

direct	9100 Feb 19 20:33	14°II30'21	conjunction	9106 Jun 16 13:18	0°☾22'17 -0°53'52
evening set	9100 May 18 09:35	16°II24'30	minimum elong	9106 Jun 16 13:18	0°☾22'17 0°54'09
			max. Earth dist.	9106 Jun 16 23:17	0°☾23'14 30.92223 AU
conjunction	9100 Jun 02 19:29	16°II59'21 -0°45'06	morning rise	9106 Jul 02 01:53	0°☾57'26
minimum elong	9100 Jun 02 19:29	16°II59'21 0°45'23	retrograde	9106 Sep 30 01:42	2°☾55'02
max. Earth dist.	9100 Jun 03 03:21	17°II00'05 30.98044 AU	opposition	9106 Dec 19 10:32	1°☾30'39 -0°58'15
morning rise	9100 Jun 18 06:34	17°II34'20	min. Earth dist.	9106 Dec 19 00:44	1°☾31'19 28.91667 AU
retrograde	9100 Sep 15 21:00	19°II31'21	direct	9107 Mar 08 09:52	0°☾07'08
opposition	9100 Dec 05 02:57	18°II07'20 -0°49'07	evening set	9107 Jun 03 13:30	2°☾01'08
min. Earth dist.	9100 Dec 04 18:52	18°II07'53 28.97653 AU			
direct	9101 Feb 22 09:03	16°II43'52	conjunction	9107 Jun 19 00:29	2°☾36'06 -0°55'03
evening set	9101 May 20 20:16	18°II38'01	minimum elong	9107 Jun 19 00:29	2°☾36'06 0°55'20
			max. Earth dist.	9107 Jun 19 11:29	2°☾37'09 30.91061 AU
conjunction	9101 Jun 05 06:05	19°II12'53 -0°46'45	morning rise	9107 Jul 04 13:17	3°☾11'17
minimum elong	9101 Jun 05 06:05	19°II12'53 0°47'01	retrograde	9107 Oct 02 13:54	5°☾08'56
max. Earth dist.	9101 Jun 05 13:36	19°II13'36 30.97226 AU	opposition	9107 Dec 21 23:27	3°☾44'27 -0°59'29
morning rise	9101 Jun 20 17:31	19°II47'55	min. Earth dist.	9107 Dec 21 12:04	3°☾45'14 28.90530 AU
retrograde	9101 Sep 18 11:29	21°II45'03	direct	9108 Mar 09 22:27	2°☾20'54
opposition	9101 Dec 07 16:11	20°II21'00 -0°50'50	evening set	9108 Jun 05 00:31	4°☾14'52
min. Earth dist.	9101 Dec 07 07:49	20°II21'34 28.96840 AU			
direct	9102 Feb 24 20:33	18°II57'34	conjunction	9108 Jun 20 11:35	4°☾49'51 -0°56'10
evening set	9102 May 23 06:57	20°II51'43	minimum elong	9108 Jun 20 11:35	4°☾49'51 0°56'27
			max. Earth dist.	9108 Jun 20 22:33	4°☾50'54 30.89958 AU
conjunction	9102 Jun 07 17:03	21°II26'37 -0°48'19	morning rise	9108 Jul 06 00:48	5°☾25'03
minimum elong	9102 Jun 07 17:03	21°II26'37 0°48'36	retrograde	9108 Oct 04 03:00	7°☾22'47
max. Earth dist.	9102 Jun 08 02:11	21°II27'28 30.96392 AU	opposition	9108 Dec 23 12:38	5°☾58'14 -1°00'38
morning rise	9102 Jun 23 04:31	22°II01'39	min. Earth dist.	9108 Dec 23 01:22	5°☾59'00 28.89491 AU
retrograde	9102 Sep 21 00:15	23°II58'55	direct	9109 Mar 12 08:24	4°☾34'39
opposition	9102 Dec 10 05:29	22°II34'50 -0°52'29	evening set	9109 Jun 07 11:20	6°☾28'35
min. Earth dist.	9102 Dec 09 20:49	22°II35'26 28.95979 AU			
direct	9103 Feb 27 10:22	21°II11'26	conjunction	9109 Jun 22 22:45	7°☾03'36 -0°57'12
evening set	9103 May 25 17:49	23°II05'34	minimum elong	9109 Jun 22 22:45	7°☾03'36 0°57'28
			max. Earth dist.	9109 Jun 23 11:26	7°☾04'48 30.88976 AU
conjunction	9103 Jun 10 03:56	23°II40'28 -0°49'49	morning rise	9109 Jul 08 12:05	7°☾38'49
minimum elong	9103 Jun 10 03:56	23°II40'28 0°50'05	retrograde	9109 Oct 06 15:23	9°☾36'38
max. Earth dist.	9103 Jun 10 12:30	23°II41'17 30.95498 AU	opposition	9109 Dec 26 01:40	8°☾12'02 -1°01'41
morning rise	9103 Jun 25 15:47	24°II15'33	min. Earth dist.	9109 Dec 25 12:56	8°☾12'54 28.88574 AU
retrograde	9103 Sep 23 14:08	26°II12'55	direct	9110 Mar 14 20:53	6°☾48'26
opposition	9103 Dec 12 18:46	24°II48'47 -0°54'03	evening set	9110 Jun 09 22:25	8°☾42'23
min. Earth dist.	9103 Dec 12 09:16	24°II49'26 28.95043 AU			
direct	9104 Feb 29 21:56	23°II25'23	conjunction	9110 Jun 25 09:55	9°☾17'25 -0°58'08
evening set	9104 May 27 04:47	25°II19'30	minimum elong	9110 Jun 25 09:55	9°☾17'25 0°58'25
			max. Earth dist.	9110 Jun 25 22:21	9°☾18'36 30.88135 AU
conjunction	9104 Jun 11 15:08	25°II54'25 -0°51'15	morning rise	9110 Jul 10 23:43	9°☾52'40
minimum elong	9104 Jun 11 15:08	25°II54'25 0°51'31	retrograde	9110 Oct 09 06:11	11°☾50'35
max. Earth dist.	9104 Jun 12 00:36	25°II55'19 30.94494 AU	opposition	9110 Dec 28 14:47	10°☾25'56 -1°02'39
morning rise	9104 Jun 27 03:07	26°II29'32	min. Earth dist.	9110 Dec 28 01:38	10°☾26'50 28.87814 AU
retrograde	9104 Sep 25 00:55	28°II26'59	direct	9111 Mar 17 07:56	9°☾02'21
opposition	9104 Dec 14 07:58	27°II02'47 -0°55'32	evening set	9111 Jun 12 09:20	10°☾56'18
min. Earth dist.	9104 Dec 13 22:56	27°II03'24 28.93984 AU			
direct	9105 Mar 03 10:41	25°II39'22	conjunction	9111 Jun 27 21:16	11°☾31'21 -0°58'59
evening set	9105 May 29 15:46	27°II33'27	minimum elong	9111 Jun 27 21:16	11°☾31'21 0°59'15
			max. Earth dist.	9111 Jun 28 11:34	11°☾32'43 30.87435 AU
conjunction	9105 Jun 14 02:17	28°II08'23 -0°52'36	morning rise	9111 Jul 13 11:16	12°☾06'38
minimum elong	9105 Jun 14 02:16	28°II08'23 0°52'51	retrograde	9111 Oct 11 19:23	14°☾04'39
max. Earth dist.	9105 Jun 14 11:42	28°II09'17 30.93397 AU	opposition	9111 Dec 31 03:51	12°☾39'59 -1°03'31
morning rise	9105 Jun 29 14:34	28°II43'31	min. Earth dist.	9111 Dec 30 14:06	12°☾40'56 28.87171 AU
	9105 Aug 07 22:19	0°☾	direct	9112 Mar 18 21:09	11°☾16'26
retrograde	9105 Sep 27 14:17	0°☾41'02	evening set	9112 Jun 13 20:34	13°☾10'24
	9105 Nov 19 06:56	30°☾II			
opposition	9105 Dec 16 21:12	29°II16'45 -0°56'56	conjunction	9112 Jun 29 08:37	13°☾45'29 -0°59'45
min. Earth dist.	9105 Dec 16 10:50	29°II17'28 28.92843 AU	minimum elong	9112 Jun 29 08:37	13°☾45'29 1°00'02
direct	9106 Mar 05 22:51	27°II53'17	max. Earth dist.	9112 Jun 29 22:36	13°☾46'49 30.86854 AU
evening set	9106 Jun 01 02:38	29°II47'19	morning rise	9112 Jul 14 23:04	14°☾20'48
	9106 Jun 06 18:14	0°☾	retrograde	9112 Oct 13 09:46	16°☾18'54

opposition	9113 Jan 01 16:48	14°☾54'14 -1°04'17	max. Earth dist.	9119 Jul 16 11:24	29°☾30'57 30.82822 AU
min. Earth dist.	9113 Jan 01 02:05	14°☾55'15 28.86641 AU		9119 Jul 29 07:06	0°♈
direct	9113 Mar 21 08:08	13°☾30'43	morning rise	9119 Jul 31 12:44	0°♈04'59
evening set	9113 Jun 16 07:47	15°☾24'43	retrograde	9119 Oct 30 05:22	2°♈03'33
			opposition	9120 Jan 18 12:33	0°♈38'41 -1°06'54
conjunction	9113 Jul 01 20:11	15°☾59'50 -1°00'26	min. Earth dist.	9120 Jan 17 20:48	0°♈39'46 28.82505 AU
minimum elong	9113 Jul 01 20:11	15°☾59'50 1°00'42		9120 Feb 11 15:47	30°♈☾
max. Earth dist.	9113 Jul 02 11:26	16°☾01'17 30.86354 AU	direct	9120 Apr 05 18:16	29°☾15'09
morning rise	9113 Jul 17 10:52	16°☾35'11		9120 May 27 18:12	0°♈
retrograde	9113 Oct 15 22:06	18°☾33'23	evening set	9120 Jul 01 17:09	1°♈09'06
opposition	9114 Jan 04 06:00	17°☾08'44 -1°04'57			
min. Earth dist.	9114 Jan 03 15:29	17°☾09'44 28.86171 AU	conjunction	9120 Jul 17 07:52	1°♈44'23 -1°02'33
direct	9114 Mar 23 20:49	15°☾45'16	minimum elong	9120 Jul 17 07:52	1°♈44'23 1°02'48
evening set	9114 Jun 18 19:04	17°☾39'16	max. Earth dist.	9120 Jul 18 01:02	1°♈46'00 30.82100 AU
			morning rise	9120 Aug 02 01:05	2°♈19'55
conjunction	9114 Jul 04 07:44	18°☾14'25 -1°01'01	retrograde	9120 Oct 31 17:48	4°♈18'30
minimum elong	9114 Jul 04 07:44	18°☾14'25 1°01'17	min. Earth dist.	9121 Jan 19 09:16	2°♈54'41 28.81818 AU
max. Earth dist.	9114 Jul 04 23:04	18°☾15'53 30.85909 AU	opposition	9121 Jan 20 01:22	2°♈53'34 -1°06'52
morning rise	9114 Jul 19 22:49	18°☾49'48	direct	9121 Apr 08 07:10	1°♈29'59
retrograde	9114 Oct 18 13:15	20°☾48'07	evening set	9121 Jul 04 04:58	3°♈23'54
opposition	9115 Jan 06 19:06	19°☾23'28 -1°05'32			
min. Earth dist.	9115 Jan 06 03:23	19°☾24'33 28.85724 AU	conjunction	9121 Jul 19 19:55	3°♈59'13 -1°02'28
direct	9115 Mar 26 08:59	18°☾00'02	minimum elong	9121 Jul 19 19:55	3°♈59'13 1°02'42
evening set	9115 Jun 21 06:40	19°☾54'04	max. Earth dist.	9121 Jul 20 12:35	4°♈00'47 30.81471 AU
			morning rise	9121 Aug 04 13:40	4°♈34'46
conjunction	9115 Jul 06 19:36	20°☾29'15 -1°01'30	retrograde	9121 Nov 03 08:18	6°♈33'22
minimum elong	9115 Jul 06 19:36	20°☾29'15 1°01'46	opposition	9122 Jan 22 14:12	5°♈08'22 -1°06'44
max. Earth dist.	9115 Jul 07 11:14	20°☾30'44 30.85437 AU	min. Earth dist.	9122 Jan 21 21:19	5°♈09'32 28.81253 AU
morning rise	9115 Jul 22 11:03	21°☾04'40	direct	9122 Apr 10 18:15	3°♈44'45
retrograde	9115 Oct 21 01:06	23°☾03'04	evening set	9122 Jul 06 16:37	5°♈38'39
opposition	9116 Jan 09 08:12	21°☾38'24 -1°06'00			
min. Earth dist.	9116 Jan 08 17:27	21°☾39'25 28.85233 AU	conjunction	9122 Jul 22 08:02	6°♈13'59 -1°02'18
direct	9116 Mar 27 19:57	20°☾15'00	minimum elong	9122 Jul 22 08:02	6°♈13'59 1°02'32
evening set	9116 Jun 22 18:20	22°☾09'03	max. Earth dist.	9122 Jul 23 01:55	6°♈15'41 30.80959 AU
			morning rise	9122 Aug 07 02:05	6°♈49'35
conjunction	9116 Jul 08 07:40	22°☾44'14 -1°01'54	retrograde	9122 Nov 05 21:24	8°♈48'11
minimum elong	9116 Jul 08 07:40	22°☾44'14 1°02'10	min. Earth dist.	9123 Jan 24 10:20	7°♈24'18 28.80809 AU
max. Earth dist.	9116 Jul 08 23:43	22°☾45'46 30.84910 AU	opposition	9123 Jan 25 03:03	7°♈23'08 -1°06'30
morning rise	9116 Jul 23 23:23	23°☾19'41	direct	9123 Apr 13 07:43	5°♈59'30
retrograde	9116 Oct 22 13:42	25°☾18'09	evening set	9123 Jul 09 04:33	7°♈53'24
opposition	9117 Jan 10 21:18	23°☾53'29 -1°06'23			
min. Earth dist.	9117 Jan 10 05:28	23°☾54'35 28.84653 AU	conjunction	9123 Jul 24 20:19	8°♈28'45 -1°02'02
direct	9117 Mar 30 08:25	22°☾30'05	minimum elong	9123 Jul 24 20:19	8°♈28'45 1°02'15
evening set	9117 Jun 25 06:02	24°☾24'07	max. Earth dist.	9123 Jul 25 14:10	8°♈30'27 30.80594 AU
			morning rise	9123 Aug 09 14:50	9°♈04'22
conjunction	9117 Jul 10 19:33	24°☾59'20 -1°02'12	retrograde	9123 Nov 08 12:27	11°♈02'59
minimum elong	9117 Jul 10 19:33	24°☾59'20 1°02'27	opposition	9124 Jan 27 15:36	9°♈37'55 -1°06'10
max. Earth dist.	9117 Jul 11 10:59	25°☾00'48 30.84275 AU	min. Earth dist.	9124 Jan 26 21:38	9°♈39'10 28.80509 AU
morning rise	9117 Jul 26 11:45	25°☾34'49	direct	9124 Apr 14 20:19	8°♈14'17
retrograde	9117 Oct 25 02:41	27°☾33'20	evening set	9124 Jul 10 16:31	10°♈08'11
opposition	9118 Jan 13 10:35	26°☾08'37 -1°06'39			
min. Earth dist.	9118 Jan 12 19:30	26°☾09'39 28.83979 AU	conjunction	9124 Jul 26 08:38	10°♈43'34 -1°01'41
direct	9118 Apr 01 18:10	24°☾45'11	minimum elong	9124 Jul 26 08:38	10°♈43'34 1°01'55
evening set	9118 Jun 27 17:42	26°☾39'11	max. Earth dist.	9124 Jul 27 02:58	10°♈45'18 30.80350 AU
			morning rise	9124 Aug 11 03:34	11°♈19'13
conjunction	9118 Jul 13 07:44	27°☾14'26 -1°02'25	retrograde	9124 Nov 10 00:32	13°♈17'51
minimum elong	9118 Jul 13 07:44	27°☾14'26 1°02'41	min. Earth dist.	9125 Jan 28 11:10	11°♈53'59 28.80330 AU
max. Earth dist.	9118 Jul 14 00:12	27°☾16'00 30.83567 AU	opposition	9125 Jan 29 04:26	11°♈52'47 -1°05'44
morning rise	9118 Jul 29 00:11	27°☾49'56	direct	9125 Apr 17 07:39	10°♈29'10
retrograde	9118 Oct 27 15:17	29°☾48'29	evening set	9125 Jul 13 04:21	12°♈23'04
opposition	9119 Jan 15 23:33	28°☾23'42 -1°06'49			
min. Earth dist.	9119 Jan 15 07:38	28°☾24'48 28.83239 AU	conjunction	9125 Jul 28 20:57	12°♈58'28 -1°01'13
direct	9119 Apr 04 07:03	27°☾00'13	minimum elong	9125 Jul 28 20:57	12°♈58'28 1°01'26
evening set	9119 Jun 30 05:29	28°☾54'12	max. Earth dist.	9125 Jul 29 16:01	13°♈00'17 30.80233 AU
			morning rise	9125 Aug 13 16:14	13°♈34'09
conjunction	9119 Jul 15 19:43	29°☾29'27 -1°02'31		9125 Sep 28 08:06	15°♈
minimum elong	9119 Jul 15 19:43	29°☾29'27 1°02'46	retrograde	9125 Nov 12 14:06	15°♈32'49

	9125 Dec 29 00:27	15° κ δ	evening set	9132 Jul 28 19:24	28° δ 10'28	
opposition	9126 Jan 31 17:08	14° δ 07'46 -1°05'11				
min. Earth dist.	9126 Jan 30 22:39	14° δ 09'03 28.80250 AU	conjunction	9132 Aug 13 14:51	28° δ 46'03 -0°55'26	
direct	9126 Apr 19 20:10	12° δ 44'10	minimum elong	9132 Aug 13 14:52	28° δ 46'03 0°55'36	
evening set	9126 Jul 15 16:35	14° δ 38'05	max. Earth dist.	9132 Aug 14 08:40	28° δ 47'44 30.79057 AU	
	9126 Jul 25 10:41	15° δ	morning rise	9132 Aug 29 13:06	29° δ 21'54	
				9132 Sep 16 13:21	0° η	
conjunction	9126 Jul 31 09:27	15° δ 13'32 -1°00'40	retrograde	9132 Nov 28 13:16	1° η 20'35	
minimum elong	9126 Jul 31 09:27	15° δ 13'32 1°00'53		9133 Feb 13 16:40	30° κ δ	
max. Earth dist.	9126 Aug 01 04:04	15° δ 15'17 30.80184 AU	opposition	9133 Feb 16 09:28	29° δ 55'28 -0°58'40	
morning rise	9126 Aug 16 05:16	15° δ 49'14	min. Earth dist.	9133 Feb 15 16:02	29° δ 56'41 28.78946 AU	
retrograde	9126 Nov 15 03:34	17° δ 47'56	direct	9133 May 05 07:12	28° δ 31'45	
opposition	9127 Feb 03 05:53	16° δ 22'55 -1°04'33		9133 Jul 19 08:20	0° η	
min. Earth dist.	9127 Feb 02 12:17	16° δ 24'08 28.80229 AU	evening set	9133 Jul 31 07:49	0° η 25'44	
	9127 Apr 16 00:28	15° κ δ				
direct	9127 Apr 22 06:00	14° δ 59'20	conjunction	9133 Aug 16 03:40	1° η 01'21 -0°54'16	
	9127 Apr 28 11:06	15° δ	minimum elong	9133 Aug 16 03:40	1° η 01'21 0°54'24	
evening set	9127 Jul 18 04:47	16° δ 53'17	max. Earth dist.	9133 Aug 16 21:46	1° η 03'03 30.78769 AU	
			morning rise	9133 Sep 01 02:19	1° η 37'13	
conjunction	9127 Aug 02 22:14	17° δ 28'45 -1°00'01	retrograde	9133 Dec 01 01:33	3° η 35'51	
minimum elong	9127 Aug 02 22:14	17° δ 28'45 1°00'13	opposition	9134 Feb 18 21:55	2° η 10'43 -0°57'22	
max. Earth dist.	9127 Aug 03 17:43	17° δ 30'36 30.80167 AU	min. Earth dist.	9134 Feb 18 05:25	2° η 11'52 28.78707 AU	
morning rise	9127 Aug 18 18:19	18° δ 04'29	direct	9134 May 07 19:06	0° η 46'57	
retrograde	9127 Nov 17 16:14	20° δ 03'13	evening set	9134 Aug 02 20:20	2° η 40'55	
opposition	9128 Feb 05 18:32	18° δ 38'14 -1°03'48				
min. Earth dist.	9128 Feb 05 00:19	18° δ 39'30 28.80190 AU	conjunction	9134 Aug 18 16:42	3° η 16'33 -0°53'01	
direct	9128 Apr 23 18:39	17° δ 14'40	minimum elong	9134 Aug 18 16:42	3° η 16'33 0°53'10	
evening set	9128 Jul 19 17:18	19° δ 08'39	max. Earth dist.	9134 Aug 19 11:10	3° η 18'17 30.78591 AU	
			morning rise	9134 Sep 03 15:43	3° η 52'27	
conjunction	9128 Aug 04 10:57	19° δ 44'08 -0°59'17	retrograde	9134 Dec 03 15:47	5° η 51'01	
minimum elong	9128 Aug 04 10:57	19° δ 44'08 0°59'29	opposition	9135 Feb 21 09:58	4° η 25'51 -0°55'59	
max. Earth dist.	9128 Aug 05 05:12	19° δ 45'52 30.80100 AU	min. Earth dist.	9135 Feb 20 16:27	4° η 27'05 28.78585 AU	
morning rise	9128 Aug 20 07:35	20° δ 19'54	direct	9135 May 10 08:20	3° η 02'04	
retrograde	9128 Nov 19 05:58	22° δ 18'40	evening set	9135 Aug 05 09:00	4° η 56'01	
opposition	9129 Feb 07 07:18	20° δ 53'41 -1°02'58				
min. Earth dist.	9129 Feb 06 13:44	20° δ 54'54 28.80090 AU	conjunction	9135 Aug 21 05:41	5° η 31'41 -0°51'41	
direct	9129 Apr 26 05:04	19° δ 30'07	minimum elong	9135 Aug 21 05:41	5° η 31'41 0°51'48	
evening set	9129 Jul 22 05:45	21° δ 24'08	max. Earth dist.	9135 Aug 21 23:38	5° η 33'23 30.78530 AU	
			morning rise	9135 Sep 06 05:11	6° η 07'36	
conjunction	9129 Aug 06 23:59	21° δ 59'39 -0°58'27	retrograde	9135 Dec 06 05:05	8° η 06'08	
minimum elong	9129 Aug 06 23:59	21° δ 59'39 0°58'37	opposition	9136 Feb 23 22:14	6° η 40'58 -0°54'31	
max. Earth dist.	9129 Aug 07 19:05	22° δ 01'27 30.79948 AU	min. Earth dist.	9136 Feb 23 05:33	6° η 42'08 28.78600 AU	
morning rise	9129 Aug 22 20:51	22° δ 35'26	direct	9136 May 11 19:01	5° η 17'10	
retrograde	9129 Nov 21 18:35	24° δ 34'12	evening set	9136 Aug 06 21:28	7° η 11'07	
opposition	9130 Feb 09 20:01	23° δ 09'12 -1°02'01				
min. Earth dist.	9130 Feb 09 02:38	23° δ 10'25 28.79883 AU	conjunction	9136 Aug 22 18:41	7° η 46'48 -0°50'16	
direct	9130 Apr 28 17:23	21° δ 45'38	minimum elong	9136 Aug 22 18:41	7° η 46'48 0°50'24	
evening set	9130 Jul 24 18:17	23° δ 39'38	max. Earth dist.	9136 Aug 23 13:35	7° η 48'35 30.78618 AU	
			morning rise	9136 Sep 07 18:25	8° η 22'44	
conjunction	9130 Aug 09 12:50	24° δ 15'10 -0°57'32	retrograde	9136 Dec 07 16:35	10° η 21'14	
minimum elong	9130 Aug 09 12:51	24° δ 15'10 0°57'43	opposition	9137 Feb 25 10:17	8° η 56'05 -0°52'57	
max. Earth dist.	9130 Aug 10 06:41	24° δ 16'52 30.79704 AU	min. Earth dist.	9137 Feb 24 16:41	8° η 57'19 28.78752 AU	
morning rise	9130 Aug 25 10:19	24° δ 50'59	direct	9137 May 14 07:51	7° η 32'16	
retrograde	9130 Nov 24 09:20	26° δ 49'44	evening set	9137 Aug 09 10:11	9° η 26'14	
opposition	9131 Feb 12 08:40	25° δ 24'43 -1°01'00				
min. Earth dist.	9131 Feb 11 15:18	25° δ 25'56 28.79596 AU	conjunction	9137 Aug 25 07:40	10° η 01'55 -0°48'46	
direct	9131 May 01 04:34	24° δ 01'06	minimum elong	9137 Aug 25 07:40	10° η 01'55 0°48'53	
evening set	9131 Jul 27 06:51	25° δ 55'06	max. Earth dist.	9137 Aug 26 01:36	10° η 03'37 30.78849 AU	
			morning rise	9137 Sep 10 07:58	10° η 37'53	
conjunction	9131 Aug 12 01:55	26° δ 30'40 -0°56'31	retrograde	9137 Dec 10 05:24	12° η 36'21	
minimum elong	9131 Aug 12 01:55	26° δ 30'40 0°56'41	opposition	9138 Feb 27 22:25	11° η 11'13 -0°51'19	
max. Earth dist.	9131 Aug 12 20:19	26° δ 32'24 30.79381 AU	min. Earth dist.	9138 Feb 27 05:16	11° η 12'25 28.79056 AU	
morning rise	9131 Aug 27 23:41	27° δ 06'30	direct	9138 May 16 17:40	9° η 47'24	
retrograde	9131 Nov 26 22:28	29° δ 05'12	evening set	9138 Aug 11 22:49	11° η 41'23	
opposition	9132 Feb 14 21:05	27° δ 40'09 -0°59'52				
min. Earth dist.	9132 Feb 14 04:28	27° δ 41'18 28.79256 AU	conjunction	9138 Aug 27 20:54	12° η 17'07 -0°47'12	
direct	9132 May 02 18:13	26° δ 16'29	minimum elong	9138 Aug 27 20:55	12° η 17'07 0°47'19	

max. Earth dist.	9138 Aug 28 15:59	12° \mathring{M} 18'55	30.79208 AU	conjunction	9145 Sep 12 19:10	28° \mathring{M} 03'48	-0°34'23
morning rise	9138 Sep 12 21:26	12° \mathring{M} 53'06		minimum elong	9145 Sep 12 19:10	28° \mathring{M} 03'48	0°34'24
retrograde	9138 Dec 12 17:35	14° \mathring{M} 51'31		max. Earth dist.	9145 Sep 13 11:02	28° \mathring{M} 05'17	30.81474 AU
opposition	9139 Mar 02 10:26	13° \mathring{M} 26'26	-0°49'36	morning rise	9145 Sep 28 22:05	28° \mathring{M} 39'52	
min. Earth dist.	9139 Mar 01 17:21	13° \mathring{M} 27'38	28.79449 AU		9145 Nov 10 00:49	0° \mathring{A}	
direct	9139 May 19 05:02	12° \mathring{M} 02'37		retrograde	9145 Dec 28 14:09	0° \mathring{A} 37'45	
evening set	9139 Aug 14 11:48	13° \mathring{M} 56'38			9146 Feb 16 05:01	30° \mathring{R} \mathring{M}	
				opposition	9146 Mar 17 21:29	29° \mathring{M} 12'43	-0°35'39
conjunction	9139 Aug 30 10:08	14° \mathring{M} 32'23	-0°45'34	min. Earth dist.	9146 Mar 17 07:07	29° \mathring{M} 13'44	28.81627 AU
minimum elong	9139 Aug 30 10:08	14° \mathring{M} 32'23	0°45'39	direct	9146 Jun 03 19:25	27° \mathring{M} 48'41	
max. Earth dist.	9139 Aug 31 03:58	14° \mathring{M} 34'04	30.79641 AU	evening set	9146 Aug 30 07:28	29° \mathring{M} 42'43	
morning rise	9139 Sep 15 11:11	15° \mathring{M} 08'23			9146 Sep 07 02:29	0° \mathring{A}	
retrograde	9139 Dec 15 07:23	17° \mathring{M} 06'46					
opposition	9140 Mar 03 22:20	15° \mathring{M} 41'44	-0°47'48	conjunction	9146 Sep 15 08:33	0° \mathring{A} 18'34	-0°32'20
min. Earth dist.	9140 Mar 03 05:25	15° \mathring{M} 42'55	28.79900 AU	minimum elong	9146 Sep 15 08:33	0° \mathring{A} 18'34	0°32'21
direct	9140 May 20 15:45	14° \mathring{M} 17'55		max. Earth dist.	9146 Sep 15 23:06	0° \mathring{A} 19'56	30.81766 AU
evening set	9140 Aug 16 00:48	16° \mathring{M} 11'59		morning rise	9146 Oct 01 11:56	0° \mathring{A} 54'39	
				retrograde	9146 Dec 31 02:58	2° \mathring{A} 52'26	
conjunction	9140 Aug 31 23:37	16° \mathring{M} 47'45	-0°43'51	opposition	9147 Mar 20 09:04	1° \mathring{A} 27'23	-0°33'25
minimum elong	9140 Aug 31 23:38	16° \mathring{M} 47'45	0°43'56	min. Earth dist.	9147 Mar 19 19:27	1° \mathring{A} 28'21	28.81973 AU
max. Earth dist.	9140 Sep 01 17:56	16° \mathring{M} 49'28	30.80083 AU	direct	9147 Jun 06 05:55	0° \mathring{A} 03'19	
morning rise	9140 Sep 17 00:52	17° \mathring{M} 23'46		evening set	9147 Sep 01 20:30	1° \mathring{A} 57'21	
retrograde	9140 Dec 16 19:40	19° \mathring{M} 22'06					
opposition	9141 Mar 06 10:26	17° \mathring{M} 57'06	-0°45'56	conjunction	9147 Sep 17 22:05	2° \mathring{A} 33'13	-0°30'13
min. Earth dist.	9141 Mar 05 18:27	17° \mathring{M} 58'13	28.80324 AU	minimum elong	9147 Sep 17 22:05	2° \mathring{A} 33'13	0°30'13
direct	9141 May 23 04:20	16° \mathring{M} 33'17		max. Earth dist.	9147 Sep 18 13:32	2° \mathring{A} 34'40	30.82163 AU
evening set	9141 Aug 18 13:48	18° \mathring{M} 27'22		morning rise	9147 Oct 04 01:34	3° \mathring{A} 09'18	
				retrograde	9148 Jan 02 14:19	5° \mathring{A} 06'59	
conjunction	9141 Sep 03 12:59	19° \mathring{M} 03'09	-0°42'05	opposition	9148 Mar 21 20:26	3° \mathring{A} 41'58	-0°31'09
minimum elong	9141 Sep 03 13:00	19° \mathring{M} 03'09	0°42'08	min. Earth dist.	9148 Mar 21 06:52	3° \mathring{A} 42'55	28.82428 AU
max. Earth dist.	9141 Sep 04 06:09	19° \mathring{M} 04'45	30.80487 AU	direct	9148 Jun 07 17:36	2° \mathring{A} 17'52	
morning rise	9141 Sep 19 14:41	19° \mathring{M} 39'10		evening set	9148 Sep 03 09:40	4° \mathring{A} 11'55	
retrograde	9141 Dec 19 10:11	21° \mathring{M} 37'28					
opposition	9142 Mar 08 22:26	20° \mathring{M} 12'28	-0°44'00	conjunction	9148 Sep 19 11:26	4° \mathring{A} 47'48	-0°28'04
min. Earth dist.	9142 Mar 08 06:09	20° \mathring{M} 13'37	28.80686 AU	minimum elong	9148 Sep 19 11:27	4° \mathring{A} 47'48	0°28'04
direct	9142 May 25 16:35	18° \mathring{M} 48'38		max. Earth dist.	9148 Sep 20 01:40	4° \mathring{A} 49'07	30.82699 AU
evening set	9142 Aug 21 03:02	20° \mathring{M} 42'43		morning rise	9148 Oct 05 15:21	5° \mathring{A} 23'53	
				retrograde	9149 Jan 04 02:58	7° \mathring{A} 21'29	
conjunction	9142 Sep 06 02:38	21° \mathring{M} 18'31	-0°40'14	opposition	9149 Mar 24 07:53	5° \mathring{A} 56'30	-0°28'49
minimum elong	9142 Sep 06 02:38	21° \mathring{M} 18'31	0°40'19	min. Earth dist.	9149 Mar 23 18:16	5° \mathring{A} 57'28	28.83044 AU
max. Earth dist.	9142 Sep 06 19:25	21° \mathring{M} 20'06	30.80798 AU	direct	9149 Jun 10 04:12	4° \mathring{A} 32'23	
morning rise	9142 Sep 22 04:39	21° \mathring{M} 54'34		evening set	9149 Sep 05 22:37	6° \mathring{A} 26'27	
retrograde	9142 Dec 21 22:51	23° \mathring{M} 52'46					
opposition	9143 Mar 11 10:22	22° \mathring{M} 27'46	-0°42'00	conjunction	9149 Sep 22 00:51	7° \mathring{A} 02'21	-0°25'53
min. Earth dist.	9143 Mar 10 19:38	22° \mathring{M} 28'48	28.80956 AU	minimum elong	9149 Sep 22 00:51	7° \mathring{A} 02'21	0°25'52
direct	9143 May 28 04:37	21° \mathring{M} 03'53		max. Earth dist.	9149 Sep 22 15:53	7° \mathring{A} 03'45	30.83385 AU
evening set	9143 Aug 23 16:11	22° \mathring{M} 57'58		morning rise	9149 Oct 08 04:54	7° \mathring{A} 38'27	
				retrograde	9150 Jan 06 14:04	9° \mathring{A} 35'58	
conjunction	9143 Sep 08 16:16	23° \mathring{M} 33'47	-0°38'20	opposition	9150 Mar 26 19:20	8° \mathring{A} 11'03	-0°26'27
minimum elong	9143 Sep 08 16:16	23° \mathring{M} 33'47	0°38'23	min. Earth dist.	9150 Mar 26 06:24	8° \mathring{A} 11'57	28.83799 AU
max. Earth dist.	9143 Sep 09 08:36	23° \mathring{M} 35'19	30.81045 AU	direct	9150 Jun 12 15:57	6° \mathring{A} 46'57	
morning rise	9143 Sep 24 18:35	24° \mathring{M} 09'50		evening set	9150 Sep 08 11:52	8° \mathring{A} 41'03	
retrograde	9143 Dec 24 13:23	26° \mathring{M} 07'55					
opposition	9144 Mar 12 22:08	24° \mathring{M} 42'55	-0°39'56	conjunction	9150 Sep 24 14:22	9° \mathring{A} 16'58	-0°23'39
min. Earth dist.	9144 Mar 12 06:56	24° \mathring{M} 43'59	28.81169 AU	minimum elong	9150 Sep 24 14:23	9° \mathring{A} 16'58	0°23'38
direct	9144 May 29 18:35	23° \mathring{M} 18'59		max. Earth dist.	9150 Sep 25 04:22	9° \mathring{A} 18'16	30.84221 AU
evening set	9144 Aug 25 05:17	25° \mathring{M} 13'02		morning rise	9150 Oct 10 18:46	9° \mathring{A} 53'04	
				retrograde	9151 Jan 09 03:58	11° \mathring{A} 50'31	
conjunction	9144 Sep 10 05:37	25° \mathring{M} 48'53	-0°36'23	opposition	9151 Mar 29 06:31	10° \mathring{A} 25'40	-0°24'03
minimum elong	9144 Sep 10 05:37	25° \mathring{M} 48'53	0°36'26	min. Earth dist.	9151 Mar 28 17:06	10° \mathring{A} 26'36	28.84692 AU
max. Earth dist.	9144 Sep 10 21:03	25° \mathring{M} 50'19	30.81244 AU	direct	9151 Jun 15 02:57	9° \mathring{A} 01'34	
morning rise	9144 Sep 26 08:20	26° \mathring{M} 24'56		evening set	9151 Sep 11 01:10	10° \mathring{A} 55'45	
retrograde	9144 Dec 26 02:03	28° \mathring{M} 22'56					
opposition	9145 Mar 15 09:58	26° \mathring{M} 57'54	-0°37'49	conjunction	9151 Sep 27 03:59	11° \mathring{A} 31'40	-0°21'23
min. Earth dist.	9145 Mar 14 20:05	26° \mathring{M} 58'53	28.81377 AU	minimum elong	9151 Sep 27 03:59	11° \mathring{A} 31'40	0°21'20
direct	9145 Jun 01 06:13	25° \mathring{M} 33'55		max. Earth dist.	9151 Sep 27 17:57	11° \mathring{A} 32'58	30.85157 AU
evening set	9145 Aug 27 18:18	27° \mathring{M} 27'57		morning rise	9151 Oct 13 08:32	12° \mathring{A} 07'47	

retrograde	9152 Jan 11 16:16	14° <u>05</u> '10		morning rise	9157 Oct 26 19:51	25° <u>03</u> '48	
opposition	9152 Mar 30 17:55	12° <u>04</u> '24	-0°21'36	retrograde	9158 Jan 24 21:00	27° <u>03</u> '30	
min. Earth dist.	9152 Mar 30 05:55	12° <u>04</u> '15	28.85661 AU	opposition	9158 Apr 13 13:05	26° <u>09</u> '00	-0°06'23
direct	9152 Jun 16 14:23	11° <u>01</u> '62		min. Earth dist.	9158 Apr 13 04:43	26° <u>09</u> '35	28.90500 AU
evening set	9152 Sep 12 14:22	13° <u>01</u> '34		direct	9158 Jun 30 16:18	24° <u>04</u> '48	
				evening set	9158 Sep 26 23:20	26° <u>03</u> '06	
conjunction	9152 Sep 28 17:30	13° <u>04</u> '30	-0°19'05				
minimum elong	9152 Sep 28 17:30	13° <u>04</u> '30	0°19'02	conjunction	9158 Oct 13 04:01	27° <u>01</u> '50	-0°04'51
max. Earth dist.	9152 Sep 29 07:00	13° <u>04</u> '45	30.86150 AU	minimum elong	9158 Oct 13 04:00	27° <u>01</u> '50	0°04'44
morning rise	9152 Oct 14 22:15	14° <u>02</u> '37		behind sun begin	9158 Oct 12 21:34	27° <u>01</u> '43	
retrograde	9153 Jan 13 06:52	16° <u>01</u> '56		behind sun end	9158 Oct 13 10:25	27° <u>01</u> '53	
opposition	9153 Apr 02 05:11	14° <u>05</u> '15	-0°19'07	max. Earth dist.	9158 Oct 13 13:05	27° <u>01</u> '54	30.90832 AU
min. Earth dist.	9153 Apr 01 16:50	14° <u>05</u> '07	28.86645 AU	morning rise	9158 Oct 29 09:34	27° <u>01</u> '09	
direct	9153 Jun 19 04:06	13° <u>03</u> '13		retrograde	9159 Jan 27 06:55	29° <u>04</u> '42	
evening set	9153 Sep 15 03:55	15° <u>02</u> '29		opposition	9159 Apr 15 23:57	28° <u>02</u> '13	-0°03'48
				min. Earth dist.	9159 Apr 15 16:41	28° <u>02</u> '44	28.91185 AU
conjunction	9153 Oct 01 07:14	16° <u>01</u> '27	-0°16'45	direct	9159 Jul 03 03:46	26° <u>05</u> '58	
minimum elong	9153 Oct 01 07:14	16° <u>01</u> '27	0°16'41	evening set	9159 Sep 29 12:48	28° <u>05</u> '15	
max. Earth dist.	9153 Oct 01 19:37	16° <u>02</u> '36	30.87108 AU				
morning rise	9153 Oct 17 12:12	16° <u>03</u> '34		conjunction	9159 Oct 15 17:32	29° <u>02</u> '13	-0°02'26
retrograde	9154 Jan 15 19:34	18° <u>03</u> '48		minimum elong	9159 Oct 15 17:32	29° <u>02</u> '13	0°02'18
opposition	9154 Apr 04 16:30	17° <u>01</u> '11	-0°16'36	behind sun begin	9159 Oct 15 10:58	29° <u>02</u> '38	
min. Earth dist.	9154 Apr 04 05:53	17° <u>01</u> '05	28.87579 AU	behind sun end	9159 Oct 16 00:07	29° <u>02</u> '48	
direct	9154 Jun 21 15:40	15° <u>04</u> '09		max. Earth dist.	9159 Oct 16 01:15	29° <u>02</u> '55	30.91555 AU
evening set	9154 Sep 17 17:23	17° <u>04</u> '27			9159 Oct 29 13:23	0° <u>00</u> '	
				morning rise	9159 Oct 31 23:19	0° <u>00</u> '05	
conjunction	9154 Oct 03 21:07	18° <u>01</u> '25	-0°14'24	retrograde	9160 Jan 29 19:45	2° <u>00</u> '01	
minimum elong	9154 Oct 03 21:08	18° <u>01</u> '25	0°14'20	opposition	9160 Apr 17 10:47	0° <u>00</u> '37	-0°01'14
behind sun begin	9154 Oct 03 18:14	18° <u>01</u> '10		min. Earth dist.	9160 Apr 17 03:07	0° <u>00</u> '37	28.91947 AU
behind sun end	9154 Oct 04 00:01	18° <u>01</u> '41			9160 May 10 04:44	30° <u>00</u> ' <u>00</u>	
max. Earth dist.	9154 Oct 04 09:15	18° <u>01</u> '32	30.87999 AU	direct	9160 Jul 04 14:41	29° <u>02</u> '55	
morning rise	9154 Oct 20 02:11	18° <u>02</u> '32			9160 Aug 27 15:36	0° <u>00</u> '	
retrograde	9155 Jan 18 08:33	20° <u>04</u> '39		evening set	9160 Oct 01 02:00	1° <u>00</u> '07	
opposition	9155 Apr 07 03:44	19° <u>02</u> '50	-0°14'04	asc. node	9160 Oct 09 22:06	1° <u>00</u> '26	
min. Earth dist.	9155 Apr 06 17:06	19° <u>02</u> '50	28.88408 AU				
direct	9155 Jun 24 04:57	18° <u>01</u> '03		conjunction	9160 Oct 17 06:56	1° <u>00</u> '43	0°00'03
evening set	9155 Sep 20 07:03	19° <u>02</u> '55		minimum elong	9160 Oct 17 06:56	1° <u>00</u> '43	0°00'11
				behind sun begin	9160 Oct 17 00:25	1° <u>00</u> '42	
conjunction	9155 Oct 06 10:51	20° <u>03</u> '12	-0°12'01	behind sun end	9160 Oct 17 13:26	1° <u>00</u> '43	
minimum elong	9155 Oct 06 10:51	20° <u>03</u> '12	0°11'56	max. Earth dist.	9160 Oct 17 14:42	1° <u>00</u> '43	30.92355 AU
behind sun begin	9155 Oct 06 06:23	20° <u>03</u> '05		morning rise	9160 Nov 02 12:41	2° <u>00</u> '19	
behind sun end	9155 Oct 06 15:19	20° <u>03</u> '14		retrograde	9161 Jan 31 05:51	4° <u>00</u> '15	
max. Earth dist.	9155 Oct 06 21:03	20° <u>03</u> '17	30.88779 AU	opposition	9161 Apr 19 21:43	2° <u>00</u> '51	0°01'21
morning rise	9155 Oct 22 16:10	21° <u>02</u> '07		min. Earth dist.	9161 Apr 19 15:21	2° <u>00</u> '51	28.92807 AU
retrograde	9156 Jan 20 22:14	23° <u>04</u> '26		direct	9161 Jul 07 02:21	1° <u>00</u> '26	
opposition	9156 Apr 08 14:57	21° <u>03</u> '54	-0°11'31	evening set	9161 Oct 03 15:19	3° <u>00</u> '21	
min. Earth dist.	9156 Apr 08 05:33	21° <u>04</u> '34	28.89152 AU				
direct	9156 Jun 25 16:25	20° <u>01</u> '55		conjunction	9161 Oct 19 20:25	3° <u>00</u> '56	0°02'32
evening set	9156 Sep 21 20:27	22° <u>01</u> '08		minimum elong	9161 Oct 19 20:26	3° <u>00</u> '56	0°02'40
				behind sun begin	9161 Oct 19 13:52	3° <u>00</u> '56	
conjunction	9156 Oct 08 00:41	22° <u>04</u> '07	-0°09'38	behind sun end	9161 Oct 20 03:00	3° <u>00</u> '57	
minimum elong	9156 Oct 08 00:40	22° <u>04</u> '07	0°09'33	max. Earth dist.	9161 Oct 20 03:41	3° <u>00</u> '57	30.93285 AU
behind sun begin	9156 Oct 07 19:15	22° <u>04</u> '53		morning rise	9161 Nov 05 02:16	4° <u>00</u> '33	
behind sun end	9156 Oct 08 06:06	22° <u>04</u> '36		retrograde	9162 Feb 02 18:39	6° <u>00</u> '29	
max. Earth dist.	9156 Oct 08 11:11	22° <u>04</u> '05	30.89490 AU	opposition	9162 Apr 22 08:20	5° <u>00</u> '04	0°03'56
morning rise	9156 Oct 24 05:58	23° <u>02</u> '13		min. Earth dist.	9162 Apr 22 01:23	5° <u>00</u> '05	28.93795 AU
retrograde	9157 Jan 22 09:11	25° <u>01</u> '04		direct	9162 Jul 09 15:24	3° <u>00</u> '40	
opposition	9157 Apr 11 02:03	23° <u>05</u> '33	-0°08'58	evening set	9162 Oct 06 04:45	5° <u>00</u> '34	
min. Earth dist.	9157 Apr 10 17:12	23° <u>05</u> '11	28.89829 AU				
direct	9157 Jun 28 05:02	22° <u>03</u> '02		conjunction	9162 Oct 22 09:57	6° <u>00</u> '10	0°04'56
evening set	9157 Sep 24 09:54	24° <u>02</u> '44		minimum elong	9162 Oct 22 09:57	6° <u>00</u> '10	0°05'05
				behind sun begin	9162 Oct 22 03:34	6° <u>00</u> '10	
conjunction	9157 Oct 10 14:13	25° <u>00</u> '42	-0°07'15	behind sun end	9162 Oct 22 16:21	6° <u>00</u> '11	
minimum elong	9157 Oct 10 14:13	25° <u>00</u> '42	0°07'08	max. Earth dist.	9162 Oct 22 16:28	6° <u>00</u> '11	30.94330 AU
behind sun begin	9157 Oct 10 08:10	25° <u>00</u> '09		morning rise	9162 Nov 07 15:51	6° <u>00</u> '46	
behind sun end	9157 Oct 10 20:16	25° <u>00</u> '14		retrograde	9163 Feb 05 06:27	8° <u>00</u> '42	
max. Earth dist.	9157 Oct 10 22:57	25° <u>00</u> '30	30.90162 AU	opposition	9163 Apr 24 19:11	7° <u>00</u> '18	0°06'31

min. Earth dist.	9163 Apr 24 13:35	7° $\overline{\text{M}}$ 18'46	28.94906 AU	conjunction	9168 Nov 04 19:04	19° $\overline{\text{M}}$ 33'23	0°19'03
direct	9163 Jul 12 02:26	5° $\overline{\text{M}}$ 54'01		minimum elong	9168 Nov 04 19:04	19° $\overline{\text{M}}$ 33'23	0°19'15
evening set	9163 Oct 08 18:01	7° $\overline{\text{M}}$ 48'23		max. Earth dist.	9168 Nov 04 20:24	19° $\overline{\text{M}}$ 33'30	31.01015 AU
				morning rise	9168 Nov 21 00:46	20° $\overline{\text{M}}$ 09'20	
conjunction	9163 Oct 24 23:26	8° $\overline{\text{M}}$ 24'20	0°07'20	retrograde	9169 Feb 18 06:59	22° $\overline{\text{M}}$ 04'41	
minimum elong	9163 Oct 24 23:26	8° $\overline{\text{M}}$ 24'20	0°07'30	opposition	9169 May 07 11:20	20° $\overline{\text{M}}$ 40'51	0°21'34
behind sun begin	9163 Oct 24 17:28	8° $\overline{\text{M}}$ 23'48		min. Earth dist.	9169 May 07 09:28	20° $\overline{\text{M}}$ 40'59	29.01440 AU
behind sun end	9163 Oct 25 05:25	8° $\overline{\text{M}}$ 24'52		direct	9169 Jul 25 00:38	19° $\overline{\text{M}}$ 16'29	
max. Earth dist.	9163 Oct 25 06:04	8° $\overline{\text{M}}$ 24'56	30.95495 AU	evening set	9169 Oct 22 02:52	21° $\overline{\text{M}}$ 11'06	
morning rise	9163 Nov 10 05:14	9° $\overline{\text{M}}$ 00'21					
retrograde	9164 Feb 07 19:12	10° $\overline{\text{M}}$ 56'16		conjunction	9169 Nov 07 08:35	21° $\overline{\text{M}}$ 47'01	0°21'19
opposition	9164 Apr 26 05:50	9° $\overline{\text{M}}$ 32'02	0°09'04	minimum elong	9169 Nov 07 08:35	21° $\overline{\text{M}}$ 47'01	0°21'32
min. Earth dist.	9164 Apr 25 23:58	9° $\overline{\text{M}}$ 32'27	28.96099 AU	max. Earth dist.	9169 Nov 07 09:31	21° $\overline{\text{M}}$ 47'06	31.01837 AU
direct	9164 Jul 13 15:31	8° $\overline{\text{M}}$ 07'42		morning rise	9169 Nov 23 14:06	22° $\overline{\text{M}}$ 22'57	
evening set	9164 Oct 10 07:30	10° $\overline{\text{M}}$ 02'08		retrograde	9170 Feb 20 16:10	24° $\overline{\text{M}}$ 18'10	
				opposition	9170 May 09 21:52	22° $\overline{\text{M}}$ 54'22	0°23'59
conjunction	9164 Oct 26 12:52	10° $\overline{\text{M}}$ 38'04	0°09'43	min. Earth dist.	9170 May 09 21:47	22° $\overline{\text{M}}$ 54'22	29.02235 AU
minimum elong	9164 Oct 26 12:52	10° $\overline{\text{M}}$ 38'04	0°09'53	direct	9170 Jul 27 12:16	21° $\overline{\text{M}}$ 29'57	
behind sun begin	9164 Oct 26 07:33	10° $\overline{\text{M}}$ 37'36		evening set	9170 Oct 24 16:16	23° $\overline{\text{M}}$ 24'35	
behind sun end	9164 Oct 26 18:11	10° $\overline{\text{M}}$ 38'33					
max. Earth dist.	9164 Oct 26 17:56	10° $\overline{\text{M}}$ 38'31	30.96717 AU	conjunction	9170 Nov 09 21:59	24° $\overline{\text{M}}$ 00'29	0°23'33
morning rise	9164 Nov 11 18:48	11° $\overline{\text{M}}$ 14'05		minimum elong	9170 Nov 09 21:59	24° $\overline{\text{M}}$ 00'29	0°23'47
retrograde	9165 Feb 09 08:48	13° $\overline{\text{M}}$ 09'54		max. Earth dist.	9170 Nov 09 21:52	24° $\overline{\text{M}}$ 00'28	31.02620 AU
opposition	9165 Apr 28 16:34	11° $\overline{\text{M}}$ 45'46	0°11'37	morning rise	9170 Nov 26 03:26	24° $\overline{\text{M}}$ 36'23	
min. Earth dist.	9165 Apr 28 11:51	11° $\overline{\text{M}}$ 46'06	28.97337 AU	retrograde	9171 Feb 23 03:54	26° $\overline{\text{M}}$ 31'27	
direct	9165 Jul 16 02:45	10° $\overline{\text{M}}$ 21'27		opposition	9171 May 12 08:15	25° $\overline{\text{M}}$ 07'41	0°26'21
evening set	9165 Oct 12 20:52	12° $\overline{\text{M}}$ 15'56		min. Earth dist.	9171 May 12 07:55	25° $\overline{\text{M}}$ 07'42	29.03003 AU
				direct	9171 Jul 30 01:04	23° $\overline{\text{M}}$ 43'12	
conjunction	9165 Oct 29 02:31	12° $\overline{\text{M}}$ 51'53	0°12'05	evening set	9171 Oct 27 05:30	25° $\overline{\text{M}}$ 37'51	
minimum elong	9165 Oct 29 02:30	12° $\overline{\text{M}}$ 51'53	0°12'16				
behind sun begin	9165 Oct 28 22:12	12° $\overline{\text{M}}$ 51'30		conjunction	9171 Nov 12 11:07	26° $\overline{\text{M}}$ 13'44	0°25'45
behind sun end	9165 Oct 29 06:48	12° $\overline{\text{M}}$ 52'16		minimum elong	9171 Nov 12 11:07	26° $\overline{\text{M}}$ 13'44	0°25'59
max. Earth dist.	9165 Oct 29 07:47	12° $\overline{\text{M}}$ 52'22	30.97936 AU	max. Earth dist.	9171 Nov 12 10:12	26° $\overline{\text{M}}$ 13'39	31.03383 AU
morning rise	9165 Nov 14 08:16	13° $\overline{\text{M}}$ 27'53		morning rise	9171 Nov 28 16:24	26° $\overline{\text{M}}$ 49'37	
	9166 Jan 04 23:23	15° $\overline{\text{M}}$		retrograde	9172 Feb 25 14:33	28° $\overline{\text{M}}$ 44'33	
retrograde	9166 Feb 11 19:59	15° $\overline{\text{M}}$ 23'36		opposition	9172 May 13 18:44	27° $\overline{\text{M}}$ 20'48	0°28'41
	9166 Mar 22 04:12	15° $\overline{\text{R}}$ $\overline{\text{M}}$		min. Earth dist.	9172 May 13 19:53	27° $\overline{\text{M}}$ 20'43	29.03793 AU
opposition	9166 May 01 03:18	13° $\overline{\text{M}}$ 59'34	0°14'09	direct	9172 Jul 31 11:46	25° $\overline{\text{M}}$ 56'16	
min. Earth dist.	9166 Apr 30 23:20	13° $\overline{\text{M}}$ 59'51	28.98517 AU	evening set	9172 Oct 28 18:37	27° $\overline{\text{M}}$ 50'56	
direct	9166 Jul 18 15:27	12° $\overline{\text{M}}$ 35'16					
evening set	9166 Oct 15 10:34	14° $\overline{\text{M}}$ 29'49		conjunction	9172 Nov 14 00:18	28° $\overline{\text{M}}$ 26'47	0°27'54
	9166 Oct 29 02:20	15° $\overline{\text{M}}$		minimum elong	9172 Nov 14 00:17	28° $\overline{\text{M}}$ 26'47	0°28'09
				max. Earth dist.	9172 Nov 13 23:22	28° $\overline{\text{M}}$ 26'42	31.04203 AU
conjunction	9166 Oct 31 16:05	15° $\overline{\text{M}}$ 05'45	0°14'26	morning rise	9172 Nov 30 05:23	29° $\overline{\text{M}}$ 02'38	
minimum elong	9166 Oct 31 16:05	15° $\overline{\text{M}}$ 05'45	0°14'37		9172 Dec 28 22:06	0° $\overline{\text{X}}$	
behind sun begin	9166 Oct 31 13:30	15° $\overline{\text{M}}$ 05'31		retrograde	9173 Feb 27 02:23	0° $\overline{\text{X}}$ 57'26	
behind sun end	9166 Oct 31 18:40	15° $\overline{\text{M}}$ 05'59			9173 Apr 30 08:33	30° $\overline{\text{R}}$ $\overline{\text{M}}$	
max. Earth dist.	9166 Oct 31 19:14	15° $\overline{\text{M}}$ 06'02	30.99073 AU	opposition	9173 May 16 04:58	29° $\overline{\text{M}}$ 33'42	0°30'57
morning rise	9166 Nov 16 21:57	15° $\overline{\text{M}}$ 41'45		min. Earth dist.	9173 May 16 05:51	29° $\overline{\text{M}}$ 33'39	29.04646 AU
retrograde	9167 Feb 14 08:20	17° $\overline{\text{M}}$ 37'21		direct	9173 Aug 03 01:18	28° $\overline{\text{M}}$ 09'09	
opposition	9167 May 03 13:57	16° $\overline{\text{M}}$ 13'24	0°16'39		9173 Oct 29 13:20	0° $\overline{\text{X}}$	
min. Earth dist.	9167 May 03 10:43	16° $\overline{\text{M}}$ 13'37	28.99606 AU	evening set	9173 Oct 31 07:47	0° $\overline{\text{X}}$ 03'49	
	9167 Jun 25 08:11	15° $\overline{\text{R}}$ $\overline{\text{M}}$					
direct	9167 Jul 21 02:29	14° $\overline{\text{M}}$ 49'05		conjunction	9173 Nov 16 13:17	0° $\overline{\text{X}}$ 39'40	0°30'01
	9167 Aug 15 14:05	15° $\overline{\text{M}}$		minimum elong	9173 Nov 16 13:17	0° $\overline{\text{X}}$ 39'40	0°30'15
evening set	9167 Oct 18 00:04	16° $\overline{\text{M}}$ 43'40		max. Earth dist.	9173 Nov 16 10:59	0° $\overline{\text{X}}$ 39'27	31.05102 AU
				morning rise	9173 Dec 02 18:20	1° $\overline{\text{X}}$ 15'29	
conjunction	9167 Nov 03 05:47	17° $\overline{\text{M}}$ 19'37	0°16'45	retrograde	9174 Mar 01 15:12	3° $\overline{\text{X}}$ 10'08	
minimum elong	9167 Nov 03 05:47	17° $\overline{\text{M}}$ 19'37	0°16'57	opposition	9174 May 18 15:20	1° $\overline{\text{X}}$ 46'27	0°33'11
max. Earth dist.	9167 Nov 03 08:57	17° $\overline{\text{M}}$ 19'54	31.00096 AU	min. Earth dist.	9174 May 18 17:00	1° $\overline{\text{X}}$ 46'20	29.05611 AU
morning rise	9167 Nov 19 11:24	17° $\overline{\text{M}}$ 55'35		direct	9174 Aug 05 13:21	0° $\overline{\text{X}}$ 21'51	
retrograde	9168 Feb 16 18:35	19° $\overline{\text{M}}$ 51'03		evening set	9174 Nov 02 20:50	2° $\overline{\text{X}}$ 16'33	
opposition	9168 May 05 00:45	18° $\overline{\text{M}}$ 27'10	0°19'08				
min. Earth dist.	9168 May 04 22:54	18° $\overline{\text{M}}$ 27'18	29.00570 AU	conjunction	9174 Nov 19 02:25	2° $\overline{\text{X}}$ 52'23	0°32'05
direct	9168 Jul 22 13:50	17° $\overline{\text{M}}$ 02'52		minimum elong	9174 Nov 19 02:24	2° $\overline{\text{X}}$ 52'23	0°32'20
evening set	9168 Oct 19 13:27	18° $\overline{\text{M}}$ 57'27		max. Earth dist.	9174 Nov 19 00:39	2° $\overline{\text{X}}$ 52'14	31.06121 AU
				morning rise	9174 Dec 05 07:06	3° $\overline{\text{X}}$ 28'11	

retrograde	9175 Mar 04 01:18	5°♂22'42		minimum elong	9181 Dec 04 20:46	18°♂20'26	0°45'19
opposition	9175 May 21 01:35	3°♂59'05	0°35'22	max. Earth dist.	9181 Dec 04 13:32	18°♂19'46	31.14087 AU
min. Earth dist.	9175 May 21 03:32	3°♂58'57	29.06685 AU	morning rise	9181 Dec 20 23:51	18°♂56'02	
direct	9175 Aug 08 02:12	2°♂34'29		retrograde	9182 Mar 19 05:19	20°♂49'46	
evening set	9175 Nov 05 09:58	4°♂29'13		opposition	9182 Jun 05 01:42	19°♂26'40	0°49'00
				min. Earth dist.	9182 Jun 05 08:19	19°♂26'12	29.14526 AU
conjunction	9175 Nov 21 15:17	5°♂05'01	0°34'06	direct	9182 Aug 23 10:13	18°♂02'01	
minimum elong	9175 Nov 21 15:17	5°♂05'01	0°34'21	evening set	9182 Nov 21 05:10	19°♂56'58	
max. Earth dist.	9175 Nov 21 12:00	5°♂04'43	31.07265 AU				
morning rise	9175 Dec 07 19:57	5°♂40'48		conjunction	9182 Dec 07 09:26	20°♂32'38	0°46'38
retrograde	9176 Mar 05 13:44	7°♂35'12		minimum elong	9182 Dec 07 09:25	20°♂32'38	0°46'56
opposition	9176 May 22 11:53	6°♂11'40	0°37'30	max. Earth dist.	9182 Dec 07 00:31	20°♂31'48	31.14909 AU
min. Earth dist.	9176 May 22 13:58	6°♂11'31	29.07891 AU	morning rise	9182 Dec 23 12:18	21°♂08'11	
direct	9176 Aug 09 13:14	4°♂47'04		retrograde	9183 Mar 21 17:08	23°♂01'49	
evening set	9176 Nov 06 22:47	6°♂41'50		opposition	9183 Jun 07 11:55	21°♂38'44	0°50'40
				min. Earth dist.	9183 Jun 07 19:34	21°♂38'12	29.15329 AU
conjunction	9176 Nov 23 04:10	7°♂17'39	0°36'04	direct	9183 Aug 25 21:53	20°♂14'02	
minimum elong	9176 Nov 23 04:10	7°♂17'39	0°36'20	evening set	9183 Nov 23 17:51	22°♂09'00	
max. Earth dist.	9176 Nov 23 01:32	7°♂17'24	31.08506 AU				
morning rise	9176 Dec 09 08:29	7°♂53'23		conjunction	9183 Dec 09 22:04	22°♂44'38	0°48'10
retrograde	9177 Mar 08 00:09	9°♂47'42		minimum elong	9183 Dec 09 22:04	22°♂44'38	0°48'27
opposition	9177 May 24 22:14	8°♂24'15	0°39'35	max. Earth dist.	9183 Dec 09 13:30	22°♂43'51	31.15689 AU
min. Earth dist.	9177 May 25 01:29	8°♂24'01	29.09153 AU	morning rise	9183 Dec 26 00:30	23°♂20'10	
direct	9177 Aug 12 00:49	6°♂59'41		retrograde	9184 Mar 23 02:57	25°♂13'40	
evening set	9177 Nov 09 11:58	8°♂54'30		opposition	9184 Jun 08 22:08	23°♂50'37	0°52'16
				min. Earth dist.	9184 Jun 09 06:19	23°♂50'02	29.16095 AU
conjunction	9177 Nov 25 17:06	9°♂30'17	0°37'59	direct	9184 Aug 27 10:45	22°♂25'53	
minimum elong	9177 Nov 25 17:06	9°♂30'17	0°38'14	evening set	9184 Nov 25 06:28	24°♂20'51	
max. Earth dist.	9177 Nov 25 12:49	9°♂29'53	31.09782 AU				
morning rise	9177 Dec 11 21:21	10°♂06'00		conjunction	9184 Dec 11 10:19	24°♂56'27	0°49'38
retrograde	9178 Mar 10 12:00	12°♂00'12		minimum elong	9184 Dec 11 10:19	24°♂56'27	0°49'55
opposition	9178 May 27 08:21	10°♂36'52	0°41'36	max. Earth dist.	9184 Dec 11 00:10	24°♂55'31	31.16463 AU
min. Earth dist.	9178 May 27 11:31	10°♂36'38	29.10418 AU	morning rise	9184 Dec 27 12:39	25°♂31'57	
direct	9178 Aug 14 11:48	9°♂12'18		retrograde	9185 Mar 25 14:59	27°♂25'20	
evening set	9178 Nov 12 01:07	11°♂07'10		opposition	9185 Jun 11 08:17	26°♂02'18	0°53'47
				min. Earth dist.	9185 Jun 11 16:37	26°♂01'43	29.16891 AU
conjunction	9178 Nov 28 06:11	11°♂42'56	0°39'50	direct	9185 Aug 29 22:23	24°♂37'32	
minimum elong	9178 Nov 28 06:10	11°♂42'56	0°40'07	evening set	9185 Nov 27 19:00	26°♂32'31	
max. Earth dist.	9178 Nov 28 01:35	11°♂42'30	31.11006 AU				
morning rise	9178 Dec 14 10:02	12°♂18'37		conjunction	9185 Dec 13 22:46	27°♂08'07	0°51'01
retrograde	9179 Mar 12 20:54	14°♂12'44		minimum elong	9185 Dec 13 22:46	27°♂08'07	0°51'18
opposition	9179 May 29 18:48	12°♂49'28	0°43'33	max. Earth dist.	9185 Dec 13 13:17	27°♂07'14	31.17273 AU
min. Earth dist.	9179 May 29 23:45	12°♂49'07	29.11607 AU	morning rise	9185 Dec 30 00:36	27°♂43'34	
direct	9179 Aug 16 22:39	11°♂24'54		retrograde	9186 Mar 28 00:47	29°♂36'50	
evening set	9179 Nov 14 14:08	13°♂19'48		opposition	9186 Jun 13 18:23	28°♂13'51	0°55'14
				min. Earth dist.	9186 Jun 14 03:44	28°♂13'12	29.17739 AU
conjunction	9179 Nov 30 18:59	13°♂55'32	0°41'38	direct	9186 Sep 01 10:29	26°♂49'04	
minimum elong	9179 Nov 30 18:59	13°♂55'32	0°41'54	evening set	9186 Nov 30 07:35	28°♂44'04	
max. Earth dist.	9179 Nov 30 13:13	13°♂55'00	31.12147 AU				
morning rise	9179 Dec 16 22:38	14°♂31'12		conjunction	9186 Dec 16 10:58	29°♂19'38	0°52'20
retrograde	9180 Mar 14 08:12	16°♂25'11		minimum elong	9186 Dec 16 10:58	29°♂19'38	0°52'37
opposition	9180 May 31 05:07	15°♂02'00	0°45'26	max. Earth dist.	9186 Dec 16 00:14	29°♂18'38	31.18175 AU
min. Earth dist.	9180 May 31 09:54	15°♂01'39	29.12689 AU	morning rise	9187 Jan 01 12:37	29°♂55'03	
direct	9180 Aug 18 10:29	13°♂37'25			9187 Jan 03 19:41	0°♂	
evening set	9180 Nov 16 03:13	15°♂32'20		retrograde	9187 Mar 30 12:02	1°♂48'14	
				opposition	9187 Jun 16 04:31	0°♂25'18	0°56'36
conjunction	9180 Dec 02 07:53	16°♂08'03	0°43'22	min. Earth dist.	9187 Jun 16 13:09	0°♂24'42	29.18698 AU
minimum elong	9180 Dec 02 07:53	16°♂08'03	0°43'39		9187 Jul 01 12:32	30°♂	
max. Earth dist.	9180 Dec 02 01:04	16°♂07'25	31.13165 AU	direct	9187 Sep 03 21:48	29°♂00'31	
morning rise	9180 Dec 18 11:16	16°♂43'41			9187 Nov 04 23:44	0°♂	
retrograde	9181 Mar 16 18:23	18°♂37'34		evening set	9187 Dec 02 19:52	0°♂55'33	
opposition	9181 Jun 02 15:27	17°♂14'25	0°47'15				
min. Earth dist.	9181 Jun 02 21:58	17°♂13'57	29.13663 AU	conjunction	9187 Dec 18 23:04	1°♂31'06	0°53'34
direct	9181 Aug 20 20:34	15°♂49'48		minimum elong	9187 Dec 18 23:04	1°♂31'06	0°53'51
evening set	9181 Nov 18 16:10	17°♂44'44		max. Earth dist.	9187 Dec 18 12:42	1°♂30'08	31.19183 AU
				morning rise	9188 Jan 04 00:15	2°♂06'30	
conjunction	9181 Dec 04 20:46	18°♂20'26	0°45'02	retrograde	9188 Mar 31 20:25	3°♂59'36	

opposition	9188 Jun 17 14:48	2°36'45	0°57'52	max. Earth dist.	9195 Jan 02 21:19	16°35'15	31.26092 AU
min. Earth dist.	9188 Jun 18 00:38	2°36'04	29.19767 AU	morning rise	9195 Jan 19 10:20	17°32'46	
direct	9188 Sep 05 08:12	1°31'20		retrograde	9195 Apr 16 23:52	19°32'02	
evening set	9188 Dec 04 08:17	3°30'04		opposition	9195 Jul 03 14:48	17°35'02	1°04'21
				min. Earth dist.	9195 Jul 04 04:49	17°35'04	29.26426 AU
conjunction	9188 Dec 20 11:11	3°34'36	0°54'44	direct	9195 Sep 21 17:20	16°33'21	
minimum elong	9188 Dec 20 11:11	3°34'36	0°55'02	evening set	9195 Dec 20 22:37	18°32'38	
max. Earth dist.	9188 Dec 20 00:14	3°34'35	31.20308 AU				
morning rise	9189 Jan 05 12:07	4°31'58		conjunction	9196 Jan 05 23:20	19°30'58	1°00'31
retrograde	9189 Apr 03 07:19	6°31'00		minimum elong	9196 Jan 05 23:20	19°30'58	1°00'47
opposition	9189 Jun 20 00:47	4°38'15	0°59'04	max. Earth dist.	9196 Jan 05 07:30	19°30'23	31.26652 AU
min. Earth dist.	9189 Jun 20 10:05	4°34'36	29.20919 AU	morning rise	9196 Jan 21 21:44	19°33'07	
direct	9189 Sep 07 18:54	3°32'32		retrograde	9196 Apr 18 10:44	21°31'40	
evening set	9189 Dec 06 20:46	5°31'40		opposition	9196 Jul 05 01:05	20°30'18	1°04'55
				min. Earth dist.	9196 Jul 05 14:38	20°30'21	29.26942 AU
conjunction	9189 Dec 22 23:23	5°34'10	0°55'48	direct	9196 Sep 23 05:36	18°34'34	
minimum elong	9189 Dec 22 23:23	5°34'10	0°56'06	evening set	9196 Dec 22 10:36	20°33'50	
max. Earth dist.	9189 Dec 22 11:52	5°33'06	31.21473 AU				
morning rise	9190 Jan 07 23:57	6°32'31		conjunction	9197 Jan 07 11:05	21°31'09	1°00'59
retrograde	9190 Apr 05 17:18	8°32'30		minimum elong	9197 Jan 07 11:05	21°31'09	1°01'17
opposition	9190 Jun 22 11:06	6°35'52	1°00'10	max. Earth dist.	9197 Jan 06 19:22	21°31'41	31.27129 AU
min. Earth dist.	9190 Jun 22 21:48	6°35'07	29.22091 AU	morning rise	9197 Jan 23 09:00	21°35'15	
direct	9190 Sep 10 03:56	5°35'11		retrograde	9197 Apr 20 19:11	23°34'42	
evening set	9190 Dec 09 09:09	7°30'22		opposition	9197 Jul 07 11:22	22°32'20	1°05'23
				min. Earth dist.	9197 Jul 08 02:22	22°31'18	29.27405 AU
conjunction	9190 Dec 25 11:31	8°30'51	0°56'48	direct	9197 Sep 25 16:43	20°35'34	
minimum elong	9190 Dec 25 11:31	8°30'51	0°57'06	evening set	9197 Dec 24 22:33	22°35'49	
max. Earth dist.	9190 Dec 24 23:56	8°30'46	31.22623 AU				
morning rise	9191 Jan 10 11:40	8°34'10		conjunction	9198 Jan 09 22:41	23°32'05	1°01'23
retrograde	9191 Apr 08 03:42	10°34'06		minimum elong	9198 Jan 09 22:41	23°32'05	1°01'39
opposition	9191 Jun 24 21:19	9°31'33	1°01'12	max. Earth dist.	9198 Jan 09 06:23	23°32'43	31.27589 AU
min. Earth dist.	9191 Jun 25 08:01	9°31'04	29.23200 AU	morning rise	9198 Jan 25 20:18	24°30'10	
direct	9191 Sep 12 16:59	7°34'54		retrograde	9198 Apr 23 05:34	25°35'31	
evening set	9191 Dec 11 21:39	9°34'08		opposition	9198 Jul 09 21:39	24°33'10	1°05'46
				min. Earth dist.	9198 Jul 10 11:57	24°33'10	29.27866 AU
conjunction	9191 Dec 27 23:35	10°31'36	0°57'43	direct	9198 Sep 28 04:33	23°30'21	
minimum elong	9191 Dec 27 23:35	10°31'36	0°58'00	evening set	9198 Dec 27 10:19	25°30'35	
max. Earth dist.	9191 Dec 27 10:26	10°31'23	31.23682 AU				
morning rise	9192 Jan 12 23:27	10°32'52		conjunction	9199 Jan 12 10:03	25°33'50	1°01'42
retrograde	9192 Apr 09 15:31	12°34'54		minimum elong	9199 Jan 12 10:03	25°33'50	1°01'58
opposition	9192 Jun 26 07:40	11°32'17	1°02'07	max. Earth dist.	9199 Jan 11 17:30	25°33'18	31.28063 AU
min. Earth dist.	9192 Jun 26 19:16	11°32'28	29.24217 AU	morning rise	9199 Jan 28 07:14	26°31'52	
direct	9192 Sep 14 03:44	9°35'38		retrograde	9199 Apr 25 14:26	28°30'41	
evening set	9192 Dec 13 09:52	11°35'55		opposition	9199 Jul 12 08:05	26°34'19	1°06'03
				min. Earth dist.	9199 Jul 12 23:16	26°34'45	29.28386 AU
conjunction	9192 Dec 29 11:41	12°32'20	0°58'33	direct	9199 Sep 30 14:12	25°31'59	
minimum elong	9192 Dec 29 11:41	12°32'20	0°58'50	evening set	9199 Dec 29 21:58	27°31'12	
max. Earth dist.	9192 Dec 28 22:46	12°32'09	31.24628 AU				
morning rise	9193 Jan 14 11:04	13°30'43		conjunction	9200 Jan 14 21:25	27°34'26	1°01'55
retrograde	9193 Apr 12 01:22	14°35'24		minimum elong	9200 Jan 14 21:26	27°34'26	1°02'10
opposition	9193 Jun 28 18:04	13°34'58	1°02'58	max. Earth dist.	9200 Jan 14 05:23	27°34'56	31.28628 AU
min. Earth dist.	9193 Jun 29 06:28	13°34'07	29.25084 AU	morning rise	9200 Jan 30 18:11	28°32'26	
direct	9193 Sep 16 16:02	12°31'02			9200 Mar 28 13:38	0°	
evening set	9193 Dec 15 22:21	14°30'53		retrograde	9200 Apr 26 23:38	0°14'41	
					9200 May 26 23:02	30°30'	
conjunction	9193 Dec 31 23:40	14°34'01	0°59'17	opposition	9200 Jul 13 18:23	28°32'21	1°06'14
minimum elong	9193 Dec 31 23:40	14°34'01	0°59'33	min. Earth dist.	9200 Jul 14 09:01	28°31'21	29.28990 AU
max. Earth dist.	9193 Dec 31 08:51	14°33'39	31.25428 AU	direct	9200 Oct 02 02:30	27°32'33	
morning rise	9194 Jan 16 22:50	15°31'14		evening set	9200 Dec 31 09:35	29°32'47	
retrograde	9194 Apr 14 13:49	17°30'58					
opposition	9194 Jul 01 04:19	15°34'35	1°03'42	conjunction	9201 Jan 16 08:37	29°35'58	1°02'02
min. Earth dist.	9194 Jul 01 17:02	15°34'42	29.25821 AU	minimum elong	9201 Jan 16 08:37	29°35'58	1°02'18
direct	9194 Sep 19 04:17	14°32'15		max. Earth dist.	9201 Jan 15 15:39	29°35'24	31.29277 AU
evening set	9194 Dec 18 10:33	16°31'13			9201 Jan 17 06:29	0°	
				morning rise	9201 Feb 01 05:08	0°32'57	
conjunction	9195 Jan 03 11:43	16°32'35	0°59'56	retrograde	9201 Apr 29 10:42	2°25'11	
minimum elong	9195 Jan 03 11:43	16°32'35	1°00'14	opposition	9201 Jul 16 04:46	1°02'54	1°06'19

min. Earth dist.	9201 Jul 16 19:40	1°01'52	29.29680 AU		9208 Jan 26 12:08	15°00'	
	9201 Aug 27 22:27	30°03'					
direct	9201 Oct 04 12:12	29°03'38"07		conjunction	9208 Feb 01 14:42	15°00'13"36	1°00'26
	9201 Nov 10 13:10	0°00'		minimum elong	9208 Feb 01 14:42	15°00'13"36	1°00'39
evening set	9202 Jan 02 21:08	1°00'33"23		max. Earth dist.	9208 Jan 31 19:39	15°00'11"50	31.32627 AU
				morning rise	9208 Feb 17 08:29	15°00'48"25	
conjunction	9202 Jan 18 19:57	2°00'08"34	1°02'05	retrograde	9208 May 14 11:09	17°00'40"35	
minimum elong	9202 Jan 18 19:57	2°00'08"34	1°02'19	opposition	9208 Jul 31 07:02	16°00'18"35	1°04'16
max. Earth dist.	9202 Jan 18 03:50	2°00'07"04	31.29987 AU	min. Earth dist.	9208 Aug 01 00:49	16°00'17"21	29.32698 AU
morning rise	9202 Feb 03 15:56	2°00'43"31			9208 Sep 30 09:03	15°00'00'	
retrograde	9202 May 01 20:18	4°00'35"44		direct	9208 Oct 19 20:58	14°00'53"57	
opposition	9202 Jul 18 15:11	3°00'13"31	1°06'18		9208 Nov 08 05:27	15°00'00'	
min. Earth dist.	9202 Jul 19 06:31	3°00'12"28	29.30387 AU	evening set	9209 Jan 18 05:21	16°00'49"19	
direct	9202 Oct 06 23:48	1°00'48"47		max. Earth dist.	9209 Feb 02 06:58	17°00'22"36	31.32640 AU
evening set	9203 Jan 05 08:49	3°00'44"06					
				conjunction	9209 Feb 03 01:38	17°00'24"20	0°59'51
conjunction	9203 Jan 21 07:06	4°00'19"15	1°02'01	minimum elong	9209 Feb 03 01:38	17°00'24"20	1°00'05
minimum elong	9203 Jan 21 07:06	4°00'19"15	1°02'17	morning rise	9209 Feb 18 19:03	17°00'59"08	
max. Earth dist.	9203 Jan 20 13:41	4°00'17"38	31.30694 AU	retrograde	9209 May 16 19:38	19°00'51"15	
morning rise	9203 Feb 06 02:51	4°00'54"11		opposition	9209 Aug 02 17:43	18°00'29"14	1°03'37
retrograde	9203 May 04 08:47	6°00'46"24		min. Earth dist.	9209 Aug 03 11:13	18°00'28"02	29.32657 AU
opposition	9203 Jul 21 01:41	5°00'24"15	1°06'12	direct	9209 Oct 22 09:29	17°00'04"35	
min. Earth dist.	9203 Jul 21 16:50	5°00'23"13	29.31078 AU	evening set	9210 Jan 20 16:34	18°00'59"56	
direct	9203 Oct 09 11:18	3°00'59"34					
evening set	9204 Jan 07 20:11	5°00'54"55		conjunction	9210 Feb 05 12:20	19°00'34"55	0°59'12
				minimum elong	9210 Feb 05 12:20	19°00'34"55	0°59'23
conjunction	9204 Jan 23 18:15	6°00'30"03	1°01'53	max. Earth dist.	9210 Feb 04 16:41	19°00'33"06	31.32575 AU
minimum elong	9204 Jan 23 18:16	6°00'30"03	1°02'07	morning rise	9210 Feb 21 05:28	20°00'09"41	
max. Earth dist.	9204 Jan 23 01:37	6°00'28"30	31.31338 AU	retrograde	9210 May 19 06:01	22°00'01"47	
morning rise	9204 Feb 08 13:28	7°00'04"57		opposition	9210 Aug 05 04:24	20°00'39"44	1°02'52
retrograde	9204 May 05 19:03	8°00'57"10		min. Earth dist.	9210 Aug 05 22:02	20°00'38"32	29.32593 AU
opposition	9204 Jul 22 12:23	7°00'35"05	1°06'00	direct	9210 Oct 24 18:50	19°00'15"03	
min. Earth dist.	9204 Jul 23 04:43	7°00'33"57	29.31671 AU	evening set	9211 Jan 23 03:28	21°00'10"22	
direct	9204 Oct 10 23:45	6°00'10"26					
evening set	9205 Jan 09 07:50	8°00'05"49		conjunction	9211 Feb 07 23:02	21°00'45"20	0°58'27
max. Earth dist.	9205 Jan 24 11:29	8°00'39"16	31.31876 AU	minimum elong	9211 Feb 07 23:02	21°00'45"20	0°58'40
				max. Earth dist.	9211 Feb 07 04:33	21°00'43"37	31.32515 AU
conjunction	9205 Jan 25 05:25	8°00'40"56	1°01'39	morning rise	9211 Feb 23 15:40	22°00'20"04	
minimum elong	9205 Jan 25 05:25	8°00'40"56	1°01'54	retrograde	9211 May 21 14:57	24°00'12"09	
morning rise	9205 Feb 10 00:25	9°00'15"48		opposition	9211 Aug 07 15:13	22°00'50"05	1°02'02
retrograde	9205 May 08 06:24	11°00'08"01		min. Earth dist.	9211 Aug 08 08:54	22°00'48"52	29.32552 AU
opposition	9205 Jul 24 22:50	9°00'45"59	1°05'42	direct	9211 Oct 27 06:26	21°00'25"23	
min. Earth dist.	9205 Jul 25 14:39	9°00'44"53	29.32141 AU	evening set	9212 Jan 25 14:19	23°00'20"40	
direct	9205 Oct 13 11:45	8°00'21"21					
evening set	9206 Jan 11 19:24	10°00'16"46		conjunction	9212 Feb 10 09:21	23°00'55"36	0°57'38
				minimum elong	9212 Feb 10 09:21	23°00'55"36	0°57'48
conjunction	9206 Jan 27 16:42	10°00'51"51	1°01'20	max. Earth dist.	9212 Feb 09 14:06	23°00'53"49	31.32518 AU
minimum elong	9206 Jan 27 16:42	10°00'51"51	1°01'33	morning rise	9212 Feb 26 01:50	24°00'30"19	
max. Earth dist.	9206 Jan 26 22:46	10°00'50"11	31.32266 AU	retrograde	9212 May 23 02:50	26°00'22"24	
morning rise	9206 Feb 12 11:11	11°00'26"42		opposition	9212 Aug 09 01:57	25°00'00"19	1°01'06
retrograde	9206 May 10 15:34	13°00'18"54		min. Earth dist.	9212 Aug 09 18:48	24°00'59"09	29.32603 AU
opposition	9206 Jul 27 09:40	11°00'56"54	1°05'19	direct	9212 Oct 28 18:04	23°00'35"37	
min. Earth dist.	9206 Jul 28 02:54	11°00'55"42	29.32462 AU	evening set	9213 Jan 27 01:06	25°00'30"53	
direct	9206 Oct 15 23:00	10°00'32"18					
evening set	9207 Jan 14 06:48	12°00'27"42		conjunction	9213 Feb 11 19:57	26°00'05"49	0°56'44
max. Earth dist.	9207 Jan 29 09:12	13°00'01"03	31.32519 AU	minimum elong	9213 Feb 11 19:58	26°00'05"49	0°56'55
				max. Earth dist.	9213 Feb 11 01:59	26°00'04"08	31.32612 AU
conjunction	9207 Jan 30 03:41	13°00'02"46	1°00'55	morning rise	9213 Feb 27 11:55	26°00'40"30	
minimum elong	9207 Jan 30 03:42	13°00'02"46	1°01'10	retrograde	9213 May 25 12:37	28°00'32"36	
morning rise	9207 Feb 14 21:51	13°00'37"35		opposition	9213 Aug 11 12:43	27°00'10"30	1°00'06
	9207 Mar 31 17:34	15°00'00'		min. Earth dist.	9213 Aug 12 06:11	27°00'09"18	29.32742 AU
retrograde	9207 May 13 02:14	15°00'29"46		direct	9213 Oct 31 05:59	25°00'45"50	
	9207 Jun 25 13:25	15°00'00'		evening set	9214 Jan 29 12:00	27°00'41"07	
opposition	9207 Jul 29 20:21	14°00'07"47	1°04'50	max. Earth dist.	9214 Feb 13 11:54	28°00'14"18	31.32803 AU
min. Earth dist.	9207 Jul 30 13:01	14°00'06"38	29.32637 AU				
direct	9207 Oct 18 11:05	12°00'43"10		conjunction	9214 Feb 14 06:22	28°00'16"01	0°55'45
evening set	9208 Jan 16 18:11	14°00'38"34		minimum elong	9214 Feb 14 06:22	28°00'16"01	0°55'54

morning rise	9214 Mar 01 22:08	28° \approx 50'41	direct	9220 Nov 15 13:11	10° \approx 59'05		
	9214 Apr 06 19:20	0° \approx	evening set	9221 Feb 13 14:47	12° \approx 54'18		
retrograde	9214 May 27 23:59	0° \approx 42'48					
	9214 Jul 20 02:40	30° \approx	conjunction	9221 Mar 01 06:44	13° \approx 29'04	0°46'41	
opposition	9214 Aug 13 23:33	29° \approx 20'45	0°59'00	minimum elong	9221 Mar 01 06:44	13° \approx 29'04	0°46'48
min. Earth dist.	9214 Aug 14 15:46	29° \approx 19'38	29.32956 AU	max. Earth dist.	9221 Feb 28 12:07	13° \approx 27'20	31.32814 AU
direct	9214 Nov 02 17:36	27° \approx 56'07		morning rise	9221 Mar 16 20:22	14° \approx 03'39	
evening set	9215 Jan 31 22:37	29° \approx 51'25		retrograde	9221 Jun 11 22:51	15° \approx 56'02	
	9215 Feb 04 20:56	0° \approx		opposition	9221 Aug 29 05:32	14° \approx 33'58	0°49'03
				min. Earth dist.	9221 Aug 29 22:09	14° \approx 32'50	29.32636 AU
conjunction	9215 Feb 16 16:42	0° \approx 26'17	0°54'41	direct	9221 Nov 18 00:24	13° \approx 09'31	
minimum elong	9215 Feb 16 16:42	0° \approx 26'17	0°54'51	evening set	9222 Feb 16 01:15	15° \approx 04'42	
max. Earth dist.	9215 Feb 15 22:54	0° \approx 24'38	31.33028 AU				
morning rise	9215 Mar 04 08:02	1° \approx 00'57		conjunction	9222 Mar 03 17:02	15° \approx 39'28	0°45'07
retrograde	9215 May 30 09:57	2° \approx 53'06		minimum elong	9222 Mar 03 17:02	15° \approx 39'28	0°45'12
opposition	9215 Aug 16 10:35	1° \approx 31'04	0°57'49	max. Earth dist.	9222 Mar 02 23:32	15° \approx 37'50	31.32369 AU
min. Earth dist.	9215 Aug 17 03:43	1° \approx 29'54	29.33189 AU	morning rise	9222 Mar 19 06:13	16° \approx 14'02	
direct	9215 Nov 05 05:10	0° \approx 06'29		retrograde	9222 Jun 14 08:41	18° \approx 06'27	
evening set	9216 Feb 03 09:21	2° \approx 01'47		opposition	9222 Aug 31 17:01	16° \approx 44'20	0°47'20
max. Earth dist.	9216 Feb 18 09:17	2° \approx 35'00	31.33256 AU	min. Earth dist.	9222 Sep 01 10:18	16° \approx 43'09	29.32162 AU
				direct	9222 Nov 20 12:10	15° \approx 19'53	
conjunction	9216 Feb 19 03:04	2° \approx 36'39	0°53'32	evening set	9223 Feb 18 11:33	17° \approx 15'01	
minimum elong	9216 Feb 19 03:04	2° \approx 36'39	0°53'40	max. Earth dist.	9223 Mar 05 09:09	17° \approx 48'07	31.31894 AU
morning rise	9216 Mar 05 18:08	3° \approx 11'17					
retrograde	9216 May 31 21:01	5° \approx 03'28		conjunction	9223 Mar 06 02:53	17° \approx 49'46	0°43'29
opposition	9216 Aug 17 21:25	3° \approx 41'28	0°56'33	minimum elong	9223 Mar 06 02:53	17° \approx 49'46	0°43'34
min. Earth dist.	9216 Aug 18 13:43	3° \approx 40'21	29.33381 AU	morning rise	9223 Mar 21 15:58	18° \approx 24'19	
direct	9216 Nov 06 17:42	2° \approx 16'56		retrograde	9223 Jun 16 19:57	20° \approx 16'46	
evening set	9217 Feb 04 20:08	4° \approx 12'14		opposition	9223 Sep 03 04:19	18° \approx 54'37	0°45'33
				min. Earth dist.	9223 Sep 03 20:10	18° \approx 53'32	29.31690 AU
conjunction	9217 Feb 20 13:28	4° \approx 47'05	0°52'18	direct	9223 Nov 23 00:06	17° \approx 30'09	
minimum elong	9217 Feb 20 13:28	4° \approx 47'05	0°52'27	evening set	9224 Feb 20 21:49	19° \approx 25'16	
max. Earth dist.	9217 Feb 19 19:20	4° \approx 45'24	31.33406 AU				
morning rise	9217 Mar 08 04:14	5° \approx 21'43		conjunction	9224 Mar 07 12:54	19° \approx 59'59	0°41'47
retrograde	9217 Jun 03 06:28	7° \approx 13'57		minimum elong	9224 Mar 07 12:54	19° \approx 59'59	0°41'51
opposition	9217 Aug 20 08:36	5° \approx 51'57	0°55'12	max. Earth dist.	9224 Mar 06 19:58	19° \approx 58'25	31.31438 AU
min. Earth dist.	9217 Aug 21 01:43	5° \approx 50'47	29.33491 AU	morning rise	9224 Mar 23 01:38	20° \approx 34'32	
direct	9217 Nov 09 03:46	4° \approx 27'27		retrograde	9224 Jun 18 06:06	22° \approx 27'02	
evening set	9218 Feb 07 06:49	6° \approx 22'45		opposition	9224 Sep 04 15:40	21° \approx 04'50	0°43'42
				min. Earth dist.	9224 Sep 05 08:01	21° \approx 03'43	29.31278 AU
conjunction	9218 Feb 22 23:52	6° \approx 57'35	0°51'00	direct	9224 Nov 24 11:58	19° \approx 40'24	
minimum elong	9218 Feb 22 23:53	6° \approx 57'35	0°51'07	evening set	9225 Feb 22 08:05	21° \approx 35'29	
max. Earth dist.	9218 Feb 22 06:23	6° \approx 55'57	31.33457 AU				
morning rise	9218 Mar 10 14:14	7° \approx 32'11		conjunction	9225 Mar 09 22:52	22° \approx 10'12	0°40'02
retrograde	9218 Jun 05 15:12	9° \approx 24'27		minimum elong	9225 Mar 09 22:52	22° \approx 10'12	0°40'06
opposition	9218 Aug 22 19:47	8° \approx 02'29	0°53'46	max. Earth dist.	9225 Mar 09 06:31	22° \approx 08'41	31.31076 AU
min. Earth dist.	9218 Aug 23 12:32	8° \approx 01'20	29.33469 AU	morning rise	9225 Mar 25 11:22	22° \approx 44'44	
direct	9218 Nov 11 15:59	6° \approx 38'01		retrograde	9225 Jun 20 17:18	24° \approx 37'18	
evening set	9219 Feb 09 17:36	8° \approx 33'17		opposition	9225 Sep 07 03:04	23° \approx 15'06	0°41'48
				min. Earth dist.	9225 Sep 07 17:57	23° \approx 14'05	29.30952 AU
conjunction	9219 Feb 25 10:11	9° \approx 08'06	0°49'38	direct	9225 Nov 27 00:57	21° \approx 50'42	
minimum elong	9219 Feb 25 10:11	9° \approx 08'06	0°49'46	evening set	9226 Feb 24 18:17	23° \approx 45'47	
max. Earth dist.	9219 Feb 24 15:39	9° \approx 06'22	31.33373 AU				
morning rise	9219 Mar 13 00:21	9° \approx 42'42		conjunction	9226 Mar 12 08:42	24° \approx 20'30	0°38'13
retrograde	9219 Jun 08 02:04	11° \approx 35'01		minimum elong	9226 Mar 12 08:42	24° \approx 20'30	0°38'15
opposition	9219 Aug 25 07:03	10° \approx 13'01	0°52'16	max. Earth dist.	9226 Mar 11 16:32	24° \approx 18'59	31.30796 AU
min. Earth dist.	9219 Aug 25 23:52	10° \approx 11'52	29.33327 AU	morning rise	9226 Mar 27 20:57	24° \approx 55'02	
direct	9219 Nov 14 01:18	8° \approx 48'34		retrograde	9226 Jun 23 02:57	26° \approx 47'40	
evening set	9220 Feb 12 04:05	10° \approx 43'49		opposition	9226 Sep 09 14:38	25° \approx 25'29	0°39'50
				min. Earth dist.	9226 Sep 10 05:39	25° \approx 24'27	29.30718 AU
conjunction	9220 Feb 27 20:31	11° \approx 18'36	0°48'11	direct	9226 Nov 29 11:02	24° \approx 01'08	
minimum elong	9220 Feb 27 20:31	11° \approx 18'36	0°48'17	evening set	9227 Feb 27 04:24	25° \approx 56'13	
max. Earth dist.	9220 Feb 27 02:59	11° \approx 16'58	31.33159 AU				
morning rise	9220 Mar 14 10:16	11° \approx 53'12		conjunction	9227 Mar 14 18:38	26° \approx 30'55	0°36'20
retrograde	9220 Jun 09 11:09	13° \approx 45'33		minimum elong	9227 Mar 14 18:38	26° \approx 30'55	0°36'23
opposition	9220 Aug 26 18:23	12° \approx 23'32	0°50'41	max. Earth dist.	9227 Mar 14 03:50	26° \approx 29'33	31.30598 AU
min. Earth dist.	9220 Aug 27 11:35	12° \approx 22'21	29.33035 AU	morning rise	9227 Mar 30 06:35	27° \approx 05'27	

retrograde	9227 Jun 25 11:48	28° H 58'11	evening set	9234 Mar 14 03:55	11° P 12'58	
opposition	9227 Sep 12 02:09	27° H 36'01 0°37'48				
min. Earth dist.	9227 Sep 12 16:21	27° H 35'03 29.30527 AU	conjunction	9234 Mar 29 16:14	11° P 47'36 0°21'54	
direct	9227 Dec 01 23:03	26° H 11'45	minimum elong	9234 Mar 29 16:14	11° P 47'36 0°21'51	
evening set	9228 Feb 29 14:36	28° H 06'50	max. Earth dist.	9234 Mar 29 02:57	11° P 46'22 31.27363 AU	
			morning rise	9234 Apr 14 02:52	12° P 22'08	
conjunction	9228 Mar 16 04:25	28° H 41'32 0°34'25	retrograde	9234 Jul 10 17:22	14° P 15'29	
minimum elong	9228 Mar 16 04:25	28° H 41'32 0°34'26	opposition	9234 Sep 27 13:25	12° P 53'06 0°22'13	
max. Earth dist.	9228 Mar 15 13:03	28° H 40'06 31.30416 AU	min. Earth dist.	9234 Sep 28 01:40	12° P 52'16 29.26909 AU	
morning rise	9228 Mar 31 16:18	29° H 16'04	direct	9234 Dec 17 06:50	11° P 29'01	
	9228 Apr 21 22:24	0° P	evening set	9235 Mar 16 14:02	13° P 23'54	
retrograde	9228 Jun 26 23:07	1° P 08'54				
	9228 Sep 05 10:02	30° R H	conjunction	9235 Apr 01 02:03	13° P 58'33 0°19'42	
opposition	9228 Sep 13 13:47	29° H 46'45 0°35'43	minimum elong	9235 Apr 01 02:03	13° P 58'33 0°19'39	
min. Earth dist.	9228 Sep 14 03:37	29° H 45'48 29.30338 AU	max. Earth dist.	9235 Mar 31 12:43	13° P 57'18 31.26426 AU	
direct	9228 Dec 03 08:05	28° H 22'32	morning rise	9235 Apr 16 12:36	14° P 33'04	
	9229 Feb 22 19:53	0° P	retrograde	9235 Jul 13 03:28	16° P 26'29	
evening set	9229 Mar 03 00:46	0° P 17'37	opposition	9235 Sep 30 01:29	15° P 04'01 0°19'50	
			min. Earth dist.	9235 Sep 30 13:57	15° P 03'10 29.25964 AU	
conjunction	9229 Mar 18 14:27	0° P 52'19 0°32'26	direct	9235 Dec 19 17:40	13° P 39'54	
minimum elong	9229 Mar 18 14:27	0° P 52'19 0°32'27	evening set	9236 Mar 17 23:55	15° P 34'44	
max. Earth dist.	9229 Mar 18 00:25	0° P 51'00 31.30197 AU				
morning rise	9229 Apr 03 01:56	1° P 26'51	conjunction	9236 Apr 02 11:51	16° P 09'21 0°17'28	
retrograde	9229 Jun 29 08:25	3° P 19'47	minimum elong	9236 Apr 02 11:51	16° P 09'21 0°17'23	
opposition	9229 Sep 16 01:32	1° P 57'38 0°33'34	max. Earth dist.	9236 Apr 02 00:02	16° P 08'15 31.25480 AU	
min. Earth dist.	9229 Sep 16 15:31	1° P 56'41 29.30076 AU	morning rise	9236 Apr 17 22:10	16° P 43'53	
direct	9229 Dec 05 19:49	0° P 33'30	retrograde	9236 Jul 14 12:41	18° P 37'21	
evening set	9230 Mar 05 11:09	2° P 28'34	opposition	9236 Oct 01 13:34	17° P 14'48 0°17'26	
max. Earth dist.	9230 Mar 20 09:36	3° P 01'52 31.29899 AU	min. Earth dist.	9236 Oct 02 00:59	17° P 14'02 29.25025 AU	
			direct	9236 Dec 21 07:05	15° P 50'41	
conjunction	9230 Mar 21 00:22	3° P 03'15 0°30'25	evening set	9237 Mar 20 09:59	17° P 45'27	
minimum elong	9230 Mar 21 00:22	3° P 03'15 0°30'24				
morning rise	9230 Apr 05 11:49	3° P 37'47	conjunction	9237 Apr 04 21:30	18° P 20'05 0°15'12	
retrograde	9230 Jul 01 20:23	5° P 30'50	minimum elong	9237 Apr 04 21:30	18° P 20'05 0°15'08	
opposition	9230 Sep 18 13:24	4° P 08'40 0°31'23	behind sun begin	9237 Apr 04 19:09	18° P 19'52	
min. Earth dist.	9230 Sep 19 02:31	4° P 07'47 29.29727 AU	behind sun end	9237 Apr 04 23:51	18° P 20'18	
direct	9230 Dec 08 06:10	2° P 44'34	max. Earth dist.	9237 Apr 04 09:23	18° P 18'57 31.24573 AU	
evening set	9231 Mar 07 21:14	4° P 39'38	morning rise	9237 Apr 20 07:49	18° P 54'37	
			retrograde	9237 Jul 17 00:03	20° P 48'10	
conjunction	9231 Mar 23 10:20	5° P 14'19 0°28'20	opposition	9237 Oct 04 01:40	19° P 25'34 0°15'00	
minimum elong	9231 Mar 23 10:20	5° P 14'19 0°28'20	min. Earth dist.	9237 Oct 04 12:13	19° P 24'51 29.24167 AU	
max. Earth dist.	9231 Mar 22 20:40	5° P 13'02 31.29479 AU	direct	9237 Dec 23 17:23	18° P 01'27	
morning rise	9231 Apr 07 21:25	5° P 48'50	evening set	9238 Mar 22 19:52	19° P 56'11	
retrograde	9231 Jul 04 06:36	7° P 41'59				
opposition	9231 Sep 21 01:27	6° P 19'48 0°29'09	conjunction	9238 Apr 07 07:21	20° P 30'49 0°12'56	
min. Earth dist.	9231 Sep 21 15:19	6° P 18'51 29.29237 AU	minimum elong	9238 Apr 07 07:20	20° P 30'49 0°12'50	
direct	9231 Dec 10 16:52	4° P 55'44	behind sun begin	9238 Apr 07 03:17	20° P 30'27	
evening set	9232 Mar 09 07:35	6° P 50'46	behind sun end	9238 Apr 07 11:23	20° P 31'10	
			max. Earth dist.	9238 Apr 06 21:04	20° P 29'51 31.23759 AU	
conjunction	9232 Mar 24 20:20	7° P 25'26 0°26'14	morning rise	9238 Apr 22 17:21	21° P 05'21	
minimum elong	9232 Mar 24 20:20	7° P 25'26 0°26'12	retrograde	9238 Jul 19 09:11	22° P 59'01	
max. Earth dist.	9232 Mar 24 06:14	7° P 24'07 31.28924 AU	opposition	9238 Oct 06 13:57	21° P 36'22 0°12'33	
morning rise	9232 Apr 09 07:21	7° P 59'58	min. Earth dist.	9238 Oct 07 00:01	21° P 35'41 29.23394 AU	
retrograde	9232 Jul 05 18:34	9° P 53'11	direct	9238 Dec 26 05:22	20° P 12'18	
opposition	9232 Sep 22 13:13	8° P 30'57 0°26'52	evening set	9239 Mar 25 05:45	22° P 07'00	
min. Earth dist.	9232 Sep 23 01:55	8° P 30'05 29.28600 AU				
direct	9232 Dec 12 04:43	7° P 06'53	conjunction	9239 Apr 09 16:53	22° P 41'37 0°10'38	
evening set	9233 Mar 11 17:51	9° P 01'54	minimum elong	9239 Apr 09 16:53	22° P 41'37 0°10'33	
			behind sun begin	9239 Apr 09 11:51	22° P 41'10	
conjunction	9233 Mar 27 06:23	9° P 36'33 0°24'05	behind sun end	9239 Apr 09 21:55	22° P 42'05	
minimum elong	9233 Mar 27 06:23	9° P 36'33 0°24'04	max. Earth dist.	9239 Apr 09 06:29	22° P 40'40 31.23039 AU	
max. Earth dist.	9233 Mar 26 16:35	9° P 35'16 31.28205 AU	morning rise	9239 Apr 25 02:58	23° P 16'10	
morning rise	9233 Apr 11 17:10	10° P 11'05	retrograde	9239 Jul 21 20:59	25° P 09'58	
retrograde	9233 Jul 08 05:53	12° P 04'23	opposition	9239 Oct 09 02:07	23° P 47'17 0°10'04	
opposition	9233 Sep 25 01:22	10° P 42'04 0°24'33	min. Earth dist.	9239 Oct 09 10:48	23° P 46'42 29.22706 AU	
min. Earth dist.	9233 Sep 25 14:51	10° P 41'09 29.27814 AU	direct	9239 Dec 28 15:21	22° P 23'17	
direct	9233 Dec 14 17:10	9° P 18'01	evening set	9240 Mar 26 15:39	24° P 17'58	

conjunction	9240 Apr 11 02:44	24° Υ 52'36	0°08'19	behind sun end	9245 Apr 22 10:36	5° \mathcal{B} 51'03	
minimum elong	9240 Apr 11 02:44	24° Υ 52'36	0°08'12	max. Earth dist.	9245 Apr 21 21:53	5° \mathcal{B} 49'54	31.18382 AU
behind sun begin	9240 Apr 10 21:01	24° Υ 52'05		morning rise	9245 May 07 13:42	6° \mathcal{B} 25'06	
behind sun end	9240 Apr 11 08:26	24° Υ 53'07		retrograde	9245 Aug 03 18:38	8° \mathcal{B} 19'42	
max. Earth dist.	9240 Apr 10 17:49	24° Υ 51'47	31.22366 AU	opposition	9245 Oct 22 05:03	6° \mathcal{B} 56'52	-0°04'59
morning rise	9240 Apr 26 12:35	25° Υ 27'09		min. Earth dist.	9245 Oct 22 11:17	6° \mathcal{B} 56'27	29.17828 AU
retrograde	9240 Jul 23 07:21	27° Υ 21'06		direct	9246 Jan 10 14:12	5° \mathcal{B} 33'08	
opposition	9240 Oct 10 14:21	25° Υ 58'24	0°07'35	evening set	9246 Apr 09 04:14	7° \mathcal{B} 27'47	
min. Earth dist.	9240 Oct 10 23:23	25° Υ 57'47	29.22044 AU				
direct	9240 Dec 30 01:26	24° Υ 34'27		conjunction	9246 Apr 24 14:12	8° \mathcal{B} 02'26	-0°05'54
evening set	9241 Mar 29 01:42	26° Υ 29'09		minimum elong	9246 Apr 24 14:12	8° \mathcal{B} 02'26	0°06'05
				behind sun begin	9246 Apr 24 08:06	8° \mathcal{B} 01'53	
conjunction	9241 Apr 13 12:31	27° Υ 03'47	0°05'59	behind sun end	9246 Apr 24 20:19	8° \mathcal{B} 02'59	
minimum elong	9241 Apr 13 12:31	27° Υ 03'47	0°05'53	max. Earth dist.	9246 Apr 24 07:10	8° \mathcal{B} 01'48	31.17246 AU
behind sun begin	9241 Apr 13 06:22	27° Υ 03'14		morning rise	9246 May 09 23:48	8° \mathcal{B} 37'04	
behind sun end	9241 Apr 13 18:39	27° Υ 04'20		retrograde	9246 Aug 06 07:11	10° \mathcal{B} 31'47	
max. Earth dist.	9241 Apr 13 03:46	27° Υ 02'59	31.21715 AU	opposition	9246 Oct 24 17:46	9° \mathcal{B} 08'52	-0°07'30
morning rise	9241 Apr 28 22:21	27° Υ 38'21		min. Earth dist.	9246 Oct 24 23:28	9° \mathcal{B} 08'28	29.16644 AU
retrograde	9241 Jul 25 19:55	29° Υ 32'26		direct	9247 Jan 13 01:26	7° \mathcal{B} 45'07	
opposition	9241 Oct 13 02:42	28° Υ 09'44	0°05'05	evening set	9247 Apr 11 14:09	9° \mathcal{B} 39'42	
min. Earth dist.	9241 Oct 13 10:06	28° Υ 09'14	29.21375 AU				
direct	9242 Jan 01 12:51	26° Υ 45'50		conjunction	9247 Apr 27 00:12	10° \mathcal{B} 14'22	-0°08'13
evening set	9242 Mar 31 11:38	28° Υ 40'33		minimum elong	9247 Apr 27 00:12	10° \mathcal{B} 14'22	0°08'24
				behind sun begin	9247 Apr 26 18:32	10° \mathcal{B} 13'51	
conjunction	9242 Apr 15 22:15	29° Υ 15'11	0°03'39	behind sun end	9247 Apr 27 05:51	10° \mathcal{B} 14'52	
minimum elong	9242 Apr 15 22:16	29° Υ 15'11	0°03'31	max. Earth dist.	9247 Apr 26 18:43	10° \mathcal{B} 13'52	31.16015 AU
behind sun begin	9242 Apr 15 15:54	29° Υ 14'36		morning rise	9247 May 12 09:38	10° \mathcal{B} 49'01	
behind sun end	9242 Apr 16 04:39	29° Υ 15'45		retrograde	9247 Aug 08 16:10	11° \mathcal{B} 43'49	
max. Earth dist.	9242 Apr 15 14:09	29° Υ 14'26	31.21018 AU	opposition	9247 Oct 27 06:27	11° \mathcal{B} 20'48	-0°09'59
morning rise	9242 May 01 08:00	29° Υ 49'46		min. Earth dist.	9247 Oct 27 11:58	11° \mathcal{B} 20'26	29.15379 AU
	9242 May 06 00:27	0° \mathcal{B}		direct	9248 Jan 15 14:13	9° \mathcal{B} 57'02	
retrograde	9242 Jul 28 08:12	1° \mathcal{B} 44'00		evening set	9248 Apr 13 00:14	11° \mathcal{B} 51'33	
opposition	9242 Oct 15 15:19	0° \mathcal{B} 21'16	0°02'34				
min. Earth dist.	9242 Oct 15 23:13	0° \mathcal{B} 20'44	29.20655 AU	conjunction	9248 Apr 28 10:02	12° \mathcal{B} 26'13	-0°10'32
	9242 Oct 28 19:50	30° $\mathcal{R}\Upsilon$		minimum elong	9248 Apr 28 10:02	12° \mathcal{B} 26'13	0°10'44
direct	9243 Jan 04 00:27	28° Υ 57'27		behind sun begin	9248 Apr 28 05:04	12° \mathcal{B} 25'46	
	9243 Mar 08 09:39	0° \mathcal{B}		behind sun end	9248 Apr 28 15:00	12° \mathcal{B} 26'40	
evening set	9243 Apr 02 21:43	0° \mathcal{B} 52'09		max. Earth dist.	9248 Apr 28 04:21	12° \mathcal{B} 25'42	31.14749 AU
				morning rise	9248 May 13 19:37	13° \mathcal{B} 00'52	
conjunction	9243 Apr 18 08:14	1° \mathcal{B} 26'47	0°01'16	retrograde	9248 Aug 10 03:15	14° \mathcal{B} 55'46	
minimum elong	9243 Apr 18 08:13	1° \mathcal{B} 26'47	0°01'08	opposition	9248 Oct 28 18:56	13° \mathcal{B} 32'40	-0°12'28
behind sun begin	9243 Apr 18 01:49	1° \mathcal{B} 26'13		min. Earth dist.	9248 Oct 28 23:04	13° \mathcal{B} 32'23	29.14126 AU
behind sun end	9243 Apr 18 14:38	1° \mathcal{B} 27'22		direct	9249 Jan 17 00:53	12° \mathcal{B} 08'52	
max. Earth dist.	9243 Apr 18 00:52	1° \mathcal{B} 26'07	31.20261 AU	evening set	9249 Apr 15 10:12	14° \mathcal{B} 03'20	
morning rise	9243 May 03 17:51	2° \mathcal{B} 01'23					
retrograde	9243 Jul 30 20:42	3° \mathcal{B} 55'45		conjunction	9249 Apr 30 19:59	14° \mathcal{B} 38'00	-0°12'50
opposition	9243 Oct 18 03:43	2° \mathcal{B} 33'00	0°00'03	minimum elong	9249 Apr 30 19:59	14° \mathcal{B} 38'00	0°13'02
min. Earth dist.	9243 Oct 18 10:22	2° \mathcal{B} 32'33	29.19841 AU	behind sun begin	9249 Apr 30 16:02	14° \mathcal{B} 37'39	
desc. node	9243 Oct 24 16:36	2° \mathcal{B} 22'23		behind sun end	9249 Apr 30 23:56	14° \mathcal{B} 38'21	
direct	9244 Jan 06 13:24	1° \mathcal{B} 09'13		max. Earth dist.	9249 Apr 30 15:54	14° \mathcal{B} 37'38	31.13516 AU
evening set	9244 Apr 04 07:54	3° \mathcal{B} 03'56			9249 May 10 13:15	15° \mathcal{B}	
				morning rise	9249 May 16 05:26	15° \mathcal{B} 12'40	
conjunction	9244 Apr 19 18:10	3° \mathcal{B} 38'34	-0°01'11	retrograde	9249 Aug 12 13:29	17° \mathcal{B} 07'40	
minimum elong	9244 Apr 19 18:11	3° \mathcal{B} 38'34	0°01'20	opposition	9249 Oct 31 07:45	15° \mathcal{B} 44'28	-0°14'55
behind sun begin	9244 Apr 19 11:46	3° \mathcal{B} 38'00		min. Earth dist.	9249 Oct 31 11:52	15° \mathcal{B} 44'11	29.12941 AU
behind sun end	9244 Apr 20 00:35	3° \mathcal{B} 39'09			9249 Nov 29 00:07	15° $\mathcal{R}\mathcal{B}$	
max. Earth dist.	9244 Apr 19 10:32	3° \mathcal{B} 37'53	31.19386 AU	direct	9250 Jan 19 11:20	14° \mathcal{B} 20'40	
morning rise	9244 May 05 03:50	4° \mathcal{B} 13'11			9250 Mar 09 20:26	15° \mathcal{B}	
retrograde	9244 Aug 01 08:08	6° \mathcal{B} 07'41		evening set	9250 Apr 17 20:05	16° \mathcal{B} 15'05	
opposition	9244 Oct 19 16:24	4° \mathcal{B} 44'54	-0°02'28				
min. Earth dist.	9244 Oct 19 23:23	4° \mathcal{B} 44'25	29.18909 AU	conjunction	9250 May 03 05:44	16° \mathcal{B} 49'45	-0°15'08
direct	9245 Jan 08 00:11	3° \mathcal{B} 21'09		minimum elong	9250 May 03 05:43	16° \mathcal{B} 49'45	0°15'20
evening set	9245 Apr 06 18:00	5° \mathcal{B} 15'50		behind sun begin	9250 May 03 03:35	16° \mathcal{B} 49'33	
				behind sun end	9250 May 03 07:52	16° \mathcal{B} 49'57	
conjunction	9245 Apr 22 04:16	5° \mathcal{B} 50'29	-0°03'33	max. Earth dist.	9250 May 03 02:17	16° \mathcal{B} 49'26	31.12391 AU
minimum elong	9245 Apr 22 04:15	5° \mathcal{B} 50'29	0°03'43	morning rise	9250 May 18 15:15	17° \mathcal{B} 24'26	
behind sun begin	9245 Apr 21 21:54	5° \mathcal{B} 49'54		retrograde	9250 Aug 15 01:39	19° \mathcal{B} 19'34	

opposition	9250 Nov 02 20:24	17° 8 56'17 -0°17'22			9257 Mar 04 10:06	0° II
min. Earth dist.	9250 Nov 02 22:28	17° 8 56'09 29.11873 AU	evening set		9257 May 02 19:10	1° II 40'44
direct	9251 Jan 21 22:59	16° 8 32'29				
evening set	9251 Apr 20 06:04	18° 8 26'53	conjunction	9257 May 18 04:29	2° II 15'28 -0°30'26	
			minimum elong	9257 May 18 04:29	2° II 15'28 0°30'40	
conjunction	9251 May 05 15:38	19° 8 01'33 -0°17'24	max. Earth dist.	9257 May 18 05:41	2° II 15'35 31.06211 AU	
minimum elong	9251 May 05 15:38	19° 8 01'33 0°17'36	morning rise	9257 Jun 02 14:29	2° II 50'17	
max. Earth dist.	9251 May 05 13:03	19° 8 01'19 31.11375 AU	retrograde	9257 Aug 30 15:19	4° II 46'21	
morning rise	9251 May 21 01:12	19° 8 36'15	opposition	9257 Nov 18 14:49	3° II 22'48 -0°33'37	
retrograde	9251 Aug 17 13:48	21° 8 31'30	min. Earth dist.	9257 Nov 18 12:18	3° II 22'58 29.05699 AU	
opposition	9251 Nov 05 09:07	20° 8 08'10 -0°19'47	direct	9258 Feb 06 09:21	1° II 59'16	
min. Earth dist.	9251 Nov 05 11:15	20° 8 08'01 29.10920 AU	evening set	9258 May 05 05:29	3° II 53'34	
direct	9252 Jan 24 09:39	18° 8 44'24				
evening set	9252 Apr 21 16:02	20° 8 38'46	conjunction	9258 May 20 14:54	4° II 28'19 -0°32'28	
			minimum elong	9258 May 20 14:54	4° II 28'19 0°32'44	
conjunction	9252 May 07 01:38	21° 8 13'27 -0°19'39	max. Earth dist.	9258 May 20 17:11	4° II 28'32 31.05132 AU	
minimum elong	9252 May 07 01:38	21° 8 13'27 0°19'52	morning rise	9258 Jun 05 00:55	5° II 03'10	
max. Earth dist.	9252 May 07 00:19	21° 8 13'20 31.10475 AU	retrograde	9258 Sep 02 02:24	6° II 59'21	
morning rise	9252 May 22 11:11	21° 8 48'10	opposition	9258 Nov 21 04:05	5° II 35'44 -0°35'47	
retrograde	9252 Aug 19 02:14	23° 8 43'33	min. Earth dist.	9258 Nov 21 02:03	5° II 35'53 29.04565 AU	
opposition	9252 Nov 06 21:49	22° 8 20'10 -0°22'11	direct	9259 Feb 08 20:37	4° II 12'12	
min. Earth dist.	9252 Nov 06 22:12	22° 8 20'09 29.10051 AU	evening set	9259 May 07 15:57	6° II 06'28	
direct	9253 Jan 25 21:40	20° 8 56'26				
evening set	9253 Apr 24 02:06	22° 8 50'49	conjunction	9259 May 23 01:24	6° II 41'14 -0°34'27	
			minimum elong	9259 May 23 01:24	6° II 41'14 0°34'43	
conjunction	9253 May 09 11:30	23° 8 25'30 -0°21'52	max. Earth dist.	9259 May 23 03:52	6° II 41'28 31.03958 AU	
minimum elong	9253 May 09 11:30	23° 8 25'30 0°22'05	morning rise	9259 Jun 07 11:37	7° II 16'06	
max. Earth dist.	9253 May 09 10:22	23° 8 25'23 31.09636 AU	retrograde	9259 Sep 04 14:45	9° II 12'23	
morning rise	9253 May 24 21:12	24° 8 00'14	opposition	9259 Nov 23 16:59	7° II 48'42 -0°37'53	
retrograde	9253 Aug 21 14:47	25° 8 55'45	min. Earth dist.	9259 Nov 23 13:27	7° II 48'56 29.03348 AU	
opposition	9253 Nov 09 10:46	24° 8 32'21 -0°24'33	direct	9260 Feb 11 08:35	6° II 25'08	
min. Earth dist.	9253 Nov 09 11:05	24° 8 32'19 29.09243 AU	evening set	9260 May 09 02:23	8° II 19'22	
direct	9254 Jan 28 08:27	23° 8 08'40				
evening set	9254 Apr 26 12:09	25° 8 03'01	conjunction	9260 May 24 11:51	8° II 54'08 -0°36'24	
			minimum elong	9260 May 24 11:51	8° II 54'08 0°36'41	
conjunction	9254 May 11 21:40	25° 8 37'43 -0°24'04	max. Earth dist.	9260 May 24 14:45	8° II 54'25 31.02712 AU	
minimum elong	9254 May 11 21:40	25° 8 37'43 0°24'19	morning rise	9260 Jun 08 22:13	9° II 29'01	
max. Earth dist.	9254 May 11 22:17	25° 8 37'47 31.08841 AU	retrograde	9260 Sep 06 02:50	11° II 25'25	
morning rise	9254 May 27 07:17	26° 8 12'28	opposition	9260 Nov 25 06:10	10° II 01'38 -0°39'56	
retrograde	9254 Aug 24 02:55	28° 8 08'08	min. Earth dist.	9260 Nov 25 02:59	10° II 01'51 29.02106 AU	
opposition	9254 Nov 11 23:41	26° 8 44'42 -0°26'52	direct	9261 Feb 12 19:20	8° II 38'03	
min. Earth dist.	9254 Nov 11 22:57	26° 8 44'45 29.08444 AU	evening set	9261 May 11 12:38	10° II 32'14	
direct	9255 Jan 30 22:08	25° 8 21'04				
evening set	9255 Apr 28 22:24	27° 8 15'25	conjunction	9261 May 26 22:13	11° II 07'02 -0°38'17	
			minimum elong	9261 May 26 22:13	11° II 07'02 0°38'34	
conjunction	9255 May 14 07:44	27° 8 50'08 -0°26'13	max. Earth dist.	9261 May 27 02:27	11° II 07'26 31.01487 AU	
minimum elong	9255 May 14 07:43	27° 8 50'07 0°26'28	morning rise	9261 Jun 11 08:39	11° II 41'55	
max. Earth dist.	9255 May 14 07:54	27° 8 50'08 31.08034 AU	retrograde	9261 Sep 08 15:16	13° II 38'26	
morning rise	9255 May 29 17:36	28° 8 24'54	opposition	9261 Nov 27 19:15	12° II 14'34 -0°41'55	
	9255 Jul 22 03:44	0° II	min. Earth dist.	9261 Nov 27 14:15	12° II 14'54 29.00909 AU	
retrograde	9255 Aug 26 16:27	0° II 20'42	direct	9262 Feb 15 07:18	10° II 50'58	
	9255 Oct 02 01:49	30° 8 8	evening set	9262 May 13 23:07	12° II 45'08	
opposition	9255 Nov 14 12:41	28° 8 57'14 -0°29'10				
min. Earth dist.	9255 Nov 14 11:23	28° 8 57'19 29.07622 AU	conjunction	9262 May 29 08:37	13° II 19'56 -0°40'07	
direct	9256 Feb 02 09:21	27° 8 33'38	minimum elong	9262 May 29 08:37	13° II 19'56 0°40'25	
evening set	9256 Apr 30 08:40	29° 8 27'59	max. Earth dist.	9262 May 29 13:00	13° II 20'21 31.00332 AU	
	9256 May 14 13:27	0° II	morning rise	9262 Jun 13 19:19	13° II 54'52	
			retrograde	9262 Sep 11 04:25	15° II 51'29	
conjunction	9256 May 15 18:07	0° II 02'43 -0°28'21	opposition	9262 Nov 30 08:21	14° II 27'32 -0°43'51	
minimum elong	9256 May 15 18:07	0° II 02'43 0°28'36	min. Earth dist.	9262 Nov 30 03:12	14° II 27'54 28.99823 AU	
max. Earth dist.	9256 May 15 19:46	0° II 02'52 31.07167 AU	direct	9263 Feb 17 18:11	13° II 03'57	
morning rise	9256 May 31 03:53	0° II 37'31	evening set	9263 May 16 09:24	14° II 58'06	
retrograde	9256 Aug 28 02:43	2° II 33'27				
opposition	9256 Nov 16 01:41	1° II 09'57 -0°31'25	conjunction	9263 May 31 19:10	15° II 32'55 -0°41'53	
min. Earth dist.	9256 Nov 16 00:17	1° II 10'03 29.06708 AU	minimum elong	9263 May 31 19:10	15° II 32'55 0°42'10	
	9257 Jan 05 15:56	30° 8 8	max. Earth dist.	9263 Jun 01 01:27	15° II 33'31 30.99300 AU	
direct	9257 Feb 03 22:01	29° 8 46'24	morning rise	9263 Jun 16 05:54	16° II 07'52	

retrograde	9263 Sep 13 17:30	18°II04'36		evening set	9270 May 31 12:26	0°☾33'47	
opposition	9263 Dec 02 21:22	16°II40'37	-0°45'43				
min. Earth dist.	9263 Dec 02 14:55	16°II41'03	28.98843 AU	conjunction	9270 Jun 15 23:04	1°☾08'45	-0°52'27
direct	9264 Feb 20 07:53	15°II17'03		minimum elong	9270 Jun 15 23:04	1°☾08'45	0°52'45
evening set	9264 May 17 19:58	17°II11'12		max. Earth dist.	9270 Jun 16 09:21	1°☾09'43	30.93703 AU
				morning rise	9270 Jul 01 11:21	1°☾43'53	
conjunction	9264 Jun 02 05:38	17°II46'02	-0°43'36	retrograde	9270 Sep 29 09:47	3°☾41'28	
minimum elong	9264 Jun 02 05:37	17°II46'02	0°43'54	opposition	9270 Dec 18 17:50	2°☾17'17	-0°56'45
max. Earth dist.	9264 Jun 02 11:41	17°II46'37	30.98379 AU	min. Earth dist.	9270 Dec 18 07:14	2°☾18'00	28.93239 AU
morning rise	9264 Jun 17 16:42	18°II21'00		direct	9271 Mar 07 17:13	0°☾53'53	
retrograde	9264 Sep 15 07:25	20°II17'52		evening set	9271 Jun 02 23:35	2°☾48'00	
opposition	9264 Dec 04 10:23	18°II53'51	-0°47'31				
min. Earth dist.	9264 Dec 04 03:08	18°II54'21	28.97985 AU	conjunction	9271 Jun 18 10:18	3°☾22'59	-0°53'39
direct	9265 Feb 21 18:55	17°II30'19		minimum elong	9271 Jun 18 10:18	3°☾22'59	0°53'57
evening set	9265 May 20 06:24	19°II24'28		max. Earth dist.	9271 Jun 18 20:02	3°☾23'54	30.92686 AU
				morning rise	9271 Jul 03 23:01	3°☾58'09	
conjunction	9265 Jun 04 16:19	19°II59'20	-0°45'15	retrograde	9271 Oct 01 23:13	5°☾55'48	
minimum elong	9265 Jun 04 16:19	19°II59'20	0°45'32	opposition	9271 Dec 21 07:13	4°☾31'32	-0°58'00
max. Earth dist.	9265 Jun 05 00:11	20°II00'04	30.97563 AU	min. Earth dist.	9271 Dec 20 21:08	4°☾32'13	28.92176 AU
morning rise	9265 Jun 20 03:25	20°II34'20		direct	9272 Mar 09 04:39	3°☾08'06	
retrograde	9265 Sep 17 18:38	22°II31'19		evening set	9272 Jun 04 10:33	5°☾02'10	
opposition	9265 Dec 06 23:35	21°II07'17	-0°49'15				
min. Earth dist.	9265 Dec 06 15:47	21°II07'49	28.97208 AU	conjunction	9272 Jun 19 21:37	5°☾37'10	-0°54'47
direct	9266 Feb 24 07:34	19°II43'47		minimum elong	9272 Jun 19 21:37	5°☾37'10	0°55'06
evening set	9266 May 22 16:56	21°II37'57		max. Earth dist.	9272 Jun 20 08:46	5°☾38'13	30.91581 AU
				morning rise	9272 Jul 05 10:25	6°☾12'21	
conjunction	9266 Jun 07 02:53	22°II12'49	-0°46'50	retrograde	9272 Oct 03 12:05	8°☾10'04	
minimum elong	9266 Jun 07 02:53	22°II12'49	0°47'08	opposition	9272 Dec 22 20:24	6°☾45'41	-0°59'10
max. Earth dist.	9266 Jun 07 10:43	22°II13'34	30.96829 AU	min. Earth dist.	9272 Dec 22 09:27	6°☾46'27	28.91043 AU
morning rise	9266 Jun 22 14:21	22°II47'51		direct	9273 Mar 11 18:02	5°☾22'13	
retrograde	9266 Sep 20 08:23	24°II44'58		evening set	9273 Jun 06 21:40	7°☾16'15	
opposition	9266 Dec 09 12:45	23°II20'55	-0°50'54				
min. Earth dist.	9266 Dec 09 03:42	23°II21'32	28.96496 AU	conjunction	9273 Jun 22 08:47	7°☾51'15	-0°55'50
direct	9267 Feb 26 19:31	21°II57'28		minimum elong	9273 Jun 22 08:47	7°☾51'15	0°56'08
evening set	9267 May 25 03:39	23°II51'38		max. Earth dist.	9273 Jun 22 19:25	7°☾52'15	30.90453 AU
				morning rise	9273 Jul 07 22:03	8°☾26'27	
conjunction	9267 Jun 09 13:48	24°II26'32	-0°48'21	retrograde	9273 Oct 06 02:01	10°☾24'14	
minimum elong	9267 Jun 09 13:47	24°II26'32	0°48'38	opposition	9273 Dec 25 09:39	8°☾59'45	-1°00'15
max. Earth dist.	9267 Jun 09 22:50	24°II27'23	30.96115 AU	min. Earth dist.	9273 Dec 24 22:14	9°☾00'32	28.89941 AU
morning rise	9267 Jun 25 01:24	25°II01'35		direct	9274 Mar 14 05:09	7°☾36'14	
retrograde	9267 Sep 22 20:26	26°II58'50		evening set	9274 Jun 09 08:34	9°☾30'14	
opposition	9267 Dec 12 01:53	25°II34'46	-0°52'29				
min. Earth dist.	9267 Dec 11 17:18	25°II35'21	28.95783 AU	conjunction	9274 Jun 24 20:04	10°☾05'15	-0°56'48
direct	9268 Feb 29 07:05	24°II11'22		minimum elong	9274 Jun 24 20:04	10°☾05'15	0°57'06
evening set	9268 May 26 14:31	26°II05'32		max. Earth dist.	9274 Jun 25 08:23	10°☾06'25	30.89370 AU
				morning rise	9274 Jul 10 09:30	10°☾40'29	
conjunction	9268 Jun 11 00:47	26°II40'27	-0°49'47	retrograde	9274 Oct 08 14:12	12°☾38'19	
minimum elong	9268 Jun 11 00:47	26°II40'27	0°50'06	opposition	9274 Dec 27 22:49	11°☾13'45	-1°01'14
max. Earth dist.	9268 Jun 11 10:05	26°II41'20	30.95394 AU	min. Earth dist.	9274 Dec 27 10:55	11°☾14'34	28.88900 AU
morning rise	9268 Jun 26 12:38	27°II15'32		direct	9275 Mar 16 18:31	9°☾50'12	
retrograde	9268 Sep 24 08:48	29°II12'54		evening set	9275 Jun 11 19:45	11°☾44'10	
opposition	9268 Dec 13 15:07	27°II48'49	-0°53'59				
min. Earth dist.	9268 Dec 13 05:07	27°II49'30	28.95034 AU	conjunction	9275 Jun 27 07:22	12°☾19'13	-0°57'41
direct	9269 Mar 02 18:57	26°II25'26		minimum elong	9275 Jun 27 07:22	12°☾19'13	0°57'58
evening set	9269 May 29 01:25	28°II19'36		max. Earth dist.	9275 Jun 27 19:31	12°☾20'22	30.88389 AU
				morning rise	9275 Jul 12 21:13	12°☾54'28	
conjunction	9269 Jun 13 11:46	28°II54'32	-0°51'09	retrograde	9275 Oct 11 04:44	14°☾52'22	
minimum elong	9269 Jun 13 11:46	28°II54'32	0°51'27	opposition	9275 Dec 30 11:44	13°☾27'45	-1°02'08
max. Earth dist.	9269 Jun 13 21:17	28°II55'26	30.94595 AU	min. Earth dist.	9275 Dec 29 22:39	13°☾28'39	28.87982 AU
morning rise	9269 Jun 28 23:53	29°II29'39		direct	9276 Mar 18 06:53	12°☾04'10	
	9269 Jul 13 02:24	0°☾		evening set	9276 Jun 13 06:52	13°☾58'08	
retrograde	9269 Sep 26 20:51	1°☾27'09					
opposition	9269 Dec 16 04:37	0°☾03'01	-0°55'25	conjunction	9276 Jun 28 18:47	14°☾33'12	-0°58'29
min. Earth dist.	9269 Dec 15 19:15	0°☾03'39	28.94195 AU	minimum elong	9276 Jun 28 18:47	14°☾33'12	0°58'47
	9269 Dec 18 00:33	30°RII		max. Earth dist.	9276 Jun 29 08:15	14°☾34'29	30.87522 AU
direct	9270 Mar 05 05:23	28°II39'39		morning rise	9276 Jul 14 08:52	15°☾08'29	
	9270 May 15 16:45	0°☾		retrograde	9276 Oct 12 16:47	17°☾06'28	

min. Earth dist.	9276 Dec 31 11:58	15° $\overline{04}$ 42'41	28.87183 AU	conjunction	9283 Jul 15 05:08	0° $\overline{01}$ 15'38	-1°01'30
opposition	9277 Jan 01 00:55	15° $\overline{04}$ 41'48	-1°02'56	minimum elong	9283 Jul 15 05:08	0° $\overline{01}$ 15'38	1°01'45
direct	9277 Mar 20 18:58	14° $\overline{06}$ 18'14		max. Earth dist.	9283 Jul 15 21:32	0° $\overline{01}$ 17'11	30.83459 AU
evening set	9277 Jun 15 17:54	16° $\overline{06}$ 12'11		morning rise	9283 Jul 30 21:38	0° $\overline{01}$ 51'08	
				retrograde	9283 Oct 29 13:44	2° $\overline{01}$ 49'41	
conjunction	9277 Jul 01 06:06	16° $\overline{06}$ 47'16	-0°59'11	opposition	9284 Jan 17 20:26	1° $\overline{01}$ 24'56	-1°05'49
minimum elong	9277 Jul 01 06:06	16° $\overline{06}$ 47'16	0°59'28	min. Earth dist.	9284 Jan 17 05:04	1° $\overline{01}$ 25'59	28.83147 AU
max. Earth dist.	9277 Jul 01 20:07	16° $\overline{06}$ 48'36	30.86796 AU	direct	9284 Apr 05 03:35	0° $\overline{01}$ 01'27	
morning rise	9277 Jul 16 20:32	17° $\overline{06}$ 22'35		evening set	9284 Jul 01 02:57	1° $\overline{01}$ 55'30	
retrograde	9277 Oct 15 05:45	19° $\overline{06}$ 20'39					
opposition	9278 Jan 03 13:59	17° $\overline{06}$ 55'58	-1°03'38	conjunction	9284 Jul 16 17:15	2° $\overline{01}$ 30'46	-1°01'33
min. Earth dist.	9278 Jan 02 23:22	17° $\overline{06}$ 56'59	28.86515 AU	minimum elong	9284 Jul 16 17:16	2° $\overline{01}$ 30'46	1°01'49
direct	9278 Mar 23 06:58	16° $\overline{06}$ 32'25		max. Earth dist.	9284 Jul 17 08:52	2° $\overline{01}$ 32'15	30.82731 AU
evening set	9278 Jun 18 05:12	18° $\overline{06}$ 26'23		morning rise	9284 Aug 01 10:16	3° $\overline{01}$ 06'18	
				retrograde	9284 Oct 31 05:20	5° $\overline{01}$ 04'53	
conjunction	9278 Jul 03 17:37	19° $\overline{06}$ 01'30	-0°59'48	opposition	9285 Jan 19 09:28	3° $\overline{01}$ 40'03	-1°05'50
minimum elong	9278 Jul 03 17:37	19° $\overline{06}$ 01'30	1°00'06	min. Earth dist.	9285 Jan 18 17:28	3° $\overline{01}$ 41'10	28.82395 AU
max. Earth dist.	9278 Jul 04 08:05	19° $\overline{06}$ 02'52	30.86174 AU	direct	9285 Apr 07 16:36	2° $\overline{01}$ 16'32	
morning rise	9278 Jul 19 08:26	19° $\overline{06}$ 36'51		evening set	9285 Jul 03 14:36	4° $\overline{01}$ 10'33	
retrograde	9278 Oct 17 18:04	21° $\overline{06}$ 35'01					
opposition	9279 Jan 06 03:03	20° $\overline{06}$ 10'19	-1°04'15	conjunction	9285 Jul 19 05:20	4° $\overline{01}$ 45'51	-1°01'32
min. Earth dist.	9279 Jan 05 12:57	20° $\overline{06}$ 11'18	28.85948 AU	minimum elong	9285 Jul 19 05:20	4° $\overline{01}$ 45'51	1°01'47
direct	9279 Mar 25 17:15	18° $\overline{06}$ 46'48		max. Earth dist.	9285 Jul 19 21:52	4° $\overline{01}$ 47'25	30.81961 AU
evening set	9279 Jun 20 16:30	20° $\overline{06}$ 40'47		morning rise	9285 Aug 03 22:40	5° $\overline{01}$ 21'24	
				retrograde	9285 Nov 02 17:19	7° $\overline{01}$ 20'00	
conjunction	9279 Jul 06 05:20	21° $\overline{06}$ 15'56	-1°00'19	opposition	9286 Jan 21 22:30	5° $\overline{01}$ 55'05	-1°05'45
minimum elong	9279 Jul 06 05:20	21° $\overline{06}$ 15'56	1°00'37	min. Earth dist.	9286 Jan 21 07:04	5° $\overline{01}$ 56'09	28.81632 AU
max. Earth dist.	9279 Jul 06 20:48	21° $\overline{06}$ 17'24	30.85649 AU	direct	9286 Apr 10 05:07	4° $\overline{01}$ 31'31	
morning rise	9279 Jul 21 20:25	21° $\overline{06}$ 51'18		evening set	9286 Jul 06 02:25	6° $\overline{01}$ 25'30	
retrograde	9279 Oct 20 07:19	23° $\overline{06}$ 49'34					
opposition	9280 Jan 08 16:02	22° $\overline{06}$ 24'52	-1°04'46	conjunction	9286 Jul 21 17:32	7° $\overline{01}$ 00'49	-1°01'24
min. Earth dist.	9280 Jan 08 00:31	22° $\overline{06}$ 25'57	28.85443 AU	minimum elong	9286 Jul 21 17:32	7° $\overline{01}$ 00'49	1°01'40
direct	9280 Mar 27 04:44	21° $\overline{06}$ 01'23		max. Earth dist.	9286 Jul 22 10:12	7° $\overline{01}$ 02'24	30.81232 AU
evening set	9280 Jun 22 03:58	22° $\overline{06}$ 55'24		morning rise	9286 Aug 06 11:18	7° $\overline{01}$ 36'23	
				retrograde	9286 Nov 05 07:05	9° $\overline{01}$ 34'59	
conjunction	9280 Jul 07 16:55	23° $\overline{06}$ 30'34	-1°00'45	opposition	9287 Jan 24 11:09	8° $\overline{01}$ 10'00	-1°05'34
minimum elong	9280 Jul 07 16:55	23° $\overline{06}$ 30'34	1°01'03	min. Earth dist.	9287 Jan 23 18:30	8° $\overline{01}$ 11'10	28.80940 AU
max. Earth dist.	9280 Jul 08 08:03	23° $\overline{06}$ 32'00	30.85155 AU	direct	9287 Apr 12 18:04	6° $\overline{01}$ 46'23	
morning rise	9280 Jul 23 08:27	24° $\overline{06}$ 05'59		evening set	9287 Jul 08 14:17	8° $\overline{01}$ 40'20	
retrograde	9280 Oct 21 20:39	26° $\overline{06}$ 04'21					
opposition	9281 Jan 10 05:12	24° $\overline{06}$ 39'39	-1°05'10	conjunction	9287 Jul 24 05:43	9° $\overline{01}$ 15'41	-1°01'11
min. Earth dist.	9281 Jan 09 14:14	24° $\overline{06}$ 40'41	28.84961 AU	minimum elong	9287 Jul 24 05:43	9° $\overline{01}$ 15'41	1°01'26
direct	9281 Mar 29 15:22	23° $\overline{06}$ 16'12		max. Earth dist.	9287 Jul 24 22:37	9° $\overline{01}$ 17'17	30.80579 AU
evening set	9281 Jun 24 15:31	25° $\overline{06}$ 10'14		morning rise	9287 Aug 08 23:55	9° $\overline{01}$ 51'17	
				retrograde	9287 Nov 07 20:01	11° $\overline{01}$ 49'52	
conjunction	9281 Jul 10 04:56	25° $\overline{06}$ 45'26	-1°01'06	min. Earth dist.	9288 Jan 26 07:58	10° $\overline{01}$ 25'57	28.80355 AU
minimum elong	9281 Jul 10 04:56	25° $\overline{06}$ 45'26	1°01'22	opposition	9288 Jan 27 00:00	10° $\overline{01}$ 24'50	-1°05'18
max. Earth dist.	9281 Jul 10 21:21	25° $\overline{06}$ 47'00	30.84662 AU	direct	9288 Apr 14 05:41	9° $\overline{01}$ 01'11	
morning rise	9281 Jul 25 20:40	26° $\overline{06}$ 20'53		evening set	9288 Jul 10 01:58	10° $\overline{01}$ 55'06	
retrograde	9281 Oct 24 10:00	28° $\overline{06}$ 19'20					
opposition	9282 Jan 12 18:17	26° $\overline{06}$ 54'38	-1°05'29	conjunction	9288 Jul 25 17:51	11° $\overline{01}$ 30'28	-1°00'53
min. Earth dist.	9282 Jan 12 02:40	26° $\overline{06}$ 55'43	28.84441 AU	minimum elong	9288 Jul 25 17:52	11° $\overline{01}$ 30'28	1°01'08
direct	9282 Apr 01 03:37	25° $\overline{06}$ 31'12		max. Earth dist.	9288 Jul 26 11:44	11° $\overline{01}$ 32'10	30.80064 AU
evening set	9282 Jun 27 03:17	27° $\overline{06}$ 25'15		morning rise	9288 Aug 10 12:21	12° $\overline{01}$ 06'06	
				retrograde	9288 Nov 09 08:37	14° $\overline{01}$ 04'42	
conjunction	9282 Jul 12 16:52	28° $\overline{06}$ 00'29	-1°01'21	opposition	9289 Jan 28 12:41	12° $\overline{01}$ 39'37	-1°04'55
minimum elong	9282 Jul 12 16:53	28° $\overline{06}$ 00'29	1°01'37	min. Earth dist.	9289 Jan 27 19:08	12° $\overline{01}$ 40'51	28.79908 AU
max. Earth dist.	9282 Jul 13 08:18	28° $\overline{06}$ 01'57	30.84109 AU	direct	9289 Apr 16 18:14	11° $\overline{01}$ 15'57	
morning rise	9282 Jul 28 09:10	28° $\overline{06}$ 35'57		evening set	9289 Jul 12 13:56	13° $\overline{01}$ 09'51	
	9282 Sep 10 16:22	0° $\overline{01}$					
retrograde	9282 Oct 27 00:33	0° $\overline{01}$ 34'29		conjunction	9289 Jul 28 06:04	13° $\overline{01}$ 45'14	-1°00'29
	9282 Dec 13 20:50	30° $\overline{01}$ 48		minimum elong	9289 Jul 28 06:04	13° $\overline{01}$ 45'14	1°00'43
opposition	9283 Jan 15 07:26	29° $\overline{01}$ 09'46	-1°05'42	max. Earth dist.	9289 Jul 28 23:38	13° $\overline{01}$ 46'54	30.79692 AU
min. Earth dist.	9283 Jan 14 15:59	29° $\overline{01}$ 10'50	28.83850 AU	morning rise	9289 Aug 13 01:06	14° $\overline{01}$ 20'54	
direct	9283 Apr 03 14:01	27° $\overline{01}$ 46'19			9289 Aug 31 12:23	15° $\overline{01}$	
evening set	9283 Jun 29 15:04	29° $\overline{01}$ 40'23		retrograde	9289 Nov 11 20:42	16° $\overline{01}$ 19'31	
	9283 Jul 08 08:33	0° $\overline{01}$			9290 Jan 27 17:06	15° $\overline{01}$ 48	

min. Earth dist.	9290 Jan 30 08:18	14°Ω55'36	28.79622 AU	minimum elong	9296 Aug 12 22:49	29°Ω31'09	0°55'17
opposition	9290 Jan 31 01:26	14°Ω54'24	-1°04'26	max. Earth dist.	9296 Aug 13 17:06	29°Ω32'53	30.79391 AU
direct	9290 Apr 19 04:34	13°Ω30'43			9296 Aug 25 17:15	0°൬	
	9290 Jul 03 16:03	15°Ω		morning rise	9296 Aug 28 20:39	0°൬06'59	
evening set	9290 Jul 15 01:45	15°Ω24'37		retrograde	9296 Nov 27 20:56	2°൬05'41	
				opposition	9297 Feb 15 17:44	0°൬40'37	-0°58'21
conjunction	9290 Jul 30 18:29	16°Ω00'02	-1°00'00	min. Earth dist.	9297 Feb 15 01:00	0°൬41'47	28.79355 AU
minimum elong	9290 Jul 30 18:29	16°Ω00'02	1°00'13		9297 Mar 12 23:38	30°ᑦᑕᑕ	
max. Earth dist.	9290 Jul 31 13:30	16°Ω01'50	30.79481 AU	direct	9297 May 04 15:54	29°Ω16'58	
morning rise	9290 Aug 15 13:47	16°Ω35'43			9297 Jun 24 10:45	0°൬	
retrograde	9290 Nov 14 08:58	18°Ω34'20		evening set	9297 Jul 30 16:19	1°൬10'57	
opposition	9291 Feb 02 14:01	17°Ω09'14	-1°03'52				
min. Earth dist.	9291 Feb 01 20:01	17°Ω10'30	28.79470 AU	conjunction	9297 Aug 15 11:53	1°൬46'33	-0°54'00
direct	9291 Apr 21 16:18	15°Ω45'33		minimum elong	9297 Aug 15 11:53	1°൬46'33	0°54'10
evening set	9291 Jul 17 13:54	17°Ω39'28		max. Earth dist.	9297 Aug 16 06:20	1°൬48'17	30.79224 AU
				morning rise	9297 Aug 31 10:04	2°൬22'24	
conjunction	9291 Aug 02 06:50	18°Ω14'54	-0°59'24	retrograde	9297 Nov 30 10:03	4°൬21'03	
minimum elong	9291 Aug 02 06:50	18°Ω14'54	0°59'37	opposition	9298 Feb 18 06:01	2°൬55'58	-0°57'07
max. Earth dist.	9291 Aug 03 01:05	18°Ω16'37	30.79395 AU	min. Earth dist.	9298 Feb 17 12:29	2°൬57'12	28.79167 AU
morning rise	9291 Aug 18 02:42	18°Ω50'36		direct	9298 May 07 05:02	1°൬32'16	
retrograde	9291 Nov 16 23:10	20°Ω49'16		evening set	9298 Aug 02 04:59	3°൬26'15	
min. Earth dist.	9292 Feb 04 08:40	19°Ω25'25	28.79444 AU				
opposition	9292 Feb 05 02:37	19°Ω24'10	-1°03'11	conjunction	9298 Aug 18 00:51	4°൬01'51	-0°52'48
direct	9292 Apr 23 02:14	18°Ω00'29		minimum elong	9298 Aug 18 00:51	4°൬01'51	0°52'57
evening set	9292 Jul 19 01:58	19°Ω54'25		max. Earth dist.	9298 Aug 18 18:28	4°൬03'31	30.79036 AU
				morning rise	9298 Sep 02 23:35	4°൬37'45	
conjunction	9292 Aug 03 19:26	20°Ω29'53	-0°58'44	retrograde	9298 Dec 02 22:17	6°൬36'21	
minimum elong	9292 Aug 03 19:27	20°Ω29'53	0°58'56	opposition	9299 Feb 20 18:26	5°൬11'14	-0°55'47
max. Earth dist.	9292 Aug 04 14:59	20°Ω31'44	30.79410 AU	min. Earth dist.	9299 Feb 20 01:53	5°൬12'23	28.78998 AU
morning rise	9292 Aug 19 15:33	21°Ω05'37		direct	9299 May 09 15:52	3°൬47'29	
retrograde	9292 Nov 18 11:57	23°Ω04'18		evening set	9299 Aug 04 17:29	5°൬41'27	
opposition	9293 Feb 06 15:17	21°Ω39'14	-1°02'24				
min. Earth dist.	9293 Feb 05 21:16	21°Ω40'29	28.79486 AU	conjunction	9299 Aug 20 13:54	6°൬17'05	-0°51'32
direct	9293 Apr 25 14:53	20°Ω15'35		minimum elong	9299 Aug 20 13:54	6°൬17'05	0°51'40
evening set	9293 Jul 21 14:13	22°Ω09'32		max. Earth dist.	9299 Aug 21 08:31	6°൬18'51	30.78893 AU
				morning rise	9299 Sep 05 12:51	6°൬52'59	
conjunction	9293 Aug 06 07:59	22°Ω45'02	-0°57'58	retrograde	9299 Dec 05 10:26	8°൬51'32	
minimum elong	9293 Aug 06 07:59	22°Ω45'02	0°58'09	opposition	9300 Feb 23 06:34	7°൬26'24	-0°54'23
max. Earth dist.	9293 Aug 07 02:41	22°Ω46'48	30.79480 AU	min. Earth dist.	9300 Feb 22 13:25	7°൬27'37	28.78888 AU
morning rise	9293 Aug 22 04:39	23°Ω20'47		direct	9300 May 12 03:50	6°൬02'38	
retrograde	9293 Nov 21 03:25	25°Ω19'30		evening set	9300 Aug 07 06:09	7°൬56'35	
min. Earth dist.	9294 Feb 08 09:35	23°Ω55'43	28.79558 AU				
opposition	9294 Feb 09 03:56	23°Ω54'27	-1°01'32	conjunction	9300 Aug 23 02:49	8°൬32'14	-0°50'11
direct	9294 Apr 28 02:40	22°Ω30'49		minimum elong	9300 Aug 23 02:49	8°൬32'14	0°50'18
evening set	9294 Jul 24 02:42	24°Ω24'48		max. Earth dist.	9300 Aug 23 20:27	8°൬33'54	30.78840 AU
				morning rise	9300 Sep 08 02:21	9°൬08'10	
conjunction	9294 Aug 08 20:56	25°Ω00'19	-0°57'06	retrograde	9300 Dec 07 23:39	11°൬06'41	
minimum elong	9294 Aug 08 20:56	25°Ω00'19	0°57'17	opposition	9301 Feb 25 18:49	9°൬41'32	-0°52'54
max. Earth dist.	9294 Aug 09 16:10	25°Ω02'08	30.79524 AU	min. Earth dist.	9301 Feb 25 01:55	9°൬42'43	28.78904 AU
morning rise	9294 Aug 24 17:55	25°Ω36'06		direct	9301 May 14 13:56	8°൬17'43	
retrograde	9294 Nov 23 16:07	27°Ω34'50		evening set	9301 Aug 09 18:37	10°൬11'41	
opposition	9295 Feb 11 16:29	26°Ω09'48	-1°00'34				
min. Earth dist.	9295 Feb 10 23:10	26°Ω11'00	28.79573 AU	conjunction	9301 Aug 25 15:53	10°൬47'21	-0°48'45
direct	9295 Apr 30 14:32	24°Ω46'10		minimum elong	9301 Aug 25 15:53	10°൬47'21	0°48'52
evening set	9295 Jul 26 15:17	26°Ω40'11		max. Earth dist.	9301 Aug 26 10:41	10°൬49'07	30.78915 AU
				morning rise	9301 Sep 10 15:39	11°൬23'18	
conjunction	9295 Aug 11 09:56	27°Ω15'43	-0°56'09	retrograde	9301 Dec 10 11:09	13°൬21'46	
minimum elong	9295 Aug 11 09:56	27°Ω15'43	0°56'20	opposition	9302 Feb 28 06:57	11°൬56'37	-0°51'19
max. Earth dist.	9295 Aug 12 04:31	27°Ω17'29	30.79508 AU	min. Earth dist.	9302 Feb 27 13:59	11°൬57'49	28.79040 AU
morning rise	9295 Aug 27 07:21	27°Ω51'32		direct	9302 May 17 02:27	10°൬32'48	
retrograde	9295 Nov 26 07:23	29°Ω50'14		evening set	9302 Aug 12 07:24	12°൬26'46	
min. Earth dist.	9296 Feb 13 11:07	28°Ω26'28	28.79507 AU				
opposition	9296 Feb 14 05:03	28°Ω25'12	-0°59'30	conjunction	9302 Aug 28 04:58	13°൬02'28	-0°47'15
direct	9296 May 02 03:45	27°Ω01'34		minimum elong	9302 Aug 28 04:58	13°൬02'28	0°47'21
evening set	9296 Jul 28 03:48	28°Ω55'35		max. Earth dist.	9302 Aug 28 22:47	13°൬04'09	30.79131 AU
				morning rise	9302 Sep 13 05:15	13°൬38'25	
conjunction	9296 Aug 12 22:49	29°Ω31'09	-0°55'07	retrograde	9302 Dec 13 01:25	15°൬36'51	

opposition	9303 Mar 02 18:53	14° <u>11</u> '44 -0°49'40	max. Earth dist.	9309 Sep 13 18:00	28° <u>11</u> '18 30.82279 AU
min. Earth dist.	9303 Mar 02 01:31	14° <u>11</u> '57 28.79328 AU	morning rise	9309 Sep 29 05:30	29° <u>11</u> '25'57
direct	9303 May 19 13:23	12° <u>11</u> '47'54		9309 Oct 15 07:49	0° <u>11</u>
evening set	9303 Aug 14 20:08	14° <u>11</u> '41'53	retrograde	9309 Dec 28 23:19	1° <u>11</u> '23'58
				9310 Mar 17 16:57	30° <u>11</u> ' <u>11</u>
conjunction	9303 Aug 30 18:10	15° <u>11</u> '17'37 -0°45'40	opposition	9310 Mar 18 06:44	29° <u>11</u> '59'02 -0°36'07
minimum elong	9303 Aug 30 18:11	15° <u>11</u> '17'37 0°45'46	min. Earth dist.	9310 Mar 17 16:32	0° <u>11</u> '00'02 28.82433 AU
max. Earth dist.	9303 Aug 31 12:47	15° <u>11</u> '19'22 30.79479 AU	direct	9310 Jun 04 02:24	28° <u>11</u> '35'09
morning rise	9303 Sep 15 18:44	15° <u>11</u> '53'35		9310 Aug 16 21:38	0° <u>11</u>
retrograde	9303 Dec 15 13:42	17° <u>11</u> '51'59	evening set	9310 Aug 30 15:36	0° <u>11</u> '29'13
opposition	9304 Mar 04 07:00	16° <u>11</u> '26'53 -0°47'57			
min. Earth dist.	9304 Mar 03 14:20	16° <u>11</u> '28'04 28.79737 AU	conjunction	9310 Sep 15 16:28	1° <u>11</u> '05'04 -0°32'47
direct	9304 May 21 00:28	15° <u>11</u> '03'04	minimum elong	9310 Sep 15 16:28	1° <u>11</u> '05'04 0°32'48
evening set	9304 Aug 16 08:47	16° <u>11</u> '57'05	max. Earth dist.	9310 Sep 16 08:13	1° <u>11</u> '06'32 30.82527 AU
			morning rise	9310 Oct 01 19:21	1° <u>11</u> '41'08
conjunction	9304 Sep 01 07:14	17° <u>11</u> '32'49 -0°44'01	retrograde	9310 Dec 31 10:00	3° <u>11</u> '39'02
minimum elong	9304 Sep 01 07:14	17° <u>11</u> '32'50 0°44'06	opposition	9311 Mar 20 18:20	2° <u>11</u> '14'06 -0°33'57
max. Earth dist.	9304 Sep 02 01:27	17° <u>11</u> '34'32 30.79958 AU	min. Earth dist.	9311 Mar 20 04:37	2° <u>11</u> '15'04 28.82661 AU
morning rise	9304 Sep 17 08:13	18° <u>11</u> '08'49	direct	9311 Jun 06 14:52	0° <u>11</u> '50'09
retrograde	9304 Dec 17 05:04	20° <u>11</u> '07'11	evening set	9311 Sep 02 04:52	2° <u>11</u> '44'12
opposition	9305 Mar 06 19:01	18° <u>11</u> '42'08 -0°46'08			
min. Earth dist.	9305 Mar 06 01:37	18° <u>11</u> '43'21 28.80256 AU	conjunction	9311 Sep 18 05:56	3° <u>11</u> '20'03 -0°30'44
direct	9305 May 23 13:51	17° <u>11</u> '18'20	minimum elong	9311 Sep 18 05:56	3° <u>11</u> '20'03 0°30'44
evening set	9305 Aug 18 21:46	19° <u>11</u> '12'23	max. Earth dist.	9311 Sep 18 20:12	3° <u>11</u> '21'23 30.82771 AU
			morning rise	9311 Oct 04 09:16	3° <u>11</u> '56'08
conjunction	9305 Sep 03 20:34	19° <u>11</u> '48'09 -0°42'18	retrograde	9312 Jan 02 23:22	5° <u>11</u> '53'55
minimum elong	9305 Sep 03 20:34	19° <u>11</u> '48'09 0°42'23	opposition	9312 Mar 22 05:55	4° <u>11</u> '28'57 -0°31'43
max. Earth dist.	9305 Sep 04 14:40	19° <u>11</u> '49'51 30.80502 AU	min. Earth dist.	9312 Mar 21 16:11	4° <u>11</u> '29'56 28.82924 AU
morning rise	9305 Sep 19 21:55	20° <u>11</u> '24'09	direct	9312 Jun 08 01:40	3° <u>11</u> '04'57
retrograde	9305 Dec 19 18:28	22° <u>11</u> '22'29	evening set	9312 Sep 03 17:49	4° <u>11</u> '58'59
opposition	9306 Mar 09 07:00	20° <u>11</u> '57'29 -0°44'16			
min. Earth dist.	9306 Mar 08 14:59	20° <u>11</u> '58'36 28.80817 AU	conjunction	9312 Sep 19 19:21	5° <u>11</u> '34'51 -0°28'38
direct	9306 May 26 01:52	19° <u>11</u> '33'42	minimum elong	9312 Sep 19 19:21	5° <u>11</u> '34'51 0°28'37
evening set	9306 Aug 21 10:48	21° <u>11</u> '27'47	max. Earth dist.	9312 Sep 20 10:11	5° <u>11</u> '36'14 30.83054 AU
			morning rise	9312 Oct 05 22:50	6° <u>11</u> '10'56
conjunction	9306 Sep 06 10:07	22° <u>11</u> '03'34 -0°40'30	retrograde	9313 Jan 04 10:19	8° <u>11</u> '08'37
minimum elong	9306 Sep 06 10:07	22° <u>11</u> '03'34 0°40'34	opposition	9313 Mar 24 17:30	6° <u>11</u> '43'39 -0°29'27
max. Earth dist.	9306 Sep 07 04:01	22° <u>11</u> '05'15 30.81067 AU	min. Earth dist.	9313 Mar 24 04:42	6° <u>11</u> '44'33 28.83245 AU
morning rise	9306 Sep 22 11:45	22° <u>11</u> '39'36	direct	9313 Jun 10 13:08	5° <u>11</u> '19'35
retrograde	9306 Dec 22 08:26	24° <u>11</u> '37'52	evening set	9313 Sep 06 07:01	7° <u>11</u> '13'37
opposition	9307 Mar 11 18:55	23° <u>11</u> '12'55 -0°42'19			
min. Earth dist.	9307 Mar 11 02:23	23° <u>11</u> '14'05 28.81353 AU	conjunction	9313 Sep 22 08:51	7° <u>11</u> '49'30 -0°26'30
direct	9307 May 28 15:02	21° <u>11</u> '49'09	minimum elong	9313 Sep 22 08:51	7° <u>11</u> '49'30 0°26'29
evening set	9307 Aug 24 00:02	23° <u>11</u> '43'15	max. Earth dist.	9313 Sep 22 22:54	7° <u>11</u> '50'49 30.83434 AU
			morning rise	9313 Oct 08 12:42	8° <u>11</u> '25'35
conjunction	9307 Sep 08 23:33	24° <u>11</u> '19'03 -0°38'40	retrograde	9314 Jan 07 00:06	10° <u>11</u> '23'09
minimum elong	9307 Sep 08 23:33	24° <u>11</u> '19'03 0°38'42	opposition	9314 Mar 27 04:46	8° <u>11</u> '58'11 -0°27'09
max. Earth dist.	9307 Sep 09 16:12	24° <u>11</u> '20'37 30.81560 AU	min. Earth dist.	9314 Mar 26 15:25	8° <u>11</u> '59'08 28.83680 AU
morning rise	9307 Sep 25 01:36	24° <u>11</u> '55'06	direct	9314 Jun 13 02:08	7° <u>11</u> '34'05
retrograde	9307 Dec 24 21:53	26° <u>11</u> '53'19	evening set	9314 Sep 08 20:14	9° <u>11</u> '28'08
opposition	9308 Mar 13 06:58	25° <u>11</u> '28'23 -0°40'18			
min. Earth dist.	9308 Mar 12 15:52	25° <u>11</u> '29'27 28.81807 AU	conjunction	9314 Sep 24 22:22	10° <u>11</u> '04'02 -0°24'19
direct	9308 May 30 02:21	24° <u>11</u> '04'36	minimum elong	9314 Sep 24 22:23	10° <u>11</u> '04'02 0°24'17
evening set	9308 Aug 25 13:10	25° <u>11</u> '58'42	max. Earth dist.	9314 Sep 25 12:20	10° <u>11</u> '05'20 30.83923 AU
			morning rise	9314 Oct 11 02:26	10° <u>11</u> '40'07
conjunction	9308 Sep 10 13:15	26° <u>11</u> '34'31 -0°36'45	retrograde	9315 Jan 09 12:05	12° <u>11</u> '37'35
minimum elong	9308 Sep 10 13:16	26° <u>11</u> '34'31 0°36'47	opposition	9315 Mar 29 16:13	11° <u>11</u> '12'39 -0°24'48
max. Earth dist.	9308 Sep 11 06:10	26° <u>11</u> '36'07 30.81968 AU	min. Earth dist.	9315 Mar 29 04:04	11° <u>11</u> '13'30 28.84240 AU
morning rise	9308 Sep 26 15:29	27° <u>11</u> '10'34	direct	9315 Jun 15 13:49	9° <u>11</u> '48'32
retrograde	9308 Dec 26 11:04	29° <u>11</u> '08'42	evening set	9315 Sep 11 09:16	11° <u>11</u> '42'36
opposition	9309 Mar 15 18:51	27° <u>11</u> '43'47 -0°38'14			
min. Earth dist.	9309 Mar 15 03:42	27° <u>11</u> '44'51 28.82156 AU	conjunction	9315 Sep 27 11:47	12° <u>11</u> '18'30 -0°22'07
direct	9309 Jun 01 15:23	26° <u>11</u> '19'57	minimum elong	9315 Sep 27 11:47	12° <u>11</u> '18'30 0°22'04
evening set	9309 Aug 28 02:25	28° <u>11</u> '14'02	max. Earth dist.	9315 Sep 28 01:41	12° <u>11</u> '19'48 30.84560 AU
			morning rise	9315 Oct 13 16:01	12° <u>11</u> '54'35
conjunction	9309 Sep 13 02:45	28° <u>11</u> '49'53 -0°34'48	retrograde	9316 Jan 12 01:42	14° <u>11</u> '51'58
minimum elong	9309 Sep 13 02:45	28° <u>11</u> '49'53 0°34'49	opposition	9316 Mar 31 03:29	13° <u>11</u> '27'05 -0°22'25

min. Earth dist.	9316 Mar 30 14:28	13° <u>0</u> 28'00	28.84941 AU	opposition	9322 Apr 13 22:47	26° <u>0</u> 55'01	-0°07'31
direct	9316 Jun 17 02:47	12° <u>0</u> 02'58		min. Earth dist.	9322 Apr 13 14:21	26° <u>0</u> 55'37	28.90075 AU
evening set	9316 Sep 12 22:31	13° <u>0</u> 57'04		direct	9322 Jun 30 23:05	25° <u>0</u> 30'54	
				evening set	9322 Sep 27 07:06	27° <u>0</u> 25'13	
conjunction	9316 Sep 29 01:13	14° <u>0</u> 32'59	-0°19'52				
minimum elong	9316 Sep 29 01:13	14° <u>0</u> 32'59	0°19'48	conjunction	9322 Oct 13 11:25	28° <u>0</u> 01'11	-0°05'55
max. Earth dist.	9316 Sep 29 14:18	14° <u>0</u> 34'12	30.85331 AU	minimum elong	9322 Oct 13 11:25	28° <u>0</u> 01'11	0°05'47
morning rise	9316 Oct 15 05:47	15° <u>0</u> 09'05		behind sun begin	9322 Oct 13 05:08	28° <u>0</u> 00'37	
retrograde	9317 Jan 13 15:10	17° <u>0</u> 06'23		behind sun end	9322 Oct 13 17:42	28° <u>0</u> 01'44	
opposition	9317 Apr 02 14:49	15° <u>0</u> 41'34	-0°19'59	max. Earth dist.	9322 Oct 13 20:16	28° <u>0</u> 01'59	30.90411 AU
min. Earth dist.	9317 Apr 02 02:57	15° <u>0</u> 42'24	28.85781 AU	morning rise	9322 Oct 29 16:55	28° <u>0</u> 37'17	
direct	9317 Jun 19 13:56	14° <u>0</u> 17'28			9322 Dec 12 21:53	0° <u>0</u> 00'00	
evening set	9317 Sep 15 11:40	16° <u>0</u> 11'36		retrograde	9323 Jan 27 16:04	0° <u>0</u> 33'59	
					9323 Mar 15 09:26	30° <u>0</u> 00'00	
conjunction	9317 Oct 01 14:51	16° <u>0</u> 47'33	-0°17'35	opposition	9323 Apr 16 09:47	29° <u>0</u> 09'31	-0°04'58
minimum elong	9317 Oct 01 14:51	16° <u>0</u> 47'33	0°17'31	min. Earth dist.	9323 Apr 16 01:15	29° <u>0</u> 10'07	28.90738 AU
max. Earth dist.	9317 Oct 02 04:24	16° <u>0</u> 48'48	30.86227 AU	direct	9323 Jul 03 11:55	27° <u>0</u> 45'21	
morning rise	9317 Oct 17 19:31	17° <u>0</u> 23'39		evening set	9323 Sep 29 20:26	29° <u>0</u> 39'40	
retrograde	9318 Jan 16 04:30	19° <u>0</u> 20'52			9323 Oct 09 01:18	0° <u>0</u> 00'00	
opposition	9318 Apr 05 02:01	17° <u>0</u> 56'08	-0°17'32				
min. Earth dist.	9318 Apr 04 14:00	17° <u>0</u> 56'59	28.86700 AU	conjunction	9323 Oct 16 00:57	0° <u>0</u> 15'38	-0°03'33
direct	9318 Jun 22 02:53	16° <u>0</u> 32'04		minimum elong	9323 Oct 16 00:56	0° <u>0</u> 15'38	0°03'25
evening set	9318 Sep 18 01:11	18° <u>0</u> 26'16		behind sun begin	9323 Oct 15 18:24	0° <u>0</u> 15'03	
				behind sun end	9323 Oct 16 07:28	0° <u>0</u> 16'13	
conjunction	9318 Oct 04 04:27	19° <u>0</u> 02'13	-0°15'17	max. Earth dist.	9323 Oct 16 09:27	0° <u>0</u> 16'24	30.91051 AU
minimum elong	9318 Oct 04 04:26	19° <u>0</u> 02'13	0°15'12	morning rise	9323 Nov 01 06:28	0° <u>0</u> 51'43	
behind sun begin	9318 Oct 04 02:32	19° <u>0</u> 02'02		retrograde	9324 Jan 30 02:53	2° <u>0</u> 48'17	
behind sun end	9318 Oct 04 06:21	19° <u>0</u> 02'23		opposition	9324 Apr 17 20:50	1° <u>0</u> 23'49	-0°02'26
max. Earth dist.	9318 Oct 04 16:25	19° <u>0</u> 03'19	30.87167 AU	min. Earth dist.	9324 Apr 17 13:53	1° <u>0</u> 24'19	28.91379 AU
morning rise	9318 Oct 20 09:25	19° <u>0</u> 38'19			9324 Jun 30 02:55	30° <u>0</u> 00'00	
retrograde	9319 Jan 18 16:46	21° <u>0</u> 35'28		direct	9324 Jul 04 23:02	29° <u>0</u> 59'35	
opposition	9319 Apr 07 13:12	20° <u>0</u> 10'49	-0°15'03		9324 Jul 09 20:45	0° <u>0</u> 00'00	
min. Earth dist.	9319 Apr 07 02:14	20° <u>0</u> 11'36	28.87648 AU	evening set	9324 Oct 01 09:45	1° <u>0</u> 53'54	
direct	9319 Jun 24 13:27	18° <u>0</u> 46'46					
evening set	9319 Sep 20 14:34	20° <u>0</u> 41'01		conjunction	9324 Oct 17 14:30	2° <u>0</u> 29'52	-0°01'09
				minimum elong	9324 Oct 17 14:30	2° <u>0</u> 29'52	0°00'59
conjunction	9319 Oct 06 18:14	21° <u>0</u> 16'59	-0°12'58	behind sun begin	9324 Oct 17 07:56	2° <u>0</u> 29'17	
minimum elong	9319 Oct 06 18:15	21° <u>0</u> 16'59	0°12'52	behind sun end	9324 Oct 17 21:04	2° <u>0</u> 30'27	
behind sun begin	9319 Oct 06 14:17	21° <u>0</u> 16'37		max. Earth dist.	9324 Oct 17 22:28	2° <u>0</u> 30'35	30.91712 AU
behind sun end	9319 Oct 06 22:12	21° <u>0</u> 17'20		morning rise	9324 Nov 02 20:08	3° <u>0</u> 05'56	
max. Earth dist.	9319 Oct 07 06:35	21° <u>0</u> 18'07	30.88095 AU	retrograde	9325 Jan 31 15:43	5° <u>0</u> 02'21	
morning rise	9319 Oct 22 23:12	21° <u>0</u> 53'05		asc. node	9325 Apr 05 16:32	4° <u>0</u> 02'18	
retrograde	9320 Jan 21 04:00	23° <u>0</u> 50'09		opposition	9325 Apr 20 07:32	3° <u>0</u> 37'54	0°00'06
opposition	9320 Apr 09 00:27	22° <u>0</u> 25'35	-0°12'33	min. Earth dist.	9325 Apr 20 00:08	3° <u>0</u> 38'25	28.92055 AU
min. Earth dist.	9320 Apr 08 14:10	22° <u>0</u> 26'19	28.88542 AU	direct	9325 Jul 07 12:13	2° <u>0</u> 13'36	
direct	9320 Jun 26 01:27	21° <u>0</u> 01'32		evening set	9325 Oct 03 23:09	4° <u>0</u> 07'55	
evening set	9320 Sep 22 04:02	22° <u>0</u> 55'49					
				conjunction	9325 Oct 20 04:00	4° <u>0</u> 43'52	0°01'19
conjunction	9320 Oct 08 07:49	23° <u>0</u> 31'47	-0°10'37	minimum elong	9325 Oct 20 03:59	4° <u>0</u> 43'52	0°01'28
minimum elong	9320 Oct 08 07:49	23° <u>0</u> 31'47	0°10'31	behind sun begin	9325 Oct 19 21:24	4° <u>0</u> 43'17	
behind sun begin	9320 Oct 08 02:44	23° <u>0</u> 31'20		behind sun end	9325 Oct 20 10:34	4° <u>0</u> 44'27	
behind sun end	9320 Oct 08 12:54	23° <u>0</u> 32'15		max. Earth dist.	9325 Oct 20 10:54	4° <u>0</u> 44'29	30.92413 AU
max. Earth dist.	9320 Oct 08 18:12	23° <u>0</u> 32'45	30.88957 AU	morning rise	9325 Nov 05 09:46	5° <u>0</u> 19'56	
morning rise	9320 Oct 24 13:06	24° <u>0</u> 07'54		retrograde	9326 Feb 03 04:15	7° <u>0</u> 16'12	
retrograde	9321 Jan 22 17:32	26° <u>0</u> 04'52		opposition	9326 Apr 22 18:25	5° <u>0</u> 51'45	0°02'38
opposition	9321 Apr 11 11:41	24° <u>0</u> 40'21	-0°10'02	min. Earth dist.	9326 Apr 22 12:18	5° <u>0</u> 52'11	28.92803 AU
min. Earth dist.	9321 Apr 11 01:48	24° <u>0</u> 41'02	28.89359 AU	direct	9326 Jul 10 00:19	4° <u>0</u> 27'24	
direct	9321 Jun 28 11:45	23° <u>0</u> 16'16		evening set	9326 Oct 06 12:22	6° <u>0</u> 21'43	
evening set	9321 Sep 24 17:33	25° <u>0</u> 10'35					
				conjunction	9326 Oct 22 17:28	6° <u>0</u> 57'40	0°03'43
conjunction	9321 Oct 10 21:42	25° <u>0</u> 46'33	-0°08'16	minimum elong	9326 Oct 22 17:28	6° <u>0</u> 57'40	0°03'54
minimum elong	9321 Oct 10 21:42	25° <u>0</u> 46'33	0°08'10	behind sun begin	9326 Oct 22 10:58	6° <u>0</u> 57'05	
behind sun begin	9321 Oct 10 15:53	25° <u>0</u> 46'02		behind sun end	9326 Oct 22 23:58	6° <u>0</u> 58'15	
behind sun end	9321 Oct 11 03:31	25° <u>0</u> 47'04		max. Earth dist.	9326 Oct 23 00:42	6° <u>0</u> 58'19	30.93209 AU
max. Earth dist.	9321 Oct 11 08:03	25° <u>0</u> 47'30	30.89719 AU	morning rise	9326 Nov 07 23:09	7° <u>0</u> 33'42	
morning rise	9321 Oct 27 02:59	26° <u>0</u> 22'39		retrograde	9327 Feb 05 16:16	9° <u>0</u> 29'49	
retrograde	9322 Jan 25 03:33	28° <u>0</u> 19'30		opposition	9327 Apr 25 05:01	8° <u>0</u> 05'25	0°05'10

min. Earth dist.	9327 Apr 24 22:39	8° ℳ 05'52	28.93650 AU	conjunction	9332 Nov 05 01:53	20° ℳ 18'59	0°17'38
direct	9327 Jul 12 14:05	6° ℳ 41'02		minimum elong	9332 Nov 05 01:53	20° ℳ 18'59	0°17'53
evening set	9327 Oct 09 01:42	8° ℳ 35'21		max. Earth dist.	9332 Nov 05 05:14	20° ℳ 19'17	31.00176 AU
				morning rise	9332 Nov 21 07:28	20° ℳ 54'56	
conjunction	9327 Oct 25 06:46	9° ℳ 11'17	0°06'04	retrograde	9333 Feb 18 13:16	22° ℳ 50'23	
minimum elong	9327 Oct 25 06:45	9° ℳ 11'17	0°06'14	opposition	9333 May 07 20:56	21° ℳ 26'28	0°20'03
behind sun begin	9327 Oct 25 00:32	9° ℳ 10'44		min. Earth dist.	9333 May 07 18:50	21° ℳ 26'37	29.00765 AU
behind sun end	9327 Oct 25 12:59	9° ℳ 11'51		direct	9333 Jul 25 08:33	20° ℳ 02'07	
max. Earth dist.	9327 Oct 25 12:38	9° ℳ 11'49	30.94125 AU	evening set	9333 Oct 22 09:50	21° ℳ 56'42	
morning rise	9327 Nov 10 12:36	9° ℳ 47'19					
retrograde	9328 Feb 08 04:20	11° ℳ 43'18		conjunction	9333 Nov 07 15:28	22° ℳ 32'36	0°19'54
opposition	9328 Apr 26 15:46	10° ℳ 18'56	0°07'42	minimum elong	9333 Nov 07 15:28	22° ℳ 32'36	0°20'07
min. Earth dist.	9328 Apr 26 10:02	10° ℳ 19'20	28.94647 AU	max. Earth dist.	9333 Nov 07 17:43	22° ℳ 32'48	31.01315 AU
direct	9328 Jul 14 00:46	8° ℳ 54'31		morning rise	9333 Nov 23 21:00	23° ℳ 08'33	
evening set	9328 Oct 10 14:46	10° ℳ 48'52		retrograde	9334 Feb 21 01:39	25° ℳ 03'52	
				opposition	9334 May 10 07:30	23° ℳ 40'02	0°22'27
conjunction	9328 Oct 26 20:08	11° ℳ 24'48	0°08'24	min. Earth dist.	9334 May 10 05:18	23° ℳ 40'11	29.01840 AU
minimum elong	9328 Oct 26 20:08	11° ℳ 24'48	0°08'36	direct	9334 Jul 27 21:34	22° ℳ 15'40	
behind sun begin	9328 Oct 26 14:26	11° ℳ 24'18		evening set	9334 Oct 24 23:20	24° ℳ 10'16	
behind sun end	9328 Oct 27 01:50	11° ℳ 25'19					
max. Earth dist.	9328 Oct 27 02:46	11° ℳ 25'24	30.95190 AU	conjunction	9334 Nov 10 04:52	24° ℳ 46'10	0°22'07
morning rise	9328 Nov 12 01:51	12° ℳ 00'49		minimum elong	9334 Nov 10 04:51	24° ℳ 46'10	0°22'22
retrograde	9329 Feb 09 15:41	13° ℳ 56'40		max. Earth dist.	9334 Nov 10 05:41	24° ℳ 46'15	31.02329 AU
opposition	9329 Apr 29 02:27	12° ℳ 32'22	0°10'12	morning rise	9334 Nov 26 10:19	25° ℳ 22'05	
min. Earth dist.	9329 Apr 28 21:04	12° ℳ 32'45	28.95771 AU	retrograde	9335 Feb 23 13:34	27° ℳ 17'17	
direct	9329 Jul 16 13:20	11° ℳ 07'58		opposition	9335 May 12 18:09	25° ℳ 53'30	0°24'48
evening set	9329 Oct 13 04:10	13° ℳ 02'20		min. Earth dist.	9335 May 12 17:35	25° ℳ 53'32	29.02815 AU
				direct	9335 Jul 30 09:22	24° ℳ 29'07	
conjunction	9329 Oct 29 09:30	13° ℳ 38'17	0°10'44	evening set	9335 Oct 27 12:38	26° ℳ 23'44	
minimum elong	9329 Oct 29 09:30	13° ℳ 38'16	0°10'55				
behind sun begin	9329 Oct 29 04:34	13° ℳ 37'50		conjunction	9335 Nov 12 18:17	26° ℳ 59'38	0°24'18
behind sun end	9329 Oct 29 14:25	13° ℳ 38'43		minimum elong	9335 Nov 12 18:17	26° ℳ 59'38	0°24'32
max. Earth dist.	9329 Oct 29 14:29	13° ℳ 38'43	30.96383 AU	max. Earth dist.	9335 Nov 12 18:54	26° ℳ 59'41	31.03267 AU
morning rise	9329 Nov 14 15:22	14° ℳ 14'16		morning rise	9335 Nov 28 23:32	27° ℳ 35'31	
	9329 Dec 06 21:48	15° ℳ		retrograde	9336 Feb 26 01:16	29° ℳ 30'35	
retrograde	9330 Feb 12 04:30	16° ℳ 10'01		opposition	9336 May 14 04:36	28° ℳ 06'50	0°27'07
	9330 Apr 23 02:42	15° ℳ		min. Earth dist.	9336 May 14 04:13	28° ℳ 06'52	29.03713 AU
opposition	9330 May 01 12:57	14° ℳ 45'49	0°12'42	direct	9336 Jul 31 23:09	26° ℳ 42'25	
min. Earth dist.	9330 May 01 07:41	14° ℳ 46'11	28.97016 AU	evening set	9336 Oct 29 01:56	28° ℳ 37'04	
direct	9330 Jul 18 23:46	13° ℳ 21'25					
	9330 Oct 08 07:43	15° ℳ		conjunction	9336 Nov 14 07:27	29° ℳ 12'56	0°26'27
evening set	9330 Oct 15 17:31	15° ℳ 15'51		minimum elong	9336 Nov 14 07:27	29° ℳ 12'56	0°26'43
				max. Earth dist.	9336 Nov 14 06:20	29° ℳ 12'50	31.04145 AU
conjunction	9330 Oct 31 23:02	15° ℳ 51'47	0°13'04	morning rise	9336 Nov 30 12:44	29° ℳ 48'48	
minimum elong	9330 Oct 31 23:02	15° ℳ 51'47	0°13'17		9336 Dec 05 17:45	0° ℳ	
behind sun begin	9330 Oct 31 19:20	15° ℳ 51'27		retrograde	9337 Feb 27 13:17	1° ℳ 43'44	
behind sun end	9330 Nov 01 02:44	15° ℳ 52'07		opposition	9337 May 16 15:05	0° ℳ 20'01	0°29'24
max. Earth dist.	9330 Nov 01 04:22	15° ℳ 52'16	30.97656 AU	min. Earth dist.	9337 May 16 15:45	0° ℳ 19'58	29.04584 AU
morning rise	9330 Nov 17 04:43	16° ℳ 27'46			9337 May 28 14:25	30° ℳ	
retrograde	9331 Feb 14 14:19	18° ℳ 23'24		direct	9337 Aug 03 10:10	28° ℳ 55'33	
opposition	9331 May 03 23:39	16° ℳ 59'19	0°15'11		9337 Oct 06 19:44	0° ℳ	
min. Earth dist.	9331 May 03 19:43	16° ℳ 59'35	28.98303 AU	evening set	9337 Oct 31 15:09	0° ℳ 50'13	
direct	9331 Jul 21 10:48	15° ℳ 34'57					
evening set	9331 Oct 18 06:50	17° ℳ 29'25		conjunction	9337 Nov 16 20:47	1° ℳ 26'04	0°28'33
				minimum elong	9337 Nov 16 20:47	1° ℳ 26'04	0°28'48
conjunction	9331 Nov 03 12:19	18° ℳ 05'21	0°15'22	max. Earth dist.	9337 Nov 16 20:03	1° ℳ 26'00	31.05005 AU
minimum elong	9331 Nov 03 12:18	18° ℳ 05'21	0°15'34	morning rise	9337 Dec 03 01:46	2° ℳ 01'54	
behind sun begin	9331 Nov 03 11:10	18° ℳ 05'15		retrograde	9338 Mar 02 00:33	3° ℳ 56'41	
behind sun end	9331 Nov 03 13:26	18° ℳ 05'27		opposition	9338 May 19 01:23	2° ℳ 33'01	0°31'37
max. Earth dist.	9331 Nov 03 16:12	18° ℳ 05'42	30.98949 AU	min. Earth dist.	9338 May 19 02:44	2° ℳ 32'55	29.05446 AU
morning rise	9331 Nov 19 18:03	18° ℳ 41'19		direct	9338 Aug 05 23:33	1° ℳ 08'31	
retrograde	9332 Feb 17 02:34	20° ℳ 36'52		evening set	9338 Nov 03 04:24	3° ℳ 03'11	
opposition	9332 May 05 10:15	19° ℳ 12'53	0°17'38				
min. Earth dist.	9332 May 05 06:15	19° ℳ 13'09	28.99577 AU	conjunction	9338 Nov 19 09:49	3° ℳ 39'02	0°30'36
direct	9332 Jul 22 22:22	17° ℳ 48'32		minimum elong	9338 Nov 19 09:49	3° ℳ 39'02	0°30'53
evening set	9332 Oct 19 20:20	19° ℳ 43'03		max. Earth dist.	9338 Nov 19 07:20	3° ℳ 38'48	31.05892 AU
				morning rise	9338 Dec 05 14:47	4° ℳ 14'50	

retrograde	9339 Mar 04 12:40	6°♂09'29		minimum elong	9345 Dec 05 04:06	19°♂07'37	0°43'51
opposition	9339 May 21 11:43	4°♂45'51	0°33'48	max. Earth dist.	9345 Dec 04 21:11	19°♂06'59	31.13996 AU
min. Earth dist.	9339 May 21 13:05	4°♂45'45	29.06371 AU	morning rise	9345 Dec 21 07:28	19°♂43'14	
direct	9339 Aug 08 10:44	3°♂21'18		retrograde	9346 Mar 19 16:04	21°♂37'08	
evening set	9339 Nov 05 17:16	5°♂16'00		opposition	9346 Jun 05 11:52	20°♂14'03	0°47'25
				min. Earth dist.	9346 Jun 05 17:47	20°♂13'38	29.14539 AU
conjunction	9339 Nov 21 22:44	5°♂51'49	0°32'37	direct	9346 Aug 23 17:37	18°♂49'30	
minimum elong	9339 Nov 21 22:44	5°♂51'49	0°32'53	evening set	9346 Nov 21 12:31	20°♂44'28	
max. Earth dist.	9339 Nov 21 20:47	5°♂51'38	31.06847 AU				
morning rise	9339 Dec 08 03:22	6°♂27'37		conjunction	9346 Dec 07 17:02	21°♂20'10	0°45'10
retrograde	9340 Mar 05 21:30	8°♂22'07		minimum elong	9346 Dec 07 17:02	21°♂20'10	0°45'29
opposition	9340 May 22 22:08	6°♂58'33	0°35'55	max. Earth dist.	9346 Dec 07 10:16	21°♂19'32	31.14999 AU
min. Earth dist.	9340 May 23 00:34	6°♂58'22	29.07376 AU	morning rise	9346 Dec 23 19:58	21°♂55'45	
direct	9340 Aug 09 22:16	5°♂33'59		retrograde	9347 Mar 22 03:16	23°♂49'31	
evening set	9340 Nov 07 06:21	7°♂28'41		opposition	9347 Jun 07 22:17	22°♂26'29	0°49'06
				min. Earth dist.	9347 Jun 08 05:07	22°♂26'00	29.15472 AU
conjunction	9340 Nov 23 11:39	8°♂04'29	0°34'35	direct	9347 Aug 26 07:30	21°♂01'55	
minimum elong	9340 Nov 23 11:38	8°♂04'29	0°34'52	evening set	9347 Nov 24 01:25	22°♂56'53	
max. Earth dist.	9340 Nov 23 08:28	8°♂04'12	31.07913 AU				
morning rise	9340 Dec 09 16:13	8°♂40'15		conjunction	9347 Dec 10 05:35	23°♂32'33	0°46'43
retrograde	9341 Mar 08 08:51	10°♂34'38		minimum elong	9347 Dec 10 05:35	23°♂32'33	0°47'00
opposition	9341 May 25 08:16	9°♂11'08	0°37'59	max. Earth dist.	9347 Dec 09 20:49	23°♂31'44	31.15876 AU
min. Earth dist.	9341 May 25 10:15	9°♂11'00	29.08499 AU	morning rise	9347 Dec 26 08:26	24°♂08'06	
direct	9341 Aug 12 09:16	7°♂46'33		retrograde	9348 Mar 23 15:00	26°♂01'46	
evening set	9341 Nov 09 19:24	9°♂41'18		opposition	9348 Jun 09 08:35	24°♂38'45	0°50'43
				min. Earth dist.	9348 Jun 09 15:41	24°♂38'15	29.16299 AU
conjunction	9341 Nov 26 00:39	10°♂17'06	0°36'30	direct	9348 Aug 27 19:25	23°♂14'08	
minimum elong	9341 Nov 26 00:38	10°♂17'06	0°36'46	evening set	9348 Nov 25 14:15	25°♂09'07	
max. Earth dist.	9341 Nov 25 21:27	10°♂16'48	31.09083 AU				
morning rise	9341 Dec 12 04:55	10°♂52'50		conjunction	9348 Dec 11 18:23	25°♂44'45	0°48'11
retrograde	9342 Mar 10 18:52	12°♂47'07		minimum elong	9348 Dec 11 18:23	25°♂44'45	0°48'30
opposition	9342 May 27 18:40	11°♂23'42	0°40'00	max. Earth dist.	9348 Dec 11 09:43	25°♂43'57	31.16645 AU
min. Earth dist.	9342 May 27 22:05	11°♂23'27	29.09721 AU	morning rise	9348 Dec 27 20:46	26°♂20'16	
direct	9342 Aug 14 18:22	9°♂59'08		retrograde	9349 Mar 26 00:11	28°♂13'48	
evening set	9342 Nov 12 08:20	11°♂53'55		opposition	9349 Jun 11 18:48	26°♂50'49	0°52'15
				min. Earth dist.	9349 Jun 12 03:26	26°♂50'12	29.17026 AU
conjunction	9342 Nov 28 13:26	12°♂29'41	0°38'21	direct	9349 Aug 30 07:26	25°♂26'09	
minimum elong	9342 Nov 28 13:26	12°♂29'41	0°38'39	evening set	9349 Nov 28 03:08	27°♂21'08	
max. Earth dist.	9342 Nov 28 09:40	12°♂29'21	31.10347 AU				
morning rise	9342 Dec 14 17:31	13°♂05'24		conjunction	9349 Dec 14 06:55	27°♂56'44	0°49'35
retrograde	9343 Mar 13 05:42	14°♂59'35		minimum elong	9349 Dec 14 06:55	27°♂56'44	0°49'53
opposition	9343 May 30 04:54	13°♂36'16	0°41'57	max. Earth dist.	9349 Dec 13 20:44	27°♂55'48	31.17349 AU
min. Earth dist.	9343 May 30 07:52	13°♂36'04	29.10999 AU	morning rise	9349 Dec 30 09:09	28°♂32'14	
direct	9343 Aug 17 07:00	12°♂11'44			9350 Feb 17 04:18	0°♂	
evening set	9343 Nov 14 21:23	14°♂06'34		retrograde	9350 Mar 28 11:24	0°♂25'37	
					9350 May 07 09:57	30°♂♂	
conjunction	9343 Dec 01 02:17	14°♂42'19	0°40'09	opposition	9350 Jun 14 04:58	29°♂02'39	0°53'42
minimum elong	9343 Dec 01 02:17	14°♂42'19	0°40'26	min. Earth dist.	9350 Jun 14 13:19	29°♂02'04	29.17709 AU
max. Earth dist.	9343 Nov 30 21:30	14°♂41'53	31.11626 AU	direct	9350 Sep 01 19:11	27°♂37'56	
morning rise	9343 Dec 17 06:08	15°♂18'01		evening set	9350 Nov 30 15:40	29°♂32'55	
retrograde	9344 Mar 14 16:44	17°♂12'07			9350 Dec 12 23:28	0°♂	
opposition	9344 May 31 15:13	15°♂48'53	0°43'51				
min. Earth dist.	9344 May 31 19:42	15°♂48'34	29.12277 AU	conjunction	9350 Dec 16 19:16	0°♂08'30	0°50'54
direct	9344 Aug 18 17:38	14°♂24'21		minimum elong	9350 Dec 16 19:16	0°♂08'30	0°51'14
evening set	9344 Nov 16 10:20	16°♂19'15		max. Earth dist.	9350 Dec 16 09:04	0°♂07'34	31.18015 AU
				morning rise	9351 Jan 01 21:03	0°♂43'57	
conjunction	9344 Dec 02 15:12	16°♂54'59	0°41'53	retrograde	9351 Mar 30 20:31	2°♂37'14	
minimum elong	9344 Dec 02 15:12	16°♂54'59	0°42'12	opposition	9351 Jun 16 15:15	1°♂14'17	0°55'05
max. Earth dist.	9344 Dec 02 10:12	16°♂54'31	31.12870 AU	min. Earth dist.	9351 Jun 17 01:03	1°♂13'36	29.18391 AU
morning rise	9344 Dec 18 18:45	17°♂30'38			9351 Aug 09 18:05	30°♂♂	
retrograde	9345 Mar 17 03:57	19°♂24'39		direct	9351 Sep 04 05:03	29°♂49'32	
opposition	9345 Jun 03 01:32	18°♂01'30	0°45'40		9351 Sep 29 12:54	0°♂	
min. Earth dist.	9345 Jun 03 06:20	18°♂01'10	29.13464 AU	evening set	9351 Dec 03 04:10	1°♂44'30	
direct	9345 Aug 21 06:38	16°♂36'58					
evening set	9345 Nov 18 23:34	18°♂31'54		conjunction	9351 Dec 19 07:31	2°♂20'04	0°52'09
				minimum elong	9351 Dec 19 07:31	2°♂20'04	0°52'28
conjunction	9345 Dec 05 04:06	19°♂07'37	0°43'34	max. Earth dist.	9351 Dec 18 20:51	2°♂19'05	31.18721 AU

morning rise	9352 Jan 04 09:03	2°35'29"		conjunction	9359 Jan 03 19:41	17°34'09"	0°58'41"
retrograde	9352 Apr 01 06:19	4°34'39"		minimum elong	9359 Jan 03 19:41	17°34'09"	0°59'00"
opposition	9352 Jun 18 01:16	3°32'54"	0°56'22"	max. Earth dist.	9359 Jan 03 05:25	17°33'50"	31.25271 AU
min. Earth dist.	9352 Jun 18 10:27	3°32'50"	29.19125 AU	morning rise	9359 Jan 19 18:47	18°31'52"	
direct	9352 Sep 05 17:34	2°30'56"		retrograde	9359 Apr 17 10:51	20°30'08"	
evening set	9352 Dec 04 16:37	3°35'56"		opposition	9359 Jul 04 00:54	18°34'54"	1°03'02"
				min. Earth dist.	9359 Jul 04 13:07	18°34'50"	29.25693 AU
conjunction	9352 Dec 20 19:42	4°31'28"	0°53'20"	direct	9359 Sep 22 02:36	17°32'10"	
minimum elong	9352 Dec 20 19:42	4°31'28"	0°53'39"	evening set	9359 Dec 21 06:33	19°31'18"	
max. Earth dist.	9352 Dec 20 08:20	4°30'25"	31.19491 AU				
morning rise	9353 Jan 05 20:55	5°30'6"		conjunction	9360 Jan 06 07:37	19°35'14"	0°59'17"
retrograde	9353 Apr 03 16:23	6°35'56"		minimum elong	9360 Jan 06 07:37	19°35'14"	0°59'35"
opposition	9353 Jun 20 11:31	5°37'03"	0°57'35"	max. Earth dist.	9360 Jan 05 17:08	19°35'20"	31.25995 AU
min. Earth dist.	9353 Jun 20 21:40	5°36'21"	29.19956 AU	morning rise	9360 Jan 22 06:15	20°32'6"	
direct	9353 Sep 08 03:37	4°31'15"		retrograde	9360 Apr 18 20:07	22°31'31"	
evening set	9353 Dec 07 04:58	6°30'17"		opposition	9360 Jul 05 11:16	20°35'08"	1°03'38"
				min. Earth dist.	9360 Jul 06 01:08	20°35'11"	29.26361 AU
conjunction	9353 Dec 23 07:52	6°34'27"	0°54'26"	direct	9360 Sep 23 12:42	19°33'28"	
minimum elong	9353 Dec 23 07:52	6°34'27"	0°54'44"	evening set	9360 Dec 22 18:42	21°32'45"	
max. Earth dist.	9353 Dec 22 20:50	6°34'16"	31.20374 AU				
morning rise	9354 Jan 08 08:40	7°31'09"		conjunction	9361 Jan 07 19:27	22°30'06"	0°59'48"
retrograde	9354 Apr 06 02:36	9°31'08"		minimum elong	9361 Jan 07 19:27	22°30'06"	1°00'07"
opposition	9354 Jun 22 21:37	7°34'20"	0°58'43"	max. Earth dist.	9361 Jan 07 04:14	22°30'14"	31.26607 AU
min. Earth dist.	9354 Jun 23 07:31	7°34'39"	29.20884 AU	morning rise	9361 Jan 23 17:47	22°33'15"	
direct	9354 Sep 10 15:41	6°32'33"		retrograde	9361 Apr 21 05:08	24°33'04"	
evening set	9354 Dec 09 17:22	8°31'38"		opposition	9361 Jul 07 21:33	23°30'28"	1°04'08"
				min. Earth dist.	9361 Jul 08 11:04	23°30'32"	29.26907 AU
conjunction	9354 Dec 25 19:51	8°35'47"	0°55'27"	direct	9361 Sep 26 01:24	21°34'36"	
minimum elong	9354 Dec 25 19:51	8°35'47"	0°55'46"	evening set	9361 Dec 25 06:45	23°33'03"	
max. Earth dist.	9354 Dec 25 07:39	8°35'29"	31.21357 AU				
morning rise	9355 Jan 10 20:25	9°32'26"		conjunction	9362 Jan 10 07:07	24°31'42"	1°00'14"
retrograde	9355 Apr 08 14:27	11°32'23"		minimum elong	9362 Jan 10 07:07	24°31'42"	1°00'32"
opposition	9355 Jun 25 07:49	9°35'40"	0°59'45"	max. Earth dist.	9362 Jan 09 14:59	24°31'25"	31.27098 AU
min. Earth dist.	9355 Jun 25 18:11	9°35'57"	29.21916 AU	morning rise	9362 Jan 26 05:04	24°34'28"	
direct	9355 Sep 13 01:57	8°33'45"		retrograde	9362 Apr 23 14:27	26°34'15"	
evening set	9355 Dec 12 05:27	10°33'03"		opposition	9362 Jul 10 07:55	25°31'37"	1°04'33"
				min. Earth dist.	9362 Jul 10 22:35	25°31'36"	29.27369 AU
conjunction	9355 Dec 28 07:50	11°30'53"	0°56'23"	direct	9362 Sep 28 11:00	23°35'43"	
minimum elong	9355 Dec 28 07:50	11°30'53"	0°56'41"	evening set	9362 Dec 27 18:35	25°35'08"	
max. Earth dist.	9355 Dec 27 20:25	11°30'42"	31.22408 AU				
morning rise	9356 Jan 13 07:56	11°34'08"		conjunction	9363 Jan 12 18:44	26°32'52"	1°00'35"
retrograde	9356 Apr 10 01:36	13°33'42"		minimum elong	9363 Jan 12 18:44	26°32'52"	1°00'53"
opposition	9356 Jun 26 18:03	12°31'10"	1°00'43"	max. Earth dist.	9363 Jan 12 02:52	26°32'57"	31.27535 AU
min. Earth dist.	9356 Jun 27 05:06	12°31'18"	29.22965 AU	morning rise	9363 Jan 28 16:15	27°30'30"	
direct	9356 Sep 14 15:20	10°34'22"		retrograde	9363 Apr 25 23:48	28°35'25"	
evening set	9356 Dec 13 17:53	12°34'13"		opposition	9363 Jul 12 18:12	27°33'33"	1°04'53"
				min. Earth dist.	9363 Jul 13 08:48	27°32'33"	29.27783 AU
conjunction	9356 Dec 29 19:48	13°31'00"	0°57'14"	direct	9363 Sep 30 22:49	26°30'54"	
minimum elong	9356 Dec 29 19:48	13°31'00"	0°57'33"	evening set	9363 Dec 30 06:19	28°30'10"	
max. Earth dist.	9356 Dec 29 06:42	13°31'54"	31.23448 AU				
morning rise	9357 Jan 14 19:42	13°35'21"		conjunction	9364 Jan 15 06:00	28°33'15"	1°00'50"
retrograde	9357 Apr 12 13:24	15°34'57"		minimum elong	9364 Jan 15 06:00	28°33'15"	1°01'07"
opposition	9357 Jun 29 04:09	14°32'23"	1°01'35"	max. Earth dist.	9364 Jan 14 13:01	28°33'41"	31.27948 AU
min. Earth dist.	9357 Jun 29 15:15	14°32'14"	29.23982 AU	morning rise	9364 Jan 31 03:18	29°31'11"	
direct	9357 Sep 17 02:43	12°35'57"			9364 Feb 24 03:50	0°	
evening set	9357 Dec 16 06:10	14°35'39"		retrograde	9364 Apr 27 10:33	1°03'38"	
					9364 Jul 02 19:39	30°33'	
conjunction	9358 Jan 01 07:56	15°32'34"	0°58'00"	opposition	9364 Jul 14 04:31	29°34'16"	1°05'06"
minimum elong	9358 Jan 01 07:56	15°32'34"	0°58'18"	min. Earth dist.	9364 Jul 14 19:25	29°34'14"	29.28215 AU
max. Earth dist.	9357 Dec 31 19:07	15°32'23"	31.24412 AU	direct	9364 Oct 02 09:40	28°31'6"	
morning rise	9358 Jan 17 07:16	16°30'48"			9364 Dec 26 07:03	0°	
retrograde	9358 Apr 14 23:07	17°35'36"		evening set	9364 Dec 31 17:57	0°11'40"	
opposition	9358 Jul 01 14:37	16°34'08"	1°02'21"				
min. Earth dist.	9358 Jul 02 03:09	16°33'16"	29.24896 AU	conjunction	9365 Jan 16 17:27	0°46'53"	1°01'01"
direct	9358 Sep 19 14:35	15°30'29"		minimum elong	9365 Jan 16 17:27	0°46'53"	1°01'17"
evening set	9358 Dec 18 18:22	17°30'45"		max. Earth dist.	9365 Jan 16 01:26	0°45'24"	31.28396 AU
				morning rise	9365 Feb 01 14:11	1°21'54"	

retrograde	9365 Apr 29 20:18	3° \approx 14'10	evening set	9372 Jan 17 02:18	15° \approx 25'52	
opposition	9365 Jul 16 14:49	1° \approx 51'48 1°05'15				
min. Earth dist.	9365 Jul 17 06:05	1° \approx 50'45 29.28694 AU	conjunction	9372 Feb 01 23:17	16° \approx 00'56 0°59'45	
direct	9365 Oct 04 22:39	0° \approx 26'58	minimum elong	9372 Feb 01 23:17	16° \approx 00'56 0°59'59	
evening set	9366 Jan 03 05:40	2° \approx 22'11	max. Earth dist.	9372 Feb 01 05:49	15° \approx 59'19 31.32756 AU	
max. Earth dist.	9366 Jan 18 11:31	2° \approx 55'47 31.28928 AU	morning rise	9372 Feb 17 17:26	16° \approx 35'46	
			retrograde	9372 May 14 19:41	18° \approx 27'56	
conjunction	9366 Jan 19 04:38	2° \approx 57'22 1°01'06	opposition	9372 Jul 31 16:27	17° \approx 05'57 1°03'34	
minimum elong	9366 Jan 19 04:38	2° \approx 57'22 1°01'22	min. Earth dist.	9372 Aug 01 08:56	17° \approx 04'49 29.32974 AU	
morning rise	9366 Feb 04 01:09	3° \approx 32'21	direct	9372 Oct 20 04:42	15° \approx 41'21	
retrograde	9366 May 02 07:37	5° \approx 24'33	evening set	9373 Jan 18 13:49	17° \approx 36'43	
opposition	9366 Jul 19 01:10	4° \approx 02'13 1°05'17				
min. Earth dist.	9366 Jul 19 15:43	4° \approx 01'13 29.29284 AU	conjunction	9373 Feb 03 10:17	18° \approx 11'45 0°59'13	
direct	9366 Oct 07 09:42	2° \approx 37'23	minimum elong	9373 Feb 03 10:18	18° \approx 11'45 0°59'27	
evening set	9367 Jan 05 16:59	4° \approx 32'37	max. Earth dist.	9373 Feb 02 15:26	18° \approx 10'00 31.33060 AU	
			morning rise	9373 Feb 19 04:11	18° \approx 46'34	
conjunction	9367 Jan 21 15:45	5° \approx 07'47 1°01'06	retrograde	9373 May 17 06:42	20° \approx 38'44	
minimum elong	9367 Jan 21 15:46	5° \approx 07'47 1°01'22	opposition	9373 Aug 03 03:08	19° \approx 16'46 1°02'57	
max. Earth dist.	9367 Jan 20 23:38	5° \approx 06'17 31.29563 AU	min. Earth dist.	9373 Aug 03 20:02	19° \approx 15'36 29.33212 AU	
morning rise	9367 Feb 06 11:44	5° \approx 42'43	direct	9373 Oct 22 15:12	17° \approx 52'10	
retrograde	9367 May 04 17:18	7° \approx 34'55	evening set	9374 Jan 21 01:03	19° \approx 47'32	
opposition	9367 Jul 21 11:40	6° \approx 12'38 1°05'14				
min. Earth dist.	9367 Jul 22 03:04	6° \approx 11'34 29.29962 AU	conjunction	9374 Feb 05 21:20	20° \approx 22'33 0°58'36	
direct	9367 Oct 09 21:37	4° \approx 47'50	minimum elong	9374 Feb 05 21:20	20° \approx 22'33 0°58'49	
evening set	9368 Jan 08 04:31	6° \approx 43'05	max. Earth dist.	9374 Feb 05 03:15	20° \approx 20'53 31.33225 AU	
max. Earth dist.	9368 Jan 23 09:56	7° \approx 16'39 31.30286 AU	morning rise	9374 Feb 21 14:42	20° \approx 57'20	
			retrograde	9374 May 19 16:36	22° \approx 49'30	
conjunction	9368 Jan 24 02:50	7° \approx 18'13 1°01'00	opposition	9374 Aug 05 14:00	21° \approx 27'31 1°02'15	
minimum elong	9368 Jan 24 02:50	7° \approx 18'13 1°01'16	min. Earth dist.	9374 Aug 06 07:33	21° \approx 26'19 29.33304 AU	
morning rise	9368 Feb 08 22:36	7° \approx 53'08	direct	9374 Oct 25 03:49	20° \approx 02'56	
retrograde	9368 May 06 05:05	9° \approx 45'18	evening set	9375 Jan 23 12:10	21° \approx 58'17	
opposition	9368 Jul 22 21:53	8° \approx 23'06 1°05'05				
min. Earth dist.	9368 Jul 23 12:32	8° \approx 22'05 29.30698 AU	conjunction	9375 Feb 08 07:57	22° \approx 33'16 0°57'55	
direct	9368 Oct 11 09:39	6° \approx 58'20	minimum elong	9375 Feb 08 07:57	22° \approx 33'16 0°58'07	
evening set	9369 Jan 09 16:02	8° \approx 53'38	max. Earth dist.	9375 Feb 07 12:38	22° \approx 31'29 31.33270 AU	
			morning rise	9375 Feb 24 01:10	23° \approx 08'02	
conjunction	9369 Jan 25 14:04	9° \approx 28'45 1°00'49	retrograde	9375 May 22 03:52	25° \approx 00'11	
minimum elong	9369 Jan 25 14:04	9° \approx 28'45 1°01'05	opposition	9375 Aug 08 00:45	23° \approx 38'11 1°01'28	
max. Earth dist.	9369 Jan 24 21:22	9° \approx 27'12 31.31017 AU	min. Earth dist.	9375 Aug 08 17:45	23° \approx 37'01 29.33304 AU	
morning rise	9369 Feb 10 09:21	10° \approx 03'39	direct	9375 Oct 27 14:45	22° \approx 13'35	
retrograde	9369 May 08 14:42	11° \approx 55'49	evening set	9376 Jan 25 23:10	24° \approx 08'55	
opposition	9369 Jul 25 08:30	10° \approx 33'40 1°04'51				
min. Earth dist.	9369 Jul 26 00:28	10° \approx 32'34 29.31419 AU	conjunction	9376 Feb 10 18:46	24° \approx 43'53 0°57'08	
direct	9369 Oct 13 19:56	9° \approx 08'59	minimum elong	9376 Feb 10 18:46	24° \approx 43'53 0°57'20	
evening set	9370 Jan 12 03:29	11° \approx 04'18	max. Earth dist.	9376 Feb 10 00:13	24° \approx 42'09 31.33228 AU	
max. Earth dist.	9370 Jan 27 08:11	11° \approx 37'49 31.31708 AU	morning rise	9376 Feb 26 11:29	25° \approx 18'37	
			retrograde	9376 May 23 13:34	27° \approx 10'45	
conjunction	9370 Jan 28 01:08	11° \approx 39'24 1°00'33	opposition	9376 Aug 09 11:29	25° \approx 48'43 1°00'36	
minimum elong	9370 Jan 28 01:08	11° \approx 39'24 1°00'48	min. Earth dist.	9376 Aug 10 05:30	25° \approx 47'29 29.33242 AU	
morning rise	9370 Feb 12 20:03	12° \approx 14'16	direct	9376 Oct 29 03:19	24° \approx 24'06	
retrograde	9370 May 11 00:13	14° \approx 06'26	evening set	9377 Jan 27 10:13	26° \approx 19'25	
opposition	9370 Jul 27 19:03	12° \approx 44'22 1°04'31	max. Earth dist.	9377 Feb 11 10:13	26° \approx 52'34 31.33169 AU	
min. Earth dist.	9370 Jul 28 10:26	12° \approx 43'18 29.32060 AU				
direct	9370 Oct 16 08:04	11° \approx 19'43	conjunction	9377 Feb 12 05:20	26° \approx 54'21 0°56'17	
evening set	9371 Jan 14 15:00	13° \approx 15'03	minimum elong	9377 Feb 12 05:20	26° \approx 54'21 0°56'28	
			morning rise	9377 Feb 27 21:50	27° \approx 29'04	
conjunction	9371 Jan 30 12:13	13° \approx 50'08 1°00'11	retrograde	9377 May 26 01:26	29° \approx 21'10	
minimum elong	9371 Jan 30 12:13	13° \approx 50'08 1°00'26	opposition	9377 Aug 11 22:16	27° \approx 59'08 0°59'38	
max. Earth dist.	9371 Jan 29 18:29	13° \approx 48'29 31.32292 AU	min. Earth dist.	9377 Aug 12 15:10	27° \approx 57'58 29.33190 AU	
morning rise	9371 Feb 15 06:47	14° \approx 24'59	direct	9377 Oct 31 16:29	26° \approx 34'29	
	9371 Mar 04 02:32	15° \approx	evening set	9378 Jan 29 21:00	28° \approx 29'47	
retrograde	9371 May 13 10:10	16° \approx 17'10				
	9371 Jul 27 06:54	15° \approx	conjunction	9378 Feb 14 15:48	29° \approx 04'42 0°55'21	
opposition	9371 Jul 30 05:44	14° \approx 55'08 1°04'05	minimum elong	9378 Feb 14 15:48	29° \approx 04'42 0°55'31	
min. Earth dist.	9371 Jul 30 22:08	14° \approx 54'00 29.32596 AU	max. Earth dist.	9378 Feb 13 21:17	29° \approx 02'59 31.33136 AU	
direct	9371 Oct 18 17:10	13° \approx 30'31	morning rise	9378 Mar 02 07:51	29° \approx 39'23	
	9372 Jan 04 19:42	15° \approx		9378 Mar 12 00:10	0° \approx	

retrograde	9378 May 28 10:43	1° 1 31'31		conjunction	9385 Mar 01 16:33	14° 1 18'00	0°46'39
opposition	9378 Aug 14 09:15	0° 1 09'27	0°58'36	minimum elong	9385 Mar 01 16:33	14° 1 18'00	0°46'46
min. Earth dist.	9378 Aug 15 02:51	0° 1 08'15	29.33203 AU	max. Earth dist.	9385 Feb 28 23:02	14° 1 16'22	31.33541 AU
	9378 Aug 20 03:21	30° 1 00'00		morning rise	9385 Mar 17 06:21	14° 1 52'36	
direct	9378 Nov 03 03:32	28° 1 44'50		retrograde	9385 Jun 12 08:56	16° 1 44'59	
	9379 Jan 12 22:08	0° 1 00'00		opposition	9385 Aug 29 14:54	15° 1 23'00	0°49'02
evening set	9379 Feb 01 07:47	0° 1 40'06		min. Earth dist.	9385 Aug 30 08:12	15° 1 21'49	29.33437 AU
max. Earth dist.	9379 Feb 16 08:09	1° 1 13'19	31.33197 AU	direct	9385 Nov 18 08:52	13° 1 58'37	
				evening set	9386 Feb 16 10:44	15° 1 53'51	
conjunction	9379 Feb 17 02:14	1° 1 15'00	0°54'20	max. Earth dist.	9386 Mar 03 08:38	16° 1 26'56	31.33227 AU
minimum elong	9379 Feb 17 02:14	1° 1 15'00	0°54'31				
morning rise	9379 Mar 04 17:59	1° 1 49'40		conjunction	9386 Mar 04 02:44	16° 1 28'37	0°45'08
retrograde	9379 May 30 19:42	3° 1 41'48		minimum elong	9386 Mar 04 02:44	16° 1 28'37	0°45'14
opposition	9379 Aug 16 20:00	2° 1 19'45	0°57'28	morning rise	9386 Mar 19 16:22	17° 1 03'12	
min. Earth dist.	9379 Aug 17 12:27	2° 1 18'37	29.33298 AU	retrograde	9386 Jun 14 20:55	18° 1 55'38	
direct	9379 Nov 05 15:43	0° 1 55'09		opposition	9386 Sep 01 02:14	17° 1 33'36	0°47'23
evening set	9380 Feb 03 18:32	2° 1 50'25		min. Earth dist.	9386 Sep 01 18:32	17° 1 32'29	29.33044 AU
				direct	9386 Nov 20 21:54	16° 1 09'13	
conjunction	9380 Feb 19 12:36	3° 1 25'18	0°53'14	evening set	9387 Feb 18 21:18	18° 1 04'25	
minimum elong	9380 Feb 19 12:37	3° 1 25'18	0°53'24				
max. Earth dist.	9380 Feb 18 18:16	3° 1 23'36	31.33331 AU	conjunction	9387 Mar 06 13:02	18° 1 39'11	0°43'33
morning rise	9380 Mar 06 04:05	3° 1 59'58		minimum elong	9387 Mar 06 13:03	18° 1 39'11	0°43'38
retrograde	9380 Jun 01 05:43	5° 1 52'08		max. Earth dist.	9387 Mar 05 19:09	18° 1 37'31	31.32764 AU
opposition	9380 Aug 18 06:59	4° 1 30'06	0°56'16	morning rise	9387 Mar 22 02:20	19° 1 13'45	
min. Earth dist.	9380 Aug 18 23:48	4° 1 28'57	29.33461 AU	retrograde	9387 Jun 17 06:44	21° 1 06'12	
direct	9380 Nov 07 01:11	3° 1 05'33		opposition	9387 Sep 03 13:36	19° 1 44'08	0°45'39
evening set	9381 Feb 05 05:13	5° 1 00'49		min. Earth dist.	9387 Sep 04 06:56	19° 1 42'57	29.32529 AU
				direct	9387 Nov 23 09:11	18° 1 19'44	
conjunction	9381 Feb 20 23:02	5° 1 35'41	0°52'04	evening set	9388 Feb 21 07:46	20° 1 14'54	
minimum elong	9381 Feb 20 23:03	5° 1 35'41	0°52'13				
max. Earth dist.	9381 Feb 20 05:40	5° 1 34'04	31.33506 AU	conjunction	9388 Mar 07 23:14	20° 1 49'38	0°41'54
morning rise	9381 Mar 08 14:06	6° 1 10'20		minimum elong	9388 Mar 07 23:14	20° 1 49'38	0°41'58
retrograde	9381 Jun 03 14:52	8° 1 02'32		max. Earth dist.	9388 Mar 07 05:42	20° 1 48'00	31.32205 AU
opposition	9381 Aug 20 17:57	6° 1 40'33	0°54'58	morning rise	9388 Mar 23 12:19	21° 1 24'12	
min. Earth dist.	9381 Aug 21 10:27	6° 1 39'25	29.33622 AU	retrograde	9388 Jun 18 16:14	23° 1 16'40	
direct	9381 Nov 09 12:47	5° 1 16'03		opposition	9388 Sep 05 00:55	21° 1 54'33	0°43'52
evening set	9382 Feb 07 16:03	7° 1 11'19		min. Earth dist.	9388 Sep 05 17:15	21° 1 53'26	29.31920 AU
				direct	9388 Nov 24 22:18	20° 1 30'08	
conjunction	9382 Feb 23 09:21	7° 1 46'10	0°50'49	evening set	9389 Feb 22 18:09	22° 1 25'15	
minimum elong	9382 Feb 23 09:22	7° 1 46'10	0°50'58				
max. Earth dist.	9382 Feb 22 15:07	7° 1 44'28	31.33658 AU	conjunction	9389 Mar 10 09:13	22° 1 59'59	0°40'12
morning rise	9382 Mar 11 00:13	8° 1 20'48		minimum elong	9389 Mar 10 09:13	22° 1 59'59	0°40'15
retrograde	9382 Jun 06 01:33	10° 1 13'03		max. Earth dist.	9389 Mar 09 15:24	22° 1 58'19	31.31576 AU
opposition	9382 Aug 23 05:05	8° 1 51'05	0°53'36	morning rise	9389 Mar 25 22:04	23° 1 34'32	
min. Earth dist.	9382 Aug 23 21:29	8° 1 49'58	29.33754 AU	retrograde	9389 Jun 21 02:19	25° 1 27'02	
direct	9382 Nov 11 22:39	7° 1 26'38		opposition	9389 Sep 07 12:22	24° 1 04'51	0°42'01
evening set	9383 Feb 10 02:34	9° 1 21'54		min. Earth dist.	9389 Sep 08 04:52	24° 1 03'44	29.31299 AU
				direct	9389 Nov 27 08:47	22° 1 40'25	
conjunction	9383 Feb 25 19:42	9° 1 56'44	0°49'30	evening set	9390 Feb 25 04:21	24° 1 35'30	
minimum elong	9383 Feb 25 19:43	9° 1 56'44	0°49'38				
max. Earth dist.	9383 Feb 25 02:38	9° 1 55'09	31.33743 AU	conjunction	9390 Mar 12 19:13	25° 1 10'13	0°38'27
morning rise	9383 Mar 13 10:07	10° 1 31'21		minimum elong	9390 Mar 12 19:14	25° 1 10'13	0°38'29
retrograde	9383 Jun 08 11:01	12° 1 23'40		max. Earth dist.	9390 Mar 12 02:47	25° 1 08'41	31.30974 AU
opposition	9383 Aug 25 16:21	11° 1 01'42	0°52'09	morning rise	9390 Mar 28 07:43	25° 1 44'45	
min. Earth dist.	9383 Aug 26 09:16	11° 1 00'32	29.33780 AU	retrograde	9390 Jun 23 11:13	27° 1 37'19	
direct	9383 Nov 14 10:01	9° 1 37'16		opposition	9390 Sep 09 23:51	26° 1 15'05	0°40'07
evening set	9384 Feb 12 13:24	11° 1 32'32		min. Earth dist.	9390 Sep 10 15:33	26° 1 14'01	29.30723 AU
max. Earth dist.	9384 Feb 27 11:50	12° 1 05'39	31.33715 AU	direct	9390 Nov 29 20:57	24° 1 50'40	
				evening set	9391 Feb 27 14:30	26° 1 45'42	
conjunction	9384 Feb 28 06:02	12° 1 07'21	0°48'07				
minimum elong	9384 Feb 28 06:03	12° 1 07'21	0°48'14	conjunction	9391 Mar 15 04:56	27° 1 20'24	0°36'38
morning rise	9384 Mar 14 20:19	12° 1 41'58		minimum elong	9391 Mar 15 04:56	27° 1 20'24	0°36'40
retrograde	9384 Jun 09 22:40	14° 1 34'19		max. Earth dist.	9391 Mar 14 12:07	27° 1 18'50	31.30446 AU
opposition	9384 Aug 27 03:25	13° 1 12'21	0°50'38	morning rise	9391 Mar 30 17:21	27° 1 54'57	
min. Earth dist.	9384 Aug 27 19:42	13° 1 11'14	29.33686 AU	retrograde	9391 Jun 25 21:41	29° 1 47'35	
direct	9384 Nov 15 20:23	11° 1 47'56		opposition	9391 Sep 12 11:18	28° 1 25'20	0°38'09
evening set	9385 Feb 14 00:06	13° 1 43'12		min. Earth dist.	9391 Sep 13 02:16	28° 1 24'18	29.30249 AU

direct	9391 Dec 02 06:43	27° ℌ 00'56	minimum elong	9398 Mar 30 02:11	12° ♊ 35'22	0°22'33
evening set	9392 Mar 01 00:35	28° ℌ 55'57	max. Earth dist.	9398 Mar 29 12:25	12° ♊ 34'05	31.27550 AU
			morning rise	9398 Apr 14 13:06	13° ♊ 09'54	
conjunction	9392 Mar 16 14:54	29° ℌ 30'39 0°34'46	retrograde	9398 Jul 11 03:21	15° ♊ 03'14	
minimum elong	9392 Mar 16 14:54	29° ℌ 30'39 0°34'48	opposition	9398 Sep 27 21:45	13° ♊ 40'55	0°22'59
max. Earth dist.	9392 Mar 15 23:46	29° ℌ 29'15 31.30016 AU	min. Earth dist.	9398 Sep 28 10:32	13° ♊ 40'03	29.27219 AU
	9392 Mar 29 18:15	0° ♊	direct	9398 Dec 17 14:48	12° ♊ 16'52	
morning rise	9392 Apr 01 02:54	0° ♊ 05'11	evening set	9399 Mar 16 23:44	14° ♊ 11'51	
retrograde	9392 Jun 27 06:58	1° ♊ 57'55				
opposition	9392 Sep 13 22:48	0° ♊ 35'39 0°36'08	conjunction	9399 Apr 01 12:10	14° ♊ 46'31	0°20'27
min. Earth dist.	9392 Sep 14 13:43	0° ♊ 34'38 29.29854 AU	minimum elong	9399 Apr 01 12:10	14° ♊ 46'31	0°20'23
	9392 Oct 06 10:24	30° ♊	max. Earth dist.	9399 Mar 31 23:31	14° ♊ 45'20	31.26815 AU
direct	9392 Dec 03 17:25	29° ℌ 11'18	morning rise	9399 Apr 16 22:49	15° ♊ 21'03	
	9393 Jan 28 14:29	0° ♊	retrograde	9399 Jul 13 12:29	17° ♊ 14'28	
evening set	9393 Mar 03 10:50	1° ♊ 06'20	opposition	9399 Sep 30 09:49	15° ♊ 52'05	0°20'39
max. Earth dist.	9393 Mar 18 09:11	1° ♊ 39'35 31.29669 AU	min. Earth dist.	9399 Sep 30 22:10	15° ♊ 51'15	29.26405 AU
			direct	9399 Dec 20 03:48	14° ♊ 28'02	
conjunction	9393 Mar 19 00:42	1° ♊ 41'02 0°32'51	evening set	9400 Mar 19 10:00	16° ♊ 22'58	
minimum elong	9393 Mar 19 00:42	1° ♊ 41'02 0°32'52				
morning rise	9393 Apr 03 12:39	2° ♊ 15'34	conjunction	9400 Apr 03 22:02	16° ♊ 57'37	0°18'15
retrograde	9393 Jun 29 18:51	4° ♊ 08'23	minimum elong	9400 Apr 03 22:02	16° ♊ 57'37	0°18'11
opposition	9393 Sep 16 10:23	2° ♊ 46'08 0°34'03	max. Earth dist.	9400 Apr 03 08:38	16° ♊ 56'22	31.25950 AU
min. Earth dist.	9393 Sep 16 23:57	2° ♊ 45'13 29.29530 AU	morning rise	9400 Apr 19 08:41	17° ♊ 32'09	
direct	9393 Dec 06 03:00	1° ♊ 21'51	retrograde	9400 Jul 15 22:45	19° ♊ 25'38	
evening set	9394 Mar 05 20:48	3° ♊ 16'53	opposition	9400 Oct 02 21:48	18° ♊ 03'11	0°18'18
			min. Earth dist.	9400 Oct 03 09:41	18° ♊ 02'22	29.25495 AU
conjunction	9394 Mar 21 10:30	3° ♊ 51'34 0°30'53	direct	9400 Dec 22 14:23	16° ♊ 39'06	
minimum elong	9394 Mar 21 10:30	3° ♊ 51'34 0°30'53	evening set	9401 Mar 21 20:00	18° ♊ 33'58	
max. Earth dist.	9394 Mar 20 20:16	3° ♊ 50'15 31.29353 AU				
morning rise	9394 Apr 05 22:06	4° ♊ 26'06	conjunction	9401 Apr 06 07:59	19° ♊ 08'37	0°16'03
retrograde	9394 Jul 02 05:39	6° ♊ 19'03	minimum elong	9401 Apr 06 07:59	19° ♊ 08'37	0°15'57
opposition	9394 Sep 18 22:12	4° ♊ 56'48 0°31'56	behind sun begin	9401 Apr 06 06:54	19° ♊ 08'31	
min. Earth dist.	9394 Sep 19 12:18	4° ♊ 55'50 29.29214 AU	behind sun end	9401 Apr 06 09:04	19° ♊ 08'43	
direct	9394 Dec 08 14:56	3° ♊ 32'35	max. Earth dist.	9401 Apr 05 20:10	19° ♊ 07'31	31.25006 AU
evening set	9395 Mar 08 07:00	5° ♊ 27'37	morning rise	9401 Apr 21 18:20	19° ♊ 43'09	
			retrograde	9401 Jul 18 07:41	21° ♊ 36'42	
conjunction	9395 Mar 23 20:21	6° ♊ 02'18 0°28'53	opposition	9401 Oct 05 10:01	20° ♊ 14'10	0°15'55
minimum elong	9395 Mar 23 20:21	6° ♊ 02'18 0°28'52	min. Earth dist.	9401 Oct 05 21:54	20° ♊ 13'21	29.24532 AU
max. Earth dist.	9395 Mar 23 06:05	6° ♊ 00'58 31.29034 AU	direct	9401 Dec 25 01:52	18° ♊ 50'04	
morning rise	9395 Apr 08 07:51	6° ♊ 36'50	evening set	9402 Mar 24 05:56	20° ♊ 44'51	
retrograde	9395 Jul 04 18:24	8° ♊ 29'53				
opposition	9395 Sep 21 09:46	7° ♊ 07'38 0°29'45	conjunction	9402 Apr 08 17:33	21° ♊ 19'30	0°13'49
min. Earth dist.	9395 Sep 21 22:37	7° ♊ 06'46 29.28866 AU	minimum elong	9402 Apr 08 17:33	21° ♊ 19'30	0°13'43
direct	9395 Dec 11 03:12	5° ♊ 43'29	behind sun begin	9402 Apr 08 14:02	21° ♊ 19'11	
evening set	9396 Mar 09 17:13	7° ♊ 38'32	behind sun end	9402 Apr 08 21:05	21° ♊ 19'49	
			max. Earth dist.	9402 Apr 08 05:33	21° ♊ 18'23	31.24055 AU
conjunction	9396 Mar 25 06:19	8° ♊ 13'12 0°26'49	morning rise	9402 Apr 24 03:56	21° ♊ 54'03	
minimum elong	9396 Mar 25 06:19	8° ♊ 13'12 0°26'48	retrograde	9402 Jul 20 19:18	23° ♊ 47'39	
max. Earth dist.	9396 Mar 24 16:25	8° ♊ 11'55 31.28644 AU	opposition	9402 Oct 07 22:07	22° ♊ 25'02	0°13'31
morning rise	9396 Apr 09 17:35	8° ♊ 47'45	min. Earth dist.	9402 Oct 08 08:25	22° ♊ 24'20	29.23603 AU
retrograde	9396 Jul 06 05:07	10° ♊ 40'54	direct	9402 Dec 27 12:27	21° ♊ 00'56	
opposition	9396 Sep 22 21:45	9° ♊ 18'38 0°27'32	evening set	9403 Mar 26 15:51	22° ♊ 55'40	
min. Earth dist.	9396 Sep 23 11:21	9° ♊ 17'43 29.28436 AU				
direct	9396 Dec 12 14:01	7° ♊ 54'32	conjunction	9403 Apr 11 03:22	23° ♊ 30'18	0°11'34
evening set	9397 Mar 12 03:23	9° ♊ 49'34	minimum elong	9403 Apr 11 03:22	23° ♊ 30'18	0°11'27
			behind sun begin	9403 Apr 10 22:40	23° ♊ 29'52	
conjunction	9397 Mar 27 16:15	10° ♊ 24'15 0°24'44	behind sun end	9403 Apr 11 08:03	23° ♊ 30'43	
minimum elong	9397 Mar 27 16:15	10° ♊ 24'15 0°24'41	max. Earth dist.	9403 Apr 10 16:46	23° ♊ 29'19	31.23153 AU
max. Earth dist.	9397 Mar 27 02:58	10° ♊ 23'00 31.28163 AU	morning rise	9403 Apr 26 13:30	24° ♊ 04'50	
morning rise	9397 Apr 12 03:16	10° ♊ 58'47	retrograde	9403 Jul 23 05:28	25° ♊ 58'33	
retrograde	9397 Jul 08 15:40	12° ♊ 52'02	opposition	9403 Oct 10 10:13	24° ♊ 35'51	0°11'06
opposition	9397 Sep 25 09:41	11° ♊ 29'45 0°25'17	min. Earth dist.	9403 Oct 10 20:42	24° ♊ 35'08	29.22751 AU
min. Earth dist.	9397 Sep 25 22:13	11° ♊ 28'54 29.27886 AU	direct	9403 Dec 29 23:51	23° ♊ 11'45	
direct	9397 Dec 15 03:29	10° ♊ 05'41	evening set	9404 Mar 28 01:50	25° ♊ 06'27	
evening set	9398 Mar 14 13:41	12° ♊ 00'42				
			conjunction	9404 Apr 12 13:06	25° ♊ 41'05	0°09'18
conjunction	9398 Mar 30 02:11	12° ♊ 35'22 0°22'36	minimum elong	9404 Apr 12 13:06	25° ♊ 41'05	0°09'11

behind sun begin	9404 Apr 12 07:38	25° Υ 40'35		behind sun end	9409 Apr 23 20:28	6° \mathcal{B} 37'52	
behind sun end	9404 Apr 12 18:33	25° Υ 41'34		max. Earth dist.	9409 Apr 23 06:48	6° \mathcal{B} 36'38	31.19111 AU
max. Earth dist.	9404 Apr 12 02:58	25° Υ 40'09	31.22360 AU	morning rise	9409 May 08 23:49	7° \mathcal{B} 11'55	
morning rise	9404 Apr 27 23:11	26° Υ 15'38		retrograde	9409 Aug 05 02:58	9° \mathcal{B} 06'24	
retrograde	9404 Jul 24 17:45	28° Υ 09'26		opposition	9409 Oct 23 12:33	7° \mathcal{B} 43'36	-0°03'43
opposition	9404 Oct 11 22:20	26° Υ 46'42	0°08'40	min. Earth dist.	9409 Oct 23 18:31	7° \mathcal{B} 43'11	29.18733 AU
min. Earth dist.	9404 Oct 12 06:58	26° Υ 46'07	29.22001 AU	direct	9410 Jan 11 21:27	6° \mathcal{B} 19'50	
direct	9404 Dec 31 11:27	25° Υ 22'38		evening set	9410 Apr 10 13:46	8° \mathcal{B} 14'30	
evening set	9405 Mar 30 11:43	27° Υ 17'19					
conjunction	9405 Apr 14 22:45	27° Υ 51'57	0°07'01	conjunction	9410 Apr 26 00:05	8° \mathcal{B} 49'10	-0°04'42
minimum elong	9405 Apr 14 22:46	27° Υ 51'57	0°06'53	minimum elong	9410 Apr 26 00:05	8° \mathcal{B} 49'10	0°04'53
behind sun begin	9405 Apr 14 16:47	27° Υ 51'25		behind sun begin	9410 Apr 25 17:50	8° \mathcal{B} 48'36	
behind sun end	9405 Apr 15 04:45	27° Υ 52'29		behind sun end	9410 Apr 26 06:21	8° \mathcal{B} 49'44	
max. Earth dist.	9405 Apr 14 13:26	27° Υ 51'05	31.21653 AU	max. Earth dist.	9410 Apr 25 18:18	8° \mathcal{B} 48'39	31.18313 AU
morning rise	9405 Apr 30 08:44	28° Υ 26'30		morning rise	9410 May 11 09:38	9° \mathcal{B} 23'47	
	9405 Jun 22 03:29	0° \mathcal{B}		retrograde	9410 Aug 07 12:59	11° \mathcal{B} 18'25	
retrograde	9405 Jul 27 05:00	0° \mathcal{B} 20'26		opposition	9410 Oct 26 01:19	9° \mathcal{B} 55'35	-0°06'11
	9405 Sep 01 05:37	30° $\mathcal{R}\Upsilon$		min. Earth dist.	9410 Oct 26 07:28	9° \mathcal{B} 55'10	29.17868 AU
opposition	9405 Oct 14 10:43	28° Υ 57'40	0°06'12	direct	9411 Jan 14 09:01	8° \mathcal{B} 31'52	
min. Earth dist.	9405 Oct 14 19:33	28° Υ 57'04	29.21341 AU	evening set	9411 Apr 13 00:04	10° \mathcal{B} 26'31	
direct	9406 Jan 02 21:53	27° Υ 33'40		conjunction	9411 Apr 28 10:09	11° \mathcal{B} 01'11	-0°07'00
evening set	9406 Apr 01 21:36	29° Υ 28'20		minimum elong	9411 Apr 28 10:08	11° \mathcal{B} 01'11	0°07'11
	9406 Apr 16 00:59	0° \mathcal{B}		behind sun begin	9411 Apr 28 04:13	11° \mathcal{B} 00'39	
conjunction	9406 Apr 17 08:33	0° \mathcal{B} 02'58	0°04'43	behind sun end	9411 Apr 28 16:03	11° \mathcal{B} 01'43	
minimum elong	9406 Apr 17 08:32	0° \mathcal{B} 02'58	0°04'35	max. Earth dist.	9411 Apr 28 03:48	11° \mathcal{B} 00'36	31.17386 AU
behind sun begin	9406 Apr 17 02:15	0° \mathcal{B} 02'24		morning rise	9411 May 13 19:48	11° \mathcal{B} 35'50	
behind sun end	9406 Apr 17 14:50	0° \mathcal{B} 03'32		retrograde	9411 Aug 10 01:22	13° \mathcal{B} 30'34	
max. Earth dist.	9406 Apr 17 00:28	0° \mathcal{B} 02'14	31.21030 AU	opposition	9411 Oct 28 13:52	12° \mathcal{B} 07'42	-0°08'39
morning rise	9406 May 02 18:23	0° \mathcal{B} 37'32		min. Earth dist.	9411 Oct 28 18:51	12° \mathcal{B} 07'22	29.16869 AU
retrograde	9406 Jul 29 16:30	2° \mathcal{B} 31'36		direct	9412 Jan 16 19:48	10° \mathcal{B} 44'00	
opposition	9406 Oct 16 22:56	1° \mathcal{B} 08'49	0°03'44	evening set	9412 Apr 14 10:17	12° \mathcal{B} 38'37	
min. Earth dist.	9406 Oct 17 06:16	1° \mathcal{B} 08'19	29.20729 AU	conjunction	9412 Apr 29 20:19	13° \mathcal{B} 13'17	-0°09'17
	9406 Dec 05 08:26	30° $\mathcal{R}\Upsilon$		minimum elong	9412 Apr 29 20:20	13° \mathcal{B} 13'17	0°09'29
direct	9407 Jan 05 11:02	29° Υ 44'53		behind sun begin	9412 Apr 29 14:57	13° \mathcal{B} 12'48	
	9407 Feb 04 20:14	0° \mathcal{B}		behind sun end	9412 Apr 30 01:42	13° \mathcal{B} 13'46	
evening set	9407 Apr 04 07:35	1° \mathcal{B} 39'33		max. Earth dist.	9412 Apr 29 14:50	13° \mathcal{B} 12'47	31.16309 AU
conjunction	9407 Apr 19 18:15	2° \mathcal{B} 14'11	0°02'24	morning rise	9412 May 15 05:51	13° \mathcal{B} 47'57	
minimum elong	9407 Apr 19 18:15	2° \mathcal{B} 14'11	0°02'14		9412 Jun 21 03:38	15° \mathcal{B}	
behind sun begin	9407 Apr 19 11:50	2° \mathcal{B} 13'37		retrograde	9412 Aug 11 12:03	15° \mathcal{B} 42'49	
behind sun end	9407 Apr 20 00:40	2° \mathcal{B} 14'46			9412 Oct 04 10:01	15° $\mathcal{R}\mathcal{B}$	
max. Earth dist.	9407 Apr 19 10:03	2° \mathcal{B} 13'26	31.20427 AU	opposition	9412 Oct 30 02:45	14° \mathcal{B} 19'52	-0°11'07
morning rise	9407 May 05 04:09	2° \mathcal{B} 48'46		min. Earth dist.	9412 Oct 30 08:18	14° \mathcal{B} 19'29	29.15730 AU
retrograde	9407 Aug 01 05:12	4° \mathcal{B} 42'58		direct	9413 Jan 18 07:21	12° \mathcal{B} 56'10	
opposition	9407 Oct 19 11:23	3° \mathcal{B} 20'11	0°01'15	evening set	9413 Apr 16 20:22	14° \mathcal{B} 50'44	
min. Earth dist.	9407 Oct 19 18:39	3° \mathcal{B} 19'42	29.20127 AU		9413 Apr 21 00:25	15° \mathcal{B}	
direct	9408 Jan 07 22:09	1° \mathcal{B} 56'19		conjunction	9413 May 02 06:17	15° \mathcal{B} 25'24	-0°11'34
evening set	9408 Apr 05 17:33	3° \mathcal{B} 50'59		minimum elong	9413 May 02 06:16	15° \mathcal{B} 25'24	0°11'47
conjunction	9408 Apr 21 04:12	4° \mathcal{B} 25'38	0°00'01	behind sun begin	9413 May 02 01:43	15° \mathcal{B} 25'00	
minimum elong	9408 Apr 21 04:11	4° \mathcal{B} 25'38	0°00'09	behind sun end	9413 May 02 10:50	15° \mathcal{B} 25'49	
behind sun begin	9408 Apr 20 21:52	4° \mathcal{B} 25'04		max. Earth dist.	9413 May 02 01:07	15° \mathcal{B} 24'56	31.15129 AU
behind sun end	9408 Apr 21 10:31	4° \mathcal{B} 26'12		morning rise	9413 May 17 15:51	16° \mathcal{B} 00'04	
max. Earth dist.	9408 Apr 20 21:28	4° \mathcal{B} 25'02	31.19803 AU	retrograde	9413 Aug 14 00:29	17° \mathcal{B} 55'03	
desc. node	9408 Apr 24 02:03	4° \mathcal{B} 32'13		opposition	9413 Nov 01 15:30	16° \mathcal{B} 32'01	-0°13'33
morning rise	9408 May 06 13:51	5° \mathcal{B} 00'14		min. Earth dist.	9413 Nov 01 19:26	16° \mathcal{B} 31'44	29.14507 AU
retrograde	9408 Aug 02 15:15	6° \mathcal{B} 54'34		direct	9414 Jan 20 18:51	15° \mathcal{B} 08'17	
opposition	9408 Oct 20 23:51	5° \mathcal{B} 31'47	-0°01'14	evening set	9414 Apr 19 06:29	17° \mathcal{B} 02'49	
min. Earth dist.	9408 Oct 21 06:28	5° \mathcal{B} 31'20	29.19466 AU	conjunction	9414 May 04 16:16	17° \mathcal{B} 37'29	-0°13'50
direct	9409 Jan 09 10:52	4° \mathcal{B} 07'58		minimum elong	9414 May 04 16:16	17° \mathcal{B} 37'29	0°14'03
evening set	9409 Apr 08 03:46	6° \mathcal{B} 02'39		behind sun begin	9414 May 04 12:57	17° \mathcal{B} 37'11	
conjunction	9409 Apr 23 14:04	6° \mathcal{B} 37'18	-0°02'22	behind sun end	9414 May 04 19:35	17° \mathcal{B} 37'47	
minimum elong	9409 Apr 23 14:04	6° \mathcal{B} 37'18	0°02'33	max. Earth dist.	9414 May 04 11:39	17° \mathcal{B} 37'04	31.13882 AU
behind sun begin	9409 Apr 23 07:40	6° \mathcal{B} 36'43		morning rise	9414 May 20 01:53	18° \mathcal{B} 12'10	
				retrograde	9414 Aug 16 12:04	20° \mathcal{B} 07'15	

opposition	9414 Nov 04 04:16	18° 8 44'06 -0°15'58	conjunction	9421 May 19 14:41	3° II 03'11 -0°28'59
min. Earth dist.	9414 Nov 04 08:33	18° 8 43'49 29.13272 AU	minimum elong	9421 May 19 14:41	3° II 03'11 0°29'16
direct	9415 Jan 23 05:23	17° 8 20'22	max. Earth dist.	9421 May 19 16:06	3° II 03'19 31.06934 AU
evening set	9415 Apr 21 16:29	19° 8 14'51	morning rise	9421 Jun 04 00:35	3° II 38'00
			retrograde	9421 Aug 31 22:22	5° II 33'57
conjunction	9415 May 07 02:17	19° 8 49'31 -0°16'04	opposition	9421 Nov 19 22:26	4° II 10'27 -0°32'04
minimum elong	9415 May 07 02:17	19° 8 49'31 0°16'19	min. Earth dist.	9421 Nov 19 21:10	4° II 10'32 29.06495 AU
max. Earth dist.	9415 May 06 23:02	19° 8 49'13 31.12666 AU	direct	9422 Feb 07 17:35	2° II 46'54
morning rise	9415 May 22 11:50	20° 8 24'13	evening set	9422 May 06 15:39	4° II 41'15
retrograde	9415 Aug 19 00:16	22° 8 19'23			
opposition	9415 Nov 06 16:58	20° 8 56'09 -0°18'21	conjunction	9422 May 22 01:06	5° II 16'00 -0°31'01
min. Earth dist.	9415 Nov 06 19:33	20° 8 55'59 29.12080 AU	minimum elong	9422 May 22 01:06	5° II 16'00 0°31'17
direct	9416 Jan 25 19:21	19° 8 32'25	max. Earth dist.	9422 May 22 02:55	5° II 16'10 31.06022 AU
evening set	9416 Apr 23 02:36	21° 8 26'51	morning rise	9422 Jun 06 11:07	5° II 50'49
			retrograde	9422 Sep 03 11:06	7° II 46'54
conjunction	9416 May 08 12:10	22° 8 01'32 -0°18'18	opposition	9422 Nov 22 11:21	6° II 23'23 -0°34'13
minimum elong	9416 May 08 12:10	22° 8 01'32 0°18'32	min. Earth dist.	9422 Nov 22 08:38	6° II 23'34 29.05538 AU
max. Earth dist.	9416 May 08 08:57	22° 8 01'14 31.11513 AU	direct	9423 Feb 10 04:38	4° II 59'50
morning rise	9416 May 23 21:50	22° 8 36'14	evening set	9423 May 09 02:10	6° II 54'11
retrograde	9416 Aug 20 13:44	24° 8 31'32			
opposition	9416 Nov 08 05:47	23° 8 08'14 -0°20'43	conjunction	9423 May 24 11:35	7° II 28'56 -0°32'59
min. Earth dist.	9416 Nov 08 07:56	23° 8 08'05 29.10988 AU	minimum elong	9423 May 24 11:35	7° II 28'56 0°33'17
direct	9417 Jan 27 06:53	21° 8 44'29	max. Earth dist.	9423 May 24 13:31	7° II 29'07 31.05003 AU
evening set	9417 Apr 25 12:36	23° 8 38'55	morning rise	9423 Jun 08 21:45	8° II 03'47
			retrograde	9423 Sep 05 23:32	10° II 00'00
conjunction	9417 May 10 22:16	24° 8 13'36 -0°20'30	opposition	9423 Nov 25 00:35	8° II 36'25 -0°36'19
minimum elong	9417 May 10 22:16	24° 8 13'36 0°20'45	min. Earth dist.	9423 Nov 24 22:31	8° II 36'33 29.04467 AU
max. Earth dist.	9417 May 10 20:57	24° 8 13'29 31.10473 AU	direct	9424 Feb 12 15:15	7° II 12'53
morning rise	9417 May 26 07:49	24° 8 48'19	evening set	9424 May 10 12:36	9° II 07'12
retrograde	9417 Aug 22 23:59	26° 8 43'44			
opposition	9417 Nov 10 18:38	25° 8 20'23 -0°23'04	conjunction	9424 May 25 22:08	9° II 41'58 -0°34'55
min. Earth dist.	9417 Nov 10 19:36	25° 8 20'19 29.09992 AU	minimum elong	9424 May 25 22:08	9° II 41'58 0°35'13
direct	9418 Jan 29 19:35	23° 8 56'40	max. Earth dist.	9424 May 26 01:05	9° II 42'15 31.03871 AU
evening set	9418 Apr 27 22:41	25° 8 51'04	morning rise	9424 Jun 10 08:19	10° II 16'50
			retrograde	9424 Sep 07 12:19	12° II 13'10
conjunction	9418 May 13 08:08	26° 8 25'46 -0°22'40	opposition	9424 Nov 26 13:45	10° II 49'30 -0°38'21
minimum elong	9418 May 13 08:08	26° 8 25'46 0°22'55	min. Earth dist.	9424 Nov 26 10:24	10° II 49'44 29.03267 AU
max. Earth dist.	9418 May 13 06:42	26° 8 25'38 31.09529 AU	direct	9425 Feb 14 04:47	9° II 25'57
morning rise	9418 May 28 17:56	27° 8 00'31	evening set	9425 May 12 23:12	11° II 20'14
retrograde	9418 Aug 25 12:27	28° 8 56'02			
opposition	9418 Nov 13 07:29	27° 8 32'39 -0°25'22	conjunction	9425 May 28 08:39	11° II 55'01 -0°36'48
min. Earth dist.	9418 Nov 13 07:29	27° 8 32'39 29.09091 AU	minimum elong	9425 May 28 08:39	11° II 55'01 0°37'07
direct	9419 Feb 01 07:04	26° 8 08'59	max. Earth dist.	9425 May 28 11:08	11° II 55'15 31.02621 AU
evening set	9419 Apr 30 08:46	28° 8 03'21	morning rise	9425 Jun 12 19:07	12° II 29'55
			retrograde	9425 Sep 10 02:13	14° II 26'21
conjunction	9419 May 15 18:21	28° 8 38'04 -0°24'48	opposition	9425 Nov 29 02:59	13° II 02'35 -0°40'20
minimum elong	9419 May 15 18:20	28° 8 38'04 0°25'04	min. Earth dist.	9425 Nov 28 23:41	13° II 02'48 29.01987 AU
max. Earth dist.	9419 May 15 18:42	28° 8 38'07 31.08648 AU	direct	9426 Feb 16 16:04	11° II 39'01
morning rise	9419 May 31 04:03	29° 8 12'50	evening set	9426 May 15 09:30	13° II 33'15
	9419 Jun 22 19:29	0° II			
retrograde	9419 Aug 27 23:11	1° II 08'30	conjunction	9426 May 30 19:12	14° II 08'03 -0°38'38
	9419 Nov 06 15:57	30° 8 8	minimum elong	9426 May 30 19:12	14° II 08'03 0°38'56
opposition	9419 Nov 15 20:18	29° 8 45'05 -0°27'39	max. Earth dist.	9426 May 30 23:19	14° II 08'26 31.01312 AU
min. Earth dist.	9419 Nov 15 20:09	29° 8 45'05 29.08226 AU	morning rise	9426 Jun 15 05:42	14° II 42'57
direct	9420 Feb 03 19:25	28° 8 21'27	retrograde	9426 Sep 12 13:20	16° II 39'28
	9420 Apr 24 12:45	0° II	opposition	9426 Dec 01 16:06	15° II 15'37 -0°42'16
evening set	9420 May 01 19:04	0° II 15'49	min. Earth dist.	9426 Dec 01 11:53	15° II 15'54 29.00662 AU
			direct	9427 Feb 19 05:17	13° II 52'01
conjunction	9420 May 17 04:29	0° II 50'33 -0°26'55	evening set	9427 May 17 20:04	15° II 46'13
minimum elong	9420 May 17 04:29	0° II 50'33 0°27'11			
max. Earth dist.	9420 May 17 04:47	0° II 50'34 31.07802 AU	conjunction	9427 Jun 02 05:39	16° II 21'01 -0°40'24
morning rise	9420 Jun 01 14:23	1° II 25'20	minimum elong	9427 Jun 02 05:39	16° II 21'01 0°40'43
retrograde	9420 Aug 29 11:49	3° II 21'08	max. Earth dist.	9427 Jun 02 09:27	16° II 21'23 31.00002 AU
opposition	9420 Nov 17 09:15	1° II 57'41 -0°29'53	morning rise	9427 Jun 17 16:27	16° II 55'57
min. Earth dist.	9420 Nov 17 07:37	1° II 57'48 29.07380 AU	retrograde	9427 Sep 15 02:43	18° II 52'34
direct	9421 Feb 05 06:32	0° II 34'05	opposition	9427 Dec 04 05:05	17° II 28'37 -0°44'07
evening set	9421 May 04 05:14	2° II 28'27	min. Earth dist.	9427 Dec 04 00:02	17° II 28'58 28.99389 AU

direct	9428 Feb 21 17:19	16°II05'00		minimum elong	9434 Jun 17 08:29	1°☾54'33	0°51'20
evening set	9428 May 19 06:27	17°II59'10		max. Earth dist.	9434 Jun 17 17:57	1°☾55'27	30.93619 AU
				morning rise	9434 Jul 02 20:45	2°☾29'40	
conjunction	9428 Jun 03 16:15	18°II34'00 -0°42'07		retrograde	9434 Sep 30 18:30	4°☾27'10	
minimum elong	9428 Jun 03 16:15	18°II34'00 0°42'25		opposition	9434 Dec 20 01:04	3°☾02'58	-0°55'13
max. Earth dist.	9428 Jun 03 21:56	18°II34'32 30.98763 AU		min. Earth dist.	9434 Dec 19 15:12	3°☾03'39	28.93288 AU
morning rise	9428 Jun 19 03:03	19°II08'57		direct	9435 Mar 09 00:13	1°☾39'32	
retrograde	9428 Sep 16 14:12	21°II05'39		evening set	9435 Jun 04 09:00	3°☾33'43	
opposition	9428 Dec 05 18:15	19°II41'38 -0°45'55					
min. Earth dist.	9428 Dec 05 12:45	19°II42'01 28.98207 AU		conjunction	9435 Jun 19 19:43	4°☾08'41	-0°52'14
direct	9429 Feb 23 06:15	18°II18'01		minimum elong	9435 Jun 19 19:43	4°☾08'41	0°52'34
evening set	9429 May 21 16:51	20°II12'09		max. Earth dist.	9435 Jun 20 06:33	4°☾09'42	30.92873 AU
				morning rise	9435 Jul 05 08:02	4°☾43'49	
conjunction	9429 Jun 06 02:38	20°II47'00 -0°43'46		retrograde	9435 Oct 03 06:56	6°☾41'26	
minimum elong	9429 Jun 06 02:38	20°II47'00 0°44'05		opposition	9435 Dec 22 14:13	5°☾17'13	-0°56'30
max. Earth dist.	9429 Jun 06 08:33	20°II47'33 30.97652 AU		min. Earth dist.	9435 Dec 22 03:43	5°☾17'56	28.92500 AU
morning rise	9429 Jun 21 13:45	21°II21'59		direct	9436 Mar 10 13:09	3°☾53'47	
retrograde	9429 Sep 19 02:58	23°II18'49		evening set	9436 Jun 05 20:11	5°☾47'58	
opposition	9429 Dec 08 07:19	21°II54'44 -0°47'39					
min. Earth dist.	9429 Dec 08 00:06	21°II55'14 28.97165 AU		conjunction	9436 Jun 21 06:56	6°☾22'57	-0°53'23
direct	9430 Feb 25 17:44	20°II31'07		minimum elong	9436 Jun 21 06:56	6°☾22'57	0°53'43
evening set	9430 May 24 03:21	22°II25'15		max. Earth dist.	9436 Jun 21 16:59	6°☾23'54	30.92045 AU
				morning rise	9436 Jul 06 19:40	6°☾58'07	
conjunction	9430 Jun 08 13:18	23°II00'07 -0°45'21		retrograde	9436 Oct 04 22:19	8°☾55'49	
minimum elong	9430 Jun 08 13:18	23°II00'07 0°45'40		opposition	9436 Dec 24 03:35	7°☾31'33	-0°57'41
max. Earth dist.	9430 Jun 08 20:30	23°II00'48 30.96663 AU		min. Earth dist.	9436 Dec 23 16:43	7°☾32'17	28.91629 AU
morning rise	9430 Jun 24 00:33	23°II35'08		direct	9437 Mar 13 01:33	6°☾08'07	
retrograde	9430 Sep 21 13:30	25°II32'05		evening set	9437 Jun 08 07:10	8°☾02'16	
opposition	9430 Dec 10 20:21	24°II07'58 -0°49'19					
min. Earth dist.	9430 Dec 10 13:13	24°II08'28 28.96244 AU		conjunction	9437 Jun 23 18:16	8°☾37'16	-0°54'28
direct	9431 Feb 28 04:46	22°II44'24		minimum elong	9437 Jun 23 18:16	8°☾37'16	0°54'48
evening set	9431 May 26 13:54	24°II38'32		max. Earth dist.	9437 Jun 24 05:37	8°☾38'21	30.91114 AU
				morning rise	9437 Jul 09 07:09	9°☾12'28	
conjunction	9431 Jun 10 24:00	25°II13'25 -0°46'52		retrograde	9437 Oct 07 10:37	11°☾10'14	
minimum elong	9431 Jun 10 24:00	25°II13'25 0°47'12		opposition	9437 Dec 26 16:55	9°☾45'53	-0°58'47
max. Earth dist.	9431 Jun 11 07:56	25°II14'10 30.95807 AU		min. Earth dist.	9437 Dec 26 06:11	9°☾46'37	28.90649 AU
morning rise	9431 Jun 26 11:28	25°II48'27		direct	9438 Mar 15 14:59	8°☾22'26	
retrograde	9431 Sep 24 02:32	27°II45'32		evening set	9438 Jun 10 18:21	10°☾16'32	
opposition	9431 Dec 13 09:22	26°II21'24 -0°50'55					
min. Earth dist.	9431 Dec 13 00:24	26°II22'01 28.95432 AU		conjunction	9438 Jun 26 05:36	10°☾51'33	-0°55'27
direct	9432 Mar 01 15:32	24°II57'51		minimum elong	9438 Jun 26 05:36	10°☾51'33	0°55'46
evening set	9432 May 28 00:30	26°II52'00		max. Earth dist.	9438 Jun 26 16:34	10°☾52'36	30.90110 AU
				morning rise	9438 Jul 11 18:54	11°☾26'47	
conjunction	9432 Jun 12 10:38	27°II26'54 -0°48'19		retrograde	9438 Oct 10 00:02	13°☾24'35	
minimum elong	9432 Jun 12 10:38	27°II26'54 0°48'39		opposition	9438 Dec 29 05:56	12°☾00'09	-0°59'48
max. Earth dist.	9432 Jun 12 19:06	27°II27'42 30.95030 AU		min. Earth dist.	9438 Dec 28 18:10	12°☾00'58	28.89625 AU
morning rise	9432 Jun 27 22:21	28°II01'58		direct	9439 Mar 18 03:06	10°☾36'39	
retrograde	9432 Sep 25 14:58	29°II59'12		evening set	9439 Jun 13 05:28	12°☾30'43	
opposition	9432 Dec 14 22:40	28°II35'03 -0°52'25					
min. Earth dist.	9432 Dec 14 14:01	28°II35'38 28.94698 AU		conjunction	9439 Jun 28 16:59	13°☾05'45	-0°56'22
direct	9433 Mar 04 01:48	27°II11'33		minimum elong	9439 Jun 28 16:59	13°☾05'45	0°56'42
evening set	9433 May 30 11:10	29°II05'42		max. Earth dist.	9439 Jun 29 04:50	13°☾06'52	30.89073 AU
				morning rise	9439 Jul 14 06:32	13°☾41'00	
conjunction	9433 Jun 14 21:34	29°II40'37 -0°49'42		retrograde	9439 Oct 12 11:24	15°☾38'51	
minimum elong	9433 Jun 14 21:34	29°II40'37 0°50'02		opposition	9439 Dec 31 19:10	14°☾14'20	-1°00'44
max. Earth dist.	9433 Jun 15 07:25	29°II41'33 30.94322 AU		min. Earth dist.	9439 Dec 31 07:46	14°☾15'07	28.88608 AU
	9433 Jun 23 09:36	0°☾		direct	9440 Mar 19 15:40	12°☾50'47	
morning rise	9433 Jun 30 09:26	0°☾15'42		evening set	9440 Jun 14 16:27	14°☾44'48	
retrograde	9433 Sep 28 04:10	2°☾13'04					
opposition	9433 Dec 17 11:46	0°☾48'54 -0°53'52		conjunction	9440 Jun 30 04:13	15°☾19'51	-0°57'11
min. Earth dist.	9433 Dec 17 01:43	0°☾49'36 28.93998 AU		minimum elong	9440 Jun 30 04:13	15°☾19'51	0°57'30
	9434 Jan 18 04:42	30°☾II		max. Earth dist.	9440 Jun 30 16:43	15°☾21'02	30.88093 AU
direct	9434 Mar 06 14:12	29°II25'26		morning rise	9440 Jul 15 18:03	15°☾55'07	
	9434 Apr 21 04:37	0°☾		retrograde	9440 Oct 14 00:54	17°☾53'02	
evening set	9434 Jun 01 22:04	1°☾19'36		opposition	9441 Jan 02 08:16	16°☾28'25	-1°01'34
				min. Earth dist.	9441 Jan 01 19:07	16°☾29'20	28.87672 AU
conjunction	9434 Jun 17 08:29	1°☾54'33 -0°51'00		direct	9441 Mar 22 03:59	15°☾04'51	

evening set	9441 Jun 17 03:40	16° Ω 58'50		max. Earth dist.	9447 Jul 17 05:45	1° Ω 01'59	30.84223 AU
				morning rise	9447 Aug 01 06:00	1° Ω 35'55	
conjunction	9441 Jul 02 15:35	17° Ω 33'54 -0°57'56		retrograde	9447 Oct 30 22:56	3° Ω 34'24	
minimum elong	9441 Jul 02 15:35	17° Ω 33'54 0°58'15		min. Earth dist.	9448 Jan 18 11:29	2° Ω 10'48	28.84071 AU
max. Earth dist.	9441 Jul 03 04:30	17° Ω 35'08 30.87205 AU		opposition	9448 Jan 19 03:41	2° Ω 09'41	-1°04'45
morning rise	9441 Jul 18 05:48	18° Ω 09'12		direct	9448 Apr 06 12:39	0° Ω 46'15	
retrograde	9441 Oct 16 12:21	20° Ω 07'11		evening set	9448 Jul 02 11:41	2° Ω 40'19	
opposition	9442 Jan 04 21:24	18° Ω 42'30 -1°02'19					
min. Earth dist.	9442 Jan 04 08:37	18° Ω 43'23 28.86858 AU		conjunction	9448 Jul 18 01:45	3° Ω 15'34	-1°00'35
direct	9442 Mar 24 14:39	17° Ω 18'55		minimum elong	9448 Jul 18 01:45	3° Ω 15'34	1°00'52
evening set	9442 Jun 19 14:46	19° Ω 12'52		max. Earth dist.	9448 Jul 18 18:20	3° Ω 17'09	30.83798 AU
				morning rise	9448 Aug 02 18:21	3° Ω 51'04	
conjunction	9442 Jul 05 03:06	19° Ω 47'58 -0°58'35		retrograde	9448 Nov 01 12:06	5° Ω 49'38	
minimum elong	9442 Jul 05 03:06	19° Ω 47'58 0°58'53		opposition	9449 Jan 20 16:57	4° Ω 24'54	-1°04'49
max. Earth dist.	9442 Jul 05 17:24	19° Ω 49'19 30.86458 AU		min. Earth dist.	9449 Jan 20 01:32	4° Ω 25'58	28.83603 AU
morning rise	9442 Jul 20 17:33	20° Ω 23'17		direct	9449 Apr 09 01:32	3° Ω 01'28	
retrograde	9442 Oct 19 00:46	22° Ω 21'20		evening set	9449 Jul 04 23:37	4° Ω 55'32	
opposition	9443 Jan 07 10:22	20° Ω 56'37 -1°02'58					
min. Earth dist.	9443 Jan 06 20:03	20° Ω 57'37 28.86171 AU		conjunction	9449 Jul 20 14:04	5° Ω 30'49	-1°00'36
direct	9443 Mar 27 02:46	19° Ω 33'02		minimum elong	9449 Jul 20 14:04	5° Ω 30'49	1°00'53
evening set	9443 Jun 22 02:04	21° Ω 26'59		max. Earth dist.	9449 Jul 21 06:30	5° Ω 32'23	30.83287 AU
				morning rise	9449 Aug 05 07:04	6° Ω 06'21	
conjunction	9443 Jul 07 14:30	22° Ω 02'06 -0°59'09		retrograde	9449 Nov 04 02:55	8° Ω 04'57	
minimum elong	9443 Jul 07 14:30	22° Ω 02'06 0°59'27		opposition	9450 Jan 23 05:55	6° Ω 40'11	-1°04'47
max. Earth dist.	9443 Jul 08 04:33	22° Ω 03'26 30.85833 AU		min. Earth dist.	9450 Jan 22 13:30	6° Ω 41'19	28.83034 AU
morning rise	9443 Jul 23 05:25	22° Ω 37'27		direct	9450 Apr 11 14:22	5° Ω 16'44	
retrograde	9443 Oct 21 14:26	24° Ω 35'35		evening set	9450 Jul 07 11:36	7° Ω 10'47	
opposition	9444 Jan 09 23:26	23° Ω 10'51 -1°03'31					
min. Earth dist.	9444 Jan 09 09:09	23° Ω 11'50 28.85617 AU		conjunction	9450 Jul 23 02:21	7° Ω 46'06	-1°00'31
direct	9444 Mar 28 12:21	21° Ω 47'16		minimum elong	9450 Jul 23 02:21	7° Ω 46'06	1°00'47
evening set	9444 Jun 23 13:17	23° Ω 41'14		max. Earth dist.	9450 Jul 23 18:29	7° Ω 47'38	30.82664 AU
				morning rise	9450 Aug 07 19:49	8° Ω 21'40	
conjunction	9444 Jul 09 02:11	24° Ω 16'23 -0°59'37		retrograde	9450 Nov 06 14:12	10° Ω 20'17	
minimum elong	9444 Jul 09 02:11	24° Ω 16'23 0°59'55		opposition	9451 Jan 25 19:01	8° Ω 55'28	-1°04'38
max. Earth dist.	9444 Jul 09 17:53	24° Ω 17'52 30.85336 AU		min. Earth dist.	9451 Jan 25 03:39	8° Ω 56'32	28.82377 AU
morning rise	9444 Jul 24 17:17	24° Ω 51'45		direct	9451 Apr 14 01:40	7° Ω 31'59	
retrograde	9444 Oct 23 03:21	26° Ω 49'58		evening set	9451 Jul 09 23:24	9° Ω 26'00	
opposition	9445 Jan 11 12:30	25° Ω 25'14 -1°03'59					
min. Earth dist.	9445 Jan 10 21:14	25° Ω 26'17 28.85167 AU		conjunction	9451 Jul 25 14:37	10° Ω 01'20	-1°00'21
direct	9445 Mar 31 00:58	24° Ω 01'41		minimum elong	9451 Jul 25 14:37	10° Ω 01'20	1°00'37
evening set	9445 Jun 26 00:41	25° Ω 55'41		max. Earth dist.	9451 Jul 26 07:35	10° Ω 02'57	30.81988 AU
				morning rise	9451 Aug 10 08:21	10° Ω 36'55	
conjunction	9445 Jul 11 13:45	26° Ω 30'51 -1°00'00		retrograde	9451 Nov 09 02:30	12° Ω 35'32	
minimum elong	9445 Jul 11 13:45	26° Ω 30'51 1°00'18		opposition	9452 Jan 28 07:52	11° Ω 10'40	-1°04'25
max. Earth dist.	9445 Jul 12 04:57	26° Ω 32'17 30.84935 AU		min. Earth dist.	9452 Jan 27 15:27	11° Ω 11'49	28.81687 AU
morning rise	9445 Jul 27 05:23	27° Ω 06'15		direct	9452 Apr 15 14:13	9° Ω 47'08	
retrograde	9445 Oct 25 19:00	29° Ω 04'34		evening set	9452 Jul 11 11:23	11° Ω 41'08	
min. Earth dist.	9446 Jan 13 09:58	27° Ω 40'54 28.84801 AU					
opposition	9446 Jan 14 01:37	27° Ω 39'50 -1°04'20		conjunction	9452 Jul 27 02:49	12° Ω 16'29	-1°00'05
direct	9446 Apr 02 12:17	26° Ω 16'19		minimum elong	9452 Jul 27 02:49	12° Ω 16'29	1°00'20
evening set	9446 Jun 28 12:13	28° Ω 10'20		max. Earth dist.	9452 Jul 27 19:10	12° Ω 18'02	30.81311 AU
				morning rise	9452 Aug 11 21:05	12° Ω 52'05	
conjunction	9446 Jul 14 01:43	28° Ω 45'32 -1°00'17		retrograde	9452 Nov 10 15:40	14° Ω 50'44	
minimum elong	9446 Jul 14 01:43	28° Ω 45'32 1°00'34		opposition	9453 Jan 29 20:47	13° Ω 25'47	-1°04'05
max. Earth dist.	9446 Jul 14 18:17	28° Ω 47'06 30.84578 AU		min. Earth dist.	9453 Jan 29 04:49	13° Ω 26'54	28.81048 AU
morning rise	9446 Jul 29 17:34	29° Ω 20'58		direct	9453 Apr 17 23:51	12° Ω 02'12	
	9446 Aug 17 03:06	0° Ω		evening set	9453 Jul 13 23:09	13° Ω 56'10	
retrograde	9446 Oct 28 07:49	1° Ω 19'22					
	9447 Jan 13 09:03	30° Ω		conjunction	9453 Jul 29 15:08	14° Ω 31'32	-0°59'44
opposition	9447 Jan 16 14:35	29° Ω 54'39 -1°04'36		minimum elong	9453 Jul 29 15:09	14° Ω 31'32	0°59'59
min. Earth dist.	9447 Jan 15 23:07	29° Ω 55'43 28.84447 AU		max. Earth dist.	9453 Jul 30 08:53	14° Ω 33'13	30.80707 AU
direct	9447 Apr 05 00:47	28° Ω 31'11			9453 Aug 11 04:29	15° Ω	
	9447 Jun 19 07:51	0° Ω		morning rise	9453 Aug 14 09:40	15° Ω 07'10	
evening set	9447 Jun 30 23:59	0° Ω 25'14		retrograde	9453 Nov 13 03:34	17° Ω 05'48	
				opposition	9454 Feb 01 09:29	15° Ω 40'48	-1°03'39
conjunction	9447 Jul 16 13:41	1° Ω 00'27 -1°00'29		min. Earth dist.	9454 Jan 31 16:43	15° Ω 41'59	28.80486 AU
minimum elong	9447 Jul 16 13:41	1° Ω 00'27 1°00'47			9454 Feb 26 21:26	15° Ω	

direct	9454 Apr 20 13:07	14°Ω17'11		conjunction	9460 Aug 14 07:03	0°♊17'03	-0°54'44
	9454 Jun 10 05:07	15°Ω		minimum elong	9460 Aug 14 07:03	0°♊17'03	0°54'55
evening set	9454 Jul 16 11:15	16°Ω11'08		max. Earth dist.	9460 Aug 15 02:13	0°♊18'52	30.79589 AU
				morning rise	9460 Aug 30 04:26	0°♊52'52	
conjunction	9454 Aug 01 03:27	16°Ω46'31	-0°59'17	retrograde	9460 Nov 29 04:00	2°♊51'33	
minimum elong	9454 Aug 01 03:27	16°Ω46'31	0°59'31	min. Earth dist.	9461 Feb 16 07:48	1°♊27'46	28.79628 AU
max. Earth dist.	9454 Aug 01 20:26	16°Ω48'08	30.80206 AU	opposition	9461 Feb 17 01:44	1°♊26'31	-0°57'58
morning rise	9454 Aug 16 22:32	17°Ω22'11		direct	9461 May 06 01:17	0°♊02'53	
retrograde	9454 Nov 15 17:47	19°Ω20'49		evening set	9461 Aug 01 00:58	1°♊56'53	
opposition	9455 Feb 03 22:05	17°Ω55'46	-1°03'08				
min. Earth dist.	9455 Feb 03 05:05	17°Ω56'57	28.80055 AU	conjunction	9461 Aug 16 20:00	2°♊32'27	-0°53'40
direct	9455 Apr 22 23:46	16°Ω32'07		minimum elong	9461 Aug 16 20:00	2°♊32'27	0°53'51
evening set	9455 Jul 18 23:11	18°Ω26'04		max. Earth dist.	9461 Aug 17 14:00	2°♊34'09	30.79558 AU
				morning rise	9461 Sep 01 17:57	3°♊08'17	
conjunction	9455 Aug 03 15:54	19°Ω01'28	-0°58'45	retrograde	9461 Dec 01 17:11	5°♊06'58	
minimum elong	9455 Aug 03 15:54	19°Ω01'29	0°58'59	opposition	9462 Feb 19 14:23	3°♊41'55	-0°56'48
max. Earth dist.	9455 Aug 04 10:19	19°Ω03'13	30.79835 AU	min. Earth dist.	9462 Feb 18 21:32	3°♊43'06	28.79557 AU
morning rise	9455 Aug 19 11:14	19°Ω37'09		direct	9462 May 08 11:38	2°♊18'16	
retrograde	9455 Nov 18 05:56	21°Ω35'48		evening set	9462 Aug 03 13:34	4°♊12'15	
opposition	9456 Feb 06 10:47	20°Ω10'44	-1°02'31				
min. Earth dist.	9456 Feb 05 17:41	20°Ω11'55	28.79751 AU	conjunction	9462 Aug 19 09:11	4°♊47'51	-0°52'32
direct	9456 Apr 24 11:38	18°Ω47'03		minimum elong	9462 Aug 19 09:12	4°♊47'51	0°52'41
evening set	9456 Jul 20 11:08	20°Ω41'00		max. Earth dist.	9462 Aug 20 03:48	4°♊49'36	30.79440 AU
				morning rise	9462 Sep 04 07:21	5°♊23'43	
conjunction	9456 Aug 05 04:11	21°Ω16'26	-0°58'07	retrograde	9462 Dec 04 04:51	7°♊22'20	
minimum elong	9456 Aug 05 04:11	21°Ω16'26	0°58'20	min. Earth dist.	9463 Feb 21 09:40	5°♊58'29	28.79389 AU
max. Earth dist.	9456 Aug 05 22:15	21°Ω18'08	30.79612 AU	opposition	9463 Feb 22 02:44	5°♊57'17	-0°55'32
morning rise	9456 Aug 21 00:03	21°Ω52'08		direct	9463 May 11 00:46	4°♊33'36	
retrograde	9456 Nov 19 21:11	23°Ω50'47		evening set	9463 Aug 06 02:17	6°♊27'35	
opposition	9457 Feb 07 23:27	22°Ω25'42	-1°01'47				
min. Earth dist.	9457 Feb 07 05:28	22°Ω26'57	28.79594 AU	conjunction	9463 Aug 21 22:10	7°♊03'11	-0°51'19
direct	9457 Apr 26 23:38	21°Ω02'01		minimum elong	9463 Aug 21 22:10	7°♊03'11	0°51'28
evening set	9457 Jul 22 23:17	22°Ω55'58		max. Earth dist.	9463 Aug 22 15:25	7°♊04'49	30.79254 AU
				morning rise	9463 Sep 06 20:55	7°♊39'04	
conjunction	9457 Aug 07 16:46	23°Ω31'26	-0°57'25	retrograde	9463 Dec 06 18:21	9°♊37'39	
minimum elong	9457 Aug 07 16:47	23°Ω31'26	0°57'38	opposition	9464 Feb 24 15:11	8°♊12'34	-0°54'11
max. Earth dist.	9457 Aug 08 11:38	23°Ω33'13	30.79507 AU	min. Earth dist.	9464 Feb 23 22:27	8°♊13'44	28.79192 AU
morning rise	9457 Aug 23 13:00	24°Ω07'10		direct	9464 May 12 11:15	6°♊48'49	
retrograde	9457 Nov 22 10:40	26°Ω05'49		evening set	9464 Aug 07 14:44	8°♊42'47	
opposition	9458 Feb 10 12:01	24°Ω40'44	-1°00'59				
min. Earth dist.	9458 Feb 09 18:41	24°Ω41'57	28.79544 AU	conjunction	9464 Aug 23 11:11	9°♊18'25	-0°50'01
direct	9458 Apr 29 12:26	23°Ω17'05		minimum elong	9464 Aug 23 11:11	9°♊18'25	0°50'09
evening set	9458 Jul 25 11:31	25°Ω11'02		max. Earth dist.	9464 Aug 24 05:26	9°♊20'08	30.79052 AU
				morning rise	9464 Sep 08 10:12	9°♊54'19	
conjunction	9458 Aug 10 05:27	25°Ω46'32	-0°56'36	retrograde	9464 Dec 08 06:11	11°♊52'51	
minimum elong	9458 Aug 10 05:27	25°Ω46'32	0°56'48	min. Earth dist.	9465 Feb 25 11:06	10°♊28'53	28.78998 AU
max. Earth dist.	9458 Aug 11 00:17	25°Ω48'19	30.79511 AU	opposition	9465 Feb 26 03:30	10°♊27'44	-0°52'45
morning rise	9458 Aug 26 02:06	26°Ω22'17		direct	9465 May 14 23:06	9°♊03'56	
retrograde	9458 Nov 25 01:24	28°Ω20'57		evening set	9465 Aug 10 03:25	10°♊57'53	
min. Earth dist.	9459 Feb 12 06:09	26°Ω57'10	28.79573 AU				
opposition	9459 Feb 13 00:33	26°Ω55'53	-1°00'04	conjunction	9465 Aug 26 00:13	11°♊33'32	-0°48'39
direct	9459 May 02 01:13	25°Ω32'14		minimum elong	9465 Aug 26 00:13	11°♊33'32	0°48'47
evening set	9459 Jul 27 23:51	27°Ω26'13		max. Earth dist.	9465 Aug 26 17:36	11°♊35'10	30.78897 AU
				morning rise	9465 Sep 10 23:45	12°♊09'27	
conjunction	9459 Aug 12 18:04	28°Ω01'44	-0°55'43	retrograde	9465 Dec 10 20:37	14°♊07'56	
minimum elong	9459 Aug 12 18:04	28°Ω01'44	0°55'55	opposition	9466 Feb 28 15:32	12°♊42'47	-0°51'15
max. Earth dist.	9459 Aug 13 12:46	28°Ω03'30	30.79549 AU	min. Earth dist.	9466 Feb 27 22:43	12°♊43'57	28.78885 AU
morning rise	9459 Aug 28 15:09	28°Ω37'31		direct	9466 May 17 11:06	11°♊18'56	
	9459 Oct 10 23:46	0°♊		evening set	9466 Aug 12 16:04	13°♊12'53	
retrograde	9459 Nov 27 14:02	0°♊36'12					
	9460 Jan 15 10:50	30°♋Ω		conjunction	9466 Aug 28 13:18	13°♊48'34	-0°47'12
opposition	9460 Feb 15 13:14	29°Ω11'09	-0°59'04	minimum elong	9466 Aug 28 13:19	13°♊48'34	0°47'19
min. Earth dist.	9460 Feb 14 19:58	29°Ω12'21	28.79619 AU	max. Earth dist.	9466 Aug 29 07:18	13°♊50'15	30.78824 AU
direct	9460 May 03 12:26	27°Ω47'31		morning rise	9466 Sep 13 13:08	14°♊24'30	
evening set	9460 Jul 29 12:18	29°Ω41'30		retrograde	9466 Dec 13 09:22	16°♊22'56	
	9460 Aug 06 18:39	0°♊		min. Earth dist.	9467 Mar 02 11:36	14°♊58'53	28.78873 AU
				opposition	9467 Mar 03 03:42	14°♊57'45	-0°49'40

direct	9467 May 19 23:53	13° <u>17</u> 33'53	morning rise	9473 Sep 29 12:09	0° <u>10</u> 10'22
evening set	9467 Aug 15 04:34	15° <u>17</u> 27'50	retrograde	9473 Dec 29 04:50	2° <u>10</u> 08'28
			opposition	9474 Mar 18 14:58	0° <u>10</u> 43'33 -0°36'36
conjunction	9467 Aug 31 02:12	16° <u>17</u> 03'32 -0°45'42	min. Earth dist.	9474 Mar 17 23:58	0° <u>10</u> 44'36 28.82111 AU
minimum elong	9467 Aug 31 02:12	16° <u>17</u> 03'32 0°45'48		9474 Apr 14 17:41	30° <u>18</u> <u>17</u>
max. Earth dist.	9467 Aug 31 20:02	16° <u>17</u> 05'13 30.78889 AU	direct	9474 Jun 04 09:30	29° <u>17</u> 19'44
morning rise	9467 Sep 16 02:26	16° <u>17</u> 39'29		9474 Jul 23 16:46	0° <u>10</u>
retrograde	9467 Dec 15 23:33	18° <u>17</u> 37'52	evening set	9474 Aug 30 23:09	1° <u>10</u> 13'50
opposition	9468 Mar 04 15:41	17° <u>17</u> 12'41 -0°48'01			
min. Earth dist.	9468 Mar 03 22:29	17° <u>17</u> 13'54 28.79008 AU	conjunction	9474 Sep 15 23:30	1° <u>10</u> 49'40 -0°33'16
direct	9468 May 21 12:36	15° <u>17</u> 48'48	minimum elong	9474 Sep 15 23:30	1° <u>10</u> 49'40 0°33'16
evening set	9468 Aug 16 17:16	17° <u>17</u> 42'46	max. Earth dist.	9474 Sep 16 15:12	1° <u>10</u> 51'08 30.82341 AU
			morning rise	9474 Oct 02 02:10	2° <u>10</u> 25'44
conjunction	9468 Sep 01 15:15	18° <u>17</u> 18'29 -0°44'07	retrograde	9474 Dec 31 18:06	4° <u>10</u> 23'45
minimum elong	9468 Sep 01 15:16	18° <u>17</u> 18'29 0°44'12	min. Earth dist.	9475 Mar 20 11:56	2° <u>10</u> 59'54 28.82592 AU
max. Earth dist.	9468 Sep 02 09:02	18° <u>17</u> 20'09 30.79095 AU	opposition	9475 Mar 21 02:48	2° <u>10</u> 58'52 -0°34'29
morning rise	9468 Sep 17 15:53	18° <u>17</u> 54'27	direct	9475 Jun 06 21:22	1° <u>10</u> 35'00
retrograde	9468 Dec 17 12:28	20° <u>17</u> 52'47	evening set	9475 Sep 02 12:14	3° <u>10</u> 29'06
min. Earth dist.	9469 Mar 06 11:28	19° <u>17</u> 28'46 28.79299 AU			
opposition	9469 Mar 07 03:42	19° <u>17</u> 27'38 -0°46'17	conjunction	9475 Sep 18 13:00	4° <u>10</u> 04'57 -0°31'16
direct	9469 May 24 00:00	18° <u>17</u> 03'44	minimum elong	9475 Sep 18 13:00	4° <u>10</u> 04'57 0°31'16
evening set	9469 Aug 19 05:56	19° <u>17</u> 57'43	max. Earth dist.	9475 Sep 19 04:49	4° <u>10</u> 06'26 30.82773 AU
			morning rise	9475 Oct 04 15:53	4° <u>10</u> 41'01
conjunction	9469 Sep 04 04:28	20° <u>17</u> 33'28 -0°42'28	retrograde	9476 Jan 03 05:39	6° <u>10</u> 38'56
minimum elong	9469 Sep 04 04:28	20° <u>17</u> 33'28 0°42'33	opposition	9476 Mar 22 14:39	5° <u>10</u> 14'02 -0°32'19
max. Earth dist.	9469 Sep 04 22:47	20° <u>17</u> 35'11 30.79469 AU	min. Earth dist.	9476 Mar 22 01:04	5° <u>10</u> 15'00 28.82988 AU
morning rise	9469 Sep 20 05:23	21° <u>17</u> 09'27	direct	9476 Jun 08 09:33	3° <u>10</u> 50'08
retrograde	9469 Dec 20 03:10	23° <u>17</u> 07'44	evening set	9476 Sep 04 01:26	5° <u>10</u> 44'13
opposition	9470 Mar 09 15:32	21° <u>17</u> 42'37 -0°44'29			
min. Earth dist.	9470 Mar 08 22:24	21° <u>17</u> 43'49 28.79733 AU	conjunction	9476 Sep 20 02:35	6° <u>10</u> 20'04 -0°29'13
direct	9470 May 26 13:14	20° <u>17</u> 18'44	minimum elong	9476 Sep 20 02:35	6° <u>10</u> 20'04 0°29'12
evening set	9470 Aug 21 18:48	22° <u>17</u> 12'44	max. Earth dist.	9476 Sep 20 17:26	6° <u>10</u> 21'28 30.83162 AU
			morning rise	9476 Oct 06 05:49	6° <u>10</u> 56'09
conjunction	9470 Sep 06 17:34	22° <u>17</u> 48'30 -0°40'45	retrograde	9477 Jan 04 19:29	8° <u>10</u> 53'57
minimum elong	9470 Sep 06 17:34	22° <u>17</u> 48'30 0°40'48	opposition	9477 Mar 25 02:08	7° <u>10</u> 29'02 -0°30'06
max. Earth dist.	9470 Sep 07 11:03	22° <u>17</u> 50'09 30.79967 AU	min. Earth dist.	9477 Mar 24 12:06	7° <u>10</u> 30'02 28.83361 AU
morning rise	9470 Sep 22 18:57	23° <u>17</u> 24'31	direct	9477 Jun 10 22:01	6° <u>10</u> 05'04
retrograde	9470 Dec 22 15:41	25° <u>17</u> 22'46	evening set	9477 Sep 06 14:41	7° <u>10</u> 59'08
min. Earth dist.	9471 Mar 11 11:15	23° <u>17</u> 58'50 28.80291 AU			
opposition	9471 Mar 12 03:26	23° <u>17</u> 57'42 -0°42'36	conjunction	9477 Sep 22 16:08	8° <u>10</u> 35'00 -0°27'08
direct	9471 May 28 23:36	22° <u>17</u> 33'51	minimum elong	9477 Sep 22 16:09	8° <u>10</u> 35'01 0°27'06
evening set	9471 Aug 24 07:37	24° <u>17</u> 27'53	max. Earth dist.	9477 Sep 23 06:29	8° <u>10</u> 36'21 30.83530 AU
			morning rise	9477 Oct 08 19:41	9° <u>10</u> 11'05
conjunction	9471 Sep 09 06:57	25° <u>17</u> 03'40 -0°38'58	retrograde	9478 Jan 07 08:01	11° <u>10</u> 08'46
minimum elong	9471 Sep 09 06:57	25° <u>17</u> 03'40 0°39'01	opposition	9478 Mar 27 13:45	9° <u>10</u> 43'50 -0°27'50
max. Earth dist.	9471 Sep 10 01:15	25° <u>17</u> 05'23 30.80572 AU	min. Earth dist.	9478 Mar 27 01:08	9° <u>10</u> 44'44 28.83745 AU
morning rise	9471 Sep 25 08:31	25° <u>17</u> 39'42	direct	9478 Jun 13 10:16	8° <u>10</u> 19'49
retrograde	9471 Dec 25 03:34	27° <u>17</u> 37'54	evening set	9478 Sep 09 03:46	10° <u>10</u> 13'52
opposition	9472 Mar 13 15:16	26° <u>17</u> 12'54 -0°40'40			
min. Earth dist.	9472 Mar 12 22:49	26° <u>17</u> 14'03 28.80915 AU	conjunction	9478 Sep 25 05:38	10° <u>10</u> 49'45 -0°25'00
direct	9472 May 30 12:11	24° <u>17</u> 49'05	minimum elong	9478 Sep 25 05:38	10° <u>10</u> 49'45 0°24'57
evening set	9472 Aug 25 20:39	26° <u>17</u> 43'08	max. Earth dist.	9478 Sep 25 20:02	10° <u>10</u> 51'05 30.83944 AU
			morning rise	9478 Oct 11 09:21	11° <u>10</u> 25'49
conjunction	9472 Sep 10 20:12	27° <u>17</u> 18'56 -0°37'07	retrograde	9479 Jan 09 21:47	13° <u>10</u> 23'22
minimum elong	9472 Sep 10 20:12	27° <u>17</u> 18'56 0°37'08	min. Earth dist.	9479 Mar 29 11:51	11° <u>10</u> 59'23 28.84188 AU
max. Earth dist.	9472 Sep 11 13:02	27° <u>17</u> 20'31 30.81212 AU	opposition	9479 Mar 30 01:05	11° <u>10</u> 58'27 -0°25'33
morning rise	9472 Sep 26 22:18	27° <u>17</u> 54'59	direct	9479 Jun 16 00:13	10° <u>10</u> 34'23
retrograde	9472 Dec 26 17:08	29° <u>17</u> 53'09	evening set	9479 Sep 11 17:00	12° <u>10</u> 28'26
min. Earth dist.	9473 Mar 15 11:24	28° <u>17</u> 29'19 28.81550 AU			
opposition	9473 Mar 16 03:12	28° <u>17</u> 28'12 -0°38'39	conjunction	9479 Sep 27 19:02	13° <u>10</u> 04'19 -0°22'50
direct	9473 Jun 01 22:01	27° <u>17</u> 04'23	minimum elong	9479 Sep 27 19:02	13° <u>10</u> 04'19 0°22'47
evening set	9473 Aug 28 09:50	28° <u>17</u> 58'29	max. Earth dist.	9479 Sep 28 08:28	13° <u>10</u> 05'34 30.84434 AU
			morning rise	9479 Oct 13 23:06	13° <u>10</u> 40'24
conjunction	9473 Sep 13 09:55	29° <u>17</u> 34'18 -0°35'13	retrograde	9480 Jan 12 09:59	15° <u>10</u> 37'50
minimum elong	9473 Sep 13 09:55	29° <u>17</u> 34'18 0°35'15	opposition	9480 Mar 31 12:31	14° <u>10</u> 12'55 -0°23'13
max. Earth dist.	9473 Sep 14 03:13	29° <u>17</u> 35'56 30.81815 AU	min. Earth dist.	9480 Mar 31 00:21	14° <u>10</u> 13'46 28.84743 AU
	9473 Sep 24 19:58	0° <u>10</u>	direct	9480 Jun 17 11:16	12° <u>10</u> 48'48

evening set	9480 Sep 13 05:59	14° <u>0</u> 42'51		conjunction	9486 Oct 13 18:00	28° <u>0</u> 45'54	-0°06'57
				minimum elong	9486 Oct 13 18:01	28° <u>0</u> 45'54	0°06'48
conjunction	9480 Sep 29 08:33	15° <u>0</u> 18'45	-0°20'39	behind sun begin	9486 Oct 13 11:54	28° <u>0</u> 45'21	
minimum elong	9480 Sep 29 08:33	15° <u>0</u> 18'45	0°20'34	behind sun end	9486 Oct 14 00:08	28° <u>0</u> 46'27	
max. Earth dist.	9480 Sep 29 22:40	15° <u>0</u> 20'04	30.85050 AU	max. Earth dist.	9486 Oct 14 04:17	28° <u>0</u> 46'51	30.90676 AU
morning rise	9480 Oct 15 12:43	15° <u>0</u> 54'50		morning rise	9486 Oct 29 23:16	29° <u>0</u> 22'00	
retrograde	9481 Jan 13 22:07	17° <u>0</u> 52'10			9486 Nov 17 03:38	0° <u>0</u>	
opposition	9481 Apr 02 23:48	16° <u>0</u> 27'16	-0°20'51	retrograde	9487 Jan 28 00:07	1° <u>0</u> 18'50	
min. Earth dist.	9481 Apr 02 11:18	16° <u>0</u> 28'09	28.85414 AU		9487 Apr 13 11:27	30° <u>0</u> 4	
direct	9481 Jun 20 00:15	15° <u>0</u> 03'09		opposition	9487 Apr 16 19:04	29° <u>0</u> 54'24	-0°06'06
evening set	9481 Sep 15 19:19	16° <u>0</u> 57'13		min. Earth dist.	9487 Apr 16 10:28	29° <u>0</u> 55'00	28.91118 AU
				direct	9487 Jul 03 19:31	28° <u>0</u> 30'21	
					9487 Sep 18 12:50	0° <u>0</u>	
conjunction	9481 Oct 01 22:00	17° <u>0</u> 33'07	-0°18'25	evening set	9487 Sep 30 03:31	0° <u>0</u> 124'41	
minimum elong	9481 Oct 01 22:00	17° <u>0</u> 33'07	0°18'21				
max. Earth dist.	9481 Oct 02 10:40	17° <u>0</u> 34'18	30.85793 AU	conjunction	9487 Oct 16 07:49	1° <u>0</u> 00'38	-0°04'38
morning rise	9481 Oct 18 02:33	18° <u>0</u> 09'12		minimum elong	9487 Oct 16 07:48	1° <u>0</u> 00'38	0°04'29
retrograde	9482 Jan 16 11:19	20° <u>0</u> 06'26		behind sun begin	9487 Oct 16 01:21	1° <u>0</u> 00'03	
opposition	9482 Apr 05 11:01	18° <u>0</u> 41'36	-0°18'27	behind sun end	9487 Oct 16 14:15	1° <u>0</u> 01'12	
min. Earth dist.	9482 Apr 04 22:57	18° <u>0</u> 42'27	28.86231 AU	max. Earth dist.	9487 Oct 16 17:25	1° <u>0</u> 01'31	30.91518 AU
direct	9482 Jun 22 10:25	17° <u>0</u> 17'29		morning rise	9487 Nov 01 13:08	1° <u>0</u> 36'43	
evening set	9482 Sep 18 08:28	19° <u>0</u> 11'34		retrograde	9488 Jan 30 13:41	3° <u>0</u> 33'26	
				opposition	9488 Apr 18 06:04	2° <u>0</u> 09'02	-0°03'36
conjunction	9482 Oct 04 11:35	19° <u>0</u> 47'29	-0°16'10	min. Earth dist.	9488 Apr 17 21:23	2° <u>0</u> 09'39	28.91900 AU
minimum elong	9482 Oct 04 11:35	19° <u>0</u> 47'29	0°16'04	direct	9488 Jul 05 09:34	0° <u>0</u> 44'57	
max. Earth dist.	9482 Oct 05 01:04	19° <u>0</u> 48'45	30.86672 AU	evening set	9488 Oct 01 17:05	2° <u>0</u> 39'18	
morning rise	9482 Oct 20 16:09	20° <u>0</u> 23'35					
retrograde	9483 Jan 18 22:17	22° <u>0</u> 20'43		conjunction	9488 Oct 17 21:28	3° <u>0</u> 15'15	-0°02'16
opposition	9483 Apr 07 22:17	20° <u>0</u> 55'58	-0°16'01	minimum elong	9488 Oct 17 21:29	3° <u>0</u> 15'15	0°02'06
min. Earth dist.	9483 Apr 07 10:39	20° <u>0</u> 56'47	28.87163 AU	behind sun begin	9488 Oct 17 14:54	3° <u>0</u> 14'40	
direct	9483 Jun 24 21:52	19° <u>0</u> 31'52		behind sun end	9488 Oct 18 04:04	3° <u>0</u> 15'51	
evening set	9483 Sep 20 21:38	21° <u>0</u> 26'00		max. Earth dist.	9488 Oct 18 05:35	3° <u>0</u> 15'59	30.92253 AU
				morning rise	9488 Nov 03 03:02	3° <u>0</u> 51'20	
conjunction	9483 Oct 07 00:54	22° <u>0</u> 01'55	-0°13'53	retrograde	9489 Feb 01 01:49	5° <u>0</u> 47'55	
minimum elong	9483 Oct 07 00:54	22° <u>0</u> 01'55	0°13'48	opposition	9489 Apr 20 17:12	4° <u>0</u> 23'33	-0°01'06
behind sun begin	9483 Oct 06 21:34	22° <u>0</u> 01'37		min. Earth dist.	9489 Apr 20 10:06	4° <u>0</u> 24'03	28.92601 AU
behind sun end	9483 Oct 07 04:14	22° <u>0</u> 02'13		direct	9489 Jul 07 20:57	2° <u>0</u> 59'25	
max. Earth dist.	9483 Oct 07 13:06	22° <u>0</u> 03'03	30.87666 AU	asc. node	9489 Sep 29 04:33	4° <u>0</u> 42'47	
morning rise	9483 Oct 23 05:49	22° <u>0</u> 38'01		evening set	9489 Oct 04 06:32	4° <u>0</u> 53'46	
retrograde	9484 Jan 21 11:02	24° <u>0</u> 35'06					
opposition	9484 Apr 09 09:31	23° <u>0</u> 10'26	-0°13'34	conjunction	9489 Oct 20 11:16	5° <u>0</u> 29'43	0°00'09
min. Earth dist.	9484 Apr 08 21:52	23° <u>0</u> 11'15	28.88193 AU	minimum elong	9489 Oct 20 11:16	5° <u>0</u> 29'43	0°00'19
direct	9484 Jun 26 08:48	21° <u>0</u> 46'21		behind sun begin	9489 Oct 20 04:43	5° <u>0</u> 29'08	
evening set	9484 Sep 22 10:59	23° <u>0</u> 40'33		behind sun end	9489 Oct 20 17:49	5° <u>0</u> 30'18	
				max. Earth dist.	9489 Oct 20 19:26	5° <u>0</u> 30'27	30.92926 AU
conjunction	9484 Oct 08 14:35	24° <u>0</u> 16'29	-0°11'35	morning rise	9489 Nov 05 16:45	6° <u>0</u> 05'47	
minimum elong	9484 Oct 08 14:36	24° <u>0</u> 16'29	0°11'28	retrograde	9490 Feb 03 14:18	8° <u>0</u> 02'12	
behind sun begin	9484 Oct 08 09:54	24° <u>0</u> 16'04		opposition	9490 Apr 23 03:59	6° <u>0</u> 37'52	0°01'25
behind sun end	9484 Oct 08 19:17	24° <u>0</u> 16'54		min. Earth dist.	9490 Apr 22 21:04	6° <u>0</u> 38'21	28.93248 AU
max. Earth dist.	9484 Oct 09 03:03	24° <u>0</u> 17'38	30.88708 AU	direct	9490 Jul 10 10:40	5° <u>0</u> 13'41	
morning rise	9484 Oct 24 19:34	24° <u>0</u> 52'35		evening set	9490 Oct 06 20:03	7° <u>0</u> 08'01	
retrograde	9485 Jan 22 22:16	26° <u>0</u> 49'35					
opposition	9485 Apr 11 20:39	25° <u>0</u> 25'01	-0°11'06	conjunction	9490 Oct 23 00:47	7° <u>0</u> 43'59	0°02'32
min. Earth dist.	9485 Apr 11 10:28	25° <u>0</u> 25'44	28.89236 AU	minimum elong	9490 Oct 23 00:46	7° <u>0</u> 43'58	0°02'44
direct	9485 Jun 28 19:41	24° <u>0</u> 00'58		behind sun begin	9490 Oct 22 18:12	7° <u>0</u> 43'23	
evening set	9485 Sep 25 00:30	25° <u>0</u> 55'13		behind sun end	9490 Oct 23 07:20	7° <u>0</u> 44'34	
				max. Earth dist.	9490 Oct 23 07:08	7° <u>0</u> 44'32	30.93575 AU
conjunction	9485 Oct 11 04:20	26° <u>0</u> 31'10	-0°09'17	morning rise	9490 Nov 08 06:28	8° <u>0</u> 20'01	
minimum elong	9485 Oct 11 04:19	26° <u>0</u> 31'10	0°09'09	retrograde	9491 Feb 06 03:30	10° <u>0</u> 16'18	
behind sun begin	9485 Oct 10 22:47	26° <u>0</u> 30'40		opposition	9491 Apr 25 14:53	8° <u>0</u> 51'58	0°03'54
behind sun end	9485 Oct 11 09:52	26° <u>0</u> 31'39		min. Earth dist.	9491 Apr 25 08:40	8° <u>0</u> 52'24	28.93913 AU
max. Earth dist.	9485 Oct 11 15:26	26° <u>0</u> 32'11	30.89740 AU	direct	9491 Jul 12 22:05	7° <u>0</u> 27'43	
morning rise	9485 Oct 27 09:30	27° <u>0</u> 07'15		evening set	9491 Oct 09 09:10	9° <u>0</u> 22'03	
retrograde	9486 Jan 25 11:57	29° <u>0</u> 04'11					
opposition	9486 Apr 14 07:47	27° <u>0</u> 39'42	-0°08'36	conjunction	9491 Oct 25 14:13	9° <u>0</u> 58'00	0°04'52
min. Earth dist.	9486 Apr 13 21:25	27° <u>0</u> 40'26	28.90230 AU	minimum elong	9491 Oct 25 14:13	9° <u>0</u> 58'00	0°05'04
direct	9486 Jul 01 07:18	26° <u>0</u> 15'39		behind sun begin	9491 Oct 25 07:49	9° <u>0</u> 57'26	
evening set	9486 Sep 27 14:02	28° <u>0</u> 09'57					

behind sun end	9491 Oct 25 20:36	9° \mathcal{M} 58'34		direct	9497 Jul 25 19:35	20° \mathcal{M} 48'48	
max. Earth dist.	9491 Oct 25 21:10	9° \mathcal{M} 58'38	30.94254 AU	evening set	9497 Oct 22 17:01	22° \mathcal{M} 43'17	
morning rise	9491 Nov 10 19:48	10° \mathcal{M} 34'03					
retrograde	9492 Feb 08 13:16	12° \mathcal{M} 30'10		conjunction	9497 Nov 07 22:25	23° \mathcal{M} 19'11	0°18'30
opposition	9492 Apr 27 01:41	11° \mathcal{M} 05'51	0°06'24	minimum elong	9497 Nov 07 22:25	23° \mathcal{M} 19'11	0°18'46
min. Earth dist.	9492 Apr 26 20:07	11° \mathcal{M} 06'14	28.94617 AU	max. Earth dist.	9497 Nov 08 01:18	23° \mathcal{M} 19'27	31.00368 AU
direct	9492 Jul 14 10:38	9° \mathcal{M} 41'33		morning rise	9497 Nov 24 04:00	23° \mathcal{M} 55'08	
evening set	9492 Oct 10 22:34	11° \mathcal{M} 35'53		retrograde	9498 Feb 21 10:09	25° \mathcal{M} 50'32	
				opposition	9498 May 10 17:19	24° \mathcal{M} 26'36	0°20'57
conjunction	9492 Oct 27 03:38	12° \mathcal{M} 11'49	0°07'11	min. Earth dist.	9498 May 10 15:00	24° \mathcal{M} 26'45	29.00971 AU
minimum elong	9492 Oct 27 03:37	12° \mathcal{M} 11'49	0°07'23	direct	9498 Jul 28 06:14	23° \mathcal{M} 02'13	
behind sun begin	9492 Oct 26 21:37	12° \mathcal{M} 11'17		evening set	9498 Oct 25 06:21	24° \mathcal{M} 56'46	
behind sun end	9492 Oct 27 09:37	12° \mathcal{M} 12'21					
max. Earth dist.	9492 Oct 27 09:02	12° \mathcal{M} 12'18	30.95005 AU	conjunction	9498 Nov 10 11:55	25° \mathcal{M} 32'39	0°20'42
morning rise	9492 Nov 12 09:24	12° \mathcal{M} 47'51		minimum elong	9498 Nov 10 11:55	25° \mathcal{M} 32'39	0°20'59
retrograde	9493 Feb 10 00:56	14° \mathcal{M} 43'49		max. Earth dist.	9498 Nov 10 14:44	25° \mathcal{M} 32'55	31.01541 AU
opposition	9493 Apr 29 12:15	13° \mathcal{M} 19'31	0°08'52	morning rise	9498 Nov 26 17:18	26° \mathcal{M} 08'35	
min. Earth dist.	9493 Apr 29 06:41	13° \mathcal{M} 19'55	28.95421 AU	retrograde	9499 Feb 23 22:37	28° \mathcal{M} 03'52	
direct	9493 Jul 16 21:37	11° \mathcal{M} 55'10		opposition	9499 May 13 03:55	26° \mathcal{M} 40'00	0°23'17
evening set	9493 Oct 13 11:51	13° \mathcal{M} 49'30		min. Earth dist.	9499 May 13 01:55	26° \mathcal{M} 40'09	29.02096 AU
				direct	9499 Jul 30 19:51	25° \mathcal{M} 15'38	
conjunction	9493 Oct 29 17:06	14° \mathcal{M} 25'27	0°09'29	evening set	9499 Oct 27 19:43	27° \mathcal{M} 10'12	
minimum elong	9493 Oct 29 17:07	14° \mathcal{M} 25'27	0°09'41				
behind sun begin	9493 Oct 29 11:44	14° \mathcal{M} 24'58		conjunction	9499 Nov 13 01:09	27° \mathcal{M} 46'06	0°22'52
behind sun end	9493 Oct 29 22:29	14° \mathcal{M} 25'56		minimum elong	9499 Nov 13 01:09	27° \mathcal{M} 46'06	0°23'09
max. Earth dist.	9493 Oct 29 22:56	14° \mathcal{M} 25'58	30.95855 AU	max. Earth dist.	9499 Nov 13 01:54	27° \mathcal{M} 46'10	31.02617 AU
morning rise	9493 Nov 14 22:45	15° \mathcal{M} 01'27		morning rise	9499 Nov 29 06:35	28° \mathcal{M} 22'00	
	9493 Nov 14 06:47	15° \mathcal{M}			9500 Jan 25 07:56	0° \mathcal{Z}	
retrograde	9494 Feb 12 11:11	16° \mathcal{M} 57'17		retrograde	9500 Feb 26 11:36	0° \mathcal{Z} 17'10	
opposition	9494 May 01 23:00	15° \mathcal{M} 33'02	0°11'20		9500 Mar 30 21:21	30° \mathcal{R} \mathcal{M}	
min. Earth dist.	9494 May 01 18:33	15° \mathcal{M} 33'21	28.96334 AU	opposition	9500 May 15 14:32	28° \mathcal{M} 53'22	0°25'35
	9494 May 22 00:11	15° \mathcal{R} \mathcal{M}		min. Earth dist.	9500 May 15 13:31	28° \mathcal{M} 53'26	29.03125 AU
direct	9494 Jul 19 08:09	14° \mathcal{M} 08'39		direct	9500 Aug 02 07:30	27° \mathcal{M} 28'58	
	9494 Sep 14 01:26	15° \mathcal{M}		evening set	9500 Oct 30 09:03	29° \mathcal{M} 23'34	
evening set	9494 Oct 16 01:01	16° \mathcal{M} 03'00					
				conjunction	9500 Nov 15 14:40	29° \mathcal{M} 59'27	0°25'00
conjunction	9494 Nov 01 06:18	16° \mathcal{M} 38'55	0°11'46	minimum elong	9500 Nov 15 14:39	29° \mathcal{M} 59'27	0°25'17
minimum elong	9494 Nov 01 06:18	16° \mathcal{M} 38'55	0°12'00		9500 Nov 15 20:37	0° \mathcal{Z}	
behind sun begin	9494 Nov 01 01:52	16° \mathcal{M} 38'32		max. Earth dist.	9500 Nov 15 15:28	29° \mathcal{M} 59'32	31.03586 AU
behind sun end	9494 Nov 01 10:44	16° \mathcal{M} 39'19		morning rise	9500 Dec 01 19:49	0° \mathcal{Z} 35'20	
max. Earth dist.	9494 Nov 01 11:10	16° \mathcal{M} 39'22	30.96842 AU	retrograde	9501 Feb 28 21:41	2° \mathcal{Z} 30'22	
morning rise	9494 Nov 17 12:01	17° \mathcal{M} 14'55		opposition	9501 May 18 01:00	1° \mathcal{Z} 06'37	0°27'51
retrograde	9495 Feb 14 23:06	19° \mathcal{M} 10'38		min. Earth dist.	9501 May 18 01:04	1° \mathcal{Z} 06'37	29.04039 AU
opposition	9495 May 04 09:35	17° \mathcal{M} 46'26	0°13'46		9501 Jul 02 13:53	30° \mathcal{R} \mathcal{M}	
min. Earth dist.	9495 May 04 04:28	17° \mathcal{M} 46'48	28.97384 AU	direct	9501 Aug 04 20:12	29° \mathcal{M} 42'12	
direct	9495 Jul 21 19:27	16° \mathcal{M} 22'02			9501 Sep 06 14:28	0° \mathcal{Z}	
evening set	9495 Oct 18 14:16	18° \mathcal{M} 16'25		evening set	9501 Nov 01 22:29	1° \mathcal{Z} 36'49	
conjunction	9495 Nov 03 19:38	18° \mathcal{M} 52'20	0°14'02	conjunction	9501 Nov 18 03:54	2° \mathcal{Z} 12'41	0°27'05
minimum elong	9495 Nov 03 19:38	18° \mathcal{M} 52'20	0°14'16	minimum elong	9501 Nov 18 03:54	2° \mathcal{Z} 12'41	0°27'22
behind sun begin	9495 Nov 03 16:43	18° \mathcal{M} 52'05		max. Earth dist.	9501 Nov 18 02:43	2° \mathcal{Z} 12'34	31.04466 AU
behind sun end	9495 Nov 03 22:34	18° \mathcal{M} 52'36		morning rise	9501 Dec 04 09:06	2° \mathcal{Z} 48'32	
max. Earth dist.	9495 Nov 04 00:13	18° \mathcal{M} 52'45	30.97948 AU	retrograde	9502 Mar 03 09:37	4° \mathcal{Z} 43'25	
morning rise	9495 Nov 20 01:18	19° \mathcal{M} 28'19		opposition	9502 May 20 11:26	3° \mathcal{Z} 19'44	0°30'03
retrograde	9496 Feb 17 09:38	21° \mathcal{M} 23'55		min. Earth dist.	9502 May 20 11:47	3° \mathcal{Z} 19'42	29.04889 AU
opposition	9496 May 05 20:13	19° \mathcal{M} 59'48	0°16'12	direct	9502 Aug 07 07:29	1° \mathcal{Z} 55'16	
min. Earth dist.	9496 May 05 16:33	20° \mathcal{M} 00'03	28.98548 AU	evening set	9502 Nov 04 11:31	3° \mathcal{Z} 49'53	
direct	9496 Jul 23 06:44	18° \mathcal{M} 35'24					
evening set	9496 Oct 20 03:32	20° \mathcal{M} 29'50		conjunction	9502 Nov 20 17:01	4° \mathcal{Z} 25'45	0°29'08
				minimum elong	9502 Nov 20 17:01	4° \mathcal{Z} 25'45	0°29'26
conjunction	9496 Nov 05 09:03	21° \mathcal{M} 05'45	0°16'17	max. Earth dist.	9502 Nov 20 16:01	4° \mathcal{Z} 25'39	31.05283 AU
minimum elong	9496 Nov 05 09:03	21° \mathcal{M} 05'45	0°16'32	morning rise	9502 Dec 06 21:54	5° \mathcal{Z} 01'35	
max. Earth dist.	9496 Nov 05 13:13	21° \mathcal{M} 06'07	30.99157 AU	retrograde	9503 Mar 05 19:31	6° \mathcal{Z} 56'20	
morning rise	9496 Nov 21 14:40	21° \mathcal{M} 41'42		opposition	9503 May 22 21:55	5° \mathcal{Z} 32'40	0°32'13
retrograde	9497 Feb 18 22:08	23° \mathcal{M} 37'12		min. Earth dist.	9503 May 22 23:43	5° \mathcal{Z} 32'33	29.05694 AU
opposition	9497 May 08 06:43	22° \mathcal{M} 13'11	0°18'35	direct	9503 Aug 09 18:13	4° \mathcal{Z} 08'10	
min. Earth dist.	9497 May 08 02:49	22° \mathcal{M} 13'27	28.99765 AU	evening set	9503 Nov 07 00:41	6° \mathcal{Z} 02'48	

conjunction	9503 Nov 23 06:04	6°♊38'38	0°31'08	direct	9510 Aug 25 04:19	19°♊35'20	
minimum elong	9503 Nov 23 06:04	6°♊38'38	0°31'26	evening set	9510 Nov 22 19:15	21°♊30'15	
max. Earth dist.	9503 Nov 23 03:45	6°♊38'25	31.06096 AU				
morning rise	9503 Dec 09 10:55	7°♊14'27		conjunction	9510 Dec 08 23:43	22°♊05'57	0°43'41
retrograde	9504 Mar 07 06:31	9°♊09'03		minimum elong	9510 Dec 08 23:43	22°♊05'57	0°44'00
opposition	9504 May 24 08:04	7°♊45'26	0°34'20	max. Earth dist.	9510 Dec 08 17:21	22°♊05'22	31.13856 AU
min. Earth dist.	9504 May 24 09:30	7°♊45'20	29.06515 AU	morning rise	9510 Dec 25 03:03	22°♊41'34	
direct	9504 Aug 11 05:37	6°♊20'52		retrograde	9511 Mar 23 13:26	24°♊35'26	
evening set	9504 Nov 08 13:47	8°♊15'31		opposition	9511 Jun 09 07:50	23°♊12'20	0°47'31
				min. Earth dist.	9511 Jun 09 12:52	23°♊11'59	29.14488 AU
conjunction	9504 Nov 24 19:07	8°♊51'20	0°33'05	direct	9511 Aug 27 16:02	21°♊47'47	
minimum elong	9504 Nov 24 19:07	8°♊51'20	0°33'24	evening set	9511 Nov 25 08:10	23°♊42'44	
max. Earth dist.	9504 Nov 24 16:25	8°♊51'05	31.06927 AU				
morning rise	9504 Dec 10 23:44	9°♊27'07		conjunction	9511 Dec 11 12:36	24°♊18'26	0°45'14
retrograde	9505 Mar 09 15:53	11°♊21'36		minimum elong	9511 Dec 11 12:36	24°♊18'26	0°45'34
opposition	9505 May 26 18:27	9°♊58'01	0°36'24	max. Earth dist.	9511 Dec 11 06:17	24°♊17'51	31.15048 AU
min. Earth dist.	9505 May 26 21:20	9°♊57'49	29.07385 AU	morning rise	9511 Dec 27 15:30	24°♊54'01	
direct	9505 Aug 13 16:47	8°♊33'25		retrograde	9512 Mar 24 23:38	26°♊47'47	
evening set	9505 Nov 11 02:45	10°♊28'06		opposition	9512 Jun 10 18:08	25°♊24'45	0°49'09
				min. Earth dist.	9512 Jun 11 00:53	25°♊24'17	29.15627 AU
conjunction	9505 Nov 27 08:00	11°♊03'53	0°35'00	direct	9512 Aug 29 03:14	24°♊00'12	
minimum elong	9505 Nov 27 08:00	11°♊03'53	0°35'18	evening set	9512 Nov 26 21:12	25°♊55'11	
max. Earth dist.	9505 Nov 27 04:56	11°♊03'36	31.07839 AU				
morning rise	9505 Dec 13 12:24	11°♊39'38		conjunction	9512 Dec 13 01:21	26°♊30'50	0°46'43
retrograde	9506 Mar 12 03:00	13°♊34'00		minimum elong	9512 Dec 13 01:21	26°♊30'50	0°47'03
opposition	9506 May 29 04:36	12°♊10'27	0°38'24	max. Earth dist.	9512 Dec 12 17:24	26°♊30'06	31.16131 AU
min. Earth dist.	9506 May 29 06:57	12°♊10'17	29.08343 AU	morning rise	9512 Dec 29 04:06	27°♊06'24	
direct	9506 Aug 16 04:58	10°♊45'49		retrograde	9513 Mar 27 10:20	29°♊00'03	
evening set	9506 Nov 13 15:44	12°♊40'32		opposition	9513 Jun 13 04:25	27°♊37'05	0°50'41
				min. Earth dist.	9513 Jun 13 10:58	27°♊36'37	29.16644 AU
conjunction	9506 Nov 29 20:47	13°♊16'19	0°36'51	direct	9513 Aug 31 15:09	26°♊12'30	
minimum elong	9506 Nov 29 20:47	13°♊16'19	0°37'10	evening set	9513 Nov 29 10:02	28°♊07'29	
max. Earth dist.	9506 Nov 29 16:51	13°♊15'57	31.08855 AU				
morning rise	9506 Dec 16 01:01	13°♊52'02		conjunction	9513 Dec 15 14:00	28°♊43'08	0°48'08
retrograde	9507 Mar 14 14:08	15°♊46'17		minimum elong	9513 Dec 15 14:00	28°♊43'08	0°48'28
opposition	9507 May 31 14:54	14°♊22'48	0°40'21	max. Earth dist.	9513 Dec 15 05:25	28°♊42'20	31.17077 AU
min. Earth dist.	9507 May 31 18:17	14°♊22'34	29.09437 AU	morning rise	9513 Dec 31 16:21	29°♊18'39	
direct	9507 Aug 18 15:02	12°♊58'10			9514 Jan 20 18:45	0°♊	
evening set	9507 Nov 16 04:27	14°♊52'55		retrograde	9514 Mar 29 19:17	1°♊12'11	
					9514 Jun 09 04:27	30°♊	
conjunction	9507 Dec 02 09:33	15°♊28'40	0°38'39	opposition	9514 Jun 15 14:49	29°♊49'15	0°52'10
minimum elong	9507 Dec 02 09:33	15°♊28'40	0°38'58	min. Earth dist.	9514 Jun 15 23:04	29°♊48'41	29.17542 AU
max. Earth dist.	9507 Dec 02 06:04	15°♊28'21	31.10013 AU	direct	9514 Sep 03 01:44	28°♊24'39	
morning rise	9507 Dec 18 13:30	16°♊04'22			9514 Nov 22 16:24	0°♊	
retrograde	9508 Mar 16 01:57	17°♊58'31		evening set	9514 Dec 01 22:47	0°♊19'38	
opposition	9508 Jun 02 01:07	16°♊35'07	0°42'14				
min. Earth dist.	9508 Jun 02 04:26	16°♊34'53	29.10641 AU	conjunction	9514 Dec 18 02:33	0°♊55'15	0°49'28
direct	9508 Aug 20 04:40	15°♊10'30		minimum elong	9514 Dec 18 02:33	0°♊55'15	0°49'49
evening set	9508 Nov 17 17:29	17°♊05'19		max. Earth dist.	9514 Dec 17 17:14	0°♊54'23	31.17931 AU
				morning rise	9515 Jan 03 04:38	1°♊30'44	
conjunction	9508 Dec 03 22:18	17°♊41'03	0°40'23	retrograde	9515 Apr 01 05:49	3°♊24'09	
minimum elong	9508 Dec 03 22:18	17°♊41'03	0°40'42	opposition	9515 Jun 18 00:58	2°♊01'15	0°53'33
max. Earth dist.	9508 Dec 03 17:15	17°♊40'35	31.11268 AU	min. Earth dist.	9515 Jun 18 09:03	2°♊00'41	29.18348 AU
morning rise	9508 Dec 20 02:09	18°♊16'43		direct	9515 Sep 05 13:30	0°♊36'35	
retrograde	9509 Mar 18 14:31	20°♊10'47		evening set	9515 Dec 04 11:26	2°♊31'34	
opposition	9509 Jun 04 11:14	18°♊47'28	0°44'04				
min. Earth dist.	9509 Jun 04 15:09	18°♊47'12	29.11936 AU	conjunction	9515 Dec 20 14:56	3°♊07'09	0°50'45
direct	9509 Aug 22 16:11	17°♊22'53		minimum elong	9515 Dec 20 14:56	3°♊07'09	0°51'05
evening set	9509 Nov 20 06:22	19°♊17'45		max. Earth dist.	9515 Dec 20 04:28	3°♊06'11	31.18700 AU
				morning rise	9516 Jan 05 16:47	3°♊42'37	
conjunction	9509 Dec 06 11:10	19°♊53'29	0°42'04	retrograde	9516 Apr 02 16:00	5°♊35'54	
minimum elong	9509 Dec 06 11:10	19°♊53'29	0°42'24	opposition	9516 Jun 19 11:15	4°♊13'01	0°54'52
max. Earth dist.	9509 Dec 06 06:36	19°♊53'03	31.12573 AU	min. Earth dist.	9516 Jun 19 20:40	4°♊12'22	29.19101 AU
morning rise	9509 Dec 22 14:36	20°♊29'07		direct	9516 Sep 06 23:59	2°♊48'19	
retrograde	9510 Mar 21 00:45	22°♊23'05		evening set	9516 Dec 05 23:58	4°♊43'18	
opposition	9510 Jun 06 21:33	20°♊59'53	0°45'50				
min. Earth dist.	9510 Jun 07 02:24	20°♊59'33	29.13235 AU	conjunction	9516 Dec 22 03:21	5°♊18'51	0°51'56

minimum elong	9516 Dec 22 03:21	5°38'51 0°52'16	evening set	9523 Dec 22 14:01	20°302'59	
max. Earth dist.	9516 Dec 21 17:07	5°38'17'54 31.19435 AU				
morning rise	9517 Jan 07 04:46	5°35'41'16	conjunction	9524 Jan 07 15:23	20°338'23 0°58'05	
retrograde	9517 Apr 05 02:15	7°347'26	minimum elong	9524 Jan 07 15:23	20°338'23 0°58'25	
opposition	9517 Jun 21 21:20	6°324'35 0°56'07	max. Earth dist.	9524 Jan 07 01:57	20°337'08 31.25903 AU	
min. Earth dist.	9517 Jun 22 06:54	6°323'55 29.19826 AU	morning rise	9524 Jan 23 14:26	21°313'35	
direct	9517 Sep 09 13:25	4°359'50	retrograde	9524 Apr 20 04:16	23°306'18	
evening set	9517 Dec 08 12:31	6°354'49	opposition	9524 Jul 06 20:58	21°343'56 1°02'22	
			min. Earth dist.	9524 Jul 07 09:00	21°343'05 29.26372 AU	
conjunction	9517 Dec 24 15:29	7°330'21 0°53'03	direct	9524 Sep 24 20:16	20°319'18	
minimum elong	9517 Dec 24 15:28	7°330'21 0°53'24	evening set	9524 Dec 24 02:21	22°314'34	
max. Earth dist.	9517 Dec 24 03:47	7°329'16 31.20174 AU				
morning rise	9518 Jan 09 16:42	8°305'43	conjunction	9525 Jan 09 03:18	22°349'56 0°58'38	
retrograde	9518 Apr 07 13:52	9°358'48	minimum elong	9525 Jan 09 03:18	22°349'56 0°58'56	
opposition	9518 Jun 24 07:33	8°335'57 0°57'16	max. Earth dist.	9525 Jan 08 12:40	22°348'35 31.26727 AU	
min. Earth dist.	9518 Jun 24 17:23	8°335'16 29.20602 AU	morning rise	9525 Jan 25 01:59	23°325'07	
direct	9518 Sep 12 00:45	7°311'10	retrograde	9525 Apr 22 14:17	25°317'47	
evening set	9518 Dec 11 00:39	9°306'11	opposition	9525 Jul 09 07:22	23°355'27 1°02'54	
			min. Earth dist.	9525 Jul 09 20:43	23°354'32 29.27138 AU	
conjunction	9518 Dec 27 03:31	9°341'40 0°54'06	direct	9525 Sep 27 06:22	22°330'51	
minimum elong	9518 Dec 27 03:31	9°341'40 0°54'25	evening set	9525 Dec 26 14:28	24°326'08	
max. Earth dist.	9518 Dec 26 16:38	9°340'40 31.20977 AU				
morning rise	9519 Jan 12 04:14	10°317'01	conjunction	9526 Jan 11 15:13	25°301'28 0°59'05	
retrograde	9519 Apr 09 23:33	12°310'00	minimum elong	9526 Jan 11 15:13	25°301'28 0°59'25	
opposition	9519 Jun 26 17:48	10°347'12 0°58'20	max. Earth dist.	9526 Jan 11 00:43	25°300'07 31.27420 AU	
min. Earth dist.	9519 Jun 27 04:13	10°346'28 29.21445 AU	morning rise	9526 Jan 27 13:26	25°336'37	
direct	9519 Sep 14 13:00	9°322'25	retrograde	9526 Apr 25 00:17	27°329'13	
evening set	9519 Dec 13 13:03	11°317'26	opposition	9526 Jul 11 17:49	26°306'56 1°03'21	
			min. Earth dist.	9526 Jul 12 07:28	26°305'59 29.27753 AU	
conjunction	9519 Dec 29 15:30	11°352'55 0°55'03	direct	9526 Sep 29 19:17	24°342'19	
minimum elong	9519 Dec 29 15:30	11°352'55 0°55'24	evening set	9526 Dec 29 02:30	26°337'36	
max. Earth dist.	9519 Dec 29 03:15	11°351'47 31.21875 AU	max. Earth dist.	9527 Jan 13 10:38	27°311'25 31.27969 AU	
morning rise	9520 Jan 14 16:03	12°328'13				
retrograde	9520 Apr 11 11:47	14°321'07	conjunction	9527 Jan 14 02:48	27°312'55 0°59'28	
opposition	9520 Jun 28 03:50	12°358'23 0°59'19	minimum elong	9527 Jan 14 02:48	27°312'55 0°59'46	
min. Earth dist.	9520 Jun 28 13:53	12°357'41 29.22396 AU	morning rise	9527 Jan 30 00:48	27°348'02	
direct	9520 Sep 16 00:49	11°333'37	retrograde	9527 Apr 27 11:40	29°340'35	
evening set	9520 Dec 15 01:20	13°328'41	opposition	9527 Jul 14 04:13	28°318'18 1°03'42	
			min. Earth dist.	9527 Jul 14 18:19	28°317'20 29.28244 AU	
conjunction	9520 Dec 31 03:39	14°304'09 0°55'56	direct	9527 Oct 02 06:10	26°353'39	
minimum elong	9520 Dec 31 03:39	14°304'09 0°56'16	evening set	9527 Dec 31 14:26	28°348'57	
max. Earth dist.	9520 Dec 30 16:02	14°303'04 31.22864 AU				
morning rise	9521 Jan 16 03:42	14°339'26	conjunction	9528 Jan 16 14:36	29°324'13 0°59'45	
retrograde	9521 Apr 13 21:51	16°332'16	minimum elong	9528 Jan 16 14:36	29°324'13 1°00'04	
opposition	9521 Jun 30 14:10	15°309'37 1°00'13	max. Earth dist.	9528 Jan 15 22:53	29°322'46 31.28396 AU	
min. Earth dist.	9521 Jul 01 01:26	15°308'50 29.23418 AU	morning rise	9528 Feb 01 12:04	29°359'18	
direct	9521 Sep 18 12:00	13°344'54		9528 Feb 01 19:46	0°≈	
evening set	9521 Dec 17 13:34	15°340'01	retrograde	9528 Apr 28 21:12	1°≈51'47	
			opposition	9528 Jul 15 14:32	0°≈29'30 1°03'58	
conjunction	9522 Jan 02 15:28	16°315'27 0°56'44	min. Earth dist.	9528 Jul 16 05:38	0°≈28'28 29.28615 AU	
minimum elong	9522 Jan 02 15:27	16°315'27 0°57'05		9528 Aug 02 17:53	30°≈3	
max. Earth dist.	9522 Jan 02 02:53	16°314'17 31.23912 AU	direct	9528 Oct 03 18:28	29°304'49	
morning rise	9522 Jan 18 15:16	16°350'43		9528 Dec 02 16:16	0°≈	
retrograde	9522 Apr 16 08:29	18°343'30	evening set	9529 Jan 02 02:27	1°≈00'06	
opposition	9522 Jul 03 00:20	17°320'58 1°01'01	max. Earth dist.	9529 Jan 17 08:53	1°≈33'45 31.28735 AU	
min. Earth dist.	9522 Jul 03 11:00	17°320'13 29.24467 AU				
direct	9522 Sep 20 23:34	15°356'17	conjunction	9529 Jan 18 02:06	1°≈35'21 0°59'58	
evening set	9522 Dec 20 01:48	17°351'27	minimum elong	9529 Jan 18 02:06	1°≈35'21 1°00'15	
			morning rise	9529 Feb 02 23:23	2°≈10'24	
conjunction	9523 Jan 05 03:26	18°326'52 0°57'27	retrograde	9529 May 01 09:29	4°≈02'47	
minimum elong	9523 Jan 05 03:26	18°326'52 0°57'47	opposition	9529 Jul 18 00:52	2°≈40'30 1°04'08	
max. Earth dist.	9523 Jan 04 14:36	18°325'41 31.24940 AU	min. Earth dist.	9529 Jul 18 15:39	2°≈39'29 29.28930 AU	
morning rise	9523 Jan 21 02:48	19°302'06	direct	9529 Oct 06 07:32	1°≈15'46	
retrograde	9523 Apr 18 17:43	20°354'52	evening set	9530 Jan 04 14:00	3°≈11'02	
opposition	9523 Jul 05 10:39	19°332'24 1°01'44				
min. Earth dist.	9523 Jul 05 22:52	19°331'34 29.25475 AU	conjunction	9530 Jan 20 13:27	3°≈46'15 1°00'05	
direct	9523 Sep 23 09:19	18°307'46	minimum elong	9530 Jan 20 13:27	3°≈46'15 1°00'23	

max. Earth dist.	9530 Jan 19 20:57	3°44'44"	31.29028 AU	min. Earth dist.	9536 Aug 02 17:44	17°53'04"	29.32263 AU
morning rise	9530 Feb 05 10:11	4°21'16"		direct	9536 Oct 21 12:52	16°29'29"	
retrograde	9530 May 03 18:49	6°13'35"		evening set	9537 Jan 19 22:00	18°24'48"	
opposition	9530 Jul 20 11:21	4°51'17"	1°04'13"				
min. Earth dist.	9530 Jul 21 03:15	4°50'11"	29.29228 AU	conjunction	9537 Feb 04 19:01	18°59'51"	0°58'32"
direct	9530 Oct 08 19:45	3°26'31"		minimum elong	9537 Feb 04 19:02	18°59'51"	0°58'46"
evening set	9531 Jan 07 01:38	5°21'45"		max. Earth dist.	9537 Feb 04 01:55	18°58'15"	31.32439 AU
max. Earth dist.	9531 Jan 22 07:29	5°55'21"	31.29350 AU	morning rise	9537 Feb 20 13:10	19°34'41"	
				retrograde	9537 May 18 15:51	21°26'50"	
conjunction	9531 Jan 23 00:39	5°56'56"	1°00'07"	opposition	9537 Aug 04 12:43	20°04'46"	1°02'14"
minimum elong	9531 Jan 23 00:39	5°56'56"	1°00'24"	min. Earth dist.	9537 Aug 05 05:23	20°03'38"	29.32679 AU
morning rise	9531 Feb 07 21:09	6°31'55"		direct	9537 Oct 24 00:44	18°40'09"	
retrograde	9531 May 06 04:55	8°24'09"		evening set	9538 Jan 22 09:19	20°35'28"	
opposition	9531 Jul 22 21:33	7°01'52"	1°04'13"	max. Earth dist.	9538 Feb 06 11:20	21°08'47"	31.32798 AU
min. Earth dist.	9531 Jul 23 12:29	7°00'50"	29.29581 AU				
direct	9531 Oct 11 07:55	5°37'04"		conjunction	9538 Feb 07 05:48	21°10'29"	0°57'58"
evening set	9532 Jan 09 13:08	7°32'17"		minimum elong	9538 Feb 07 05:48	21°10'29"	0°58'12"
				morning rise	9538 Feb 22 23:44	21°45'18"	
conjunction	9532 Jan 25 11:51	8°07'27"	1°00'04"	retrograde	9538 May 21 04:14	23°37'28"	
minimum elong	9532 Jan 25 11:51	8°07'27"	1°00'22"	opposition	9538 Aug 06 23:25	22°15'26"	1°01'36"
max. Earth dist.	9532 Jan 24 18:51	8°05'53"	31.29735 AU	min. Earth dist.	9538 Aug 07 15:39	22°14'19"	29.32973 AU
morning rise	9532 Feb 10 07:55	8°42'24"		direct	9538 Oct 26 13:09	20°50'49"	
retrograde	9532 May 07 14:02	10°34'35"		evening set	9539 Jan 24 20:33	22°46'09"	
opposition	9532 Jul 24 08:02	9°12'18"	1°04'07"				
min. Earth dist.	9532 Jul 24 23:52	9°11'12"	29.30020 AU	conjunction	9539 Feb 09 16:49	23°21'09"	0°57'19"
direct	9532 Oct 12 18:23	7°47'30"		minimum elong	9539 Feb 09 16:49	23°21'09"	0°57'32"
evening set	9533 Jan 11 00:33	9°42'43"		max. Earth dist.	9539 Feb 08 22:52	23°19'29"	31.33016 AU
				morning rise	9539 Feb 25 10:15	23°55'56"	
conjunction	9533 Jan 26 22:56	10°17'52"	0°59'56"	retrograde	9539 May 23 14:04	25°48'06"	
minimum elong	9533 Jan 26 22:56	10°17'52"	1°00'12"	opposition	9539 Aug 09 10:09	24°26'04"	1°00'52"
max. Earth dist.	9533 Jan 26 06:06	10°16'18"	31.30227 AU	min. Earth dist.	9539 Aug 10 03:44	24°24'52"	29.33125 AU
morning rise	9533 Feb 11 18:37	10°52'47"		direct	9539 Oct 29 01:00	23°01'28"	
retrograde	9533 May 09 23:50	12°44'56"		evening set	9540 Jan 27 07:50	24°56'48"	
opposition	9533 Jul 26 18:24	11°22'41"	1°03'56"	max. Earth dist.	9540 Feb 11 08:52	25°30'02"	31.33109 AU
min. Earth dist.	9533 Jul 27 09:25	11°21'39"	29.30545 AU				
direct	9533 Oct 15 05:48	9°57'54"		conjunction	9540 Feb 12 03:41	25°31'47"	0°56'36"
evening set	9534 Jan 13 11:59	11°53'08"		minimum elong	9540 Feb 12 03:41	25°31'47"	0°56'49"
				morning rise	9540 Feb 27 20:53	26°06'33"	
conjunction	9534 Jan 29 09:56	12°28'16"	0°59'43"	retrograde	9540 May 25 00:35	27°58'42"	
minimum elong	9534 Jan 29 09:56	12°28'16"	0°59'59"	opposition	9540 Aug 10 20:52	26°36'40"	1°00'03"
max. Earth dist.	9534 Jan 28 16:37	12°26'39"	31.30792 AU	min. Earth dist.	9540 Aug 11 13:41	26°35'31"	29.33148 AU
morning rise	9534 Feb 14 05:18	13°03'10"		direct	9540 Oct 30 13:33	25°12'04"	
retrograde	9534 May 12 09:25	14°55'18"		evening set	9541 Jan 28 18:54	27°07'23"	
opposition	9534 Jul 29 04:54	13°33'06"	1°03'39"				
min. Earth dist.	9534 Jul 29 20:33	13°32'01"	29.31144 AU	conjunction	9541 Feb 13 14:25	27°42'21"	0°55'48"
direct	9534 Oct 17 15:23	12°08'22"		minimum elong	9541 Feb 13 14:25	27°42'21"	0°55'59"
evening set	9535 Jan 15 23:10	14°03'37"		max. Earth dist.	9541 Feb 12 19:32	27°40'36"	31.33072 AU
				morning rise	9541 Mar 01 07:12	28°17'05"	
conjunction	9535 Jan 31 20:54	14°38'43"	0°59'24"		9541 May 04 01:54	0°	
minimum elong	9535 Jan 31 20:54	14°38'43"	0°59'39"	retrograde	9541 May 27 10:04	0°09'13"	
max. Earth dist.	9535 Jan 31 04:23	14°37'11"	31.31399 AU		9541 Jun 20 00:30	30°	
	9535 Feb 10 10:54	15°		opposition	9541 Aug 13 07:45	28°47'11"	0°59'09"
morning rise	9535 Feb 16 15:50	15°13'35"		min. Earth dist.	9541 Aug 14 01:37	28°45'58"	29.33074 AU
retrograde	9535 May 14 18:41	17°05'44"		direct	9541 Nov 02 00:35	27°22'34"	
opposition	9535 Jul 31 15:26	15°43'35"	1°03'16"	evening set	9542 Jan 31 05:51	29°17'51"	
min. Earth dist.	9535 Aug 01 07:06	15°42'30"	29.31729 AU	max. Earth dist.	9542 Feb 15 06:22	29°51'04"	31.32975 AU
	9535 Aug 28 07:31	15°					
direct	9535 Oct 20 03:05	14°18'53"		conjunction	9542 Feb 16 01:03	29°52'48"	0°54'55"
	9535 Dec 10 09:52	15°		minimum elong	9542 Feb 16 01:03	29°52'48"	0°55'07"
evening set	9536 Jan 18 10:40	16°14'10"			9542 Feb 19 06:28	0°	
				morning rise	9542 Mar 03 17:30	0°27'31"	
conjunction	9536 Feb 03 07:53	16°49'14"	0°59'00"	retrograde	9542 May 29 19:38	2°19'38"	
minimum elong	9536 Feb 03 07:53	16°49'14"	0°59'16"	opposition	9542 Aug 15 18:28	0°57'35"	0°58'10"
max. Earth dist.	9536 Feb 02 14:03	16°47'35"	31.31961 AU	min. Earth dist.	9542 Aug 16 11:36	0°56'24"	29.32952 AU
morning rise	9536 Feb 19 02:34	17°24'06"			9542 Sep 23 05:10	30°	
retrograde	9536 May 16 06:05	19°16'15"		direct	9542 Nov 04 12:35	29°32'57"	
opposition	9536 Aug 02 01:55	17°54'09"	1°02'48"		9542 Dec 15 17:36	0°	

evening set	9543 Feb 02 16:40	1° ✕ 28'12	opposition	9549 Aug 30 23:17	16° ✕ 10'04	0°49'03
			min. Earth dist.	9549 Aug 31 14:57	16° ✕ 08'59	29.33425 AU
conjunction	9543 Feb 18 11:27	2° ✕ 03'08 0°53'57	direct	9549 Nov 19 17:54	14° ✕ 45'40	
minimum elong	9543 Feb 18 11:27	2° ✕ 03'08 0°54'07	evening set	9550 Feb 17 19:15	16° ✕ 40'55	
max. Earth dist.	9543 Feb 17 16:20	2° ✕ 01'21 31.32852 AU				
morning rise	9543 Mar 06 03:39	2° ✕ 37'50	conjunction	9550 Mar 05 11:40	17° ✕ 15'43	0°45'10
retrograde	9543 Jun 01 04:44	4° ✕ 29'57	minimum elong	9550 Mar 05 11:40	17° ✕ 15'43	0°45'17
opposition	9543 Aug 18 05:19	3° ✕ 07'52 0°57'06	max. Earth dist.	9550 Mar 04 18:23	17° ✕ 14'07	31.33383 AU
min. Earth dist.	9543 Aug 18 22:48	3° ✕ 06'40 29.32853 AU	morning rise	9550 Mar 21 01:37	17° ✕ 50'19	
direct	9543 Nov 06 22:44	1° ✕ 43'13	retrograde	9550 Jun 16 06:25	19° ✕ 42'45	
evening set	9544 Feb 05 03:24	3° ✕ 38'27	opposition	9550 Sep 02 10:38	18° ✕ 20'45	0°47'27
			min. Earth dist.	9550 Sep 03 03:15	18° ✕ 19'37	29.33386 AU
conjunction	9544 Feb 20 21:57	4° ✕ 13'22 0°52'55	direct	9550 Nov 22 05:24	16° ✕ 56'23	
minimum elong	9544 Feb 20 21:57	4° ✕ 13'22 0°53'06	evening set	9551 Feb 20 05:49	18° ✕ 51'38	
max. Earth dist.	9544 Feb 20 04:01	4° ✕ 11'42 31.32777 AU				
morning rise	9544 Mar 07 13:41	4° ✕ 48'02	conjunction	9551 Mar 07 21:58	19° ✕ 26'25	0°43'38
retrograde	9544 Jun 02 13:04	6° ✕ 40'10	minimum elong	9551 Mar 07 21:59	19° ✕ 26'25	0°43'43
opposition	9544 Aug 19 16:07	5° ✕ 18'05 0°55'58	max. Earth dist.	9551 Mar 07 04:57	19° ✕ 24'50	31.33278 AU
min. Earth dist.	9544 Aug 20 09:11	5° ✕ 16'54 29.32809 AU	morning rise	9551 Mar 23 11:38	20° ✕ 01'00	
direct	9544 Nov 08 10:07	3° ✕ 53'26	retrograde	9551 Jun 18 16:31	21° ✕ 53'28	
evening set	9545 Feb 06 14:14	5° ✕ 48'39	opposition	9551 Sep 04 21:58	20° ✕ 31'28	0°45'47
			min. Earth dist.	9551 Sep 05 13:57	20° ✕ 30'22	29.33194 AU
conjunction	9545 Feb 22 08:16	6° ✕ 23'33 0°51'49	direct	9551 Nov 24 18:23	19° ✕ 07'07	
minimum elong	9545 Feb 22 08:16	6° ✕ 23'33 0°51'58	evening set	9552 Feb 22 16:31	21° ✕ 02'20	
max. Earth dist.	9545 Feb 21 13:38	6° ✕ 21'49 31.32789 AU				
morning rise	9545 Mar 09 23:49	6° ✕ 58'13	conjunction	9552 Mar 09 08:14	21° ✕ 37'07	0°42'03
retrograde	9545 Jun 05 00:14	8° ✕ 50'22	minimum elong	9552 Mar 09 08:15	21° ✕ 37'07	0°42'07
opposition	9545 Aug 22 03:03	7° ✕ 28'17 0°54'44	max. Earth dist.	9552 Mar 08 14:27	21° ✕ 35'27	31.33009 AU
min. Earth dist.	9545 Aug 22 19:25	7° ✕ 27'09 29.32879 AU	morning rise	9552 Mar 24 21:40	22° ✕ 11'41	
direct	9545 Nov 10 19:07	6° ✕ 03'40	retrograde	9552 Jun 20 02:10	24° ✕ 04'11	
evening set	9546 Feb 09 00:40	7° ✕ 58'54	opposition	9552 Sep 06 09:24	22° ✕ 42'10	0°44'02
			min. Earth dist.	9552 Sep 07 01:53	22° ✕ 41'02	29.32856 AU
conjunction	9546 Feb 24 18:33	8° ✕ 33'45 0°50'38	direct	9552 Nov 26 04:44	21° ✕ 17'49	
minimum elong	9546 Feb 24 18:33	8° ✕ 33'45 0°50'47	evening set	9553 Feb 24 03:03	23° ✕ 13'00	
max. Earth dist.	9546 Feb 24 01:21	8° ✕ 32'10 31.32902 AU				
morning rise	9546 Mar 12 09:37	9° ✕ 08'25	conjunction	9553 Mar 11 18:35	23° ✕ 47'45	0°40'23
retrograde	9546 Jun 07 09:42	11° ✕ 00'37	minimum elong	9553 Mar 11 18:35	23° ✕ 47'45	0°40'27
opposition	9546 Aug 24 14:05	9° ✕ 38'33 0°53'26	max. Earth dist.	9553 Mar 11 01:48	23° ✕ 46'11	31.32602 AU
min. Earth dist.	9546 Aug 25 06:45	9° ✕ 37'25 29.33020 AU	morning rise	9553 Mar 27 07:38	24° ✕ 22'19	
direct	9546 Nov 13 06:37	8° ✕ 14'00	retrograde	9553 Jun 22 10:40	26° ✕ 14'51	
evening set	9547 Feb 11 11:23	10° ✕ 09'14	opposition	9553 Sep 08 20:57	24° ✕ 52'47	0°42'15
max. Earth dist.	9547 Feb 26 10:51	10° ✕ 42'25 31.33078 AU	min. Earth dist.	9553 Sep 09 13:17	24° ✕ 51'40	29.32374 AU
			direct	9553 Nov 28 16:51	23° ✕ 28'27	
conjunction	9547 Feb 27 04:46	10° ✕ 44'04 0°49'22	evening set	9554 Feb 26 13:28	25° ✕ 23'34	
minimum elong	9547 Feb 27 04:46	10° ✕ 44'05 0°49'30	max. Earth dist.	9554 Mar 13 10:51	25° ✕ 56'39	31.32072 AU
morning rise	9547 Mar 14 19:43	11° ✕ 18'43				
retrograde	9547 Jun 09 22:09	13° ✕ 10'58	conjunction	9554 Mar 14 04:33	25° ✕ 58'18	0°38'41
opposition	9547 Aug 27 00:52	11° ✕ 48'56 0°52'03	minimum elong	9554 Mar 14 04:33	25° ✕ 58'18	0°38'44
min. Earth dist.	9547 Aug 27 16:38	11° ✕ 47'51 29.33203 AU	morning rise	9554 Mar 29 17:32	26° ✕ 32'52	
direct	9547 Nov 15 18:19	10° ✕ 24'26	retrograde	9554 Jun 24 21:49	28° ✕ 25'26	
evening set	9548 Feb 13 22:00	12° ✕ 19'41	opposition	9554 Sep 11 08:24	27° ✕ 03'18	0°40'23
			min. Earth dist.	9554 Sep 12 00:15	27° ✕ 02'13	29.31804 AU
conjunction	9548 Feb 29 15:11	12° ✕ 54'31 0°48'03	direct	9554 Dec 01 02:43	25° ✕ 38'56	
minimum elong	9548 Feb 29 15:11	12° ✕ 54'31 0°48'11	evening set	9555 Feb 28 23:45	27° ✕ 34'01	
max. Earth dist.	9548 Feb 28 22:11	12° ✕ 52'56 31.33248 AU				
morning rise	9548 Mar 16 05:41	13° ✕ 29'09	conjunction	9555 Mar 16 14:43	28° ✕ 08'45	0°36'55
retrograde	9548 Jun 11 08:19	15° ✕ 21'28	minimum elong	9555 Mar 16 14:44	28° ✕ 08'45	0°36'57
opposition	9548 Aug 28 12:07	13° ✕ 59'27 0°50'35	max. Earth dist.	9555 Mar 15 22:19	28° ✕ 07'13	31.31469 AU
min. Earth dist.	9548 Aug 29 04:51	13° ✕ 58'18 29.33354 AU	morning rise	9555 Apr 01 03:17	28° ✕ 43'18	
direct	9548 Nov 17 05:20	12° ✕ 35'00		9555 May 11 15:51	0° ∇	
evening set	9549 Feb 15 08:37	14° ✕ 30'16	retrograde	9555 Jun 27 06:43	0° ∇ 35'54	
max. Earth dist.	9549 Mar 02 08:04	15° ✕ 03'28 31.33371 AU		9555 Aug 14 19:07	30° ✕	
			opposition	9555 Sep 13 19:50	29° ✕ 13'43	0°38'29
conjunction	9549 Mar 03 01:21	15° ✕ 05'04 0°46'39	min. Earth dist.	9555 Sep 14 12:02	29° ✕ 12'36	29.31184 AU
minimum elong	9549 Mar 03 01:21	15° ✕ 05'04 0°46'45	direct	9555 Dec 03 14:37	27° ✕ 49'20	
morning rise	9549 Mar 18 15:38	15° ✕ 39'41	evening set	9556 Mar 02 10:09	29° ✕ 44'22	
retrograde	9549 Jun 13 19:33	17° ✕ 32'03		9556 Mar 09 12:13	0° ∇	

max. Earth dist.	9556 Mar 17 07:48	0°♈17'30	31.30864 AU	retrograde	9562 Jul 12 09:38	15°♈50'25	
				opposition	9562 Sep 29 05:53	14°♈28'10	0°23'42
conjunction	9556 Mar 18 00:39	0°♈19'04	0°35'06	min. Earth dist.	9562 Sep 29 18:36	14°♈27'18	29.28033 AU
minimum elong	9556 Mar 18 00:39	0°♈19'04	0°35'08	direct	9562 Dec 18 23:39	13°♈04'07	
morning rise	9556 Apr 02 13:08	0°♈53'37		evening set	9563 Mar 18 09:20	14°♈59'07	
retrograde	9556 Jun 28 18:38	2°♈46'16					
opposition	9556 Sep 15 07:20	1°♈24'02	0°36'31	conjunction	9563 Apr 02 21:54	15°♈33'48	0°21'08
min. Earth dist.	9556 Sep 15 22:11	1°♈23'01	29.30601 AU	minimum elong	9563 Apr 02 21:54	15°♈33'48	0°21'03
	9556 Nov 30 11:27	30°♈		max. Earth dist.	9563 Apr 02 08:15	15°♈32'32	31.27733 AU
direct	9556 Dec 05 02:03	29°♈59'39		morning rise	9563 Apr 18 08:57	16°♈08'21	
	9556 Dec 09 17:15	0°♈		retrograde	9563 Jul 14 21:37	18°♈01'43	
evening set	9557 Mar 04 20:15	1°♈54'40		opposition	9563 Oct 01 17:46	16°♈39'26	0°21'25
				min. Earth dist.	9563 Oct 02 05:56	16°♈38'36	29.27425 AU
conjunction	9557 Mar 20 10:32	2°♈29'21	0°33'15	direct	9563 Dec 21 09:26	15°♈15'25	
minimum elong	9557 Mar 20 10:33	2°♈29'21	0°33'15	evening set	9564 Mar 19 19:33	17°♈10'24	
max. Earth dist.	9557 Mar 19 19:00	2°♈27'55	31.30307 AU				
morning rise	9557 Apr 04 22:38	3°♈03'53		conjunction	9564 Apr 04 08:01	17°♈45'05	0°18'59
retrograde	9557 Jul 01 04:44	4°♈56'38		minimum elong	9564 Apr 04 08:01	17°♈45'05	0°18'55
opposition	9557 Sep 17 19:03	3°♈34'21	0°34'30	max. Earth dist.	9564 Apr 03 19:32	17°♈43'55	31.27049 AU
min. Earth dist.	9557 Sep 18 10:17	3°♈33'18	29.30091 AU	morning rise	9564 Apr 19 18:43	18°♈19'38	
direct	9557 Dec 07 12:47	2°♈10'00		retrograde	9564 Jul 16 06:47	20°♈13'06	
evening set	9558 Mar 07 06:26	4°♈05'00		opposition	9564 Oct 03 05:59	18°♈50'47	0°19'07
				min. Earth dist.	9564 Oct 03 18:35	18°♈49'55	29.26665 AU
conjunction	9558 Mar 22 20:24	4°♈39'41	0°31'20	direct	9564 Dec 22 21:19	17°♈26'48	
minimum elong	9558 Mar 22 20:24	4°♈39'41	0°31'21	evening set	9565 Mar 22 05:45	19°♈21'44	
max. Earth dist.	9558 Mar 22 05:13	4°♈38'16	31.29851 AU				
morning rise	9558 Apr 07 08:21	5°♈14'13		conjunction	9565 Apr 06 17:51	19°♈56'24	0°16'49
retrograde	9558 Jul 03 16:06	7°♈07'02		minimum elong	9565 Apr 06 17:51	19°♈56'24	0°16'43
opposition	9558 Sep 20 06:30	5°♈44'45	0°32'26	max. Earth dist.	9565 Apr 06 04:47	19°♈55'11	31.26227 AU
min. Earth dist.	9558 Sep 20 20:06	5°♈43'49	29.29669 AU	morning rise	9565 Apr 22 04:32	20°♈30'58	
direct	9558 Dec 10 01:12	4°♈20'27		retrograde	9565 Jul 18 18:49	22°♈24'31	
evening set	9559 Mar 09 16:34	6°♈15'27		opposition	9565 Oct 05 18:08	21°♈02'08	0°16'47
				min. Earth dist.	9565 Oct 06 05:35	21°♈01'21	29.25771 AU
conjunction	9559 Mar 25 06:17	6°♈50'08	0°29'23	direct	9565 Dec 25 08:17	19°♈38'08	
minimum elong	9559 Mar 25 06:17	6°♈50'08	0°29'21	evening set	9566 Mar 24 15:53	21°♈33'03	
max. Earth dist.	9559 Mar 24 15:30	6°♈48'46	31.29459 AU				
morning rise	9559 Apr 09 18:02	7°♈24'40		conjunction	9566 Apr 09 03:53	22°♈07'43	0°14'38
retrograde	9559 Jul 06 03:39	9°♈17'35		minimum elong	9566 Apr 09 03:53	22°♈07'43	0°14'32
opposition	9559 Sep 22 18:15	7°♈55'18	0°30'19	behind sun begin	9566 Apr 09 00:58	22°♈07'27	
min. Earth dist.	9559 Sep 23 08:15	7°♈54'21	29.29300 AU	behind sun end	9566 Apr 09 06:48	22°♈07'58	
direct	9559 Dec 12 12:36	6°♈31'05		max. Earth dist.	9566 Apr 08 15:40	22°♈06'34	31.25263 AU
evening set	9560 Mar 11 02:41	8°♈26'05		morning rise	9566 Apr 24 14:20	22°♈42'16	
				retrograde	9566 Jul 21 05:03	24°♈35'54	
conjunction	9560 Mar 26 16:10	9°♈00'46	0°27'22	opposition	9566 Oct 08 06:16	23°♈13'26	0°14'25
minimum elong	9560 Mar 26 16:10	9°♈00'46	0°27'21	min. Earth dist.	9566 Oct 08 18:29	23°♈12'36	29.24756 AU
max. Earth dist.	9560 Mar 26 02:21	8°♈59'29	31.29103 AU	direct	9566 Dec 27 18:31	21°♈49'25	
morning rise	9560 Apr 11 03:39	9°♈35'18		evening set	9567 Mar 27 01:59	23°♈44'16	
retrograde	9560 Jul 07 14:11	11°♈28'20					
opposition	9560 Sep 24 05:58	10°♈06'04	0°28'09	conjunction	9567 Apr 11 13:45	24°♈18'55	0°12'25
min. Earth dist.	9560 Sep 24 18:53	10°♈05'11	29.28929 AU	minimum elong	9567 Apr 11 13:45	24°♈18'55	0°12'17
direct	9560 Dec 14 01:30	8°♈41'54		behind sun begin	9567 Apr 11 09:26	24°♈18'32	
evening set	9561 Mar 13 12:57	10°♈36'55		behind sun end	9567 Apr 11 18:05	24°♈19'18	
max. Earth dist.	9561 Mar 28 11:53	11°♈10'17	31.28721 AU	max. Earth dist.	9567 Apr 11 01:49	24°♈17'48	31.24216 AU
				morning rise	9567 Apr 27 00:10	24°♈53'29	
conjunction	9561 Mar 29 02:02	11°♈11'36	0°25'20	retrograde	9567 Jul 23 16:47	26°♈47'10	
minimum elong	9561 Mar 29 02:02	11°♈11'36	0°25'16	opposition	9567 Oct 10 18:23	25°♈24'37	0°12'03
morning rise	9561 Apr 13 13:25	11°♈46'09		min. Earth dist.	9567 Oct 11 05:04	25°♈23'53	29.23674 AU
retrograde	9561 Jul 10 00:40	13°♈39'17		direct	9567 Dec 30 07:59	24°♈00'34	
opposition	9561 Sep 26 17:55	12°♈17'01	0°25'56	evening set	9568 Mar 28 11:59	25°♈55'21	
min. Earth dist.	9561 Sep 27 06:53	12°♈16'08	29.28530 AU				
direct	9561 Dec 16 11:34	10°♈52'56		conjunction	9568 Apr 12 23:29	26°♈30'00	0°10'12
evening set	9562 Mar 15 22:58	12°♈47'56		minimum elong	9568 Apr 12 23:30	26°♈30'00	0°10'04
				behind sun begin	9568 Apr 12 18:18	26°♈29'32	
conjunction	9562 Mar 31 11:57	13°♈22'37	0°23'15	behind sun end	9568 Apr 13 04:41	26°♈30'28	
minimum elong	9562 Mar 31 11:57	13°♈22'37	0°23'12	max. Earth dist.	9568 Apr 12 11:58	26°♈28'56	31.23124 AU
max. Earth dist.	9562 Mar 30 23:11	13°♈21'26	31.28282 AU	morning rise	9568 Apr 28 09:46	27°♈04'34	
morning rise	9562 Apr 15 23:01	13°♈57'10		retrograde	9568 Jul 25 04:47	28°♈58'20	

opposition	9568 Oct 12 06:41	27° Υ 35'40	0°09'39	evening set	9574 Apr 10 23:39	9° \mathcal{B} 01'59	
min. Earth dist.	9568 Oct 12 17:32	27° Υ 34'56	29.22605 AU				
direct	9568 Dec 31 19:51	26° Υ 11'36		conjunction	9574 Apr 26 10:04	9° \mathcal{B} 36'38	-0°03'31
evening set	9569 Mar 30 21:55	28° Υ 06'20		minimum elong	9574 Apr 26 10:04	9° \mathcal{B} 36'38	0°03'42
				behind sun begin	9574 Apr 26 03:43	9° \mathcal{B} 36'04	
conjunction	9569 Apr 15 09:18	28° Υ 40'59	0°07'58	behind sun end	9574 Apr 26 16:25	9° \mathcal{B} 37'12	
minimum elong	9569 Apr 15 09:17	28° Υ 40'59	0°07'49	max. Earth dist.	9574 Apr 26 03:07	9° \mathcal{B} 36'00	31.18134 AU
behind sun begin	9569 Apr 15 03:30	28° Υ 40'27		morning rise	9574 May 11 19:53	10° \mathcal{B} 11'15	
behind sun end	9569 Apr 15 15:05	28° Υ 41'30		retrograde	9574 Aug 07 21:48	12° \mathcal{B} 05'43	
max. Earth dist.	9569 Apr 14 23:09	28° Υ 40'02	31.22089 AU	opposition	9574 Oct 26 08:38	10° \mathcal{B} 42'49	-0°04'54
morning rise	9569 Apr 30 19:23	29° Υ 15'32		min. Earth dist.	9574 Oct 26 14:11	10° \mathcal{B} 42'27	29.17764 AU
	9569 May 22 04:49	0° \mathcal{B}		direct	9575 Jan 14 16:51	9° \mathcal{B} 18'59	
retrograde	9569 Jul 27 15:13	1° \mathcal{B} 09'23		evening set	9575 Apr 13 09:45	11° \mathcal{B} 13'37	
	9569 Oct 06 13:49	30° $\mathcal{R}\Upsilon$					
opposition	9569 Oct 14 18:54	29° Υ 46'39	0°07'15	conjunction	9575 Apr 28 20:05	11° \mathcal{B} 48'16	-0°05'47
min. Earth dist.	9569 Oct 15 04:11	29° Υ 46'01	29.21609 AU	minimum elong	9575 Apr 28 20:06	11° \mathcal{B} 48'16	0°06'00
direct	9570 Jan 03 09:05	28° Υ 22'35		behind sun begin	9575 Apr 28 13:59	11° \mathcal{B} 47'43	
	9570 Mar 25 07:57	0° \mathcal{B}		behind sun end	9575 Apr 29 02:13	11° \mathcal{B} 48'49	
evening set	9570 Apr 02 07:50	0° \mathcal{B} 17'16		max. Earth dist.	9575 Apr 28 14:05	11° \mathcal{B} 47'44	31.17372 AU
				morning rise	9575 May 14 05:46	12° \mathcal{B} 22'54	
conjunction	9570 Apr 17 18:54	0° \mathcal{B} 51'54	0°05'43	retrograde	9575 Aug 10 08:54	14° \mathcal{B} 17'31	
minimum elong	9570 Apr 17 18:54	0° \mathcal{B} 51'54	0°05'34	opposition	9575 Oct 28 21:22	12° \mathcal{B} 54'36	-0°07'20
behind sun begin	9570 Apr 17 12:43	0° \mathcal{B} 51'21		min. Earth dist.	9575 Oct 29 03:31	12° \mathcal{B} 54'11	29.16970 AU
behind sun end	9570 Apr 18 01:05	0° \mathcal{B} 52'28		direct	9576 Jan 17 02:45	11° \mathcal{B} 30'49	
max. Earth dist.	9570 Apr 17 08:47	0° \mathcal{B} 50'58	31.21146 AU	evening set	9576 Apr 14 19:53	13° \mathcal{B} 25'26	
morning rise	9570 May 03 05:02	1° \mathcal{B} 26'29					
retrograde	9570 Jul 30 02:16	3° \mathcal{B} 20'25		conjunction	9576 Apr 30 06:04	14° \mathcal{B} 00'06	-0°08'02
opposition	9570 Oct 17 07:10	1° \mathcal{B} 57'37	0°04'50	minimum elong	9576 Apr 30 06:03	14° \mathcal{B} 00'06	0°08'15
min. Earth dist.	9570 Oct 17 16:01	1° \mathcal{B} 57'01	29.20725 AU	behind sun begin	9576 Apr 30 00:22	13° \mathcal{B} 59'35	
direct	9571 Jan 05 19:47	0° \mathcal{B} 33'35		behind sun end	9576 Apr 30 11:45	14° \mathcal{B} 00'37	
evening set	9571 Apr 04 17:42	2° \mathcal{B} 28'14		max. Earth dist.	9576 Apr 30 00:28	13° \mathcal{B} 59'36	31.16536 AU
				morning rise	9576 May 15 15:42	14° \mathcal{B} 34'45	
conjunction	9571 Apr 20 04:46	3° \mathcal{B} 02'53	0°03'28		9576 May 27 09:28	15° \mathcal{B}	
minimum elong	9571 Apr 20 04:45	3° \mathcal{B} 02'53	0°03'17	retrograde	9576 Aug 11 21:32	16° \mathcal{B} 29'30	
behind sun begin	9571 Apr 19 22:22	3° \mathcal{B} 02'18		opposition	9576 Oct 30 10:02	15° \mathcal{B} 06'33	-0°09'45
behind sun end	9571 Apr 20 11:08	3° \mathcal{B} 03'27		min. Earth dist.	9576 Oct 30 14:41	15° \mathcal{B} 06'14	29.16074 AU
max. Earth dist.	9571 Apr 19 20:30	3° \mathcal{B} 02'07	31.20308 AU		9576 Nov 03 10:33	15° $\mathcal{R}\mathcal{B}$	
morning rise	9571 May 05 14:37	3° \mathcal{B} 37'27		direct	9577 Jan 18 15:38	13° \mathcal{B} 42'48	
retrograde	9571 Aug 01 11:46	5° \mathcal{B} 31'30			9577 Mar 30 11:58	15° \mathcal{B}	
opposition	9571 Oct 19 19:23	4° \mathcal{B} 08'40	0°02'24	evening set	9577 Apr 17 06:08	15° \mathcal{B} 37'25	
min. Earth dist.	9571 Oct 20 03:26	4° \mathcal{B} 08'07	29.19922 AU				
direct	9572 Jan 08 08:42	2° \mathcal{B} 44'40		conjunction	9577 May 02 16:08	16° \mathcal{B} 12'05	-0°10'17
evening set	9572 Apr 06 03:45	4° \mathcal{B} 39'19		minimum elong	9577 May 02 16:08	16° \mathcal{B} 12'05	0°10'32
				behind sun begin	9577 May 02 11:06	16° \mathcal{B} 11'38	
conjunction	9572 Apr 21 14:27	5° \mathcal{B} 13'58	0°01'09	behind sun end	9577 May 02 21:11	16° \mathcal{B} 12'33	
minimum elong	9572 Apr 21 14:27	5° \mathcal{B} 13'58	0°00'59	max. Earth dist.	9577 May 02 10:34	16° \mathcal{B} 11'35	31.15577 AU
behind sun begin	9572 Apr 21 08:03	5° \mathcal{B} 13'23		morning rise	9577 May 18 01:48	16° \mathcal{B} 46'45	
behind sun end	9572 Apr 21 20:52	5° \mathcal{B} 14'32		retrograde	9577 Aug 14 10:42	18° \mathcal{B} 41'38	
max. Earth dist.	9572 Apr 21 05:56	5° \mathcal{B} 13'11	31.19553 AU	opposition	9577 Nov 01 22:52	17° \mathcal{B} 18'38	-0°12'10
morning rise	9572 May 07 00:25	5° \mathcal{B} 48'33		min. Earth dist.	9577 Nov 02 03:59	17° \mathcal{B} 18'17	29.15065 AU
retrograde	9572 Aug 03 00:08	7° \mathcal{B} 42'44		direct	9578 Jan 21 02:52	15° \mathcal{B} 54'54	
desc. node	9572 Oct 17 02:54	6° \mathcal{B} 26'43		evening set	9578 Apr 19 16:15	17° \mathcal{B} 49'30	
opposition	9572 Oct 21 07:46	6° \mathcal{B} 19'52	-0°00'02				
min. Earth dist.	9572 Oct 21 14:40	6° \mathcal{B} 19'24	29.19198 AU	conjunction	9578 May 05 02:17	18° \mathcal{B} 24'11	-0°12'31
direct	9573 Jan 09 19:01	4° \mathcal{B} 55'55		minimum elong	9578 May 05 02:17	18° \mathcal{B} 24'11	0°12'45
evening set	9573 Apr 08 13:33	6° \mathcal{B} 50'33		behind sun begin	9578 May 04 22:12	18° \mathcal{B} 23'49	
				behind sun end	9578 May 05 06:23	18° \mathcal{B} 24'33	
conjunction	9573 Apr 24 00:15	7° \mathcal{B} 25'12	-0°01'12	max. Earth dist.	9578 May 04 21:44	18° \mathcal{B} 23'46	31.14508 AU
minimum elong	9573 Apr 24 00:14	7° \mathcal{B} 25'12	0°01'24	morning rise	9578 May 20 11:52	18° \mathcal{B} 58'51	
behind sun begin	9573 Apr 23 17:49	7° \mathcal{B} 24'37		retrograde	9578 Aug 16 22:02	20° \mathcal{B} 53'51	
behind sun end	9573 Apr 24 06:39	7° \mathcal{B} 25'46		opposition	9578 Nov 04 11:34	19° \mathcal{B} 30'47	-0°14'33
max. Earth dist.	9573 Apr 23 17:25	7° \mathcal{B} 24'35	31.18840 AU	min. Earth dist.	9578 Nov 04 15:33	19° \mathcal{B} 30'31	29.13926 AU
morning rise	9573 May 09 09:58	7° \mathcal{B} 59'48		direct	9579 Jan 23 16:07	18° \mathcal{B} 07'03	
retrograde	9573 Aug 05 09:31	9° \mathcal{B} 54'07		evening set	9579 Apr 22 02:30	20° \mathcal{B} 01'37	
opposition	9573 Oct 23 20:19	8° \mathcal{B} 31'15	-0°02'28				
min. Earth dist.	9573 Oct 24 03:14	8° \mathcal{B} 30'47	29.18488 AU	conjunction	9579 May 07 12:17	20° \mathcal{B} 36'18	-0°14'44
direct	9574 Jan 12 06:33	7° \mathcal{B} 07'22		minimum elong	9579 May 07 12:17	20° \mathcal{B} 36'18	0°15'00

behind sun begin	9579 May 07 09:47	20°836'04		retrograde	9585 Sep 01 06:11	6°II20'00	
behind sun end	9579 May 07 14:48	20°836'32		opposition	9585 Nov 20 05:14	4°II56'31	-0°30'31
max. Earth dist.	9579 May 07 07:19	20°835'51	31.13323 AU	min. Earth dist.	9585 Nov 20 03:20	4°II56'38	29.06686 AU
morning rise	9579 May 22 22:00	21°811'00		direct	9586 Feb 08 01:19	3°II32'53	
retrograde	9579 Aug 19 10:05	23°806'05		evening set	9586 May 07 01:12	5°II27'15	
opposition	9579 Nov 07 00:18	21°842'56	-0°16'55				
min. Earth dist.	9579 Nov 07 04:11	21°842'41	29.12714 AU	conjunction	9586 May 22 10:42	6°II01'59	-0°29'33
direct	9580 Jan 26 03:29	20°819'12		minimum elong	9586 May 22 10:42	6°II01'59	0°29'51
evening set	9580 Apr 23 12:33	22°813'43		max. Earth dist.	9586 May 22 11:54	6°II02'06	31.06297 AU
				morning rise	9586 Jun 06 20:46	6°II36'49	
conjunction	9580 May 08 22:25	22°848'24	-0°16'56	retrograde	9586 Sep 03 19:28	8°II32'46	
minimum elong	9580 May 08 22:25	22°848'24	0°17'12	opposition	9586 Nov 22 18:19	7°II09'15	-0°32'39
max. Earth dist.	9580 May 08 19:14	22°848'07	31.12095 AU	min. Earth dist.	9586 Nov 22 16:39	7°II09'22	29.05928 AU
morning rise	9580 May 24 08:00	23°823'07		direct	9587 Feb 10 11:20	5°II45'40	
retrograde	9580 Aug 20 20:38	25°818'18		evening set	9587 May 09 11:28	7°II40'02	
opposition	9580 Nov 08 13:08	23°855'04	-0°19'16				
min. Earth dist.	9580 Nov 08 16:15	23°854'51	29.11484 AU	conjunction	9587 May 24 21:04	8°II14'48	-0°31'31
direct	9581 Jan 27 17:25	22°831'19		minimum elong	9587 May 24 21:04	8°II14'48	0°31'51
evening set	9581 Apr 25 22:35	24°825'47		max. Earth dist.	9587 May 24 23:36	8°II15'02	31.05531 AU
				morning rise	9587 Jun 09 07:05	8°II49'38	
conjunction	9581 May 11 08:13	25°800'29	-0°19'07	retrograde	9587 Sep 06 07:34	10°II45'44	
minimum elong	9581 May 11 08:13	25°800'29	0°19'24	opposition	9587 Nov 25 07:19	9°II22'12	-0°34'44
max. Earth dist.	9581 May 11 04:53	25°800'10	31.10892 AU	min. Earth dist.	9587 Nov 25 04:22	9°II22'24	29.05137 AU
morning rise	9581 May 26 18:00	25°835'12		direct	9588 Feb 12 23:53	7°II58'39	
retrograde	9581 Aug 23 09:17	27°830'30		evening set	9588 May 10 22:01	9°II53'01	
opposition	9581 Nov 11 01:54	26°807'11	-0°21'34				
min. Earth dist.	9581 Nov 11 03:46	26°807'03	29.10326 AU	conjunction	9588 May 26 07:27	10°II27'47	-0°33'27
direct	9582 Jan 30 04:33	24°843'25		minimum elong	9588 May 26 07:27	10°II27'47	0°33'46
evening set	9582 Apr 28 08:36	26°837'51		max. Earth dist.	9588 May 26 09:36	10°II27'59	31.04713 AU
				morning rise	9588 Jun 10 17:43	11°II02'39	
conjunction	9582 May 13 18:19	27°812'33	-0°21'16	retrograde	9588 Sep 07 21:31	12°II58'53	
minimum elong	9582 May 13 18:19	27°812'33	0°21'32	opposition	9588 Nov 26 20:34	11°II35'18	-0°36'47
max. Earth dist.	9582 May 13 16:46	27°812'24	31.09771 AU	min. Earth dist.	9588 Nov 26 17:35	11°II35'30	29.04291 AU
morning rise	9582 May 29 03:59	27°847'18		direct	9589 Feb 14 11:18	10°II11'47	
retrograde	9582 Aug 25 18:15	29°842'42		evening set	9589 May 13 08:24	12°II06'08	
opposition	9582 Nov 13 14:37	28°819'19	-0°23'52				
min. Earth dist.	9582 Nov 13 16:12	28°819'13	29.09260 AU	conjunction	9589 May 28 18:02	12°II40'56	-0°35'20
direct	9583 Feb 01 16:34	26°855'35		minimum elong	9589 May 28 18:02	12°II40'56	0°35'40
evening set	9583 Apr 30 18:47	28°849'59		max. Earth dist.	9589 May 28 21:42	12°II41'16	31.03810 AU
				morning rise	9589 Jun 13 04:16	13°II15'48	
conjunction	9583 May 16 04:21	29°824'42	-0°23'23	retrograde	9589 Sep 10 09:50	15°II12'10	
minimum elong	9583 May 16 04:21	29°824'42	0°23'41	opposition	9589 Nov 29 09:48	13°II48'32	-0°38'46
max. Earth dist.	9583 May 16 03:00	29°824'34	31.08771 AU	min. Earth dist.	9589 Nov 29 06:22	13°II48'46	29.03324 AU
morning rise	9583 May 31 14:10	29°859'27		direct	9590 Feb 17 01:17	12°II25'02	
	9583 May 31 20:07	0°II		evening set	9590 May 15 19:08	14°II19'22	
retrograde	9583 Aug 28 06:24	1°II54'59					
opposition	9583 Nov 16 03:24	0°II31'34	-0°26'07	conjunction	9590 May 31 04:39	14°II54'10	-0°37'09
min. Earth dist.	9583 Nov 16 03:09	0°II31'35	29.08316 AU	minimum elong	9590 May 31 04:39	14°II54'10	0°37'28
	9583 Dec 05 22:14	30°88		max. Earth dist.	9590 May 31 07:35	14°II54'26	31.02785 AU
direct	9584 Feb 04 03:08	29°807'51		morning rise	9590 Jun 15 15:11	15°II29'04	
	9584 Apr 01 04:15	0°II		retrograde	9590 Sep 12 23:10	17°II25'31	
evening set	9584 May 02 04:47	1°II02'14		opposition	9590 Dec 01 22:52	16°II01'50	-0°40'41
				min. Earth dist.	9590 Dec 01 18:48	16°II02'06	29.02240 AU
conjunction	9584 May 17 14:21	1°II36'57	-0°25'28	direct	9591 Feb 19 12:44	14°II38'19	
minimum elong	9584 May 17 14:21	1°II36'57	0°25'46	evening set	9591 May 18 05:43	16°II32'37	
max. Earth dist.	9584 May 17 14:21	1°II36'57	31.07870 AU				
morning rise	9584 Jun 02 00:10	2°II11'44		conjunction	9591 Jun 02 15:26	17°II07'26	-0°38'56
retrograde	9584 Aug 29 17:32	4°II07'25		minimum elong	9591 Jun 02 15:25	17°II07'26	0°39'16
opposition	9584 Nov 17 16:26	2°II43'57	-0°28'20	max. Earth dist.	9591 Jun 02 19:34	17°II07'49	31.01632 AU
min. Earth dist.	9584 Nov 17 16:20	2°II43'57	29.07466 AU	morning rise	9591 Jun 18 01:58	17°II42'21	
direct	9585 Feb 05 13:06	1°II20'17		retrograde	9591 Sep 15 09:35	19°II38'54	
evening set	9585 May 04 14:57	3°II14'39		opposition	9591 Dec 04 12:11	18°II15'07	-0°42'33
				min. Earth dist.	9591 Dec 04 08:14	18°II15'23	29.01035 AU
conjunction	9585 May 20 00:31	3°II49'23	-0°27'32	direct	9592 Feb 22 01:50	16°II51'36	
minimum elong	9585 May 20 00:31	3°II49'23	0°27'50	evening set	9592 May 19 16:14	18°II45'50	
max. Earth dist.	9585 May 20 01:26	3°II49'28	31.07067 AU				
morning rise	9585 Jun 04 10:25	4°II24'11		conjunction	9592 Jun 04 01:56	19°II20'39	-0°40'39

minimum elong	9592 Jun 04 01:56	19° Π 20'39	0°40'59	opposition	9598 Dec 20 08:03	3° Θ 48'50	-0°53'43
max. Earth dist.	9592 Jun 04 06:03	19° Π 21'03	31.00404 AU	min. Earth dist.	9598 Dec 19 22:34	3° Θ 49'29	28.93889 AU
morning rise	9592 Jun 19 12:44	19° Π 55'36		direct	9599 Mar 09 11:15	2° Θ 25'20	
retrograde	9592 Sep 16 22:28	21° Π 52'14		evening set	9599 Jun 04 18:42	4° Θ 19'31	
opposition	9592 Dec 06 01:22	20° Π 28'22	-0°44'21				
min. Earth dist.	9592 Dec 05 19:58	20° Π 28'44	28.99790 AU	conjunction	9599 Jun 20 05:12	4° Θ 54'28	-0°50'50
direct	9593 Feb 23 13:44	19° Π 04'48		minimum elong	9599 Jun 20 05:12	4° Θ 54'28	0°51'12
evening set	9593 May 22 02:48	20° Π 59'00		max. Earth dist.	9599 Jun 20 14:32	4° Θ 55'21	30.93506 AU
				morning rise	9599 Jul 05 17:30	5° Θ 29'36	
conjunction	9593 Jun 06 12:36	21° Π 33'50	-0°42'18	retrograde	9599 Oct 03 16:51	7° Θ 27'03	
minimum elong	9593 Jun 06 12:36	21° Π 33'50	0°42'39	opposition	9599 Dec 22 21:20	6° Θ 02'52	-0°55'00
max. Earth dist.	9593 Jun 06 17:45	21° Π 34'19	30.99150 AU	min. Earth dist.	9599 Dec 22 11:01	6° Θ 03'34	28.93175 AU
morning rise	9593 Jun 21 23:33	22° Π 08'48		direct	9600 Mar 10 22:03	4° Θ 39'24	
retrograde	9593 Sep 19 09:28	24° Π 05'32		evening set	9600 Jun 06 05:29	6° Θ 33'36	
opposition	9593 Dec 08 14:30	22° Π 41'34	-0°46'06				
min. Earth dist.	9593 Dec 08 09:28	22° Π 41'55	28.98563 AU	conjunction	9600 Jun 21 16:16	7° Θ 08'34	-0°52'00
direct	9594 Feb 26 00:44	21° Π 17'59		minimum elong	9600 Jun 21 16:16	7° Θ 08'34	0°52'21
evening set	9594 May 24 13:20	23° Π 12'09		max. Earth dist.	9600 Jun 22 03:01	7° Θ 09'36	30.92780 AU
				morning rise	9600 Jul 07 04:42	7° Θ 43'44	
conjunction	9594 Jun 08 23:16	23° Π 46'59	-0°43'53	retrograde	9600 Oct 05 04:55	9° Θ 41'19	
minimum elong	9594 Jun 08 23:16	23° Π 46'59	0°44'14	opposition	9600 Dec 24 10:42	8° Θ 17'06	-0°56'13
max. Earth dist.	9594 Jun 09 05:20	23° Π 47'34	30.97961 AU	min. Earth dist.	9600 Dec 24 00:30	8° Θ 17'48	28.92436 AU
morning rise	9594 Jun 24 10:23	24° Π 21'59		direct	9601 Mar 13 11:24	6° Θ 53'41	
retrograde	9594 Sep 21 21:44	26° Π 18'49		evening set	9601 Jun 08 16:38	8° Θ 47'53	
opposition	9594 Dec 11 03:32	24° Π 54'47	-0°47'46				
min. Earth dist.	9594 Dec 10 20:38	24° Π 55'15	28.97416 AU	conjunction	9601 Jun 24 03:31	9° Θ 22'53	-0°53'06
direct	9595 Feb 28 13:00	23° Π 31'10		minimum elong	9601 Jun 24 03:31	9° Θ 22'53	0°53'27
evening set	9595 May 26 23:56	25° Π 25'19		max. Earth dist.	9601 Jun 24 14:02	9° Θ 23'53	30.92021 AU
				morning rise	9601 Jul 09 16:18	9° Θ 58'04	
conjunction	9595 Jun 11 09:52	26° Π 00'11	-0°45'25	retrograde	9601 Oct 07 19:42	11° Θ 55'45	
minimum elong	9595 Jun 11 09:51	26° Π 00'11	0°45'46	opposition	9601 Dec 26 23:49	10° Θ 31'31	-0°57'20
max. Earth dist.	9595 Jun 11 16:16	26° Π 00'47	30.96856 AU	min. Earth dist.	9601 Dec 26 12:33	10° Θ 32'17	28.91641 AU
morning rise	9595 Jun 26 21:13	26° Π 35'12					
retrograde	9595 Sep 24 10:29	28° Π 32'09					
opposition	9595 Dec 13 16:44	27° Π 08'03	-0°49'22				
min. Earth dist.	9595 Dec 13 09:51	27° Π 08'31	28.96380 AU				
direct	9596 Mar 01 22:44	25° Π 44'27					
evening set	9596 May 28 10:27	27° Π 38'36					
conjunction	9596 Jun 12 20:38	28° Π 13'29	-0°46'53				
minimum elong	9596 Jun 12 20:38	28° Π 13'29	0°47'13				
max. Earth dist.	9596 Jun 13 04:40	28° Π 14'14	30.95882 AU				
morning rise	9596 Jun 28 08:05	28° Π 48'31					
	9596 Aug 03 13:39	0° Θ					
retrograde	9596 Sep 25 22:59	0° Θ 45'35					
	9596 Nov 20 21:04	30° κ Π					
opposition	9596 Dec 15 05:49	29° Π 21'27	-0°50'53				
min. Earth dist.	9596 Dec 14 21:17	29° Π 22'02	28.95459 AU				
direct	9597 Mar 04 10:51	27° Π 57'53					
evening set	9597 May 30 21:07	29° Π 52'02					
	9597 Jun 03 10:46	0° Θ					
conjunction	9597 Jun 15 07:18	0° Θ 26'56	-0°48'16				
minimum elong	9597 Jun 15 07:18	0° Θ 26'56	0°48'38				
max. Earth dist.	9597 Jun 15 15:12	0° Θ 27'41	30.95016 AU				
morning rise	9597 Jun 30 19:09	1° Θ 02'00					
retrograde	9597 Sep 28 13:31	2° Θ 59'12					
opposition	9597 Dec 17 19:01	1° Θ 35'02	-0°52'20				
min. Earth dist.	9597 Dec 17 10:14	1° Θ 35'38	28.94646 AU				
direct	9598 Mar 06 21:55	0° Θ 11'30					
evening set	9598 Jun 02 07:47	2° Θ 05'40					
conjunction	9598 Jun 17 18:17	2° Θ 40'36	-0°49'35				
minimum elong	9598 Jun 17 18:17	2° Θ 40'35	0°49'56				
max. Earth dist.	9598 Jun 18 04:00	2° Θ 41'31	30.94234 AU				
morning rise	9598 Jul 03 06:11	3° Θ 15'41					
retrograde	9598 Oct 01 02:43	5° Θ 13'01					