°01'52				
min. Earth dist.	1481 May 21 j 16:28	9°♂13'56	18.07756 AU	conjunction	1486 Dec 15 j 15:49	2°♂56'53	-0°16'10
direct	1481 Aug 07 j 03:03	7°♂11'46		minimum elong	1486 Dec 15 j 15:49	2°♂56'53	0°16'09
evening set	1481 Nov 08 j 14:34	10°♂28'18		behind sun begin	1486 Dec 15 j 15:00	2°♂56'46	
desc. node	1481 Nov 23 j 04:32	11°♂21'13		behind sun end	1486 Dec 15 j 16:38	2°♂57'00	
				max. Earth dist.	1486 Dec 16 j 05:59	2°♂59'00	20.44523 AU
conjunction	1481 Nov 24 j 07:44	11°♂25'22	-0°00'01	morning rise	1486 Dec 31 j 06:41	3°♂52'36	
minimum elong	1481 Nov 24 j 07:44	11°♂25'22	0°00'01	retrograde	1487 Apr 02 j 12:16	7°♂03'27	
behind sun begin	1481 Nov 24 j 05:01	11°♂25'01		opposition	1487 Jun 18 j 10:21	5°♂04'25	-0°19'32
behind sun end	1481 Nov 24 j 10:27	11°♂25'43		min. Earth dist.	1487 Jun 17 j 20:42	5°♂05'48	18.47582 AU
max. Earth dist.	1481 Nov 24 j 13:41	11°♂26'15	20.11199 AU	direct	1487 Sep 03 j 11:45	3°♂05'08	
morning rise	1481 Dec 09 j 23:34	12°♂22'14		evening set	1487 Dec 04 j 10:14	6°♂14'38	
retrograde	1482 Mar 11 j 16:27	15°♂35'45					
opposition	1482 May 26 j 17:03	13°♂36'03	-0°01'51	conjunction	1487 Dec 20 j 00:59	7°♂10'07	-0°19'08
min. Earth dist.	1482 May 26 j 09:18	13°♂36'51	18.14607 AU	minimum elong	1487 Dec 20 j 00:59	7°♂10'07	0°19'08
direct	1482 Aug 11 j 23:20	11°♂34'50		max. Earth dist.	1487 Dec 20 j 15:16	7°♂12'14	20.50586 AU
evening set	1482 Nov 13 j 03:45	14°♂50'11		morning rise	1488 Jan 04 j 16:04	8°♂05'38	
				retrograde	1488 Apr 06 j 00:49	11°♂15'58	
conjunction	1482 Nov 28 j 20:24	15°♂46'58	-0°03'25	min. Earth dist.	1488 Jun 21 j 10:34	9°♂18'31	18.53512 AU
minimum elong	1482 Nov 28 j 20:25	15°♂46'58	0°03'25	opposition	1488 Jun 22 j 01:57	9°♂16'58	-0°22'46
behind sun begin	1482 Nov 28 j 13:55	15°♂46'00		direct	1488 Sep 07 j 02:09	7°♂17'57	
behind sun end	1482 Nov 29 j 02:55	15°♂47'56		evening set	1488 Dec 07 j 18:49	10°♂26'19	
max. Earth dist.	1482 Nov 29 j 04:53	15°♂48'14	20.18062 AU				
morning rise	1482 Dec 14 j 11:50	16°♂43'36		conjunction	1488 Dec 23 j 09:34	11°♂21'36	-0°21'59
retrograde	1483 Mar 16 j 06:07	19°♂56'34		minimum elong	1488 Dec 23 j 09:34	11°♂21'36	0°21'58
opposition	1483 May 31 j 12:17	17°♂57'03	-0°05'32	max. Earth dist.	1488 Dec 24 j 01:59	11°♂24'02	20.56368 AU
min. Earth dist.	1483 May 31 j 03:55	17°♂57'54	18.21473 AU	morning rise	1489 Jan 08 j 00:37	12°♂16'56	
direct	1483 Aug 16 j 16:37	15°♂56'16		retrograde	1489 Apr 10 j 11:21	15°♂26'44	
evening set	1483 Nov 17 j 16:06	19°♂10'26		opposition	1489 Jun 26 j 17:01	13°♂27'46	-0°25'51
				min. Earth dist.	1489 Jun 26 j 01:07	13°♂29'22	18.59161 AU
conjunction	1483 Dec 03 j 08:11	20°♂06'56	-0°06'42	direct	1489 Sep 11 j 15:42	11°♂29'00	
minimum elong	1483 Dec 03 j 08:11	20°♂06'56	0°06'42	evening set	1489 Dec 12 j 02:43	14°♂36'16	
behind sun begin	1483 Dec 03 j 02:03	20°♂06'02					
behind sun end	1483 Dec 03 j 14:19	20°♂07'50		conjunction	1489 Dec 27 j 17:13	15°♂31'19	-0°24'41
max. Earth dist.	1483 Dec 03 j 17:29	20°♂08'19	20.24907 AU	minimum elong	1489 Dec 27 j 17:12	15°♂31'19	0°24'42
morning rise	1483 Dec 18 j 23:30	21°♂03'19		max. Earth dist.	1489 Dec 28 j 09:49	15°♂33'47	20.61895 AU
retrograde	1484 Mar 19 j 22:10	24°♂15'45		morning rise	1490 Jan 12 j 08:35	16°♂26'29	
opposition	1484 Jun 04 j 06:41	22°♂16'23	-0°09'10	retrograde	1490 Apr 14 j 22:33	19°♂35'50	
min. Earth dist.	1484 Jun 03 j 19:55	22°♂17'29	18.28275 AU	opposition	1490 Jul 01 j 07:20	17°♂36'51	-0°28'46
direct	1484 Aug 20 j 11:36	20°♂16'02		min. Earth dist.	1490 Jun 30 j 13:44	17°♂38'37	18.64580 AU
evening set	1484 Nov 21 j 03:44	23°♂29'01		direct	1490 Sep 16 j 04:10	15°♂38'18	
				evening set	1490 Dec 16 j 09:54	18°♂44'32	
conjunction	1484 Dec 06 j 19:28	24°♂25'15	-0°09'56				
minimum elong	1484 Dec 06 j 19:28	24°♂25'16	0°09'56	conjunction	1491 Jan 01 j 00:32	19°♂39'24	-0°27'15
behind sun begin	1484 Dec 06 j 14:07	24°♂24'28		minimum elong	1491 Jan 01 j 00:32	19°♂39'24	0°27'14
behind sun end	1484 Dec 07 j 00:49	24°♂26'03		max. Earth dist.	1491 Jan 01 j 19:26	19°♂42'11	20.67193 AU
max. Earth dist.	1484 Dec 07 j 07:03	24°♂27'00	20.31636 AU	morning rise	1491 Jan 16 j 15:58	20°♂34'24	
morning rise	1484 Dec 22 j 10:28	25°♂21'25		retrograde	1491 Apr 19 j 08:15	23°♂43'18	
retrograde	1485 Mar 24 j 10:25	28°♂33'18		opposition	1491 Jul 05 j 20:55	21°♂44'19	-0°31'30
opposition	1485 Jun 09 j 00:31	26°♂34'05	-0°12'43	min. Earth dist.	1491 Jul 05 j 02:34	21°♂46'10	18.69779 AU
min. Earth dist.	1485 Jun 08 j 13:21	26°♂35'13	18.34928 AU	direct	1491 Sep 20 j 15:51	19°♂46'02	
direct	1485 Aug 25 j 03:49	24°♂34'08		evening set	1491 Dec 20 j 16:37	22°♂51'16	
evening set	1485 Nov 25 j 14:44	27°♂45'57					



conjunction	1492 Jan 05 j 07:09	23° $\text{Z}$ 45'57 -0°29'39	minimum elong	1498 Jan 28 j 16:41	18° $\text{Z}$ 02'59 0°40'24
minimum elong	1492 Jan 05 j 07:09	23° $\text{Z}$ 45'57 0°29'40	max. Earth dist.	1498 Jan 29 j 16:05	18° $\text{Z}$ 06'22 20.97186 AU
max. Earth dist.	1492 Jan 06 j 02:09	23° $\text{Z}$ 48'45 20.72289 AU	morning rise	1498 Feb 13 j 11:35	18° $\text{Z}$ 57'23
morning rise	1492 Jan 20 j 23:05	24° $\text{Z}$ 40'49	retrograde	1498 May 18 j 03:18	22° $\text{Z}$ 04'28
retrograde	1492 Apr 22 j 19:01	27° $\text{Z}$ 49'20	min. Earth dist.	1498 Aug 03 j 05:12	20° $\text{Z}$ 08'04 18.98679 AU
opposition	1492 Jul 09 j 09:49	25° $\text{Z}$ 50'21 -0°34'04	opposition	1498 Aug 04 j 04:06	20° $\text{Z}$ 05'47 -0°45'19
min. Earth dist.	1492 Jul 08 j 14:01	25° $\text{Z}$ 52'20 18.74778 AU	direct	1498 Oct 19 j 04:56	18° $\text{Z}$ 09'12
direct	1492 Sep 24 j 02:37	23° $\text{Z}$ 52'18	evening set	1499 Jan 17 j 05:06	21° $\text{Z}$ 09'25
evening set	1492 Dec 23 j 22:43	26° $\text{Z}$ 56'38			
conjunction	1493 Jan 08 j 13:30	27° $\text{Z}$ 51'10 -0°31'54	conjunction	1499 Feb 01 j 21:55	22° $\text{Z}$ 03'24 -0°41'33
minimum elong	1493 Jan 08 j 13:30	27° $\text{Z}$ 51'10 0°31'53	minimum elong	1499 Feb 01 j 21:55	22° $\text{Z}$ 03'24 0°41'33
max. Earth dist.	1493 Jan 09 j 10:38	27° $\text{Z}$ 54'16 20.77166 AU	max. Earth dist.	1499 Feb 02 j 22:28	22° $\text{Z}$ 06'57 20.99959 AU
morning rise	1493 Jan 24 j 05:36	28° $\text{Z}$ 45'55	morning rise	1499 Feb 17 j 17:20	22° $\text{Z}$ 57'46
	1493 Feb 16 j 02:44	0° $\text{Z}$	retrograde	1499 May 22 j 11:50	26° $\text{Z}$ 04'45
retrograde	1493 Apr 27 j 04:03	1° $\text{Z}$ 54'04	opposition	1499 Aug 08 j 13:30	24° $\text{Z}$ 06'04 -0°46'27
	1493 Jul 11 j 21:30	30° $\text{R}$ 3	min. Earth dist.	1499 Aug 07 j 14:36	24° $\text{Z}$ 08'21 19.01191 AU
opposition	1493 Jul 13 j 22:05	29° $\text{Z}$ 55'08 -0°36'27	direct	1499 Oct 23 j 13:00	22° $\text{Z}$ 09'38
min. Earth dist.	1493 Jul 13 j 01:33	29° $\text{Z}$ 57'12 18.79541 AU	evening set	1500 Jan 21 j 09:45	25° $\text{Z}$ 09'23
direct	1493 Sep 28 j 12:34	27° $\text{Z}$ 57'21	conjunction	1500 Feb 06 j 03:00	26° $\text{Z}$ 03'20 -0°42'28
	1493 Dec 09 j 14:13	0° $\text{Z}$	minimum elong	1500 Feb 06 j 03:00	26° $\text{Z}$ 03'20 0°42'27
evening set	1493 Dec 28 j 04:32	1° $\text{Z}$ 00'50	max. Earth dist.	1500 Feb 07 j 02:13	26° $\text{Z}$ 06'41 21.02203 AU
			morning rise	1500 Feb 21 j 23:19	26° $\text{Z}$ 57'42
conjunction	1494 Jan 12 j 19:21	1° $\text{Z}$ 55'14 -0°33'58		1500 May 12 j 03:41	0° $\text{Z}$
minimum elong	1494 Jan 12 j 19:21	1° $\text{Z}$ 55'14 0°33'58	retrograde	1500 May 25 j 21:06	0° $\text{Z}$ 04'36
max. Earth dist.	1494 Jan 13 j 16:24	1° $\text{Z}$ 58'18 20.81815 AU		1500 Jun 08 j 16:55	30° $\text{R}$
morning rise	1494 Jan 28 j 12:01	2° $\text{Z}$ 49'52	opposition	1500 Aug 11 j 22:40	28° $\text{Z}$ 05'52 -0°47'21
retrograde	1494 May 01 j 14:27	5° $\text{Z}$ 57'43	min. Earth dist.	1500 Aug 11 j 00:14	28° $\text{Z}$ 08'06 19.03165 AU
opposition	1494 Jul 18 j 09:54	3° $\text{Z}$ 58'50 -0°38'38	direct	1500 Oct 26 j 18:33	26° $\text{Z}$ 09'31
min. Earth dist.	1494 Jul 17 j 12:17	4° $\text{Z}$ 01'00 18.84069 AU	evening set	1501 Jan 24 j 14:05	29° $\text{Z}$ 08'51
direct	1494 Oct 02 j 21:52	2° $\text{Z}$ 01'19		1501 Feb 08 j 12:41	0° $\text{Z}$
evening set	1495 Jan 01 j 09:45	5° $\text{Z}$ 04'01			
conjunction	1495 Jan 17 j 00:59	5° $\text{Z}$ 58'18 -0°35'51	conjunction	1501 Feb 09 j 08:05	0° $\text{Z}$ 02'47 -0°43'11
minimum elong	1495 Jan 17 j 00:59	5° $\text{Z}$ 58'18 0°35'51	minimum elong	1501 Feb 09 j 08:05	0° $\text{Z}$ 02'47 0°43'11
max. Earth dist.	1495 Jan 18 j 00:01	6° $\text{Z}$ 01'39 20.86192 AU	max. Earth dist.	1501 Feb 10 j 08:10	0° $\text{Z}$ 06'15 21.03892 AU
morning rise	1495 Feb 01 j 18:00	6° $\text{Z}$ 52'51	morning rise	1501 Feb 25 j 04:58	0° $\text{Z}$ 57'10
retrograde	1495 May 05 j 23:22	10° $\text{Z}$ 00'27	retrograde	1501 May 30 j 05:03	4° $\text{Z}$ 03'59
opposition	1495 Jul 22 j 21:11	8° $\text{Z}$ 01'38 -0°40'37	min. Earth dist.	1501 Aug 15 j 08:57	2° $\text{Z}$ 07'25 19.04575 AU
min. Earth dist.	1495 Jul 21 j 23:00	8° $\text{Z}$ 03'51 18.88289 AU	opposition	1501 Aug 16 j 07:23	2° $\text{Z}$ 05'10 -0°48'00
direct	1495 Oct 07 j 06:43	6° $\text{Z}$ 04'23	direct	1501 Oct 31 j 02:20	0° $\text{Z}$ 08'53
evening set	1496 Jan 05 j 14:58	9° $\text{Z}$ 06'22	evening set	1502 Jan 28 j 18:32	3° $\text{Z}$ 07'50
conjunction	1496 Jan 21 j 06:22	10° $\text{Z}$ 00'32 -0°37'34	conjunction	1502 Feb 13 j 13:03	4° $\text{Z}$ 01'46 -0°43'40
minimum elong	1496 Jan 21 j 06:22	10° $\text{Z}$ 00'32 0°37'33	minimum elong	1502 Feb 13 j 13:02	4° $\text{Z}$ 01'46 0°43'41
max. Earth dist.	1496 Jan 22 j 04:57	10° $\text{Z}$ 03'49 20.90248 AU	max. Earth dist.	1502 Feb 14 j 11:47	4° $\text{Z}$ 05'02 21.05050 AU
morning rise	1496 Feb 06 j 00:04	10° $\text{Z}$ 55'01	morning rise	1502 Mar 01 j 10:56	4° $\text{Z}$ 56'10
retrograde	1496 May 09 j 09:06	14° $\text{Z}$ 02'24	retrograde	1502 Jun 03 j 14:09	8° $\text{Z}$ 02'58
min. Earth dist.	1496 Jul 25 j 09:10	12° $\text{Z}$ 05'53 18.92174 AU	opposition	1502 Aug 20 j 15:48	6° $\text{Z}$ 04'01 -0°48'26
opposition	1496 Jul 26 j 07:48	12° $\text{Z}$ 03'38 -0°42'24	min. Earth dist.	1502 Aug 19 j 18:00	6° $\text{Z}$ 06'12 19.05488 AU
direct	1496 Oct 10 j 14:21	10° $\text{Z}$ 06'37	direct	1502 Nov 04 j 07:42	4° $\text{Z}$ 07'44
evening set	1497 Jan 08 j 19:47	13° $\text{Z}$ 07'58	evening set	1503 Feb 01 j 22:43	7° $\text{Z}$ 06'21
conjunction	1497 Jan 24 j 11:42	14° $\text{Z}$ 02'04 -0°39'05	conjunction	1503 Feb 17 j 18:08	8° $\text{Z}$ 00'20 -0°43'57
minimum elong	1497 Jan 24 j 11:42	14° $\text{Z}$ 02'04 0°39'06	minimum elong	1503 Feb 17 j 18:08	8° $\text{Z}$ 00'20 0°43'57
max. Earth dist.	1497 Jan 25 j 11:52	14° $\text{Z}$ 05'34 20.93931 AU	max. Earth dist.	1503 Feb 18 j 17:47	8° $\text{Z}$ 03'43 21.05720 AU
morning rise	1497 Feb 09 j 05:49	14° $\text{Z}$ 56'29	morning rise	1503 Mar 05 j 16:44	8° $\text{Z}$ 54'47
	1497 Feb 10 j 06:45	15° $\text{Z}$	retrograde	1503 Jun 07 j 21:38	12° $\text{Z}$ 01'32
retrograde	1497 May 13 j 17:53	18° $\text{Z}$ 03'42	opposition	1503 Aug 24 j 23:44	10° $\text{Z}$ 02'28 -0°48'38
opposition	1497 Jul 30 j 18:07	16° $\text{Z}$ 04'59 -0°43'58	min. Earth dist.	1503 Aug 24 j 01:52	10° $\text{Z}$ 04'40 19.05925 AU
min. Earth dist.	1497 Jul 29 j 19:13	16° $\text{Z}$ 07'17 18.95648 AU	direct	1503 Nov 08 j 14:32	8° $\text{Z}$ 06'10
	1497 Aug 28 j 12:29	15° $\text{R}$	evening set	1504 Feb 06 j 03:10	11° $\text{Z}$ 04'32
direct	1497 Oct 14 j 22:41	14° $\text{Z}$ 08'13	conjunction	1504 Feb 21 j 23:10	11° $\text{Z}$ 58'33 -0°44'02
	1497 Nov 29 j 12:15	15° $\text{Z}$	minimum elong	1504 Feb 21 j 23:10	11° $\text{Z}$ 58'33 0°44'02
evening set	1498 Jan 13 j 00:31	17° $\text{Z}$ 08'58	max. Earth dist.	1504 Feb 22 j 21:27	12° $\text{Z}$ 01'44 21.05947 AU
conjunction	1498 Jan 28 j 16:41	18° $\text{Z}$ 02'59 -0°40'25	morning rise	1504 Mar 08 j 22:47	12° $\text{Z}$ 53'03
			retrograde	1504 Jun 11 j 06:25	15° $\text{Z}$ 59'50

































































































































min. Earth dist.	1504 Aug 27 j 10:11	14° <del>✕</del> 02'45	19.05957 AU	conjunction	1511 Mar 21 j 18:25	9° <del>Ÿ</del> 49'56	-0°38'43
opposition	1504 Aug 28 j 07:19	14° <del>✕</del> 00'38	-0°48'35	minimum elong	1511 Mar 21 j 18:25	9° <del>Ÿ</del> 49'56	0°38'44
direct	1504 Nov 11 j 19:34	12° <del>✕</del> 04'17		max. Earth dist.	1511 Mar 22 j 13:48	9° <del>Ÿ</del> 52'42	20.97109 AU
evening set	1505 Feb 09 j 07:31	15° <del>✕</del> 02'29		morning rise	1511 Apr 07 j 00:35	10° <del>Ÿ</del> 45'19	
				retrograde	1511 Jul 10 j 18:51	13° <del>Ÿ</del> 53'30	
conjunction	1505 Feb 25 j 04:27	15° <del>✕</del> 56'34	-0°43'53	opposition	1511 Sep 26 j 09:21	11° <del>Ÿ</del> 53'39	-0°41'56
minimum elong	1505 Feb 25 j 04:27	15° <del>✕</del> 56'34	0°43'52	min. Earth dist.	1511 Sep 25 j 16:33	11° <del>Ÿ</del> 55'22	18.95747 AU
max. Earth dist.	1505 Feb 26 j 03:39	15° <del>✕</del> 59'53	21.05782 AU	direct	1511 Dec 10 j 08:39	9° <del>Ÿ</del> 56'54	
morning rise	1505 Mar 13 j 04:48	16° <del>✕</del> 51'09		evening set	1512 Mar 08 j 23:11	12° <del>Ÿ</del> 56'07	
retrograde	1505 Jun 15 j 13:50	19° <del>✕</del> 57'59					
opposition	1505 Sep 01 j 14:43	17° <del>✕</del> 58'40	-0°48'19	conjunction	1512 Mar 25 j 02:29	13° <del>Ÿ</del> 51'08	-0°37'10
min. Earth dist.	1505 Aug 31 j 17:23	18° <del>✕</del> 00'49	19.05602 AU	minimum elong	1512 Mar 25 j 02:29	13° <del>Ÿ</del> 51'08	0°37'09
direct	1505 Nov 16 j 01:26	16° <del>✕</del> 02'17		max. Earth dist.	1512 Mar 25 j 19:22	13° <del>Ÿ</del> 53'33	20.94216 AU
evening set	1506 Feb 13 j 12:03	19° <del>✕</del> 00'24		morning rise	1512 Apr 10 j 09:46	14° <del>Ÿ</del> 46'43	
				retrograde	1512 Jul 14 j 03:59	17° <del>Ÿ</del> 55'15	
conjunction	1506 Mar 01 j 09:40	19° <del>✕</del> 54'33	-0°43'32	opposition	1512 Sep 29 j 16:43	15° <del>Ÿ</del> 55'18	-0°40'07
minimum elong	1506 Mar 01 j 09:40	19° <del>✕</del> 54'33	0°43'32	min. Earth dist.	1512 Sep 29 j 01:58	15° <del>Ÿ</del> 56'48	18.92610 AU
max. Earth dist.	1506 Mar 02 j 07:30	19° <del>✕</del> 57'40	21.05253 AU	direct	1512 Dec 13 j 13:16	13° <del>Ÿ</del> 58'24	
morning rise	1506 Mar 17 j 11:07	20° <del>✕</del> 49'14		evening set	1513 Mar 13 j 06:51	16° <del>Ÿ</del> 58'03	
retrograde	1506 Jun 19 j 22:20	23° <del>✕</del> 56'12					
opposition	1506 Sep 05 j 22:02	21° <del>✕</del> 56'45	-0°47'48	conjunction	1513 Mar 29 j 11:21	17° <del>Ÿ</del> 53'16	-0°35'25
min. Earth dist.	1506 Sep 05 j 01:35	21° <del>✕</del> 58'48	19.04900 AU	minimum elong	1513 Mar 29 j 11:21	17° <del>Ÿ</del> 53'16	0°35'25
direct	1506 Nov 20 j 06:17	20° <del>✕</del> 00'19		max. Earth dist.	1513 Mar 30 j 03:48	17° <del>Ÿ</del> 55'38	20.90831 AU
evening set	1507 Feb 17 j 16:49	22° <del>✕</del> 58'25		morning rise	1513 Apr 14 j 19:26	18° <del>Ÿ</del> 49'03	
				retrograde	1513 Jul 18 j 14:39	21° <del>Ÿ</del> 57'57	
conjunction	1507 Mar 05 j 15:29	23° <del>✕</del> 52'41	-0°42'59	min. Earth dist.	1513 Oct 03 j 10:04	19° <del>Ÿ</del> 59'19	18.88964 AU
minimum elong	1507 Mar 05 j 15:29	23° <del>✕</del> 52'41	0°42'58	opposition	1513 Oct 04 j 00:09	19° <del>Ÿ</del> 57'52	-0°38'05
max. Earth dist.	1507 Mar 06 j 14:02	23° <del>✕</del> 55'54	21.04370 AU	direct	1513 Dec 17 j 20:26	18° <del>Ÿ</del> 00'47	
morning rise	1507 Mar 21 j 17:44	24° <del>✕</del> 47'28		evening set	1514 Mar 17 j 15:11	21° <del>Ÿ</del> 00'54	
retrograde	1507 Jun 24 j 06:38	27° <del>✕</del> 54'35					
min. Earth dist.	1507 Sep 09 j 08:32	25° <del>✕</del> 57'06	19.03832 AU	conjunction	1514 Apr 02 j 20:34	21° <del>Ÿ</del> 56'21	-0°33'29
opposition	1507 Sep 10 j 04:57	25° <del>✕</del> 55'02	-0°47'04	minimum elong	1514 Apr 02 j 20:34	21° <del>Ÿ</del> 56'21	0°33'28
direct	1507 Nov 24 j 11:44	23° <del>✕</del> 58'35		max. Earth dist.	1514 Apr 03 j 10:18	21° <del>Ÿ</del> 58'19	20.86946 AU
evening set	1508 Feb 21 j 22:02	26° <del>✕</del> 56'44		morning rise	1514 Apr 19 j 05:51	22° <del>Ÿ</del> 52'20	
				retrograde	1514 Jul 23 j 00:36	26° <del>Ÿ</del> 01'37	
conjunction	1508 Mar 08 j 21:28	27° <del>✕</del> 51'07	-0°42'13	opposition	1514 Oct 08 j 07:54	24° <del>Ÿ</del> 01'22	-0°35'51
minimum elong	1508 Mar 08 j 21:28	27° <del>✕</del> 51'07	0°42'13	min. Earth dist.	1514 Oct 07 j 20:03	24° <del>Ÿ</del> 02'35	18.84836 AU
max. Earth dist.	1508 Mar 09 j 18:20	27° <del>✕</del> 54'06	21.03131 AU	direct	1514 Dec 22 j 01:56	22° <del>Ÿ</del> 04'02	
morning rise	1508 Mar 25 j 00:50	28° <del>✕</del> 46'02		evening set	1515 Mar 22 j 00:06	25° <del>Ÿ</del> 04'42	
	1508 Apr 17 j 11:40	0° <del>Ÿ</del>					
retrograde	1508 Jun 27 j 14:47	1° <del>Ÿ</del> 53'21		conjunction	1515 Apr 07 j 06:43	26° <del>Ÿ</del> 00'23	-0°31'22
	1508 Sep 10 j 21:56	30° <del>Ŗ</del> <del>✕</del>		minimum elong	1515 Apr 07 j 06:43	26° <del>Ÿ</del> 00'23	0°31'22
opposition	1508 Sep 13 j 12:04	29° <del>✕</del> 53'44	-0°46'07	max. Earth dist.	1515 Apr 07 j 19:53	26° <del>Ÿ</del> 02'16	20.82594 AU
min. Earth dist.	1508 Sep 12 j 16:52	29° <del>✕</del> 55'40	19.02412 AU	morning rise	1515 Apr 23 j 16:47	26° <del>Ÿ</del> 56'35	
direct	1508 Nov 27 j 16:13	27° <del>✕</del> 57'13			1515 Jul 11 j 13:56	0° <del>Ŗ</del>	
	1509 Feb 07 j 20:19	0° <del>Ÿ</del>		retrograde	1515 Jul 27 j 11:34	0° <del>Ŗ</del> 06'14	
evening set	1509 Feb 25 j 03:20	0° <del>Ÿ</del> 55'31			1515 Aug 12 j 11:00	30° <del>Ŗ</del> <del>Ÿ</del>	
				opposition	1515 Oct 12 j 15:29	28° <del>Ÿ</del> 05'50	-0°33'26
conjunction	1509 Mar 13 j 03:52	1° <del>Ÿ</del> 50'02	-0°41'15	min. Earth dist.	1515 Oct 12 j 04:21	28° <del>Ÿ</del> 06'58	18.80261 AU
minimum elong	1509 Mar 13 j 03:52	1° <del>Ÿ</del> 50'02	0°41'15	direct	1515 Dec 26 j 09:41	26° <del>Ÿ</del> 08'13	
max. Earth dist.	1509 Mar 14 j 01:14	1° <del>Ÿ</del> 53'05	21.01523 AU	evening set	1516 Mar 25 j 09:45	29° <del>Ÿ</del> 09'29	
morning rise	1509 Mar 29 j 08:02	2° <del>Ÿ</del> 45'05			1516 Apr 09 j 03:44	0° <del>Ŗ</del>	
retrograde	1509 Jul 02 j 00:13	5° <del>Ÿ</del> 52'40					
opposition	1509 Sep 17 j 19:06	3° <del>Ÿ</del> 52'58	-0°44'57	conjunction	1516 Apr 10 j 17:13	0° <del>Ŗ</del> 05'24	-0°29'06
min. Earth dist.	1509 Sep 17 j 00:05	3° <del>Ÿ</del> 54'53	19.00604 AU	minimum elong	1516 Apr 10 j 17:13	0° <del>Ŗ</del> 05'24	0°29'06
direct	1509 Dec 01 j 22:00	1° <del>Ÿ</del> 56'24		max. Earth dist.	1516 Apr 11 j 03:43	0° <del>Ŗ</del> 06'54	20.77833 AU
evening set	1510 Mar 01 j 09:26	4° <del>Ÿ</del> 54'56		morning rise	1516 Apr 27 j 04:23	1° <del>Ŗ</del> 01'50	
				retrograde	1516 Jul 30 j 22:04	4° <del>Ŗ</del> 11'55	
conjunction	1510 Mar 17 j 10:45	5° <del>Ÿ</del> 49'36	-0°40'05	opposition	1516 Oct 15 j 23:33	2° <del>Ŗ</del> 11'18	-0°30'50
minimum elong	1510 Mar 17 j 10:45	5° <del>Ÿ</del> 49'36	0°40'05	min. Earth dist.	1516 Oct 15 j 14:38	2° <del>Ŗ</del> 12'13	18.75324 AU
max. Earth dist.	1510 Mar 18 j 06:09	5° <del>Ÿ</del> 52'22	20.99528 AU	direct	1516 Dec 29 j 15:53	0° <del>Ŗ</del> 13'23	
morning rise	1510 Apr 02 j 16:06	6° <del>Ÿ</del> 44'49		evening set	1517 Mar 29 j 19:43	3° <del>Ŗ</del> 15'19	
retrograde	1510 Jul 06 j 08:37	9° <del>Ÿ</del> 52'41					
min. Earth dist.	1510 Sep 21 j 08:52	7° <del>Ÿ</del> 54'40	18.98404 AU	conjunction	1517 Apr 15 j 04:23	4° <del>Ŗ</del> 11'30	-0°26'40
opposition	1510 Sep 22 j 02:14	7° <del>Ÿ</del> 52'54	-0°43'33	minimum elong	1517 Apr 15 j 04:23	4° <del>Ŗ</del> 11'30	0°26'39
direct	1510 Dec 06 j 02:12	5° <del>Ÿ</del> 56'15		max. Earth dist.	1517 Apr 15 j 14:31	4° <del>Ŗ</del> 12'57	20.72743 AU
evening set	1511 Mar 05 j 15:55	8° <del>Ÿ</del> 55'05		morning rise	1517 May 01 j 16:19	5° <del>Ŗ</del> 08'10	

retrograde	1517 Aug 04 j 09:53	8°♄18'42		max. Earth dist.	1523 May 11 j 16:25	29°♄17'27	20.38175 AU
opposition	1517 Oct 20 j 07:44	6°♄17'54	-0°28'03		1523 May 23 j 19:44	0°♄	
min. Earth dist.	1517 Oct 19 j 23:19	6°♄18'46	18.70083 AU	morning rise	1523 May 28 j 08:28	0°♄15'38	
direct	1518 Jan 03 j 00:21	4°♄19'40		retrograde	1523 Aug 30 j 19:49	3°♄29'24	
evening set	1518 Apr 03 j 06:45	7°♄22'20		opposition	1523 Nov 14 j 16:58	1°♄27'50	-0°08'34
				min. Earth dist.	1523 Nov 14 j 16:55	1°♄27'51	18.35083 AU
conjunction	1518 Apr 19 j 16:15	8°♄18'46	-0°24'05		1523 Dec 23 j 14:08	30°♄	
minimum elong	1518 Apr 19 j 16:15	8°♄18'46	0°24'05	direct	1524 Jan 28 j 05:57	29°♄27'44	
max. Earth dist.	1518 Apr 19 j 23:52	8°♄19'52	20.67378 AU		1524 Mar 03 j 10:00	0°♄	
morning rise	1518 May 06 j 05:14	9°♄15'42		evening set	1524 Apr 28 j 17:57	2°♄36'14	
retrograde	1518 Aug 08 j 21:06	12°♄26'42					
opposition	1518 Oct 24 j 16:14	10°♄25'43	-0°25'08	conjunction	1524 May 15 j 08:55	3°♄34'26	-0°06'11
min. Earth dist.	1518 Oct 24 j 10:06	10°♄26'21	18.64610 AU	minimum elong	1524 May 15 j 08:55	3°♄34'26	0°06'10
direct	1519 Jan 07 j 07:06	8°♄27'09		behind sun begin	1524 May 15 j 02:31	3°♄33'31	
evening set	1519 Apr 07 j 18:23	11°♄30'39		behind sun end	1524 May 15 j 15:19	3°♄35'20	
				max. Earth dist.	1524 May 15 j 06:51	3°♄34'09	20.32004 AU
conjunction	1519 Apr 24 j 05:03	12°♄27'21	-0°21'22	morning rise	1524 Jun 01 j 02:05	4°♄32'58	
minimum elong	1519 Apr 24 j 05:03	12°♄27'21	0°21'21	retrograde	1524 Sep 03 j 11:34	7°♄47'21	
max. Earth dist.	1519 Apr 24 j 12:09	12°♄28'22	20.61807 AU	opposition	1524 Nov 18 j 04:30	5°♄45'43	-0°04'58
morning rise	1519 May 10 j 18:44	13°♄24'32		min. Earth dist.	1524 Nov 18 j 07:06	5°♄45'26	18.28858 AU
	1519 Jun 10 j 08:01	15°♄		direct	1525 Jan 31 j 16:32	3°♄45'17	
retrograde	1519 Aug 13 j 10:24	16°♄36'02		evening set	1525 May 03 j 11:03	6°♄54'56	
	1519 Oct 18 j 22:39	15°♄					
opposition	1519 Oct 29 j 01:01	14°♄34'54	-0°22'03	conjunction	1525 May 20 j 02:55	7°♄53'26	-0°02'55
min. Earth dist.	1519 Oct 28 j 19:18	14°♄35'29	18.58941 AU	minimum elong	1525 May 20 j 02:53	7°♄53'26	0°02'55
direct	1520 Jan 11 j 16:25	12°♄36'01		behind sun begin	1525 May 19 j 20:09	7°♄52'28	
	1520 Mar 30 j 02:04	15°♄		behind sun end	1525 May 20 j 09:38	7°♄54'24	
evening set	1520 Apr 11 j 06:53	15°♄40'23		max. Earth dist.	1525 May 19 j 23:25	7°♄52'58	20.25718 AU
				morning rise	1525 Jun 05 j 20:31	8°♄52'15	
conjunction	1520 Apr 27 j 18:20	16°♄37'22	-0°18'31	retrograde	1525 Sep 08 j 04:59	12°♄07'14	
minimum elong	1520 Apr 27 j 18:20	16°♄37'22	0°18'32	opposition	1525 Nov 22 j 16:32	10°♄05'31	-0°01'18
max. Earth dist.	1520 Apr 27 j 22:56	16°♄38'02	20.56060 AU	min. Earth dist.	1525 Nov 22 j 19:55	10°♄05'09	18.22497 AU
morning rise	1520 May 14 j 08:54	17°♄34'48		direct	1526 Feb 05 j 05:30	8°♄04'44	
retrograde	1520 Aug 16 j 22:37	20°♄46'51		asc. node	1526 Apr 01 j 03:46	9°♄20'41	
opposition	1520 Nov 01 j 10:22	18°♄45'34	-0°18'51	evening set	1526 May 08 j 05:30	11°♄15'34	
min. Earth dist.	1520 Nov 01 j 06:53	18°♄45'56	18.53132 AU				
direct	1521 Jan 14 j 23:59	16°♄46'22		conjunction	1526 May 24 j 21:54	12°♄14'22	0°00'30
evening set	1521 Apr 15 j 20:06	19°♄51'40		minimum elong	1526 May 24 j 21:56	12°♄14'22	0°00'31
				behind sun begin	1526 May 24 j 15:11	12°♄13'24	
conjunction	1521 May 02 j 08:39	20°♄48'57	-0°15'34	behind sun end	1526 May 25 j 04:41	12°♄15'21	
minimum elong	1521 May 02 j 08:39	20°♄48'57	0°15'34	max. Earth dist.	1526 May 24 j 15:47	12°♄13'30	20.19277 AU
behind sun begin	1521 May 02 j 07:27	20°♄48'47		morning rise	1526 Jun 10 j 15:59	13°♄13'27	
behind sun end	1521 May 02 j 09:51	20°♄49'07		retrograde	1526 Sep 12 j 21:27	16°♄29'01	
max. Earth dist.	1521 May 02 j 12:39	20°♄49'31	20.50199 AU	opposition	1526 Nov 27 j 05:17	14°♄27'12	0°02'25
morning rise	1521 May 18 j 23:51	21°♄46'40		min. Earth dist.	1526 Nov 27 j 11:28	14°♄26'32	18.15991 AU
retrograde	1521 Aug 21 j 13:35	24°♄59'16		direct	1527 Feb 09 j 17:56	12°♄26'02	
opposition	1521 Nov 05 j 19:59	22°♄57'51	-0°15'31	evening set	1527 May 13 j 00:48	15°♄38'04	
min. Earth dist.	1521 Nov 05 j 16:55	22°♄58'11	18.47212 AU				
direct	1522 Jan 19 j 09:59	20°♄58'21		conjunction	1527 May 29 j 17:54	16°♄37'10	0°03'54
evening set	1522 Apr 20 j 10:24	24°♄04'40		minimum elong	1527 May 29 j 17:55	16°♄37'10	0°03'54
				behind sun begin	1527 May 29 j 11:13	16°♄36'12	
conjunction	1522 May 06 j 23:44	25°♄02'15	-0°12'31	behind sun end	1527 May 30 j 00:36	16°♄38'09	
minimum elong	1522 May 06 j 23:44	25°♄02'15	0°12'31	max. Earth dist.	1527 May 29 j 09:54	16°♄36'00	20.12714 AU
behind sun begin	1522 May 06 j 19:29	25°♄01'38		morning rise	1527 Jun 15 j 12:17	17°♄36'30	
behind sun end	1522 May 07 j 03:59	25°♄02'51		retrograde	1527 Sep 17 j 15:46	20°♄52'39	
max. Earth dist.	1522 May 07 j 01:13	25°♄02'27	20.44233 AU	opposition	1527 Dec 01 j 18:37	18°♄50'41	0°06'08
morning rise	1522 May 23 j 15:46	26°♄00'14		min. Earth dist.	1527 Dec 02 j 01:34	18°♄49'57	18.09374 AU
retrograde	1522 Aug 26 j 03:36	29°♄13'25		direct	1528 Feb 14 j 09:09	16°♄49'07	
opposition	1522 Nov 10 j 06:20	27°♄11'55	-0°12'05	evening set	1528 May 16 j 20:53	20°♄02'20	
min. Earth dist.	1522 Nov 10 j 05:41	27°♄11'59	18.41199 AU				
direct	1523 Jan 23 j 18:59	25°♄12'06		conjunction	1528 Jun 02 j 14:29	21°♄01'44	0°07'14
evening set	1523 Apr 25 j 01:36	28°♄19'29		minimum elong	1528 Jun 02 j 14:29	21°♄01'44	0°07'14
				behind sun begin	1528 Jun 02 j 08:17	21°♄00'50	
conjunction	1523 May 11 j 15:55	29°♄17'22	-0°09'23	behind sun end	1528 Jun 02 j 20:42	21°♄02'39	
minimum elong	1523 May 11 j 15:55	29°♄17'22	0°09'23	max. Earth dist.	1528 Jun 02 j 04:17	21°♄00'14	20.06052 AU
behind sun begin	1523 May 11 j 10:19	29°♄16'34		morning rise	1528 Jun 19 j 09:04	22°♄01'20	
behind sun end	1523 May 11 j 21:31	29°♄18'10		retrograde	1528 Sep 21 j 08:46	25°♄18'01	

opposition	1528 Dec 05 j 08:43	23° $\Pi$ 15'55	0°09'51	direct	1535 Mar 17 j 12:02	18° $\mathfrak{D}$ 17'43	
min. Earth dist.	1528 Dec 05 j 18:12	23° $\Pi$ 14'54	18.02698 AU	evening set	1535 Jun 19 j 17:02	21° $\mathfrak{D}$ 39'28	
direct	1529 Feb 17 j 23:26	21° $\Pi$ 13'55					
evening set	1529 May 21 j 17:54	24° $\Pi$ 28'21		conjunction	1535 Jul 06 j 11:56	22° $\mathfrak{D}$ 40'36	0°28'48
				minimum elong	1535 Jul 06 j 11:56	22° $\mathfrak{D}$ 40'36	0°28'47
conjunction	1529 Jun 07 j 11:59	25° $\Pi$ 28'02	0°10'33	max. Earth dist.	1535 Jul 05 j 14:59	22° $\mathfrak{D}$ 37'24	19.62955 AU
minimum elong	1529 Jun 07 j 11:59	25° $\Pi$ 28'02	0°10'33	morning rise	1535 Jul 23 j 05:46	23° $\mathfrak{D}$ 41'37	
behind sun begin	1529 Jun 07 j 06:47	25° $\Pi$ 27'16		retrograde	1535 Oct 24 j 05:02	27° $\mathfrak{D}$ 01'47	
behind sun end	1529 Jun 07 j 17:11	25° $\Pi$ 28'48		opposition	1536 Jan 06 j 04:36	24° $\mathfrak{D}$ 59'02	0°33'30
max. Earth dist.	1529 Jun 06 j 23:52	25° $\Pi$ 26'14	19.99384 AU	min. Earth dist.	1536 Jan 06 j 21:44	24° $\mathfrak{D}$ 57'10	17.60470 AU
morning rise	1529 Jun 24 j 06:48	26° $\Pi$ 27'51		direct	1536 Mar 21 j 09:29	22° $\mathfrak{D}$ 54'20	
retrograde	1529 Sep 26 j 03:49	29° $\Pi$ 45'05		evening set	1536 Jun 23 j 19:14	26° $\mathfrak{D}$ 17'15	
opposition	1529 Dec 09 j 23:09	27° $\Pi$ 42'49	0°13'31				
min. Earth dist.	1529 Dec 10 j 09:20	27° $\Pi$ 41'44	17.96047 AU	conjunction	1536 Jul 10 j 14:07	27° $\mathfrak{D}$ 18'35	0°31'22
direct	1530 Feb 22 j 16:33	25° $\Pi$ 40'23		minimum elong	1536 Jul 10 j 14:07	27° $\mathfrak{D}$ 18'35	0°31'22
evening set	1530 May 26 j 15:49	28° $\Pi$ 56'02		max. Earth dist.	1536 Jul 09 j 17:23	27° $\mathfrak{D}$ 15'25	19.58054 AU
				morning rise	1536 Jul 27 j 07:17	28° $\mathfrak{D}$ 19'44	
conjunction	1530 Jun 12 j 10:20	29° $\Pi$ 56'00	0°13'50		1536 Aug 26 j 12:08	0° $\Omega$	
minimum elong	1530 Jun 12 j 10:20	29° $\Pi$ 56'00	0°13'49	retrograde	1536 Oct 28 j 03:39	1° $\Omega$ 40'20	
behind sun begin	1530 Jun 12 j 06:58	29° $\Pi$ 55'30			1537 Jan 01 j 10:14	30° $\mathfrak{R}$ $\mathfrak{D}$	
behind sun end	1530 Jun 12 j 13:41	29° $\Pi$ 56'30		opposition	1537 Jan 10 j 00:04	29° $\mathfrak{D}$ 37'38	0°36'16
max. Earth dist.	1530 Jun 11 j 20:34	29° $\Pi$ 53'57	19.92758 AU	min. Earth dist.	1537 Jan 10 j 18:14	29° $\mathfrak{D}$ 35'39	17.55772 AU
	1530 Jun 13 j 12:59	0° $\mathfrak{D}$		direct	1537 Mar 26 j 06:25	27° $\mathfrak{D}$ 32'43	
morning rise	1530 Jun 29 j 05:08	0° $\mathfrak{D}$ 56'03			1537 Jun 12 j 14:38	0° $\Omega$	
retrograde	1530 Sep 30 j 21:49	4° $\mathfrak{D}$ 13'47		evening set	1537 Jun 28 j 22:27	0° $\Omega$ 56'46	
opposition	1530 Dec 14 j 14:26	2° $\mathfrak{D}$ 11'24	0°17'08				
min. Earth dist.	1530 Dec 15 j 02:55	2° $\mathfrak{D}$ 10'03	17.89479 AU	conjunction	1537 Jul 15 j 16:52	1° $\Omega$ 58'16	0°33'45
direct	1531 Feb 27 j 08:16	0° $\mathfrak{D}$ 08'31		minimum elong	1537 Jul 15 j 16:52	1° $\Omega$ 58'16	0°33'44
evening set	1531 May 31 j 14:31	3° $\mathfrak{D}$ 25'23		max. Earth dist.	1537 Jul 14 j 18:04	1° $\Omega$ 54'45	19.53559 AU
				morning rise	1537 Aug 01 j 09:39	2° $\Omega$ 59'33	
conjunction	1531 Jun 17 j 09:15	4° $\mathfrak{D}$ 25'37	0°17'02	retrograde	1537 Nov 02 j 02:44	6° $\Omega$ 20'33	
minimum elong	1531 Jun 17 j 09:15	4° $\mathfrak{D}$ 25'37	0°17'03	opposition	1538 Jan 14 j 20:05	4° $\Omega$ 17'55	0°38'49
max. Earth dist.	1531 Jun 16 j 17:30	4° $\mathfrak{D}$ 23'15	19.86266 AU	min. Earth dist.	1538 Jan 15 j 15:05	4° $\Omega$ 15'50	17.51481 AU
morning rise	1531 Jul 04 j 04:07	5° $\mathfrak{D}$ 25'53		direct	1538 Mar 31 j 04:30	2° $\Omega$ 12'45	
retrograde	1531 Oct 05 j 17:57	8° $\mathfrak{D}$ 44'08		evening set	1538 Jul 04 j 02:10	5° $\Omega$ 37'54	
opposition	1531 Dec 19 j 06:11	6° $\mathfrak{D}$ 41'36	0°20'41				
min. Earth dist.	1531 Dec 19 j 19:11	6° $\mathfrak{D}$ 40'11	17.83082 AU	conjunction	1538 Jul 20 j 20:22	6° $\Omega$ 39'33	0°35'55
direct	1532 Mar 03 j 03:17	4° $\mathfrak{D}$ 38'17		minimum elong	1538 Jul 20 j 20:22	6° $\Omega$ 39'33	0°35'55
evening set	1532 Jun 04 j 13:59	7° $\mathfrak{D}$ 56'23		max. Earth dist.	1538 Jul 19 j 21:48	6° $\Omega$ 36'04	19.49444 AU
				morning rise	1538 Aug 06 j 12:18	7° $\Omega$ 40'55	
conjunction	1532 Jun 21 j 08:59	8° $\mathfrak{D}$ 56'52	0°20'10	retrograde	1538 Nov 07 j 03:21	11° $\Omega$ 02'17	
minimum elong	1532 Jun 21 j 08:58	8° $\mathfrak{D}$ 56'52	0°20'10	opposition	1539 Jan 19 j 17:00	8° $\Omega$ 59'43	0°41'07
max. Earth dist.	1532 Jun 20 j 16:20	8° $\mathfrak{D}$ 54'22	19.79967 AU	min. Earth dist.	1539 Jan 20 j 12:43	8° $\Omega$ 57'33	17.47550 AU
morning rise	1532 Jul 08 j 03:35	9° $\mathfrak{D}$ 57'21		direct	1539 Apr 05 j 03:20	6° $\Omega$ 54'22	
retrograde	1532 Oct 09 j 12:57	13° $\mathfrak{D}$ 16'05		evening set	1539 Jul 09 j 06:26	10° $\Omega$ 20'30	
opposition	1532 Dec 22 j 22:46	11° $\mathfrak{D}$ 13'27	0°24'06				
min. Earth dist.	1532 Dec 23 j 13:36	11° $\mathfrak{D}$ 11'50	17.76921 AU	conjunction	1539 Jul 25 j 23:58	11° $\Omega$ 22'15	0°37'52
direct	1533 Mar 07 j 20:23	9° $\mathfrak{D}$ 09'44		minimum elong	1539 Jul 25 j 23:58	11° $\Omega$ 22'15	0°37'52
evening set	1533 Jun 09 j 14:10	12° $\mathfrak{D}$ 29'03		max. Earth dist.	1539 Jul 24 j 23:27	11° $\Omega$ 18'27	19.45691 AU
				morning rise	1539 Aug 11 j 15:15	12° $\Omega$ 23'42	
conjunction	1533 Jun 26 j 09:12	13° $\mathfrak{D}$ 29'46	0°23'11		1539 Oct 02 j 04:58	15° $\Omega$	
minimum elong	1533 Jun 26 j 09:11	13° $\mathfrak{D}$ 29'46	0°23'11	retrograde	1539 Nov 12 j 02:23	15° $\Omega$ 45'23	
max. Earth dist.	1533 Jun 25 j 14:35	13° $\mathfrak{D}$ 26'57	19.73953 AU		1539 Dec 23 j 18:40	15° $\mathfrak{R}$ $\Omega$	
morning rise	1533 Jul 13 j 03:46	14° $\mathfrak{D}$ 30'26		opposition	1540 Jan 24 j 14:37	13° $\Omega$ 42'51	0°43'09
retrograde	1533 Oct 14 j 10:18	17° $\mathfrak{D}$ 49'40		min. Earth dist.	1540 Jan 25 j 11:18	13° $\Omega$ 40'35	17.43993 AU
opposition	1533 Dec 27 j 15:58	15° $\mathfrak{D}$ 46'57	0°27'24	direct	1540 Apr 09 j 02:32	11° $\Omega$ 37'17	
min. Earth dist.	1533 Dec 28 j 07:14	15° $\mathfrak{D}$ 45'17	17.71070 AU		1540 Jul 12 j 06:23	15° $\Omega$	
direct	1534 Mar 12 j 16:58	13° $\mathfrak{D}$ 42'51		evening set	1540 Jul 13 j 10:58	15° $\Omega$ 04'19	
evening set	1534 Jun 14 j 15:12	17° $\mathfrak{D}$ 03'24		max. Earth dist.	1540 Jul 29 j 03:54	16° $\Omega$ 02'25	19.42311 AU
conjunction	1534 Jul 01 j 10:21	18° $\mathfrak{D}$ 04'21	0°26'04	conjunction	1540 Jul 30 j 04:05	16° $\Omega$ 06'10	0°39'33
minimum elong	1534 Jul 01 j 10:21	18° $\mathfrak{D}$ 04'21	0°26'04	minimum elong	1540 Jul 30 j 04:05	16° $\Omega$ 06'10	0°39'33
max. Earth dist.	1534 Jun 30 j 15:24	18° $\mathfrak{D}$ 01'28	19.68259 AU	morning rise	1540 Aug 15 j 18:26	17° $\Omega$ 07'40	
morning rise	1534 Jul 18 j 04:25	19° $\mathfrak{D}$ 05'11		retrograde	1540 Nov 16 j 03:31	20° $\Omega$ 29'35	
retrograde	1534 Oct 19 j 06:45	22° $\mathfrak{D}$ 24'53		opposition	1541 Jan 28 j 12:44	18° $\Omega$ 27'05	0°44'55
opposition	1535 Jan 01 j 09:55	20° $\mathfrak{D}$ 22'08	0°30'32	min. Earth dist.	1541 Jan 29 j 09:36	18° $\Omega$ 24'47	17.40798 AU
min. Earth dist.	1535 Jan 02 j 02:36	20° $\mathfrak{D}$ 20'19	17.65565 AU	direct	1541 Apr 14 j 03:17	16° $\Omega$ 21'20	

evening set	1541 Jul 18 j 15:57	19°Ω49'09		minimum elong	1547 Sep 03 j 07:28	19°♄28'32	0°43'25
max. Earth dist.	1541 Aug 03 j 06:36	20°Ω47'04	19.39306 AU	morning rise	1547 Sep 19 j 14:39	20°♄29'39	
				retrograde	1547 Dec 19 j 23:35	23°♄51'35	
conjunction	1541 Aug 04 j 08:18	20°Ω51'04	0°40'59	opposition	1548 Mar 02 j 12:23	21°♄49'13	0°48'07
minimum elong	1541 Aug 04 j 08:18	20°Ω51'04	0°41'00	min. Earth dist.	1548 Mar 03 j 08:41	21°♄47'01	17.31822 AU
morning rise	1541 Aug 20 j 21:52	21°Ω52'35		direct	1548 May 17 j 23:03	19°♄42'42	
retrograde	1541 Nov 21 j 02:07	25°Ω14'41		evening set	1548 Aug 22 j 00:16	23°♄12'56	
opposition	1542 Feb 02 j 11:32	23°Ω12'11	0°46'22	max. Earth dist.	1548 Sep 06 j 11:34	24°♄10'54	19.32261 AU
min. Earth dist.	1542 Feb 03 j 09:28	23°Ω09'47	17.38003 AU				
direct	1542 Apr 19 j 04:12	21°Ω06'14		conjunction	1548 Sep 07 j 10:09	24°♄14'28	0°42'47
evening set	1542 Jul 23 j 20:59	24°Ω34'46		minimum elong	1548 Sep 07 j 10:09	24°♄14'28	0°42'46
max. Earth dist.	1542 Aug 08 j 11:21	25°Ω32'45	19.36717 AU	morning rise	1548 Sep 23 j 16:21	25°♄15'27	
				retrograde	1548 Dec 24 j 00:34	28°♄37'11	
conjunction	1542 Aug 09 j 12:42	25°Ω36'43	0°42'08	opposition	1549 Mar 07 j 13:14	26°♄34'56	0°47'14
minimum elong	1542 Aug 09 j 12:42	25°Ω36'43	0°42'08	min. Earth dist.	1549 Mar 08 j 07:36	26°♄32'56	17.32941 AU
morning rise	1542 Aug 26 j 01:15	26°Ω38'13		direct	1549 May 23 j 03:25	24°♄28'30	
	1542 Nov 22 j 05:13	0°♄		evening set	1549 Aug 27 j 03:39	27°♄58'39	
retrograde	1542 Nov 26 j 02:51	0°♄00'26					
	1542 Nov 30 j 00:01	30°♄		conjunction	1549 Sep 12 j 12:36	29°♄00'02	0°41'51
opposition	1543 Feb 07 j 10:43	27°Ω57'57	0°47'30	minimum elong	1549 Sep 12 j 12:36	29°♄00'02	0°41'51
min. Earth dist.	1543 Feb 08 j 08:12	27°Ω55'35	17.35626 AU	max. Earth dist.	1549 Sep 11 j 16:06	28°♄56'49	19.33702 AU
direct	1543 Apr 24 j 07:14	25°Ω51'50		morning rise	1549 Sep 28 j 17:30	0°♄00'52	
evening set	1543 Jul 29 j 02:08	29°Ω20'56			1549 Sep 28 j 11:51	0°♄	
	1543 Aug 08 j 14:49	0°♄		retrograde	1549 Dec 28 j 23:11	3°♄22'23	
				opposition	1550 Mar 12 j 14:33	1°♄20'17	0°46'02
conjunction	1543 Aug 14 j 16:58	0°♄22'52	0°43'00	min. Earth dist.	1550 Mar 13 j 08:48	1°♄18'19	17.34686 AU
minimum elong	1543 Aug 14 j 16:58	0°♄22'52	0°43'00		1550 Apr 15 j 02:54	30°♄	
max. Earth dist.	1543 Aug 13 j 15:02	0°♄18'49	19.34571 AU	direct	1550 May 28 j 05:17	29°♄14'02	
morning rise	1543 Aug 31 j 04:31	1°♄24'21			1550 Jul 09 j 09:48	0°♄	
retrograde	1543 Dec 01 j 01:04	4°♄46'37		evening set	1550 Sep 01 j 06:37	2°♄43'59	
opposition	1544 Feb 12 j 10:28	2°♄44'08	0°48'18				
min. Earth dist.	1544 Feb 13 j 08:48	2°♄41'41	17.33736 AU	conjunction	1550 Sep 17 j 14:16	3°♄45'11	0°40'37
direct	1544 Apr 28 j 09:13	0°♄37'51		minimum elong	1550 Sep 17 j 14:16	3°♄45'11	0°40'37
evening set	1544 Aug 02 j 06:56	4°♄07'24		max. Earth dist.	1550 Sep 16 j 18:05	3°♄42'01	19.35754 AU
				morning rise	1550 Oct 03 j 18:11	4°♄45'50	
conjunction	1544 Aug 18 j 20:58	5°♄09'19	0°43'34	retrograde	1551 Jan 02 j 23:55	8°♄07'06	
minimum elong	1544 Aug 18 j 20:58	5°♄09'19	0°43'34	opposition	1551 Mar 17 j 15:50	6°♄05'11	0°44'31
max. Earth dist.	1544 Aug 17 j 19:31	5°♄05'19	19.32939 AU	min. Earth dist.	1551 Mar 18 j 08:11	6°♄03'25	17.37017 AU
morning rise	1544 Sep 04 j 07:33	6°♄10'45		direct	1551 Jun 02 j 09:25	3°♄59'08	
retrograde	1544 Dec 05 j 01:51	9°♄33'00		evening set	1551 Sep 06 j 08:56	7°♄28'47	
opposition	1545 Feb 16 j 10:26	7°♄30'31	0°48'46				
min. Earth dist.	1545 Feb 17 j 07:42	7°♄28'11	17.32361 AU	conjunction	1551 Sep 22 j 15:36	8°♄29'48	0°39'08
direct	1545 May 03 j 13:48	5°♄24'07		minimum elong	1551 Sep 22 j 15:36	8°♄29'48	0°39'09
evening set	1545 Aug 07 j 11:47	8°♄54'00		max. Earth dist.	1551 Sep 21 j 21:52	8°♄27'01	19.38354 AU
max. Earth dist.	1545 Aug 22 j 23:52	9°♄51'56	19.31837 AU	morning rise	1551 Oct 08 j 18:15	9°♄30'15	
				retrograde	1552 Jan 07 j 22:21	12°♄51'12	
conjunction	1545 Aug 24 j 00:53	9°♄55'51	0°43'49	opposition	1552 Mar 21 j 17:16	10°♄49'29	0°42'42
minimum elong	1545 Aug 24 j 00:52	9°♄55'51	0°43'48	min. Earth dist.	1552 Mar 22 j 09:13	10°♄47'46	17.39864 AU
morning rise	1545 Sep 09 j 10:19	10°♄57'12		direct	1552 Jun 06 j 11:20	8°♄43'40	
retrograde	1545 Dec 10 j 00:06	14°♄19'24		evening set	1552 Sep 10 j 10:44	12°♄12'55	
opposition	1546 Feb 21 j 10:45	12°♄16'55	0°48'53				
min. Earth dist.	1546 Feb 22 j 08:39	12°♄14'32	17.31556 AU	conjunction	1552 Sep 26 j 16:07	13°♄13'43	0°37'23
direct	1546 May 08 j 16:13	10°♄10'25		minimum elong	1552 Sep 26 j 16:07	13°♄13'43	0°37'23
evening set	1546 Aug 12 j 16:21	13°♄40'32		max. Earth dist.	1552 Sep 25 j 22:34	13°♄10'57	19.41445 AU
max. Earth dist.	1546 Aug 28 j 03:52	14°♄38'27	19.31338 AU	morning rise	1552 Oct 12 j 17:51	14°♄13'57	
				retrograde	1553 Jan 11 j 22:15	17°♄34'34	
conjunction	1546 Aug 29 j 04:24	14°♄42'18	0°43'46	opposition	1553 Mar 26 j 18:36	15°♄33'01	0°40'36
minimum elong	1546 Aug 29 j 04:24	14°♄42'18	0°43'47	min. Earth dist.	1553 Mar 27 j 08:56	15°♄31'29	17.43174 AU
morning rise	1546 Sep 14 j 12:50	15°♄43'33		direct	1553 Jun 11 j 15:17	13°♄27'27	
retrograde	1546 Dec 15 j 01:01	19°♄05'38		evening set	1553 Sep 15 j 11:48	16°♄56'11	
opposition	1547 Feb 26 j 11:23	17°♄03'11	0°48'40				
min. Earth dist.	1547 Feb 27 j 07:35	17°♄00'59	17.31364 AU	conjunction	1553 Oct 01 j 16:11	17°♄56'45	0°35'23
direct	1547 May 13 j 20:57	14°♄56'39		minimum elong	1553 Oct 01 j 16:11	17°♄56'45	0°35'22
evening set	1547 Aug 17 j 20:24	18°♄26'52		max. Earth dist.	1553 Oct 01 j 01:05	17°♄54'22	19.44959 AU
max. Earth dist.	1547 Sep 02 j 08:29	19°♄24'55	19.31464 AU	morning rise	1553 Oct 17 j 16:41	18°♄56'46	
				retrograde	1554 Jan 16 j 19:47	22°♄16'58	
conjunction	1547 Sep 03 j 07:28	19°♄28'32	0°43'25	opposition	1554 Mar 31 j 19:54	20°♄15'37	0°38'13

min. Earth dist.	1554 Apr 01 j 09:26	20° <u>♄</u> 14'10	17.46871 AU	direct	1560 Jul 15 j 05:22	15° <u>♄</u> 57'31	
direct	1554 Jun 16 j 17:50	18° <u>♄</u> 10'19		evening set	1560 Oct 17 j 18:57	19° <u>♄</u> 19'55	
evening set	1554 Sep 20 j 12:18	21° <u>♄</u> 38'25					
				conjunction	1560 Nov 02 j 16:00	20° <u>♄</u> 18'29	0°16'03
conjunction	1554 Oct 06 j 15:22	22° <u>♄</u> 38'43	0°33'09	minimum elong	1560 Nov 02 j 16:00	20° <u>♄</u> 18'29	0°16'02
minimum elong	1554 Oct 06 j 15:22	22° <u>♄</u> 38'43	0°33'09	behind sun begin	1560 Nov 02 j 15:04	20° <u>♄</u> 18'20	
max. Earth dist.	1554 Oct 06 j 00:36	22° <u>♄</u> 36'24	19.48848 AU	behind sun end	1560 Nov 02 j 16:56	20° <u>♄</u> 18'37	
morning rise	1554 Oct 22 j 14:58	23° <u>♄</u> 38'29		max. Earth dist.	1560 Nov 02 j 12:14	20° <u>♄</u> 17'54	19.78773 AU
retrograde	1555 Jan 21 j 18:12	26° <u>♄</u> 58'17		morning rise	1560 Nov 18 j 10:25	21° <u>♄</u> 16'41	
opposition	1555 Apr 05 j 21:05	24° <u>♄</u> 57'03	0°35'36	retrograde	1561 Feb 17 j 13:56	24° <u>♄</u> 33'05	
min. Earth dist.	1555 Apr 06 j 09:09	24° <u>♄</u> 55'46	17.50939 AU	opposition	1561 May 03 j 19:47	22° <u>♄</u> 32'32	0°16'03
direct	1555 Jun 21 j 21:19	22° <u>♄</u> 52'02		min. Earth dist.	1561 May 03 j 22:31	22° <u>♄</u> 32'15	17.81763 AU
evening set	1555 Sep 25 j 11:38	26° <u>♄</u> 19'23		direct	1561 Jul 20 j 02:48	20° <u>♄</u> 29'12	
				evening set	1561 Oct 22 j 12:34	23° <u>♄</u> 50'28	
conjunction	1555 Oct 11 j 13:46	27° <u>♄</u> 19'25	0°30'42				
minimum elong	1555 Oct 11 j 13:46	27° <u>♄</u> 19'25	0°30'41	conjunction	1561 Nov 07 j 08:44	24° <u>♄</u> 48'43	0°12'48
max. Earth dist.	1555 Oct 11 j 01:27	27° <u>♄</u> 17'30	19.53083 AU	minimum elong	1561 Nov 07 j 08:44	24° <u>♄</u> 48'43	0°12'49
morning rise	1555 Oct 27 j 12:15	28° <u>♄</u> 18'57		behind sun begin	1561 Nov 07 j 04:34	24° <u>♄</u> 48'06	
	1555 Nov 26 j 09:31	0° <u>♄</u>		behind sun end	1561 Nov 07 j 12:54	24° <u>♄</u> 49'21	
retrograde	1556 Jan 26 j 14:43	1° <u>♄</u> 38'16		max. Earth dist.	1561 Nov 07 j 07:10	24° <u>♄</u> 48'29	19.84856 AU
	1556 Mar 31 j 21:48	30° <u>♄</u>		morning rise	1561 Nov 23 j 02:29	25° <u>♄</u> 46'39	
opposition	1556 Apr 09 j 21:58	29° <u>♄</u> 37'11	0°32'46	retrograde	1562 Feb 22 j 08:32	29° <u>♄</u> 02'26	
min. Earth dist.	1556 Apr 10 j 08:41	29° <u>♄</u> 36'03	17.55316 AU	opposition	1562 May 08 j 17:45	27° <u>♄</u> 02'02	0°12'24
direct	1556 Jun 26 j 00:21	27° <u>♄</u> 32'26		min. Earth dist.	1562 May 08 j 17:31	27° <u>♄</u> 02'04	17.87987 AU
	1556 Sep 12 j 17:09	0° <u>♄</u>		direct	1562 Jul 25 j 01:53	24° <u>♄</u> 59'06	
evening set	1556 Sep 29 j 10:23	0° <u>♄</u> 58'57		evening set	1562 Oct 27 j 05:16	28° <u>♄</u> 19'11	
conjunction	1556 Oct 15 j 11:19	1° <u>♄</u> 58'42	0°28'03	conjunction	1562 Nov 12 j 00:37	29° <u>♄</u> 17'09	0°09'31
minimum elong	1556 Oct 15 j 11:19	1° <u>♄</u> 58'42	0°28'04	minimum elong	1562 Nov 12 j 00:37	29° <u>♄</u> 17'09	0°09'31
max. Earth dist.	1556 Oct 14 j 23:38	1° <u>♄</u> 56'53	19.57618 AU	behind sun begin	1562 Nov 11 j 19:07	29° <u>♄</u> 16'19	
morning rise	1556 Oct 31 j 08:58	2° <u>♄</u> 57'59		behind sun end	1562 Nov 12 j 06:07	29° <u>♄</u> 17'58	
retrograde	1557 Jan 30 j 10:57	6° <u>♄</u> 16'46		max. Earth dist.	1562 Nov 12 j 01:15	29° <u>♄</u> 17'14	19.91223 AU
opposition	1557 Apr 14 j 22:22	4° <u>♄</u> 15'48	0°29'43		1562 Nov 23 j 15:56	0° <u>♄</u>	
min. Earth dist.	1557 Apr 15 j 07:55	4° <u>♄</u> 14'47	17.60002 AU	morning rise	1562 Nov 27 j 17:46	0° <u>♄</u> 14'48	
direct	1557 Jul 01 j 02:25	2° <u>♄</u> 11'19		retrograde	1563 Feb 27 j 01:20	3° <u>♄</u> 30'00	
evening set	1557 Oct 04 j 08:04	5° <u>♄</u> 36'55		opposition	1563 May 13 j 15:16	1° <u>♄</u> 29'46	0°08'42
				min. Earth dist.	1563 May 13 j 14:00	1° <u>♄</u> 29'54	17.94488 AU
conjunction	1557 Oct 20 j 08:04	6° <u>♄</u> 36'23	0°25'15		1563 Jun 23 j 03:36	30° <u>♄</u>	
minimum elong	1557 Oct 20 j 08:04	6° <u>♄</u> 36'23	0°25'15	direct	1563 Jul 29 j 21:46	29° <u>♄</u> 27'14	
max. Earth dist.	1557 Oct 19 j 22:45	6° <u>♄</u> 34'56	19.62455 AU		1563 Sep 03 j 19:00	0° <u>♄</u>	
morning rise	1557 Nov 05 j 04:45	7° <u>♄</u> 35'23		evening set	1563 Oct 31 j 20:55	2° <u>♄</u> 46'09	
retrograde	1558 Feb 04 j 06:45	10° <u>♄</u> 53'36					
opposition	1558 Apr 19 j 22:30	8° <u>♄</u> 52'45	0°26'30	conjunction	1563 Nov 16 j 15:32	3° <u>♄</u> 43'48	0°06'11
min. Earth dist.	1558 Apr 20 j 06:07	8° <u>♄</u> 51'57	17.64969 AU	minimum elong	1563 Nov 16 j 15:32	3° <u>♄</u> 43'48	0°06'12
direct	1558 Jul 06 j 04:50	6° <u>♄</u> 48'32		behind sun begin	1563 Nov 16 j 09:18	3° <u>♄</u> 42'52	
evening set	1558 Oct 09 j 04:43	10° <u>♄</u> 13'07		behind sun end	1563 Nov 16 j 21:46	3° <u>♄</u> 44'44	
				max. Earth dist.	1563 Nov 16 j 17:59	3° <u>♄</u> 44'08	19.97840 AU
conjunction	1558 Oct 25 j 03:36	11° <u>♄</u> 12'18	0°22'18	morning rise	1563 Dec 02 j 08:14	4° <u>♄</u> 41'11	
minimum elong	1558 Oct 25 j 03:36	11° <u>♄</u> 12'18	0°22'18	retrograde	1564 Mar 02 j 18:52	7° <u>♄</u> 55'48	
max. Earth dist.	1558 Oct 24 j 19:37	11° <u>♄</u> 11'04	19.67577 AU	opposition	1564 May 17 j 12:03	5° <u>♄</u> 55'45	0°04'58
morning rise	1558 Nov 09 j 23:31	12° <u>♄</u> 11'02		min. Earth dist.	1564 May 17 j 07:52	5° <u>♄</u> 56'11	18.01183 AU
	1559 Jan 07 j 15:05	15° <u>♄</u>		direct	1564 Aug 02 j 19:24	3° <u>♄</u> 53'39	
retrograde	1559 Feb 09 j 01:21	15° <u>♄</u> 28'40		evening set	1564 Nov 04 j 11:50	7° <u>♄</u> 11'22	
	1559 Mar 14 j 10:53	15° <u>♄</u>					
opposition	1559 Apr 24 j 22:14	13° <u>♄</u> 27'54	0°23'07	conjunction	1564 Nov 20 j 05:46	8° <u>♄</u> 08'44	0°02'50
min. Earth dist.	1559 Apr 25 j 04:40	13° <u>♄</u> 27'14	17.70251 AU	minimum elong	1564 Nov 20 j 05:45	8° <u>♄</u> 08'44	0°02'50
direct	1559 Jul 11 j 04:31	11° <u>♄</u> 23'57		behind sun begin	1564 Nov 19 j 23:13	8° <u>♄</u> 07'45	
evening set	1559 Oct 14 j 00:19	14° <u>♄</u> 47'28		behind sun end	1564 Nov 20 j 12:18	8° <u>♄</u> 09'42	
	1559 Oct 17 j 10:39	15° <u>♄</u>		max. Earth dist.	1564 Nov 20 j 10:28	8° <u>♄</u> 09'25	20.04601 AU
conjunction	1559 Oct 29 j 22:19	15° <u>♄</u> 46'20	0°19'13	morning rise	1564 Dec 05 j 21:57	9° <u>♄</u> 05'51	
minimum elong	1559 Oct 29 j 22:19	15° <u>♄</u> 46'20	0°19'14	retrograde	1565 Mar 07 j 10:33	12° <u>♄</u> 19'53	
max. Earth dist.	1559 Oct 29 j 16:44	15° <u>♄</u> 45'29	19.73019 AU	opposition	1565 May 22 j 08:21	10° <u>♄</u> 20'01	0°01'14
morning rise	1559 Nov 14 j 17:26	16° <u>♄</u> 44'49		min. Earth dist.	1565 May 22 j 03:29	10° <u>♄</u> 20'31	18.07999 AU
retrograde	1560 Feb 13 j 20:32	20° <u>♄</u> 01'50		direct	1565 Aug 07 j 14:16	8° <u>♄</u> 18'22	
opposition	1560 Apr 28 j 21:10	18° <u>♄</u> 01'10	0°19'38	desc. node	1565 Sep 21 j 14:18	9° <u>♄</u> 09'14	
min. Earth dist.	1560 Apr 29 j 01:05	18° <u>♄</u> 00'45	17.75842 AU	evening set	1565 Nov 09 j 01:56	11° <u>♄</u> 34'54	

conjunction	1565 Nov 24 j 19:09	12°  31'57	-0°00'36	retrograde	1571 Apr 02 j 23:01	8°  08'50	
minimum elong	1565 Nov 24 j 19:10	12°  31'57	0°00'37	opposition	1571 Jun 18 j 21:04	6°  09'44	-0°20'08
behind sun begin	1565 Nov 24 j 12:38	12°  30'59		min. Earth dist.	1571 Jun 18 j 07:43	6°  11'05	18.47444 AU
behind sun end	1565 Nov 25 j 01:41	12°  32'55		direct	1571 Sep 03 j 22:50	4°  10'20	
max. Earth dist.	1565 Nov 25 j 01:11	12°  32'51	20.11454 AU	evening set	1571 Dec 04 j 21:29	7°  19'46	
morning rise	1565 Dec 10 j 11:02	13°  28'49					
retrograde	1566 Mar 12 j 03:03	16°  42'17		conjunction	1571 Dec 20 j 12:17	8°  15'15	-0°19'39
opposition	1566 May 27 j 04:04	14°  42'36	-0°02'29	minimum elong	1571 Dec 20 j 12:17	8°  15'15	0°19'38
min. Earth dist.	1566 May 26 j 20:27	14°  43'23	18.14861 AU	max. Earth dist.	1571 Dec 21 j 02:20	8°  17'20	20.50426 AU
direct	1566 Aug 12 j 10:21	12°  41'22		morning rise	1572 Jan 05 j 03:23	9°  10'46	
evening set	1566 Nov 13 j 15:03	15°  56'42		retrograde	1572 Apr 06 j 12:13	12°  20'58	
				opposition	1572 Jun 22 j 12:38	10°  21'54	-0°23'19
conjunction	1566 Nov 29 j 07:46	16°  53'29	-0°03'59	min. Earth dist.	1572 Jun 21 j 21:17	10°  23'27	18.53342 AU
minimum elong	1566 Nov 29 j 07:46	16°  53'29	0°03'59	direct	1572 Sep 07 j 13:33	8°  22'46	
behind sun begin	1566 Nov 29 j 01:18	16°  52'31		evening set	1572 Dec 08 j 05:55	11°  31'05	
behind sun end	1566 Nov 29 j 14:14	16°  54'26					
max. Earth dist.	1566 Nov 29 j 16:04	16°  54'43	20.18304 AU	conjunction	1572 Dec 23 j 20:39	12°  26'21	-0°22'28
morning rise	1566 Dec 14 j 23:14	17°  50'06		minimum elong	1572 Dec 23 j 20:39	12°  26'21	0°22'29
retrograde	1567 Mar 16 j 17:16	21°  03'00		max. Earth dist.	1572 Dec 24 j 12:58	12°  28'46	20.56208 AU
opposition	1567 May 31 j 23:19	19°  03'29	-0°06'10	morning rise	1573 Jan 08 j 11:42	13°  21'41	
min. Earth dist.	1567 May 31 j 15:13	19°  04'18	18.21692 AU	retrograde	1573 Apr 10 j 21:47	16°  31'23	
direct	1567 Aug 17 j 04:22	17°  02'41		min. Earth dist.	1573 Jun 26 j 11:43	14°  33'57	18.59033 AU
evening set	1567 Nov 18 j 03:34	20°  16'48		opposition	1573 Jun 27 j 03:35	14°  32'21	-0°26'23
				direct	1573 Sep 12 j 02:56	12°  33'30	
conjunction	1567 Dec 03 j 19:42	21°  13'18	-0°07'16	evening set	1573 Dec 12 j 13:49	15°  34'04	
minimum elong	1567 Dec 03 j 19:42	21°  13'18	0°07'16				
behind sun begin	1567 Dec 03 j 13:41	21°  12'25		conjunction	1573 Dec 28 j 04:19	16°  35'47	-0°25'09
behind sun end	1567 Dec 04 j 01:44	21°  14'11		minimum elong	1573 Dec 28 j 04:19	16°  35'47	0°25'09
max. Earth dist.	1567 Dec 04 j 04:49	21°  14'40	20.25093 AU	max. Earth dist.	1573 Dec 28 j 21:04	16°  38'16	20.61815 AU
morning rise	1567 Dec 19 j 11:02	22°  09'40		morning rise	1574 Jan 12 j 19:40	17°  30'57	
retrograde	1568 Mar 20 j 08:37	25°  22'01		retrograde	1574 Apr 15 j 09:59	20°  40'12	
opposition	1568 Jun 04 j 17:35	23°  22'38	-0°09'48	opposition	1574 Jul 01 j 17:48	18°  41'11	-0°29'16
min. Earth dist.	1568 Jun 04 j 07:05	23°  23'43	18.28422 AU	min. Earth dist.	1574 Jun 30 j 23:57	18°  42'58	18.64564 AU
direct	1568 Aug 20 j 22:28	21°  22'14		direct	1574 Sep 16 j 15:23	16°  42'36	
evening set	1568 Nov 21 j 15:15	24°  35'11		evening set	1574 Dec 16 j 20:53	19°  48'50	
conjunction	1568 Dec 07 j 07:02	25°  31'24	-0°10'29	conjunction	1575 Jan 01 j 11:30	20°  43'42	-0°27'41
minimum elong	1568 Dec 07 j 07:01	25°  31'24	0°10'28	minimum elong	1575 Jan 01 j 11:30	20°  43'42	0°27'42
behind sun begin	1568 Dec 07 j 01:51	25°  30'39		max. Earth dist.	1575 Jan 02 j 06:34	20°  46'30	20.67249 AU
behind sun end	1568 Dec 07 j 12:12	25°  32'10		morning rise	1575 Jan 17 j 02:56	21°  38'41	
max. Earth dist.	1568 Dec 07 j 18:09	25°  33'04	20.31736 AU	retrograde	1575 Apr 19 j 18:49	24°  47'32	
morning rise	1568 Dec 22 j 22:04	26°  27'33		opposition	1575 Jul 06 j 07:22	22°  48'34	-0°31'59
retrograde	1569 Mar 24 j 21:24	29°  39'20		min. Earth dist.	1575 Jul 05 j 12:54	22°  50'25	18.69914 AU
opposition	1569 Jun 09 j 11:30	27°  40'05	-0°13'20	direct	1575 Sep 21 j 02:59	20°  50'17	
min. Earth dist.	1569 Jun 09 j 00:41	27°  41'11	18.34978 AU	evening set	1575 Dec 21 j 03:37	23°  55'33	
direct	1569 Aug 25 j 15:10	25°  40'03					
evening set	1569 Nov 26 j 02:08	28°  51'49		conjunction	1576 Jan 05 j 18:09	24°  50'14	-0°30'04
				minimum elong	1576 Jan 05 j 18:09	24°  50'14	0°30'04
conjunction	1569 Dec 11 j 17:25	29°  47'47	-0°13'38	max. Earth dist.	1576 Jan 06 j 13:23	24°  53'03	20.72507 AU
minimum elong	1569 Dec 11 j 17:25	29°  47'47	0°13'38	morning rise	1576 Jan 21 j 10:01	25°  45'05	
behind sun begin	1569 Dec 11 j 13:43	29°  47'14		retrograde	1576 Apr 23 j 05:51	28°  53'34	
behind sun end	1569 Dec 11 j 21:06	29°  48'19		opposition	1576 Jul 09 j 20:04	26°  54'39	-0°34'31
max. Earth dist.	1569 Dec 12 j 05:02	29°  49'31	20.38193 AU	min. Earth dist.	1576 Jul 09 j 00:02	26°  56'40	18.75077 AU
	1569 Dec 15 j 02:43	0°  3		direct	1576 Sep 24 j 13:02	24°  56'39	
morning rise	1569 Dec 27 j 08:27	0°  43'42		evening set	1576 Dec 24 j 09:44	28°  01'02	
retrograde	1570 Mar 29 j 11:44	3°  54'58					
opposition	1570 Jun 14 j 04:38	1°  55'48	-0°16'47	conjunction	1577 Jan 09 j 00:30	28°  55'34	-0°32'17
min. Earth dist.	1570 Jun 13 j 15:35	1°  57'07	18.41328 AU	minimum elong	1577 Jan 09 j 00:30	28°  55'34	0°32'17
	1570 Aug 17 j 20:03	30°  R 		max. Earth dist.	1577 Jan 09 j 21:51	28°  58'41	20.77548 AU
direct	1570 Aug 30 j 07:46	29°  56'05		morning rise	1577 Jan 24 j 16:34	29°  50'18	
	1570 Sep 11 j 15:29	0°  3			1577 Jan 27 j 12:47	0°  R 	
evening set	1570 Nov 30 j 12:11	3°  50'41		retrograde	1577 Apr 27 j 14:41	2°  58'26	
				min. Earth dist.	1577 Jul 13 j 11:52	1°  59'37	18.79996 AU
conjunction	1570 Dec 16 j 03:18	4°  52'24	-0°16'42	opposition	1577 Jul 14 j 08:25	0°  R 	-0°36'52
minimum elong	1570 Dec 16 j 03:18	4°  52'24	0°16'41		1577 Aug 09 j 08:52	30°  R 	
max. Earth dist.	1570 Dec 16 j 16:59	4°  54'27	20.44420 AU	direct	1577 Sep 28 j 23:23	29°  50'15	
morning rise	1570 Dec 31 j 18:11	4°  58'07			1577 Nov 16 j 07:32	0°  R 	

evening set	1577 Dec 28 j 15:24	2° $\approx$ 05'27		max. Earth dist.	1584 Feb 17 12:48	27° $\approx$ 12'09	21.02583 AU
				morning rise	1584 Mar 03 10:18	28° $\approx$ 03'13	
conjunction	1578 Jan 13 j 06:13	2° $\approx$ 59'50 -0°34'20			1584 Apr 11 14:28	0° $\approx$	
minimum elong	1578 Jan 13 j 06:13	2° $\approx$ 59'50 0°34'19		retrograde	1584 Jun 05 07:27	1° $\approx$ 10'01	
max. Earth dist.	1578 Jan 14 j 03:30	3° $\approx$ 02'57 20.82338 AU			1584 Aug 01 09:28	30° $\approx$	
morning rise	1578 Jan 28 j 22:52	3° $\approx$ 54'28		min. Earth dist.	1584 Aug 21 10:55	29° $\approx$ 13'29	19.03481 AU
retrograde	1578 May 02 j 01:07	7° $\approx$ 02'20		opposition	1584 Aug 22 09:07	29° $\approx$ 11'16	-0°47'32
opposition	1578 Jul 18 j 20:14	5° $\approx$ 03'34 -0°39'02		direct	1584 Nov 06 06:21	27° $\approx$ 14'53	
min. Earth dist.	1578 Jul 17 j 22:29	5° $\approx$ 05'44 18.84646 AU			1585 Jan 30 19:23	0° $\approx$	
direct	1578 Oct 03 j 07:48	3° $\approx$ 06'08		evening set	1585 Feb 04 01:09	0° $\approx$ 14'09	
evening set	1579 Jan 01 j 20:45	6° $\approx$ 08'54					
				conjunction	1585 Feb 19 19:07	1° $\approx$ 08'05	-0°43'20
conjunction	1579 Jan 17 j 11:58	7° $\approx$ 03'11 -0°36'12		minimum elong	1585 Feb 19 19:07	1° $\approx$ 08'05	0°43'20
minimum elong	1579 Jan 17 j 11:58	7° $\approx$ 03'11 0°36'11		max. Earth dist.	1585 Feb 20 18:50	1° $\approx$ 11'29	21.04162 AU
max. Earth dist.	1579 Jan 18 j 11:03	7° $\approx$ 06'32 20.86815 AU		morning rise	1585 Mar 07 15:57	2° $\approx$ 02'25	
morning rise	1579 Feb 02 j 04:56	7° $\approx$ 57'43		retrograde	1585 Jun 09 15:25	5° $\approx$ 09'08	
retrograde	1579 May 06 j 09:48	11° $\approx$ 05'19		opposition	1585 Aug 26 17:50	3° $\approx$ 10'17	-0°48'10
min. Earth dist.	1579 Jul 22 j 09:26	9° $\approx$ 08'49 18.88947 AU		min. Earth dist.	1585 Aug 25 19:43	3° $\approx$ 12'29	19.04805 AU
opposition	1579 Jul 23 j 07:24	9° $\approx$ 06'38 -0°40'59		direct	1585 Nov 10 13:13	1° $\approx$ 13'56	
direct	1579 Oct 07 j 16:58	7° $\approx$ 09'29		evening set	1586 Feb 08 05:22	4° $\approx$ 12'47	
evening set	1580 Jan 06 j 01:58	10° $\approx$ 11'32					
				conjunction	1586 Feb 23 23:51	5° $\approx$ 06'43	-0°43'48
conjunction	1580 Jan 21 j 17:21	11° $\approx$ 05'42 -0°37'53		minimum elong	1586 Feb 23 23:51	5° $\approx$ 06'43	0°43'48
minimum elong	1580 Jan 21 j 17:21	11° $\approx$ 05'42 0°37'53		max. Earth dist.	1586 Feb 24 22:28	5° $\approx$ 09'57	21.05258 AU
max. Earth dist.	1580 Jan 22 j 15:52	11° $\approx$ 08'58 20.90927 AU		morning rise	1586 Mar 11 21:41	6° $\approx$ 01'05	
morning rise	1580 Feb 06 j 11:00	12° $\approx$ 00'10		retrograde	1586 Jun 13 23:38	9° $\approx$ 07'45	
	1580 Apr 22 j 07:37	15° $\approx$		min. Earth dist.	1586 Aug 30 04:25	7° $\approx$ 10'56	19.05682 AU
retrograde	1580 May 09 j 20:03	15° $\approx$ 07'33		opposition	1586 Aug 31 02:11	7° $\approx$ 08'45	-0°48'33
	1580 May 27 j 13:52	15° $\approx$		direct	1586 Nov 14 19:00	5° $\approx$ 12'24	
opposition	1580 Jul 26 j 18:10	13° $\approx$ 08'55 -0°42'44		evening set	1587 Feb 12 09:34	8° $\approx$ 10'57	
min. Earth dist.	1580 Jul 25 j 19:38	13° $\approx$ 11'10 18.92860 AU					
direct	1580 Oct 11 j 00:43	11° $\approx$ 12'00		conjunction	1587 Feb 28 04:54	9° $\approx$ 04'54	-0°44'03
evening set	1581 Jan 09 j 06:47	14° $\approx$ 13'23		minimum elong	1587 Feb 28 04:54	9° $\approx$ 04'54	0°44'03
	1581 Jan 22 j 19:06	15° $\approx$		max. Earth dist.	1587 Mar 01 04:32	9° $\approx$ 08'17	21.05913 AU
				morning rise	1587 Mar 16 03:25	9° $\approx$ 59'19	
conjunction	1581 Jan 24 j 22:39	15° $\approx$ 07'28 -0°39'23		retrograde	1587 Jun 18 07:29	13° $\approx$ 05'57	
minimum elong	1581 Jan 24 j 22:39	15° $\approx$ 07'28 0°39'22		opposition	1587 Sep 04 09:57	11° $\approx$ 06'50	-0°48'42
max. Earth dist.	1581 Jan 25 j 22:34	15° $\approx$ 10'56 20.94604 AU		min. Earth dist.	1587 Sep 03 12:15	11° $\approx$ 09'01	19.06132 AU
morning rise	1581 Feb 09 j 16:41	16° $\approx$ 01'53		direct	1587 Nov 19 01:25	9° $\approx$ 10'29	
retrograde	1581 May 14 j 04:24	19° $\approx$ 09'05		evening set	1588 Feb 16 13:55	12° $\approx$ 08'47	
min. Earth dist.	1581 Jul 30 j 06:01	17° $\approx$ 12'44 18.96301 AU					
opposition	1581 Jul 31 j 04:34	17° $\approx$ 10'29 -0°44'16		conjunction	1588 Mar 03 09:51	13° $\approx$ 02'47	-0°44'05
direct	1581 Oct 15 j 08:42	15° $\approx$ 13'48		minimum elong	1588 Mar 03 09:51	13° $\approx$ 02'47	0°44'04
evening set	1582 Jan 13 j 11:41	18° $\approx$ 14'34		max. Earth dist.	1588 Mar 04 08:13	13° $\approx$ 05'59	21.06175 AU
				morning rise	1588 Mar 19 09:24	13° $\approx$ 57'16	
conjunction	1582 Jan 29 j 03:49	19° $\approx$ 08'35 -0°40'41		retrograde	1588 Jun 21 15:33	17° $\approx$ 03'57	
minimum elong	1582 Jan 29 j 03:49	19° $\approx$ 08'35 0°40'41		opposition	1588 Sep 07 17:38	15° $\approx$ 04'43	-0°48'38
max. Earth dist.	1582 Jan 30 j 02:48	19° $\approx$ 11'54 20.97802 AU		min. Earth dist.	1588 Sep 06 20:23	15° $\approx$ 06'51	19.06212 AU
morning rise	1582 Feb 13 j 22:39	20° $\approx$ 02'57		direct	1588 Nov 22 05:54	13° $\approx$ 08'20	
retrograde	1582 May 18 j 14:21	23° $\approx$ 10'01		evening set	1589 Feb 19 18:06	16° $\approx$ 06'30	
opposition	1582 Aug 04 j 14:33	21° $\approx$ 11'24 -0°45'35					
min. Earth dist.	1582 Aug 03 j 15:54	21° $\approx$ 13'39 18.99249 AU		conjunction	1589 Mar 07 14:58	17° $\approx$ 00'33	-0°43'54
direct	1582 Oct 29 16:14	19° $\approx$ 14'51		minimum elong	1589 Mar 07 14:58	17° $\approx$ 00'33	0°43'55
evening set	1583 Jan 27 16:14	22° $\approx$ 15'05		max. Earth dist.	1589 Mar 08 14:17	17° $\approx$ 03'53	21.06063 AU
				morning rise	1589 Mar 23 15:14	17° $\approx$ 55'07	
conjunction	1583 Feb 12 09:03	23° $\approx$ 09'03 -0°41'46		retrograde	1589 Jun 25 23:35	21° $\approx$ 01'53	
minimum elong	1583 Feb 12 09:03	23° $\approx$ 09'03 0°41'46		min. Earth dist.	1589 Sep 11 03:49	19° $\approx$ 04'42	19.05914 AU
max. Earth dist.	1583 Feb 13 09:02	23° $\approx$ 12'30 21.00469 AU		opposition	1589 Sep 12 01:05	19° $\approx$ 02'34	-0°48'19
morning rise	1583 Feb 28 04:25	24° $\approx$ 03'24		direct	1589 Nov 26 12:06	17° $\approx$ 06'12	
retrograde	1583 Jun 01 22:34	27° $\approx$ 10'18		evening set	1590 Feb 23 22:45	20° $\approx$ 04'16	
min. Earth dist.	1583 Aug 18 01:37	25° $\approx$ 13'54 19.01635 AU					
opposition	1583 Aug 19 00:06	25° $\approx$ 11'39 -0°46'41		conjunction	1590 Mar 11 20:18	20° $\approx$ 58'25	-0°43'31
direct	1583 Nov 02 23:24	23° $\approx$ 15'14		minimum elong	1590 Mar 11 20:18	20° $\approx$ 58'25	0°43'31
evening set	1584 Jan 31 20:52	26° $\approx$ 14'56		max. Earth dist.	1590 Mar 12 18:12	21° $\approx$ 01'32	21.05595 AU
				morning rise	1590 Mar 27 21:40	21° $\approx$ 53'04	
conjunction	1584 Feb 16 14:04	27° $\approx$ 08'52 -0°42'40		retrograde	1590 Jun 30 08:19	25° $\approx$ 00'00	
minimum elong	1584 Feb 16 14:04	27° $\approx$ 08'52 0°42'40		min. Earth dist.	1590 Sep 15 11:49	23° $\approx$ 02'39	19.05270 AU



opposition	1590 Sep 16 08:21	23° <del>℥</del> 00'35 -0°47'46	conjunction	1597 Apr 08 22:16	18° <del>♊</del> 58'43 -0°35'09
direct	1590 Nov 30 16:04	21° <del>℥</del> 04'11	minimum elong	1597 Apr 08 22:16	18° <del>♊</del> 58'43 0°35'08
evening set	1591 Feb 28 03:30	24° <del>℥</del> 02'17	max. Earth dist.	1597 Apr 09 14:19	19° <del>♊</del> 01'01 20.90691 AU
			morning rise	1597 Apr 25 06:18	19° <del>♊</del> 54'30
conjunction	1591 Mar 16 02:07	24° <del>℥</del> 56'32 -0°42'56	retrograde	1597 Jul 29 01:51	23° <del>♊</del> 03'27
minimum elong	1591 Mar 16 02:07	24° <del>℥</del> 56'32 0°42'57	opposition	1597 Oct 14 11:03	21° <del>♊</del> 03'23 -0°37'46
max. Earth dist.	1591 Mar 17 00:39	24° <del>℥</del> 59'45 21.04762 AU	min. Earth dist.	1597 Oct 13 21:23	21° <del>♊</del> 04'47 18.88732 AU
morning rise	1591 Apr 01 04:17	25° <del>℥</del> 51'19	direct	1597 Dec 28 07:10	19° <del>♊</del> 06'18
retrograde	1591 Jul 04 16:39	28° <del>℥</del> 58'25	evening set	1598 Mar 28 02:13	22° <del>♊</del> 06'27
opposition	1591 Sep 20 15:28	26° <del>℥</del> 58'57 -0°47'00			
min. Earth dist.	1591 Sep 19 19:09	27° <del>℥</del> 01'00 19.04238 AU	conjunction	1598 Apr 13 07:32	23° <del>♊</del> 01'54 -0°33'11
direct	1591 Dec 04 21:58	25° <del>℥</del> 02'33	minimum elong	1598 Apr 13 07:32	23° <del>♊</del> 01'54 0°33'11
evening set	1592 Mar 03 08:44	28° <del>℥</del> 00'44	max. Earth dist.	1598 Apr 13 20:56	23° <del>♊</del> 03'49 20.86640 AU
			morning rise	1598 Apr 29 16:45	23° <del>♊</del> 57'53
conjunction	1592 Mar 19 08:04	28° <del>℥</del> 55'06 -0°42'08	retrograde	1598 Aug 02 11:21	27° <del>♊</del> 07'12
minimum elong	1592 Mar 19 08:04	28° <del>℥</del> 55'06 0°42'08	opposition	1598 Oct 18 18:39	25° <del>♊</del> 06'56 -0°35'30
max. Earth dist.	1592 Mar 20 04:52	28° <del>℥</del> 58'04 21.03545 AU	min. Earth dist.	1598 Oct 18 07:04	25° <del>♊</del> 08'07 18.84462 AU
morning rise	1592 Apr 04 11:20	29° <del>℥</del> 50'00	direct	1599 Jan 01 13:08	23° <del>♊</del> 09'34
	1592 Apr 07 11:25	0° <del>♊</del>	evening set	1599 Apr 01 11:01	26° <del>♊</del> 10'15
retrograde	1592 Jul 08 02:12	2° <del>♊</del> 57'21			
opposition	1592 Sep 23 22:35	0° <del>♊</del> 57'49 -0°46'01	conjunction	1599 Apr 17 17:33	27° <del>♊</del> 05'56 -0°31'02
min. Earth dist.	1592 Sep 23 03:21	0° <del>♊</del> 59'46 19.02824 AU	minimum elong	1599 Apr 17 17:33	27° <del>♊</del> 05'56 0°31'02
	1592 Oct 18 21:32	30° <del>♊</del>	max. Earth dist.	1599 Apr 18 06:36	27° <del>♊</del> 07'48 20.82171 AU
direct	1592 Dec 08 02:08	29° <del>℥</del> 01'24	morning rise	1599 May 04 03:34	28° <del>♊</del> 02'08
	1593 Jan 25 13:21	0° <del>♊</del>		1599 Jun 12 15:22	0° <del>♋</del>
evening set	1593 Mar 07 14:14	1° <del>♊</del> 59'45	retrograde	1599 Aug 06 22:19	1° <del>♋</del> 11'49
				1599 Oct 02 19:11	30° <del>♋</del>
conjunction	1593 Mar 23 14:40	2° <del>♊</del> 54'16 -0°41'08	opposition	1599 Oct 23 02:20	29° <del>♊</del> 11'21 -0°33'02
minimum elong	1593 Mar 23 14:40	2° <del>♊</del> 54'16 0°41'08	min. Earth dist.	1599 Oct 22 15:27	29° <del>♊</del> 12'28 18.79799 AU
max. Earth dist.	1593 Mar 24 11:51	2° <del>♊</del> 57'18 21.01925 AU	direct	1600 Jan 05 20:49	27° <del>♊</del> 13'42
morning rise	1593 Apr 08 18:44	3° <del>♊</del> 49'19		1600 Mar 31 08:53	0° <del>♋</del>
retrograde	1593 Jul 12 10:44	6° <del>♊</del> 56'56	evening set	1600 Apr 04 20:28	0° <del>♋</del> 14'58
min. Earth dist.	1593 Sep 27 10:54	4° <del>♊</del> 59'15 19.00982 AU			
opposition	1593 Sep 28 05:41	4° <del>♊</del> 57'21 -0°44'48	conjunction	1600 Apr 21 03:50	1° <del>♋</del> 10'53 -0°28'43
direct	1593 Dec 12 07:46	3° <del>♊</del> 00'53	minimum elong	1600 Apr 21 03:50	1° <del>♋</del> 10'53 0°28'43
evening set	1594 Mar 11 20:22	5° <del>♊</del> 59'29	max. Earth dist.	1600 Apr 21 14:22	1° <del>♋</del> 12'23 20.77348 AU
			morning rise	1600 May 07 14:56	2° <del>♋</del> 07'19
conjunction	1594 Mar 27 21:37	6° <del>♊</del> 54'09 -0°39'56	retrograde	1600 Aug 10 08:14	5° <del>♋</del> 17'26
minimum elong	1594 Mar 27 21:37	6° <del>♊</del> 54'09 0°39'56	opposition	1600 Oct 26 10:21	3° <del>♋</del> 16'45 -0°30'24
max. Earth dist.	1594 Mar 28 16:41	6° <del>♊</del> 56'53 20.99867 AU	min. Earth dist.	1600 Oct 26 01:27	3° <del>♋</del> 17'40 18.74828 AU
morning rise	1594 Apr 13 02:52	7° <del>♊</del> 49'22	direct	1601 Jan 09 03:05	1° <del>♋</del> 18'45
retrograde	1594 Jul 16 20:54	10° <del>♊</del> 57'18	evening set	1601 Apr 09 06:29	4° <del>♋</del> 20'42
opposition	1594 Oct 02 12:56	8° <del>♊</del> 57'38 -0°43'22			
min. Earth dist.	1594 Oct 01 19:46	8° <del>♊</del> 59'22 18.98688 AU	conjunction	1601 Apr 25 15:03	5° <del>♋</del> 16'52 -0°26'16
direct	1594 Dec 16 12:40	7° <del>♊</del> 01'05	minimum elong	1601 Apr 25 15:03	5° <del>♋</del> 16'52 0°26'16
evening set	1595 Mar 16 03:01	10° <del>♊</del> 00'00	max. Earth dist.	1601 Apr 26 01:18	5° <del>♋</del> 18'20 20.72244 AU
			morning rise	1601 May 12 02:54	6° <del>♋</del> 13'32
conjunction	1595 Apr 01 05:24	10° <del>♊</del> 54'51 -0°38'32	retrograde	1601 Aug 14 20:13	9° <del>♋</del> 24'05
minimum elong	1595 Apr 01 05:24	10° <del>♊</del> 54'51 0°38'31	opposition	1601 Oct 30 18:26	7° <del>♋</del> 23'13 -0°27'36
max. Earth dist.	1595 Apr 02 00:19	10° <del>♊</del> 57'33 20.97322 AU	min. Earth dist.	1601 Oct 30 10:03	7° <del>♋</del> 24'05 18.69597 AU
morning rise	1595 Apr 17 11:27	11° <del>♊</del> 50'14	direct	1602 Jan 13 11:17	5° <del>♋</del> 24'55
retrograde	1595 Jul 21 05:56	14° <del>♊</del> 58'29			
opposition	1595 Oct 06 20:02	12° <del>♊</del> 58'44 -0°41'42			
min. Earth dist.	1595 Oct 06 03:40	13° <del>♊</del> 00'24 18.95880 AU			
direct	1595 Dec 20 18:37	11° <del>♊</del> 02'03			
evening set	1596 Mar 19 10:19	14° <del>♊</del> 01'21			
conjunction	1596 Apr 04 13:33	14° <del>♊</del> 56'22 -0°36'56			
minimum elong	1596 Apr 04 13:33	14° <del>♊</del> 56'22 0°36'56			
max. Earth dist.	1596 Apr 05 05:54	14° <del>♊</del> 58'42 20.94263 AU			
morning rise	1596 Apr 20 20:45	15° <del>♊</del> 51'57			
retrograde	1596 Jul 24 15:46	19° <del>♊</del> 00'33			
opposition	1596 Oct 10 03:32	17° <del>♊</del> 00'39 -0°39'50			
min. Earth dist.	1596 Oct 09 13:05	17° <del>♊</del> 02'07 18.92562 AU			
direct	1596 Dec 24 00:18	15° <del>♊</del> 03'47			
evening set	1597 Mar 23 17:50	18° <del>♊</del> 03'29			