

superior conj	1599 Mar 03 15:32	12°♄37'16	-1°-25'-59	min. Earth dist.	1601 Jul 21 13:30	28°♁31'53	0.28951 AU
minimum elong	1599 Mar 03 15:32	12°♄37'16	1°26'01	morning rise	1601 Jul 26 07:07	25°♁38'48	
max. Earth dist.	1599 Mar 07 14:55	17°♄34'38	1.72008 AU	direct	1601 Aug 12 05:42	20°♁14'57	
	1599 Mar 17 14:26	0°♃		greatest brilliancy	1601 Aug 26 10:38	23°♁47'34	-4.5m
	1599 Apr 10 19:19	0°♂			1601 Sep 06 00:13	0°♁	
evening rise	1599 Apr 12 00:58	1°♂31'33		morning max el	1601 Sep 30 19:11	21°♁19'00	46°15'09
asc. node	1599 Apr 29 04:49	22°♂39'35			1601 Oct 09 08:36	0°♎	
	1599 May 05 04:22	0°♁		asc. node	1601 Oct 13 23:45	4°♎53'07	
	1599 May 29 17:59	0°♁			1601 Nov 05 12:00	0°♁	
	1599 Jun 23 12:55	0°♁			1601 Nov 30 20:15	0°♎	
	1599 Jul 18 15:16	0°♎			1601 Dec 25 10:21	0°♁	
	1599 Aug 13 05:21	0°♁			1602 Jan 18 16:55	0°♂	
desc. node	1599 Aug 18 18:00	6°♁22'17		desc. node	1602 Feb 02 13:10	18°♂25'21	
	1599 Sep 08 16:14	0°♎			1602 Feb 11 20:55	0°≈	
	1599 Oct 07 01:55	0°♁			1602 Mar 08 00:47	0°♄	
evening max el	1599 Oct 07 10:09	0°♁20'19	46°51'10		1602 Apr 01 05:50	0°♃	
	1599 Nov 14 20:09	0°♂		morning set	1602 Apr 06 12:18	6°♃30'56	
greatest brilliancy	1599 Nov 15 07:24	0°♂11'32	-4.7m		1602 Apr 25 12:49	0°♂	
retrograde	1599 Nov 26 17:08	2°♂37'20					
	1599 Dec 08 01:16	30°♁		superior conj	1602 May 14 04:35	22°♂58'27	0°-29'-9
asc. node	1599 Dec 09 21:28	29°♁07'24		minimum elong	1602 May 14 10:31	23°♂16'44	0°28'54
evening set	1599 Dec 10 23:36	28°♁33'37		max. Earth dist.	1602 May 15 15:51	24°♂46'55	1.73403 AU
inferior conj	1599 Dec 17 05:26	24°♁55'29	1°53'51		1602 May 19 21:40	0°♁	
minimum elong	1599 Dec 17 01:09	25°♁02'00	1°52'29	asc. node	1602 May 26 16:45	8°♁21'14	
min. Earth dist.	1599 Dec 16 22:13	25°♁06'27	0.26415 AU		1602 Jun 13 07:45	0°♁	
morning rise	1599 Dec 23 02:50	21°♁29'10		evening rise	1602 Jun 19 19:54	7°♁59'14	
direct	1600 Jan 06 13:40	17°♁18'42			1602 Jul 07 18:32	0°♁	
greatest brilliancy	1600 Jan 18 06:43	19°♁53'13	-4.7m		1602 Aug 01 06:18	0°♎	
	1600 Feb 03 18:16	0°♂			1602 Aug 25 20:12	0°♁	
morning max el	1600 Feb 25 20:49	19°♂56'22	46°43'30	desc. node	1602 Sep 15 05:55	24°♁45'34	
	1600 Mar 06 16:04	0°≈			1602 Sep 19 13:58	0°♎	
desc. node	1600 Mar 30 10:51	26°≈01'18			1602 Oct 14 13:46	0°♁	
	1600 Apr 02 23:19	0°♄			1602 Nov 09 00:25	0°♂	
	1600 Apr 28 23:19	0°♃			1602 Dec 05 12:21	0°≈	
	1600 May 24 09:45	0°♂		evening max el	1602 Dec 19 00:03	14°≈17'04	47°17'38
	1600 Jun 18 12:18	0°♁			1603 Jan 04 11:40	0°♄	
	1600 Jul 13 08:19	0°♁		asc. node	1603 Jan 06 09:19	1°♄37'56	
asc. node	1600 Jul 21 14:20	10°♁02'29		greatest brilliancy	1603 Jan 25 16:45	14°♄45'08	-4.7m
	1600 Aug 06 21:45	0°♁		retrograde	1603 Feb 07 22:32	18°♄00'19	
morning set	1600 Aug 23 12:40	20°♁29'21		evening set	1603 Feb 25 19:42	11°♄47'06	
	1600 Aug 31 04:58	0°♎		min. Earth dist.	1603 Feb 28 04:50	10°♄18'04	0.27763 AU
	1600 Sep 24 07:25	0°♁		inferior conj	1603 Feb 28 20:58	9°♄52'40	8°47'44
max. Earth dist.	1600 Sep 26 13:19	2°♁48'14	1.72003 AU	minimum elong	1603 Feb 28 20:13	9°♄53'51	8°47'44
				morning rise	1603 Mar 03 20:57	8°♄00'48	
superior conj	1600 Sep 29 14:40	6°♁37'17	1°18'10	direct	1603 Mar 21 16:52	1°♄56'33	
minimum elong	1600 Sep 29 21:49	6°♁59'38	1°18'01	greatest brilliancy	1603 Apr 01 11:33	4°♄04'53	-4.6m
	1600 Oct 18 07:06	0°♎		desc. node	1603 Apr 27 22:35	21°♄37'51	
evening rise	1600 Nov 07 20:45	25°♎46'10			1603 May 07 03:50	0°♃	
desc. node	1600 Nov 10 03:45	28°♎38'32		morning max el	1603 May 09 21:33	2°♃37'05	46°00'05
	1600 Nov 11 05:45	0°♁			1603 Jun 05 09:45	0°♂	
	1600 Dec 05 04:26	0°♂			1603 Jul 02 06:27	0°♁	
	1600 Dec 29 04:12	0°≈			1603 Jul 28 01:44	0°♁	
	1601 Jan 22 07:06	0°♄		asc. node	1603 Aug 19 02:07	26°♁15'59	
	1601 Feb 15 16:56	0°♃			1603 Aug 22 04:23	0°♁	
asc. node	1601 Mar 03 07:00	18°♃50'26			1603 Sep 15 18:24	0°♎	
	1601 Mar 12 15:42	0°♂			1603 Oct 09 23:19	0°♁	
	1601 Apr 07 13:39	0°♁		greatest brilliancy	1603 Oct 13 00:56	3°♁49'34	-3.9m
	1601 May 05 11:29	0°♁			1603 Nov 02 22:41	0°♎	
evening max el	1601 May 12 13:02	6°♁58'26	45°26'00	morning set	1603 Nov 03 13:58	0°♎48'01	
	1601 Jun 09 21:43	0°♁			1603 Nov 26 19:25	0°♁	
greatest brilliancy	1601 Jun 16 05:43	3°♁21'13	-4.5m	desc. node	1603 Dec 08 15:37	14°♁54'22	
desc. node	1601 Jun 22 20:25	5°♁43'43					
retrograde	1601 Jun 30 02:58	6°♁41'50		superior conj	1603 Dec 14 03:07	21°♁48'09	0°-13'-4
evening set	1601 Jul 16 00:14	1°♁52'55		minimum elong	1603 Dec 13 23:38	21°♁37'12	0°12'55
	1601 Jul 19 04:40	30°♁		behind sun begin	1603 Dec 13 07:12	20°♁45'31	
inferior conj	1601 Jul 21 13:38	28°♁31'41	-6°-5'-19	behind sun end	1603 Dec 14 16:03	22°♁28'53	
minimum elong	1601 Jul 21 03:43	28°♁47'09	6°03'17	max. Earth dist.	1603 Dec 14 12:58	22°♁19'10	1.71055 AU

	1603 Dec 20 15:27	0°☾			1606 Jul 07 14:28	0°♁		
	1604 Jan 13 12:01	0°♁		morning max el	1606 Jul 19 19:33	11°♁00'54	45°44'23	
evening rise	1604 Jan 24 16:00	14°♁00'36			1606 Aug 07 14:40	0°☾		
	1604 Feb 06 10:27	0°♁			1606 Sep 03 18:03	0°♁		
	1604 Mar 01 12:33	0°♁		asc. node	1606 Sep 15 14:05	13°♁42'45		
	1604 Mar 25 20:37	0°♁			1606 Sep 29 08:02	0°♁		
asc. node	1604 Mar 30 18:58	6°♁01'54			1606 Oct 24 01:11	0°♁		
	1604 Apr 19 13:14	0°♁			1606 Nov 17 06:33	0°♁		
	1604 May 14 17:52	0°☾			1606 Dec 11 06:07	0°♁		
	1604 Jun 09 17:17	0°♁			1607 Jan 04 03:38	0°☾		
	1604 Jul 07 04:40	0°♁		desc. node	1607 Jan 05 03:17	1°☾14'15		
desc. node	1604 Jul 20 08:10	13°♁16'35		morning set	1607 Jan 18 23:09	18°☾35'52		
evening max el	1604 Jul 22 17:53	15°♁35'40	45°40'40		1607 Jan 28 01:12	0°♁		
	1604 Aug 08 00:13	0°♁			1607 Feb 21 00:05	0°♁		
greatest brilliancy	1604 Aug 29 19:37	13°♁24'26	-4.5m					
retrograde	1604 Sep 09 15:13	15°♁30'49		superior conj	1607 Mar 01 03:43	10°♁11'07	-1°-25'-56	
evening set	1604 Sep 27 04:12	9°♁47'24		minimum elong	1607 Mar 01 02:44	10°♁08'01	1°25'56	
inferior conj	1604 Sep 30 15:52	7°♁41'11	-8°-5'-29	max. Earth dist.	1607 Mar 05 02:03	15°♁05'22	1.71952 AU	
minimum elong	1604 Sep 30 23:35	7°♁29'20	8°04'35		1607 Mar 17 01:24	0°♁		
min. Earth dist.	1604 Oct 01 14:04	7°♁07'07	0.27726 AU	evening rise	1607 Apr 09 15:46	29°♁15'17		
morning rise	1604 Oct 04 18:35	5°♁11'57			1607 Apr 10 06:15	0°♁		
	1604 Oct 17 17:58	30°♁		asc. node	1607 Apr 28 06:58	22°♁12'25		
direct	1604 Oct 21 16:43	29°♁40'58			1607 May 04 15:23	0°♁		
	1604 Oct 25 17:17	0°♁			1607 May 29 05:15	0°☾		
greatest brilliancy	1604 Nov 04 21:59	3°♁20'30	-4.6m		1607 Jun 23 00:40	0°♁		
asc. node	1604 Nov 10 11:38	6°♁25'38			1607 Jul 18 03:50	0°♁		
	1604 Dec 08 11:25	0°♁			1607 Aug 12 19:21	0°♁		
morning max el	1604 Dec 11 09:28	2°♁56'43	46°53'55	desc. node	1607 Aug 17 19:57	5°♁46'33		
	1605 Jan 05 07:44	0°♁			1607 Sep 08 09:01	0°♁		
	1605 Jan 31 02:21	0°☾		evening max el	1607 Oct 05 00:45	27°♁59'26	46°48'56	
	1605 Feb 25 03:22	0°♁			1607 Oct 07 02:04	0°♁		
desc. node	1605 Mar 02 01:01	5°♁55'21		greatest brilliancy	1607 Nov 12 20:31	27°♁42'39	-4.7m	
	1605 Mar 21 21:20	0°♁			1607 Nov 21 19:39	0°☾		
	1605 Apr 15 12:32	0°♁		retrograde	1607 Nov 24 05:47	0°☾07'02		
	1605 May 10 02:46	0°♁			1607 Nov 26 15:11	30°♁		
	1605 Jun 03 16:11	0°♁		evening set	1607 Dec 08 11:33	26°♁04'05		
morning set	1605 Jun 14 09:20	13°♁06'35		asc. node	1607 Dec 08 23:27	25°♁48'05		
asc. node	1605 Jun 23 04:34	23°♁53'40		inferior conj	1607 Dec 14 17:27	22°♁25'39	1°29'34	
	1605 Jun 28 04:02	0°☾		minimum elong	1607 Dec 14 14:03	22°♁30'49	1°28'28	
max. Earth dist.	1605 Jul 18 04:29	24°☾36'39	1.73388 AU	min. Earth dist.	1607 Dec 14 11:25	22°♁34'49	0.26407 AU	
				morning rise	1607 Dec 20 16:44	18°♁57'00		
superior conj	1605 Jul 20 18:57	27°☾49'05	0°59'18	direct	1608 Jan 04 02:26	14°♁49'05		
minimum elong	1605 Jul 20 10:12	27°☾22'07	0°59'00	greatest brilliancy	1608 Jan 15 19:54	17°♁24'26	-4.7m	
	1605 Jul 22 13:26	0°♁			1608 Feb 04 09:17	0°☾		
	1605 Aug 15 20:19	0°♁		morning max el	1608 Feb 23 10:37	17°☾32'36	46°44'43	
evening rise	1605 Aug 25 18:17	12°♁16'38			1608 Mar 06 11:57	0°♁		
	1605 Sep 09 01:34	0°♁		desc. node	1608 Mar 29 12:56	25°♁22'37		
	1605 Oct 03 06:29	0°♁			1608 Apr 02 14:42	0°♁		
desc. node	1605 Oct 12 17:53	11°♁44'10			1608 Apr 28 12:42	0°♁		
	1605 Oct 27 12:07	0°♁			1608 May 23 22:01	0°♁		
	1605 Nov 20 19:30	0°☾			1608 Jun 17 23:54	0°♁		
	1605 Dec 15 07:00	0°♁			1608 Jul 12 19:32	0°☾		
	1606 Jan 09 04:29	0°♁		asc. node	1608 Jul 20 16:19	9°☾34'36		
asc. node	1606 Feb 02 21:08	28°♁40'30			1608 Aug 06 08:46	0°♁		
	1606 Feb 04 01:23	0°♁		morning set	1608 Aug 21 05:44	18°♁19'52		
evening max el	1606 Feb 28 09:49	26°♁00'24	46°21'58		1608 Aug 30 15:56	0°♁		
	1606 Mar 04 11:26	0°♁			1608 Sep 23 18:26	0°♁		
greatest brilliancy	1606 Apr 04 13:11	23°♁58'41	-4.5m	max. Earth dist.	1608 Sep 24 00:11	0°♁17'55	1.72056 AU	
retrograde	1606 Apr 19 05:39	27°♁49'43						
evening set	1606 May 04 22:32	23°♁00'55		superior conj	1608 Sep 27 05:58	4°♁20'42	1°19'26	
inferior conj	1606 May 10 14:45	19°♁33'54	3°25'05	minimum elong	1608 Sep 27 12:30	4°♁41'06	1°19'20	
minimum elong	1606 May 10 21:43	19°♁22'57	3°23'11		1608 Oct 17 18:14	0°♁		
min. Earth dist.	1606 May 10 16:22	19°♁31'22	0.28774 AU	evening rise	1608 Nov 05 08:27	23°♁17'09		
morning rise	1606 May 16 21:06	15°♁47'11		desc. node	1608 Nov 09 05:51	28°♁09'46		
desc. node	1606 May 25 10:28	12°♁11'18			1608 Nov 10 17:02	0°♁		
direct	1606 Jun 01 01:11	11°♁18'56			1608 Dec 04 15:53	0°☾		
greatest brilliancy	1606 Jun 14 00:08	14°♁15'42	-4.5m		1608 Dec 28 15:50	0°♁		

	1609 Jan 21 19:01	0°♁			1611 Jul 01 20:09	0°♁	
	1609 Feb 15 05:19	0°♁			1611 Jul 27 14:08	0°♁	
asc. node	1609 Mar 02 09:04	18°♁18'05		asc. node	1611 Aug 18 04:14	25°♁46'55	
	1609 Mar 12 04:58	0°♁			1611 Aug 21 16:04	0°♁	
	1609 Apr 07 04:47	0°♁			1611 Sep 15 05:44	0°♁	
	1609 May 05 07:42	0°♁			1611 Oct 09 10:30	0°♁	
evening max el	1609 May 10 05:03	4°♁47'46	45°26'54	greatest brilliancy	1611 Oct 16 10:55	8°♁45'37	-3.9m
	1609 Jun 11 10:22	0°♁		morning set	1611 Nov 01 03:10	28°♁23'47	
greatest brilliancy	1609 Jun 13 21:00	1°♁11'09	-4.5m		1611 Nov 02 09:50	0°♁	
desc. node	1609 Jun 21 22:21	3°♁54'44			1611 Nov 26 06:36	0°♁	
retrograde	1609 Jun 27 18:35	4°♁32'39		desc. node	1611 Dec 07 17:34	14°♁25'13	
	1609 Jul 13 04:56	30°♁					
evening set	1609 Jul 13 14:01	29°♁47'21		superior conj	1611 Dec 11 13:05	19°♁13'13	0°-9'-7
inferior conj	1609 Jul 19 05:58	26°♁22'22	-5°-51'-2	minimum elong	1611 Dec 11 10:39	19°♁05'34	0°09'00
minimum elong	1609 Jul 18 20:07	26°♁37'45	5°48'55	behind sun begin	1611 Dec 10 12:20	17°♁55'20	
min. Earth dist.	1609 Jul 19 05:38	26°♁22'53	0.28961 AU	behind sun end	1611 Dec 12 08:58	20°♁15'47	
morning rise	1609 Jul 24 02:05	23°♁25'17		max. Earth dist.	1611 Dec 11 17:17	19°♁26'25	1.71066 AU
direct	1609 Aug 09 22:03	18°♁05'35			1611 Dec 20 02:41	0°♁	
greatest brilliancy	1609 Aug 24 01:05	21°♁35'15	-4.5m		1612 Jan 12 23:18	0°♁	
	1609 Sep 06 17:09	0°♁		evening rise	1612 Jan 22 01:59	11°♁26'05	
morning max el	1609 Sep 28 09:27	19°♁01'38	46°13'26		1612 Feb 05 21:46	0°♁	
	1609 Oct 09 03:43	0°♁			1612 Feb 29 23:57	0°♁	
asc. node	1609 Oct 13 01:56	4°♁10'21			1612 Mar 25 08:12	0°♁	
	1609 Nov 05 03:01	0°♁		asc. node	1612 Mar 29 21:07	5°♁32'52	
	1609 Nov 30 09:39	0°♁			1612 Apr 19 01:14	0°♁	
	1609 Dec 24 22:56	0°♁			1612 May 14 06:43	0°♁	
	1610 Jan 18 04:59	0°♁			1612 Jun 09 07:50	0°♁	
desc. node	1610 Feb 01 15:12	17°♁55'00			1612 Jul 06 23:17	0°♁	
	1610 Feb 11 08:36	0°♁		desc. node	1612 Jul 19 10:13	12°♁27'09	
	1610 Mar 07 12:10	0°♁		evening max el	1612 Jul 20 07:50	13°♁18'57	45°39'10
	1610 Mar 31 17:01	0°♁			1612 Aug 08 12:21	0°♁	
morning set	1610 Apr 04 03:09	4°♁14'01		greatest brilliancy	1612 Aug 27 06:16	11°♁03'25	-4.5m
	1610 Apr 24 23:51	0°♁		retrograde	1612 Sep 07 05:12	13°♁12'52	
				evening set	1612 Sep 24 20:23	7°♁25'12	
superior conj	1610 May 11 21:32	20°♁49'18	0°-32'-14	inferior conj	1612 Sep 28 06:00	5°♁22'06	-8°-13'-14
minimum elong	1610 May 12 04:03	21°♁09'18	0°31'57	minimum elong	1612 Sep 28 13:05	5°♁11'14	8°12'29
max. Earth dist.	1610 May 13 11:56	22°♁47'23	1.73368 AU	min. Earth dist.	1612 Sep 29 03:44	4°♁48'47	0.27795 AU
	1610 May 19 08:37	0°♁		morning rise	1612 Oct 02 05:25	2°♁57'52	
asc. node	1610 May 25 18:45	7°♁53'47			1612 Oct 07 20:44	30°♁	
	1610 Jun 12 18:41	0°♁		direct	1612 Oct 19 07:40	27°♁20'45	
evening rise	1610 Jun 17 14:42	5°♁55'57			1612 Oct 31 07:16	0°♁	
	1610 Jul 07 05:35	0°♁		greatest brilliancy	1612 Nov 02 14:45	1°♁02'48	-4.6m
	1610 Jul 31 17:37	0°♁		asc. node	1612 Nov 09 13:36	5°♁00'59	
	1610 Aug 25 08:00	0°♁			1612 Dec 08 10:27	0°♁	
desc. node	1610 Sep 14 08:03	24°♁14'42		morning max el	1612 Dec 09 00:44	0°♁36'19	46°53'05
	1610 Sep 19 02:28	0°♁			1613 Jan 05 00:18	0°♁	
	1610 Oct 14 03:21	0°♁			1613 Jan 30 16:32	0°♁	
	1610 Nov 08 15:46	0°♁			1613 Feb 24 16:20	0°♁	
	1610 Dec 05 07:30	0°♁		desc. node	1613 Mar 01 03:08	5°♁23'02	
evening max el	1610 Dec 16 13:39	11°♁51'18	47°18'12		1613 Mar 21 09:32	0°♁	
	1611 Jan 04 21:23	0°♁			1613 Apr 15 00:12	0°♁	
asc. node	1611 Jan 05 11:20	0°♁28'56			1613 May 09 14:01	0°♁	
greatest brilliancy	1611 Jan 23 09:47	12°♁25'11	-4.7m		1613 Jun 03 03:10	0°♁	
retrograde	1611 Feb 05 12:40	15°♁37'45		morning set	1613 Jun 12 03:19	11°♁01'16	
evening set	1611 Feb 23 08:48	9°♁27'14		asc. node	1613 Jun 22 06:31	23°♁26'21	
min. Earth dist.	1611 Feb 25 18:46	7°♁57'04	0.27705 AU		1613 Jun 27 14:52	0°♁	
inferior conj	1611 Feb 26 11:14	7°♁31'09	8°47'03	max. Earth dist.	1613 Jul 16 03:06	22°♁45'09	1.73416 AU
minimum elong	1611 Feb 26 09:37	7°♁33'42	8°47'01				
morning rise	1611 Mar 01 10:37	5°♁40'08		superior conj	1613 Jul 18 13:20	25°♁44'31	0°57'02
	1611 Mar 14 18:42	30°♁		minimum elong	1613 Jul 18 04:37	25°♁17'40	0°56'42
direct	1611 Mar 19 05:53	29°♁35'51			1613 Jul 22 00:15	0°♁	
	1611 Mar 23 19:36	0°♁			1613 Aug 15 07:12	0°♁	
greatest brilliancy	1611 Mar 30 00:55	1°♁44'04	-4.6m	evening rise	1613 Aug 23 11:52	10°♁08'36	
desc. node	1611 Apr 27 00:43	20°♁38'02			1613 Sep 08 12:37	0°♁	
	1611 May 07 03:44	0°♁			1613 Oct 02 17:46	0°♁	
morning max el	1611 May 07 10:56	0°♁17'21	46°01'28	desc. node	1613 Oct 11 19:59	11°♁15'20	
	1611 Jun 05 02:08	0°♁			1613 Oct 26 23:44	0°♁	

	1613 Nov 20 07:36	0°☿		asc. node	1616 Jul 19 18:27	9°☾07'50	
	1613 Dec 14 19:48	0°♊			1616 Aug 05 19:33	0°♈	
	1614 Jan 08 18:27	0°♋		morning set	1616 Aug 18 22:39	16°♈10'47	
asc. node	1614 Feb 01 23:12	28°♋00'45			1616 Aug 30 02:38	0°♎	
	1614 Feb 03 17:48	0°♌		max. Earth dist.	1616 Sep 21 11:55	27°♎51'23	1.72110 AU
evening max el	1614 Feb 26 01:50	23°♌46'19	46°24'27		1616 Sep 23 05:09	0°♎	
	1614 Mar 04 11:26	0°♍					
greatest brilliancy	1614 Apr 02 05:48	21°♍47'34	-4.5m	superior conj	1616 Sep 24 21:26	2°♎05'39	1°20'35
retrograde	1614 Apr 16 22:40	25°♍38'36		minimum elong	1616 Sep 25 03:18	2°♎23'59	1°20'30
evening set	1614 May 02 16:56	20°♍46'37			1616 Oct 17 05:05	0°♏	
inferior conj	1614 May 08 06:52	17°♍22'39	3°43'34	evening rise	1616 Nov 02 20:28	20°♏50'09	
minimum elong	1614 May 08 14:20	17°♍10'54	3°41'33	desc. node	1616 Nov 08 07:48	27°♏41'26	
min. Earth dist.	1614 May 08 08:07	17°♍20'41	0.28755 AU		1616 Nov 10 04:02	0°♐	
morning rise	1614 May 14 12:02	13°♍37'52			1616 Dec 04 03:02	0°☿	
desc. node	1614 May 24 12:23	9°♍40'34			1616 Dec 28 03:09	0°♊	
direct	1614 May 29 17:20	9°♍08'06			1617 Jan 21 06:35	0°♋	
greatest brilliancy	1614 Jun 11 14:03	12°♍03'14	-4.5m		1617 Feb 14 17:21	0°♌	
	1614 Jul 07 19:00	0°♎		asc. node	1617 Mar 01 11:12	17°♌47'03	
morning max el	1614 Jul 17 12:24	8°♎53'16	45°44'06		1617 Mar 11 17:56	0°♍	
	1614 Aug 07 07:44	0°☾			1617 Apr 06 19:45	0°♎	
	1614 Sep 03 07:56	0°♈			1617 May 05 04:17	0°☾	
asc. node	1614 Sep 14 16:08	13°♈10'22		evening max el	1617 May 07 20:10	2°☾35'35	45°27'40
	1614 Sep 28 20:33	0°♎		greatest brilliancy	1617 Jun 11 11:42	29°☾00'40	-4.5m
	1614 Oct 23 13:00	0°♏			1617 Jun 13 19:28	0°♈	
	1614 Nov 16 17:59	0°♏		desc. node	1617 Jun 21 00:26	2°♈02'06	
	1614 Dec 10 17:21	0°♐		retrograde	1617 Jun 25 10:02	2°♈23'55	
	1615 Jan 03 14:45	0°☿			1617 Jul 06 12:15	30°☾	
desc. node	1615 Jan 04 05:23	0°☿45'57		evening set	1617 Jul 11 03:46	27°☾41'46	
morning set	1615 Jan 16 09:09	16°☿01'59		inferior conj	1617 Jul 16 22:10	24°☾13'26	-5°-36'-5
	1615 Jan 27 12:14	0°♊		minimum elong	1617 Jul 16 12:27	24°☾28'38	5°33'55
	1615 Feb 20 11:02	0°♋		min. Earth dist.	1617 Jul 16 21:57	24°☾13'48	0.28970 AU
				morning rise	1617 Jul 21 20:56	21°☾12'17	
superior conj	1615 Feb 26 15:45	7°♋44'39	-1°-25'-41	direct	1617 Aug 07 13:52	15°☾56'28	
minimum elong	1615 Feb 26 13:44	7°♋38'21	1°25'42	greatest brilliancy	1617 Aug 21 16:30	19°☾24'42	-4.5m
max. Earth dist.	1615 Mar 02 14:57	12°♋41'49	1.71904 AU		1617 Sep 07 05:28	0°♈	
	1615 Mar 16 12:18	0°♌		morning max el	1617 Sep 25 23:30	16°♈44'41	46°11'56
evening rise	1615 Apr 07 06:05	26°♌57'34			1617 Oct 08 22:00	0°♎	
	1615 Apr 09 17:09	0°♍		asc. node	1617 Oct 12 03:56	3°♎28'37	
asc. node	1615 Apr 27 08:55	21°♍44'44			1617 Nov 04 17:28	0°♏	
	1615 May 04 02:23	0°♎			1617 Nov 29 22:34	0°♏	
	1615 May 28 16:29	0°☾			1617 Dec 24 11:04	0°♐	
	1615 Jun 22 12:21	0°♈			1618 Jan 17 16:37	0°☿	
	1615 Jul 17 16:19	0°♎		desc. node	1618 Jan 31 17:19	17°☿26'05	
	1615 Aug 12 09:18	0°♏			1618 Feb 10 19:52	0°♊	
desc. node	1615 Aug 16 22:06	5°♏11'39			1618 Mar 06 23:09	0°♋	
	1615 Sep 08 01:54	0°♏			1618 Mar 31 03:48	0°♌	
evening max el	1615 Oct 02 15:15	25°♏39'05	46°46'37	morning set	1618 Apr 01 18:00	1°♌58'12	
	1615 Oct 07 03:06	0°♐			1618 Apr 24 10:29	0°♍	
greatest brilliancy	1615 Nov 10 10:37	25°♐16'04	-4.7m				
retrograde	1615 Nov 21 18:04	27°♐37'52		superior conj	1618 May 09 14:31	18°♐41'21	0°-35'-15
evening set	1615 Dec 05 23:54	23°♐35'37		minimum elong	1618 May 09 21:33	19°♐02'58	0°34'57
asc. node	1615 Dec 08 01:26	22°♐27'00		max. Earth dist.	1618 May 11 07:06	20°♐46'12	1.73338 AU
inferior conj	1615 Dec 12 05:37	19°♐57'16	1°05'08		1618 May 18 19:11	0°♎	
minimum elong	1615 Dec 12 03:08	20°♐01'03	1°04'19	asc. node	1618 May 24 20:46	7°♎27'29	
min. Earth dist.	1615 Dec 12 01:05	20°♐04'10	0.26401 AU		1618 Jun 12 05:17	0°☾	
morning rise	1615 Dec 18 06:31	16°♐26'17		evening rise	1618 Jun 15 09:23	3°☾53'27	
direct	1616 Jan 01 15:02	12°♐20'55			1618 Jul 06 16:21	0°♈	
greatest brilliancy	1616 Jan 13 09:28	14°♐57'11	-4.7m		1618 Jul 31 04:40	0°♎	
	1616 Feb 04 20:01	0°☿			1618 Aug 24 19:32	0°♏	
morning max el	1616 Feb 20 23:27	15°☿07'16	46°45'50	desc. node	1618 Sep 13 10:05	23°♏44'25	
	1616 Mar 06 06:54	0°♊			1618 Sep 18 14:42	0°♏	
desc. node	1616 Mar 28 15:03	24°♊45'13			1618 Oct 13 16:39	0°♐	
	1616 Apr 02 05:34	0°♋			1618 Nov 08 06:55	0°☿	
	1616 Apr 28 01:44	0°♌			1618 Dec 05 02:43	0°♊	
	1616 May 23 10:02	0°♍		evening max el	1618 Dec 14 03:03	9°♊26'14	47°18'45
	1616 Jun 17 11:18	0°♎		asc. node	1619 Jan 04 13:29	29°♊19'31	
	1616 Jul 12 06:33	0°☾			1619 Jan 05 09:46	0°♋	

greatest brilliancy	1619 Jan 21 01:45	10° K 04'50	-4.7m			1621 Jun 02 13:53	0° II		
retrograde	1619 Feb 03 02:56	13° K 16'19		morning set		1621 Jun 09 21:28	8° II 57'12		
evening set	1619 Feb 20 21:23	7° K 08'50		asc. node		1621 Jun 21 08:41	23° II 00'28		
min. Earth dist.	1619 Feb 23 08:35	5° K 37'03	0.27649 AU			1621 Jun 27 01:27	0° S		
inferior conj	1619 Feb 24 01:28	5° K 10'31	8°45'20	max. Earth dist.		1621 Jul 14 01:56	20° S 55'10	1.73440 AU	
minimum elong	1619 Feb 23 23:00	5° K 14'25	8°45'14						
morning rise	1619 Feb 27 00:46	3° K 19'48		superior conj		1621 Jul 16 07:50	23° S 41'05	0°54'40	
	1619 Mar 05 03:45	30° \approx		minimum elong		1621 Jul 15 23:13	23° S 14'33	0°54'21	
direct	1619 Mar 16 18:52	27° \approx 15'55				1621 Jul 21 10:49	0° Ω		
greatest brilliancy	1619 Mar 27 14:40	29° \approx 24'46	-4.6m			1621 Aug 14 17:53	0° M		
	1619 Mar 29 01:57	0° K		evening rise		1621 Aug 21 05:35	8° M 01'39		
desc. node	1619 Apr 26 02:37	19° K 40'20				1621 Sep 07 23:31	0° A		
morning max el	1619 May 05 01:02	28° K 00'32	46°02'57			1621 Oct 02 04:58	0° M		
	1619 May 07 02:06	0° Y		desc. node		1621 Oct 10 21:56	10° M 46'19		
	1619 Jun 04 17:46	0° B				1621 Oct 26 11:19	0° Z		
	1619 Jul 01 09:20	0° II				1621 Nov 19 19:40	0° Z		
	1619 Jul 27 02:06	0° S				1621 Dec 14 08:34	0° \approx		
asc. node	1619 Aug 17 06:18	25° S 18'41				1622 Jan 08 08:23	0° K		
	1619 Aug 21 03:26	0° Ω		asc. node		1622 Feb 01 01:16	27° K 21'09		
	1619 Sep 14 16:47	0° M				1622 Feb 03 10:19	0° Y		
	1619 Oct 08 21:24	0° A		evening max el		1622 Feb 23 18:05	21° Y 33'13	46°26'57	
greatest brilliancy	1619 Oct 19 10:11	13° A 09'29	-3.9m			1622 Mar 04 12:23	0° B		
morning set	1619 Oct 29 16:23	26° A 00'38		greatest brilliancy		1622 Mar 30 23:28	19° B 38'17	-4.6m	
	1619 Nov 01 20:41	0° M		retrograde		1622 Apr 14 15:23	23° B 27'44		
	1619 Nov 25 17:26	0° Z		evening set		1622 Apr 30 11:30	18° B 32'40		
desc. node	1619 Dec 06 19:38	13° Z 57'33		inferior conj		1622 May 05 23:00	15° B 11'47	4°01'46	
				minimum elong		1622 May 06 06:57	14° B 59'17	3°59'40	
superior conj	1619 Dec 08 23:02	16° Z 39'18	0°-5'-8	min. Earth dist.		1622 May 05 23:53	15° B 10'24	0.28734 AU	
minimum elong	1619 Dec 08 21:40	16° Z 34'58	0°05'05	morning rise		1622 May 12 02:46	11° B 28'58		
behind sun begin	1619 Dec 07 20:23	15° Z 15'26		desc. node		1622 May 23 14:32	7° B 14'57		
behind sun end	1619 Dec 09 22:56	17° Z 54'31		direct		1622 May 27 09:41	6° B 57'45		
max. Earth dist.	1619 Dec 09 01:12	16° Z 46'09	1.71076 AU	greatest brilliancy		1622 Jun 09 03:12	9° B 50'06	-4.5m	
	1619 Dec 19 13:33	0° Z				1622 Jul 07 21:40	0° II		
	1620 Jan 12 10:12	0° \approx		morning max el		1622 Jul 15 04:38	6° II 44'31	45°43'53	
evening rise	1620 Jan 19 12:05	8° \approx 53'00				1622 Aug 07 00:18	0° S		
	1620 Feb 05 08:45	0° K				1622 Sep 02 21:33	0° Ω		
	1620 Feb 29 11:02	0° Y		asc. node		1622 Sep 13 18:09	12° Ω 38'20		
	1620 Mar 24 19:29	0° B				1622 Sep 28 08:54	0° M		
asc. node	1620 Mar 28 23:04	5° B 04'14				1622 Oct 23 00:44	0° A		
	1620 Apr 18 12:55	0° II				1622 Nov 16 05:25	0° M		
	1620 May 13 19:16	0° S				1622 Dec 10 04:37	0° Z		
	1620 Jun 08 22:12	0° Ω				1623 Jan 03 01:55	0° Z		
	1620 Jul 06 18:05	0° M		desc. node		1623 Jan 03 07:32	0° Z 17'41		
evening max el	1620 Jul 17 22:26	11° M 04'44	45°37'30	morning set		1623 Jan 13 18:45	13° Z 26'36		
desc. node	1620 Jul 18 12:20	11° M 37'48				1623 Jan 26 23:17	0° \approx		
	1620 Aug 09 04:15	0° A				1623 Feb 19 21:59	0° K		
greatest brilliancy	1620 Aug 24 16:22	8° A 42'22	-4.5m						
retrograde	1620 Sep 04 19:09	10° A 54'56		superior conj		1623 Feb 24 03:22	5° K 16'51	-1°-25'-17	
evening set	1620 Sep 22 12:12	5° A 03'29		minimum elong		1623 Feb 24 00:20	5° K 07'24	1°25'17	
inferior conj	1620 Sep 25 19:54	3° A 03'03	-8°-20'-11	max. Earth dist.		1623 Feb 28 05:07	10° K 22'07	1.71849 AU	
minimum elong	1620 Sep 26 02:20	2° A 53'12	8°19'35			1623 Mar 15 23:10	0° Y		
min. Earth dist.	1620 Sep 26 16:52	2° A 30'56	0.27865 AU	evening rise		1623 Apr 04 20:09	24° Y 39'00		
morning rise	1620 Sep 29 16:09	0° A 43'34				1623 Apr 09 04:03	0° B		
	1620 Sep 30 22:21	30° M		asc. node		1623 Apr 26 10:58	21° B 17'22		
direct	1620 Oct 16 22:53	25° M 00'47				1623 May 03 13:24	0° II		
greatest brilliancy	1620 Oct 31 06:39	28° M 44'15	-4.6m			1623 May 28 03:45	0° S		
	1620 Nov 02 17:11	0° A				1623 Jun 22 00:05	0° Ω		
asc. node	1620 Nov 08 15:36	3° A 39'24				1623 Jul 17 04:53	0° M		
morning max el	1620 Dec 06 16:09	28° A 16'53	46°52'18			1623 Aug 11 23:23	0° A		
	1620 Dec 08 08:25	0° M		desc. node		1623 Aug 16 00:09	4° A 36'19		
	1621 Jan 04 16:20	0° Z				1623 Sep 07 19:08	0° M		
	1621 Jan 30 06:18	0° Z		evening max el		1623 Sep 30 04:39	23° M 16'01	46°44'04	
	1621 Feb 24 04:56	0° \approx				1623 Oct 07 05:32	0° Z		
desc. node	1621 Feb 28 05:11	4° \approx 51'35		greatest brilliancy		1623 Nov 08 01:05	22° Z 49'26	-4.6m	
	1621 Mar 20 21:24	0° K		retrograde		1623 Nov 19 05:30	25° Z 08'05		
	1621 Apr 14 11:33	0° Y		evening set		1623 Dec 03 12:20	21° Z 06'03		
	1621 May 09 01:00	0° B		asc. node		1623 Dec 07 03:38	19° Z 02'10		

inferior conj	1623 Dec 09 17:41	17°♌28'13	0°40'25			1626 May 18 06:05	0°♈		
minimum elong	1623 Dec 09 16:08	17°♌30'35	0°39'55		asc. node	1626 May 23 22:54	7°♈00'33		
min. Earth dist.	1623 Dec 09 15:01	17°♌32'18	0.26403 AU			1626 Jun 11 16:13	0°♈		
morning rise	1623 Dec 15 19:58	13°♌55'01			evening rise	1626 Jun 13 03:55	1°♈49'30		
direct	1623 Dec 30 03:09	9°♌51'43				1626 Jul 06 03:25	0°♈		
greatest brilliancy	1624 Jan 11 00:14	12°♌30'18	-4.7m			1626 Jul 30 16:04	0°♈		
	1624 Feb 05 04:18	0°♌				1626 Aug 24 07:26	0°♈		
morning max el	1624 Feb 18 11:23	12°♌38'38	46°47'01		desc. node	1626 Sep 12 12:04	23°♈12'57		
	1624 Mar 06 01:37	0°♌				1626 Sep 18 03:20	0°♌		
desc. node	1624 Mar 27 17:02	24°♌07'09				1626 Oct 13 06:22	0°♌		
	1624 Apr 01 20:27	0°♌				1626 Nov 07 22:33	0°♌		
	1624 Apr 27 14:50	0°♌				1626 Dec 04 22:45	0°♌		
	1624 May 22 22:08	0°♌			evening max el	1626 Dec 11 17:02	7°♌02'07	47°19'16	
	1624 Jun 16 22:48	0°♌			asc. node	1627 Jan 03 15:28	28°♌07'10		
	1624 Jul 11 17:40	0°♌				1627 Jan 06 02:41	0°♌		
asc. node	1624 Jul 18 20:29	8°♌40'21			greatest brilliancy	1627 Jan 18 16:40	7°♌42'28	-4.7m	
	1624 Aug 05 06:29	0°♌			retrograde	1627 Jan 31 17:42	10°♌54'13		
morning set	1624 Aug 16 15:53	14°♌02'10			evening set	1627 Feb 18 09:33	4°♌50'05		
	1624 Aug 29 13:28	0°♌			min. Earth dist.	1627 Feb 20 22:04	3°♌16'36	0.27596 AU	
max. Earth dist.	1624 Sep 19 02:16	25°♌32'35	1.72163 AU		inferior conj	1627 Feb 21 15:44	2°♌48'56	8°42'37	
					minimum elong	1627 Feb 21 12:24	2°♌54'09	8°42'28	
superior conj	1624 Sep 22 13:22	29°♌51'44	1°21'35		morning rise	1627 Feb 24 15:25	0°♌57'54		
minimum elong	1624 Sep 22 18:34	0°♌07'56	1°21'30			1627 Feb 26 06:26	30°♌		
	1624 Sep 22 16:01	0°♌			direct	1627 Mar 14 08:19	24°♌54'58		
	1624 Oct 16 16:04	0°♌			greatest brilliancy	1627 Mar 25 04:15	27°♌04'19	-4.6m	
evening rise	1624 Oct 31 09:00	18°♌24'26				1627 Mar 31 11:29	0°♌		
desc. node	1624 Nov 07 09:56	27°♌13'16			desc. node	1627 Apr 25 04:48	18°♌43'24		
	1624 Nov 09 15:11	0°♌			morning max el	1627 May 02 16:06	25°♌44'46	46°04'20	
	1624 Dec 03 14:22	0°♌				1627 May 07 00:05	0°♌		
	1624 Dec 27 14:42	0°♌				1627 Jun 04 09:37	0°♌		
	1625 Jan 20 18:27	0°♌				1627 Jun 30 22:49	0°♌		
	1625 Feb 14 05:44	0°♌				1627 Jul 26 14:24	0°♌		
asc. node	1625 Feb 28 13:09	17°♌14'27			asc. node	1627 Aug 16 08:17	24°♌49'13		
	1625 Mar 11 07:18	0°♌				1627 Aug 20 15:05	0°♌		
	1625 Apr 06 11:14	0°♌				1627 Sep 14 04:07	0°♌		
	1625 May 05 01:54	0°♌				1627 Oct 08 08:37	0°♌		
evening max el	1625 May 05 10:46	0°♌21'24	45°28'44		greatest brilliancy	1627 Oct 21 18:39	16°♌46'20	-3.9m	
greatest brilliancy	1625 Jun 09 01:29	26°♌48'34	-4.5m		morning set	1627 Oct 27 05:55	23°♌37'33		
	1625 Jun 19 10:41	0°♌				1627 Nov 01 07:51	0°♌		
desc. node	1625 Jun 20 02:34	0°♌04'57				1627 Nov 25 04:37	0°♌		
retrograde	1625 Jun 23 01:57	0°♌15'04			desc. node	1627 Dec 05 21:48	13°♌29'05		
	1625 Jun 26 15:52	30°♌							
evening set	1625 Jul 08 17:44	25°♌35'29			superior conj	1627 Dec 06 09:22	14°♌05'30	0°-1'-9	
inferior conj	1625 Jul 14 14:30	22°♌04'08	-5°-20'-39		minimum elong	1627 Dec 06 09:03	14°♌04'30	0°01'10	
minimum elong	1625 Jul 14 04:56	22°♌19'04	5°18'28		behind sun begin	1627 Dec 05 06:50	12°♌41'59		
min. Earth dist.	1625 Jul 14 14:16	22°♌04'29	0.28979 AU		behind sun end	1627 Dec 07 11:16	15°♌27'01		
morning rise	1625 Jul 19 15:53	18°♌59'10			max. Earth dist.	1627 Dec 06 10:17	14°♌08'26	1.71082 AU	
direct	1625 Aug 05 05:42	13°♌46'48				1627 Dec 19 00:44	0°♌		
greatest brilliancy	1625 Aug 19 09:11	17°♌15'21	-4.5m			1628 Jan 11 21:25	0°♌		
	1625 Sep 07 14:51	0°♌			evening rise	1628 Jan 16 22:31	6°♌20'03		
morning max el	1625 Sep 23 14:19	14°♌29'06	46°10'37			1628 Feb 04 20:01	0°♌		
	1625 Oct 08 16:04	0°♌				1628 Feb 28 22:24	0°♌		
asc. node	1625 Oct 11 05:56	2°♌46'43				1628 Mar 24 07:05	0°♌		
	1625 Nov 04 07:59	0°♌			asc. node	1628 Mar 28 01:09	4°♌34'56		
	1625 Nov 29 11:38	0°♌				1628 Apr 18 01:01	0°♌		
	1625 Dec 23 23:23	0°♌				1628 May 13 08:19	0°♌		
	1626 Jan 17 04:28	0°♌				1628 Jun 08 13:10	0°♌		
desc. node	1626 Jan 30 19:19	16°♌56'03				1628 Jul 06 13:52	0°♌		
	1626 Feb 10 07:25	0°♌			evening max el	1628 Jul 15 13:40	8°♌51'04	45°35'59	
	1626 Mar 06 10:28	0°♌			desc. node	1628 Jul 17 14:21	10°♌46'19		
morning set	1626 Mar 30 08:22	29°♌39'39				1628 Aug 10 02:13	0°♌		
	1626 Mar 30 14:56	0°♌			greatest brilliancy	1628 Aug 22 03:33	6°♌22'08	-4.5m	
	1626 Apr 23 21:29	0°♌			retrograde	1628 Sep 02 09:10	8°♌36'42		
					evening set	1628 Sep 20 04:01	2°♌42'11		
superior conj	1626 May 07 07:08	16°♌31'11	0°-38'-15		inferior conj	1628 Sep 23 10:04	0°♌43'54	-8°-26'-11	
minimum elong	1626 May 07 14:40	16°♌54'21	0°37'56		minimum elong	1628 Sep 23 15:47	0°♌35'08	8°25'43	
max. Earth dist.	1626 May 09 01:14	18°♌40'45	1.73303 AU		min. Earth dist.	1628 Sep 24 06:04	0°♌13'13	0.27931 AU	

	1628 Sep 24 14:42	30°♍			1631 Apr 08 15:06	0°♄	
morning rise	1628 Sep 27 03:17	28°♍28'45		asc. node	1631 Apr 25 13:10	20°♄50'01	
direct	1628 Oct 14 14:27	22°♍40'55			1631 May 03 00:32	0°♂	
greatest brilliancy	1628 Oct 28 21:40	26°♍24'04	-4.6m		1631 May 27 15:08	0°♄	
	1628 Nov 04 06:32	0°♄			1631 Jun 21 11:58	0°♂	
asc. node	1628 Nov 07 17:49	2°♄20'06			1631 Jul 16 17:39	0°♍	
morning max el	1628 Dec 04 07:15	25°♄55'51	46°51'23		1631 Aug 11 13:47	0°♄	
	1628 Dec 08 05:55	0°♌		desc. node	1631 Aug 15 02:08	4°♄00'05	
	1629 Jan 04 08:26	0°♌			1631 Sep 07 12:56	0°♌	
	1629 Jan 29 20:16	0°♌		evening max el	1631 Sep 27 17:13	20°♌50'41	46°41'37
	1629 Feb 23 17:45	0°♌			1631 Oct 07 09:43	0°♌	
desc. node	1629 Feb 27 07:11	4°♌19'14		greatest brilliancy	1631 Nov 05 15:42	20°♌23'02	-4.6m
	1629 Mar 20 09:29	0°♌		retrograde	1631 Nov 16 16:57	22°♌38'51	
	1629 Apr 13 23:08	0°♌		evening set	1631 Dec 01 01:07	18°♌36'20	
	1629 May 08 12:14	0°♌		asc. node	1631 Dec 06 05:36	15°♌36'38	
	1629 Jun 02 00:54	0°♌		inferior conj	1631 Dec 07 05:56	14°♌59'35	0°15'52
morning set	1629 Jun 07 15:42	6°♌52'28		minimum elong	1631 Dec 07 05:19	15°♌00'30	0°15'39
asc. node	1629 Jun 20 10:44	22°♌33'10		transit begin	1631 Dec 07 03:52	15°♌02'44	
	1629 Jun 26 12:22	0°♌		transit end	1631 Dec 07 06:47	14°♌58'16	
max. Earth dist.	1629 Jul 11 22:59	18°♌58'43	1.73462 AU	min. Earth dist.	1631 Dec 07 05:13	15°♌00'41	0.26410 AU
				morning rise	1631 Dec 13 09:24	11°♌24'32	
superior conj	1629 Jul 14 02:21	21°♌36'47	0°52'14	direct	1631 Dec 27 15:02	7°♌22'40	
minimum elong	1629 Jul 13 17:53	21°♌10'44	0°51'55	greatest brilliancy	1632 Jan 08 15:52	10°♌04'39	-4.7m
	1629 Jul 20 21:44	0°♂			1632 Feb 05 10:15	0°♌	
	1629 Aug 14 04:53	0°♍		morning max el	1632 Feb 15 23:31	10°♌10'11	46°48'06
evening rise	1629 Aug 18 23:18	5°♍53'52			1632 Mar 05 19:55	0°♌	
	1629 Sep 07 10:41	0°♄		desc. node	1632 Mar 26 19:09	23°♌29'36	
	1629 Oct 01 16:25	0°♌			1632 Apr 01 11:13	0°♌	
desc. node	1629 Oct 10 00:05	10°♌17'05			1632 Apr 27 03:54	0°♌	
	1629 Oct 25 23:11	0°♌			1632 May 22 10:14	0°♌	
	1629 Nov 19 08:04	0°♌			1632 Jun 16 10:17	0°♌	
	1629 Dec 13 21:42	0°♌			1632 Jul 11 04:47	0°♌	
	1630 Jan 07 22:45	0°♌		asc. node	1632 Jul 17 22:30	8°♌12'51	
asc. node	1630 Jan 31 03:18	26°♌40'15			1632 Aug 04 17:23	0°♂	
	1630 Feb 03 03:25	0°♌		morning set	1632 Aug 14 09:11	11°♂53'51	
evening max el	1630 Feb 21 09:57	19°♌18'19	46°29'28		1632 Aug 29 00:19	0°♍	
	1630 Mar 04 14:57	0°♄		max. Earth dist.	1632 Sep 16 18:23	23°♍19'12	1.72219 AU
greatest brilliancy	1630 Mar 28 18:05	17°♄29'48	-4.6m				
retrograde	1630 Apr 12 07:49	21°♄16'38		superior conj	1632 Sep 20 05:19	27°♍37'43	1°22'26
evening set	1630 Apr 28 06:17	16°♄18'35		minimum elong	1632 Sep 20 09:49	27°♍51'44	1°22'24
inferior conj	1630 May 03 15:19	13°♄00'52	4°19'25		1632 Sep 22 02:56	0°♄	
minimum elong	1630 May 03 23:40	12°♄47'42	4°17'17		1632 Oct 16 03:06	0°♌	
min. Earth dist.	1630 May 03 15:58	12°♄59'51	0.28711 AU	evening rise	1632 Oct 28 21:28	15°♌58'30	
morning rise	1630 May 09 17:26	9°♄20'04		desc. node	1632 Nov 06 12:03	26°♌44'56	
desc. node	1630 May 22 16:38	4°♄54'11			1632 Nov 09 02:22	0°♌	
direct	1630 May 25 02:00	4°♄47'26			1632 Dec 03 01:43	0°♌	
greatest brilliancy	1630 Jun 06 16:17	7°♄36'30	-4.5m		1632 Dec 27 02:16	0°♌	
	1630 Jul 07 23:09	0°♂			1633 Jan 20 06:20	0°♌	
morning max el	1630 Jul 12 20:08	4°♂33'24	45°43'37		1633 Feb 13 18:11	0°♌	
	1630 Aug 06 16:50	0°♄		asc. node	1633 Feb 27 15:15	16°♌42'10	
	1630 Sep 02 11:20	0°♂			1633 Mar 10 20:46	0°♄	
asc. node	1630 Sep 12 20:15	12°♂05'55			1633 Apr 06 02:57	0°♂	
	1630 Sep 27 21:25	0°♍		evening max el	1633 May 03 01:45	28°♂08'19	45°29'59
	1630 Oct 22 12:38	0°♄			1633 May 05 00:21	0°♄	
	1630 Nov 15 16:59	0°♌		greatest brilliancy	1633 Jun 06 14:44	24°♄36'06	-4.5m
	1630 Dec 09 16:01	0°♌		desc. node	1633 Jun 19 04:32	28°♄03'44	
desc. node	1631 Jan 02 09:29	29°♌48'14		retrograde	1633 Jun 20 18:27	28°♄06'37	
	1631 Jan 02 13:14	0°♌		evening set	1633 Jul 06 07:53	23°♄29'18	
morning set	1631 Jan 11 04:17	10°♌50'28		inferior conj	1633 Jul 12 06:48	19°♄55'10	-5°-4'-51
	1631 Jan 26 10:31	0°♌		minimum elong	1633 Jul 11 21:27	20°♄09'45	5°02'39
	1631 Feb 19 09:07	0°♌		min. Earth dist.	1633 Jul 12 06:17	19°♄55'59	0.28986 AU
				morning rise	1633 Jul 17 10:47	16°♄46'41	
superior conj	1631 Feb 21 14:58	2°♌48'20	-1°-24'-43	direct	1633 Aug 02 21:44	11°♄37'35	
minimum elong	1631 Feb 21 10:57	2°♌35'48	1°24'42	greatest brilliancy	1633 Aug 17 02:10	15°♄07'03	-4.5m
max. Earth dist.	1631 Feb 25 17:36	7°♌56'29	1.71793 AU		1633 Sep 07 21:26	0°♂	
	1631 Mar 15 10:14	0°♌		morning max el	1633 Sep 21 05:57	12°♂16'10	46°09'10
evening rise	1631 Apr 02 10:10	22°♌19'41			1633 Oct 08 09:37	0°♍	

asc. node	1633 Oct 10 08:09	2°♎06'12			1636 Mar 23 18:30	0°♄	
	1633 Nov 03 22:18	0°♌		asc. node	1636 Mar 27 03:18	4°♄06'34	
	1633 Nov 29 00:35	0°♍			1636 Apr 17 12:55	0°♈	
	1633 Dec 23 11:36	0°♁			1636 May 12 21:11	0°♁	
	1634 Jan 16 16:13	0°♄			1636 Jun 08 04:04	0°♁	
desc. node	1634 Jan 29 21:25	16°♄26'37			1636 Jul 06 09:57	0°♎	
	1634 Feb 09 18:49	0°♁		evening max el	1636 Jul 13 04:52	6°♎38'08	45°34'30
	1634 Mar 05 21:38	0°♁		desc. node	1636 Jul 16 16:26	9°♎54'47	
morning set	1634 Mar 27 22:26	27°♁20'32			1636 Aug 11 07:42	0°♌	
	1634 Mar 30 01:54	0°♎		greatest brilliancy	1636 Aug 19 15:58	4°♌04'29	-4.5m
	1634 Apr 23 08:19	0°♄		retrograde	1636 Aug 30 22:52	6°♌19'50	
				evening set	1636 Sep 17 19:40	0°♌23'01	
superior conj	1634 May 04 23:37	14°♄20'55	0°-41'-12		1636 Sep 18 11:04	30°♎	
minimum elong	1634 May 05 07:37	14°♄45'34	0°40'53	inferior conj	1636 Sep 21 00:21	28°♎26'26	-8°-31'-20
max. Earth dist.	1634 May 06 19:30	16°♄36'03	1.73270 AU	minimum elong	1636 Sep 21 05:17	28°♎18'50	8°31'00
	1634 May 17 16:51	0°♈		min. Earth dist.	1636 Sep 21 19:34	27°♎56'52	0.27991 AU
asc. node	1634 May 23 00:56	6°♈33'40		morning rise	1636 Sep 24 14:41	26°♎15'13	
evening rise	1634 Jun 10 22:27	29°♈46'04		direct	1636 Oct 12 05:43	20°♎22'51	
	1634 Jun 11 03:00	0°♁		greatest brilliancy	1636 Oct 26 11:59	24°♎04'32	-4.6m
	1634 Jul 05 14:21	0°♁			1636 Nov 05 08:04	0°♌	
	1634 Jul 30 03:18	0°♎		asc. node	1636 Nov 06 19:47	1°♌04'11	
	1634 Aug 23 19:09	0°♌		morning max el	1636 Dec 01 21:16	23°♌33'26	46°50'21
desc. node	1634 Sep 11 14:14	22°♌42'38			1636 Dec 08 02:12	0°♍	
	1634 Sep 17 15:47	0°♍			1637 Jan 03 23:53	0°♁	
	1634 Oct 12 20:00	0°♁			1637 Jan 29 09:47	0°♄	
	1634 Nov 07 14:17	0°♄		desc. node	1637 Feb 23 06:13	0°♁	
	1634 Dec 04 19:21	0°♁			1637 Feb 26 09:20	3°♁48'10	
evening max el	1634 Dec 09 07:54	4°♁40'26	47°19'38		1637 Mar 19 21:17	0°♁	
asc. node	1635 Jan 02 17:31	26°♁52'44			1637 Apr 13 10:26	0°♎	
	1635 Jan 07 01:31	0°♁			1637 May 07 23:10	0°♄	
greatest brilliancy	1635 Jan 16 07:18	5°♁19'28	-4.7m		1637 Jun 01 11:37	0°♈	
retrograde	1635 Jan 29 08:40	8°♁31'26		morning set	1637 Jun 05 09:36	4°♈47'39	
evening set	1635 Feb 15 21:05	2°♁31'17		asc. node	1637 Jun 19 12:43	22°♈06'38	
min. Earth dist.	1635 Feb 18 10:57	0°♁55'59	0.27540 AU		1637 Jun 25 22:58	0°♁	
inferior conj	1635 Feb 19 05:42	0°♁26'42	8°39'01	max. Earth dist.	1637 Jul 09 18:42	16°♁59'10	1.73484 AU
minimum elong	1635 Feb 19 01:32	0°♁33'12	8°38'45				
	1635 Feb 19 22:48	30°♁		superior conj	1637 Jul 11 20:42	19°♁32'59	0°49'44
morning rise	1635 Feb 22 06:11	28°♁34'48		minimum elong	1637 Jul 11 12:26	19°♁07'32	0°49'24
direct	1635 Mar 11 22:00	22°♁33'39			1637 Jul 20 08:20	0°♁	
greatest brilliancy	1635 Mar 22 16:38	24°♁42'30	-4.6m		1637 Aug 13 15:35	0°♎	
	1635 Apr 02 00:21	0°♁		evening rise	1637 Aug 16 17:03	3°♎47'05	
desc. node	1635 Apr 24 06:55	17°♁48'03			1637 Sep 06 21:34	0°♌	
morning max el	1635 Apr 30 07:14	23°♁29'41	46°05'41	desc. node	1637 Oct 01 03:34	0°♍	
	1635 May 06 21:03	0°♎			1637 Oct 09 02:09	9°♍48'42	
	1635 Jun 04 00:59	0°♄			1637 Oct 25 10:42	0°♁	
	1635 Jun 30 11:57	0°♈			1637 Nov 18 20:06	0°♄	
	1635 Jul 26 02:24	0°♁			1637 Dec 13 10:29	0°♁	
asc. node	1635 Aug 15 10:26	24°♁21'05			1638 Jan 07 12:52	0°♁	
	1635 Aug 20 02:28	0°♁		asc. node	1638 Jan 30 05:24	26°♁00'02	
	1635 Sep 13 15:11	0°♎			1638 Feb 02 20:32	0°♎	
	1635 Oct 07 19:31	0°♌		evening max el	1638 Feb 19 00:45	17°♎01'13	46°31'45
greatest brilliancy	1635 Oct 23 15:30	19°♌47'56	-3.9m		1638 Mar 04 18:54	0°♄	
morning set	1635 Oct 24 19:45	21°♌16'26		greatest brilliancy	1638 Mar 26 12:39	15°♌21'13	-4.6m
	1635 Oct 31 18:44	0°♍		retrograde	1638 Apr 09 23:43	19°♌05'24	
	1635 Nov 24 15:31	0°♁		evening set	1638 Apr 26 00:56	14°♌04'09	
				inferior conj	1638 May 01 07:25	10°♌49'55	4°36'54
superior conj	1635 Dec 03 19:41	11°♁32'33	0°02'50	minimum elong	1638 May 01 16:07	10°♌36'10	4°34'43
minimum elong	1635 Dec 03 20:26	11°♁34'53	0°02'48	min. Earth dist.	1638 May 01 08:08	10°♌48'47	0.28688 AU
behind sun begin	1635 Dec 02 18:29	10°♁13'15		morning rise	1638 May 07 07:41	7°♌11'19	
behind sun end	1635 Dec 04 22:22	12°♁56'31		desc. node	1638 May 21 18:34	2°♌38'03	
max. Earth dist.	1635 Dec 03 18:54	11°♁30'02	1.71095 AU	direct	1638 May 22 17:35	2°♌36'59	
desc. node	1635 Dec 04 23:46	13°♁00'53		greatest brilliancy	1638 Jun 04 05:52	5°♌23'35	-4.5m
	1635 Dec 18 11:41	0°♄			1638 Jul 07 23:07	0°♈	
	1636 Jan 11 08:27	0°♁		morning max el	1638 Jul 10 10:40	2°♈20'32	45°43'29
evening rise	1636 Jan 14 08:31	3°♁46'14			1638 Aug 06 08:46	0°♁	
	1636 Feb 04 07:05	0°♁			1638 Sep 02 00:40	0°♁	
	1636 Feb 28 09:35	0°♎		asc. node	1638 Sep 11 22:20	11°♌34'29	

	1638 Sep 27 09:35	0°♍		evening max el	1641 Apr 30 17:34	25°♊57'58	45°31'11
	1638 Oct 22 00:12	0°♌			1641 May 04 23:28	0°♉	
	1638 Nov 15 04:14	0°♋		greatest brilliancy	1641 Jun 04 04:16	22°♄24'33	-4.5m
	1638 Dec 09 03:05	0°♊		retrograde	1641 Jun 18 11:18	25°♄58'37	
desc. node	1639 Jan 01 11:34	29°♏20'25		desc. node	1641 Jun 18 06:38	25°♄58'34	
	1639 Jan 02 00:10	0°♉		evening set	1641 Jul 03 22:17	21°♄23'27	
morning set	1639 Jan 08 14:10	8°♉16'29		inferior conj	1641 Jul 09 23:08	17°♄46'35	-4°-48'-35
	1639 Jan 25 21:21	0°♈		minimum elong	1641 Jul 09 14:04	18°♄00'42	4°46'23
	1639 Feb 18 19:52	0°♇		min. Earth dist.	1641 Jul 09 22:08	17°♄48'08	0.28994 AU
				morning rise	1641 Jul 15 05:43	14°♄34'40	
superior conj	1639 Feb 19 02:42	0°♆21'20	-1°-23'-59	direct	1641 Jul 31 14:19	9°♄28'48	
minimum elong	1639 Feb 18 21:42	0°♆05'44	1°23'56	greatest brilliancy	1641 Aug 14 18:43	12°♄58'40	-4.5m
max. Earth dist.	1639 Feb 23 04:33	5°♆27'07	1.71741 AU		1641 Sep 08 01:52	0°♄	
	1639 Mar 14 20:58	0°♅		morning max el	1641 Sep 18 22:21	10°♄05'34	46°07'41
evening rise	1639 Mar 30 23:58	20°♅00'33			1641 Oct 08 02:43	0°♄	
	1639 Apr 08 01:52	0°♄		asc. node	1641 Oct 09 10:08	1°♄25'43	
asc. node	1639 Apr 24 15:06	20°♄22'43			1641 Nov 03 12:22	0°♄	
	1639 May 02 11:25	0°♃			1641 Nov 28 13:21	0°♃	
	1639 May 27 02:17	0°♂			1641 Dec 22 23:41	0°♂	
	1639 Jun 20 23:38	0°♁			1642 Jan 16 03:52	0°♁	
	1639 Jul 16 06:15	0°♐		desc. node	1642 Jan 28 23:29	15°♁57'16	
	1639 Aug 11 04:06	0°♏			1642 Feb 09 06:10	0°♏	
desc. node	1639 Aug 14 04:18	3°♏24'46			1642 Mar 05 08:43	0°♏	
	1639 Sep 07 06:54	0°♎		morning set	1642 Mar 25 12:43	25°♏02'14	
evening max el	1639 Sep 25 05:09	18°♎24'37	46°39'10		1642 Mar 29 12:47	0°♎	
	1639 Oct 07 15:33	0°♍			1642 Apr 22 19:03	0°♍	
greatest brilliancy	1639 Nov 03 05:50	17°♍56'40	-4.6m				
retrograde	1639 Nov 14 04:41	20°♍10'28		superior conj	1642 May 02 16:18	12°♌11'32	0°-44'-5
evening set	1639 Nov 28 14:01	16°♍06'45		minimum elong	1642 May 03 00:44	12°♌37'32	0°43'44
inferior conj	1639 Dec 04 18:05	12°♍31'33	0°-8'-49	max. Earth dist.	1642 May 04 16:08	14°♌38'52	1.73235 AU
minimum elong	1639 Dec 04 18:26	12°♍31'02	0°08'44		1642 May 17 03:31	0°♌	
transit begin	1639 Dec 04 14:57	12°♍36'20		asc. node	1642 May 22 02:58	6°♌07'08	
transit end	1639 Dec 04 21:55	12°♍25'44		evening rise	1642 Jun 08 17:12	27°♌43'31	
min. Earth dist.	1639 Dec 04 19:18	12°♍29'42	0.26419 AU		1642 Jun 10 13:42	0°♌	
asc. node	1639 Dec 05 07:39	12°♍10'55			1642 Jul 05 01:15	0°♌	
morning rise	1639 Dec 10 22:34	8°♍55'11			1642 Jul 29 14:32	0°♌	
direct	1639 Dec 25 02:48	4°♍54'01			1642 Aug 23 06:55	0°♌	
greatest brilliancy	1640 Jan 06 07:41	7°♍40'07	-4.7m	desc. node	1642 Sep 10 16:14	22°♌11'38	
	1640 Feb 05 13:51	0°♋			1642 Sep 17 04:21	0°♋	
morning max el	1640 Feb 13 12:24	7°♋44'35	46°49'21		1642 Oct 12 09:48	0°♋	
	1640 Mar 05 13:23	0°♊			1642 Nov 07 06:19	0°♋	
desc. node	1640 Mar 25 21:14	22°♊53'20			1642 Dec 04 16:46	0°♊	
	1640 Apr 01 01:26	0°♉		evening max el	1642 Dec 06 23:22	2°♊20'02	47°19'48
	1640 Apr 26 16:35	0°♈		asc. node	1643 Jan 01 19:41	25°♊35'46	
	1640 May 21 22:02	0°♇			1643 Jan 08 09:33	0°♇	
	1640 Jun 15 21:32	0°♆		greatest brilliancy	1643 Jan 13 22:35	2°♆56'45	-4.7m
	1640 Jul 10 15:41	0°♅		retrograde	1643 Jan 26 23:33	6°♆07'38	
asc. node	1640 Jul 17 00:39	7°♅46'17		evening set	1643 Feb 13 08:13	0°♆12'11	
	1640 Aug 04 04:06	0°♄			1643 Feb 13 16:16	30°♆	
morning set	1640 Aug 12 02:23	9°♄45'51		min. Earth dist.	1643 Feb 15 23:42	28°♆34'29	0.27479 AU
	1640 Aug 28 10:59	0°♃		inferior conj	1643 Feb 16 19:30	28°♆03'35	8°34'28
max. Earth dist.	1640 Sep 14 12:12	21°♃11'48	1.72274 AU	minimum elong	1643 Feb 16 14:33	28°♆11'18	8°34'06
				morning rise	1643 Feb 19 21:08	26°♆10'08	
superior conj	1640 Sep 17 21:11	25°♃24'07	1°23'10	direct	1643 Mar 09 11:49	20°♆11'43	
minimum elong	1640 Sep 18 00:58	25°♃35'54	1°23'09	greatest brilliancy	1643 Mar 20 04:01	22°♆18'53	-4.6m
	1640 Sep 21 13:40	0°♂			1643 Apr 03 02:34	0°♂	
	1640 Oct 15 13:59	0°♁		desc. node	1643 Apr 23 08:49	16°♂53'05	
evening rise	1640 Oct 26 10:02	13°♁33'26		morning max el	1643 Apr 27 22:03	21°♂13'38	46°07'12
desc. node	1640 Nov 05 13:59	26°♁16'30			1643 May 06 17:20	0°♁	
	1640 Nov 08 13:25	0°♐			1643 Jun 03 16:06	0°♁	
	1640 Dec 02 12:56	0°♏			1643 Jun 30 00:59	0°♏	
	1640 Dec 26 13:42	0°♎			1643 Jul 25 14:23	0°♏	
	1641 Jan 19 18:04	0°♍		asc. node	1643 Aug 14 12:28	23°♏52'24	
	1641 Feb 13 06:26	0°♌			1643 Aug 19 13:55	0°♏	
asc. node	1641 Feb 26 17:23	16°♌10'39			1643 Sep 13 02:21	0°♌	
	1641 Mar 10 10:04	0°♋			1643 Oct 07 06:36	0°♋	
	1641 Apr 05 18:37	0°♊		morning set	1643 Oct 22 09:35	18°♊54'49	

	1643 Oct 31 05:46	0°♍		retrograde	1646 Apr 07 15:31	16°♄52'59	
	1643 Nov 24 02:35	0°♁		evening set	1646 Apr 23 19:37	11°♄48'08	
max. Earth dist.	1643 Dec 01 01:34	8°♁45'11	1.71108 AU	inferior conj	1646 Apr 28 23:30	8°♄37'43	4°54'05
				minimum elong	1646 Apr 29 08:31	8°♄23'27	4°51'51
superior conj	1643 Dec 01 06:03	8°♁59'18	0°06'47	min. Earth dist.	1646 Apr 29 00:27	8°♄36'12	0.28664 AU
minimum elong	1643 Dec 01 07:50	9°♁04'54	0°06'41	morning rise	1646 May 04 21:43	5°♄01'39	
behind sun begin	1643 Nov 30 07:43	7°♁49'03		direct	1646 May 20 08:39	0°♄25'05	
behind sun end	1643 Dec 02 07:56	10°♁20'44		desc. node	1646 May 20 20:44	0°♄25'22	
desc. node	1643 Dec 04 01:51	12°♁32'33		greatest brilliancy	1646 Jun 01 20:22	3°♄10'31	-4.5m
	1643 Dec 17 22:48	0°♄			1646 Jul 07 22:26	0°♄	
	1644 Jan 10 19:38	0°♁		morning max el	1646 Jul 08 01:31	0°♄07'19	45°43'39
evening rise	1644 Jan 11 18:25	1°♁11'30			1646 Aug 06 00:45	0°♄	
	1644 Feb 03 18:22	0°♁			1646 Sep 01 14:09	0°♄	
	1644 Feb 27 20:58	0°♁		asc. node	1646 Sep 11 00:20	11°♄02'10	
asc. node	1644 Mar 23 06:07	0°♄			1646 Sep 26 21:56	0°♄	
	1644 Mar 26 05:15	3°♄36'57			1646 Oct 21 12:00	0°♄	
	1644 Apr 17 01:01	0°♄			1646 Nov 14 15:48	0°♄	
	1644 May 12 10:17	0°♄			1646 Dec 08 14:32	0°♄	
	1644 Jun 07 19:17	0°♄		desc. node	1646 Dec 31 13:44	28°♁51'27	
	1644 Jul 06 06:49	0°♄			1647 Jan 01 11:32	0°♄	
evening max el	1644 Jul 10 19:24	4°♄23'23	45°32'59	morning set	1647 Jan 05 23:39	5°♄39'48	
desc. node	1644 Jul 15 18:31	9°♄02'00			1647 Jan 25 08:38	0°♄	
	1644 Aug 13 02:50	0°♄					
greatest brilliancy	1644 Aug 17 04:56	1°♄47'13	-4.5m	superior conj	1647 Feb 16 13:52	27°♁51'07	-1°-23'-3
retrograde	1644 Aug 28 12:13	4°♄02'56		minimum elong	1647 Feb 16 07:54	27°♁32'28	1°23'00
	1644 Sep 12 01:07	30°♄			1647 Feb 18 07:04	0°♁	
evening set	1644 Sep 15 11:07	28°♄04'15		max. Earth dist.	1647 Feb 20 11:47	2°♁44'48	1.71689 AU
inferior conj	1644 Sep 18 14:49	26°♄08'55	-8°-35'-36		1647 Mar 14 08:08	0°♁	
minimum elong	1644 Sep 18 18:57	26°♄02'32	8°35'22	evening rise	1647 Mar 28 13:18	17°♁38'42	
min. Earth dist.	1644 Sep 19 09:34	25°♄39'59	0.28055 AU		1647 Apr 07 13:03	0°♄	
morning rise	1644 Sep 22 02:33	24°♄01'12		asc. node	1647 Apr 23 17:11	19°♄54'38	
direct	1644 Oct 09 20:37	18°♄04'29			1647 May 01 22:44	0°♄	
greatest brilliancy	1644 Oct 24 03:02	21°♄45'18	-4.6m		1647 May 26 13:52	0°♄	
asc. node	1644 Nov 05 21:49	29°♄49'44			1647 Jun 20 11:43	0°♄	
	1644 Nov 06 03:14	0°♄			1647 Jul 15 19:16	0°♄	
morning max el	1644 Nov 29 10:43	21°♄08'35	46°49'17		1647 Aug 10 18:54	0°♄	
	1644 Dec 07 22:14	0°♄		desc. node	1647 Aug 13 06:19	2°♄47'59	
	1645 Jan 03 15:28	0°♁			1647 Sep 07 01:34	0°♄	
	1645 Jan 28 23:30	0°♄		evening max el	1647 Sep 22 17:36	15°♄59'33	46°36'47
	1645 Feb 22 18:55	0°♁			1647 Oct 07 23:58	0°♁	
desc. node	1645 Feb 25 11:22	3°♁16'01		greatest brilliancy	1647 Oct 31 18:41	15°♁28'25	-4.6m
	1645 Mar 19 09:19	0°♁		retrograde	1647 Nov 11 16:47	17°♁41'36	
	1645 Apr 12 22:00	0°♁		evening set	1647 Nov 26 03:09	13°♁36'04	
	1645 May 07 10:23	0°♄		inferior conj	1647 Dec 02 06:15	10°♁02'36	0°-33'-30
	1645 May 31 22:36	0°♄		minimum elong	1647 Dec 02 07:33	10°♁00'38	0°33'06
morning set	1645 Jun 03 03:41	2°♄42'30		min. Earth dist.	1647 Dec 02 09:05	9°♁58'18	0.26441 AU
asc. node	1645 Jun 18 14:54	21°♄39'58		asc. node	1647 Dec 04 09:48	8°♁44'41	
	1645 Jun 25 09:50	0°♄		morning rise	1647 Dec 08 11:36	6°♁25'22	
max. Earth dist.	1645 Jul 07 14:29	14°♄59'08	1.73501 AU	direct	1647 Dec 22 15:14	2°♁24'18	
				greatest brilliancy	1648 Jan 03 23:25	5°♁14'23	-4.7m
superior conj	1645 Jul 09 15:24	17°♄29'34	0°47'10		1648 Feb 05 16:30	0°♄	
minimum elong	1645 Jul 09 07:21	17°♄04'49	0°46'51	morning max el	1648 Feb 11 02:25	5°♄20'15	46°50'22
	1645 Jul 19 19:11	0°♄			1648 Mar 05 07:02	0°♁	
	1645 Aug 13 02:31	0°♄		desc. node	1648 Mar 24 23:13	22°♁15'26	
evening rise	1645 Aug 14 11:13	1°♄41'04			1648 Mar 31 16:02	0°♁	
	1645 Sep 06 08:43	0°♄			1648 Apr 26 05:39	0°♁	
	1645 Sep 30 15:04	0°♄			1648 May 21 10:12	0°♄	
desc. node	1645 Oct 08 04:08	9°♄18'56			1648 Jun 15 09:08	0°♄	
	1645 Oct 24 22:38	0°♁			1648 Jul 10 02:55	0°♄	
	1645 Nov 18 08:35	0°♄		asc. node	1648 Jul 16 02:40	7°♄18'19	
	1645 Dec 12 23:46	0°♁			1648 Aug 03 15:08	0°♄	
	1646 Jan 07 03:34	0°♁		morning set	1648 Aug 09 19:47	7°♄37'32	
asc. node	1646 Jan 29 07:28	25°♁18'02			1648 Aug 27 21:57	0°♄	
	1646 Feb 02 14:28	0°♁		max. Earth dist.	1648 Sep 12 05:48	19°♄02'54	1.72321 AU
evening max el	1646 Feb 16 14:39	14°♁40'29	46°34'11				
	1646 Mar 05 01:23	0°♄		superior conj	1648 Sep 15 13:28	23°♄11'02	1°23'47
greatest brilliancy	1646 Mar 24 06:18	13°♄10'03	-4.6m	minimum elong	1648 Sep 15 16:31	23°♄20'31	1°23'45

	1648 Sep 21 00:40	0°♁			1651 Apr 03 21:46	0°♁		
	1648 Oct 15 01:05	0°♁			1651 Apr 22 11:01	15°♁59'46		
evening rise	1648 Oct 23 23:10	11°♁09'30		desc. node	1651 Apr 25 12:10	18°♁55'29	46°08'25	
desc. node	1648 Nov 04 16:07	25°♁48'07		morning max el	1651 May 06 13:06	0°♁		
	1648 Nov 08 00:40	0°♁			1651 Jun 03 07:10	0°♁		
	1648 Dec 02 00:23	0°♁			1651 Jun 29 14:04	0°♁		
	1648 Dec 26 01:25	0°♁			1651 Jul 25 02:26	0°♁		
	1649 Jan 19 06:10	0°♁		asc. node	1651 Aug 13 14:28	23°♁23'27		
	1649 Feb 12 19:08	0°♁			1651 Aug 19 01:23	0°♁		
asc. node	1649 Feb 25 19:18	15°♁37'08			1651 Sep 12 13:32	0°♁		
	1649 Mar 09 23:54	0°♁			1651 Oct 06 17:39	0°♁		
	1649 Apr 05 11:02	0°♁		morning set	1651 Oct 19 23:23	16°♁33'12		
evening max el	1649 Apr 28 10:01	23°♁47'49	45°32'34		1651 Oct 30 16:47	0°♁		
	1649 May 05 00:16	0°♁			1651 Nov 23 13:36	0°♁		
greatest brilliancy	1649 Jun 01 18:39	20°♁12'49	-4.5m	max. Earth dist.	1651 Nov 28 05:18	5°♁51'14	1.71119 AU	
retrograde	1649 Jun 16 04:01	23°♁48'59						
desc. node	1649 Jun 17 08:44	23°♁47'18		superior conj	1651 Nov 28 16:45	6°♁27'17	0°10'41	
evening set	1649 Jul 01 12:45	19°♁16'05		minimum elong	1651 Nov 28 19:32	6°♁36'01	0°10'32	
inferior conj	1649 Jul 07 15:18	15°♁36'31	-4°-31'-50	behind sun begin	1651 Nov 27 23:22	5°♁32'35		
minimum elong	1649 Jul 07 06:35	15°♁50'06	4°29'40	behind sun end	1651 Nov 29 15:42	7°♁39'27		
min. Earth dist.	1649 Jul 07 13:45	15°♁38'56	0.28995 AU	desc. node	1651 Dec 03 03:58	12°♁04'30		
morning rise	1649 Jul 13 00:22	12°♁21'12			1651 Dec 17 09:52	0°♁		
direct	1649 Jul 29 07:03	7°♁18'47		evening rise	1652 Jan 09 04:35	28°♁37'57		
greatest brilliancy	1649 Aug 12 09:56	10°♁47'31	-4.5m		1652 Jan 10 06:43	0°♁		
	1649 Sep 08 05:00	0°♁			1652 Feb 03 05:28	0°♁		
morning max el	1649 Sep 16 14:41	7°♁54'11	46°06'20		1652 Feb 27 08:12	0°♁		
	1649 Oct 07 19:43	0°♁			1652 Mar 22 17:37	0°♁		
asc. node	1649 Oct 08 12:09	0°♁45'07		asc. node	1652 Mar 25 07:20	3°♁08'06		
	1649 Nov 03 02:28	0°♁			1652 Apr 16 13:06	0°♁		
	1649 Nov 28 02:11	0°♁			1652 May 11 23:27	0°♁		
	1649 Dec 22 11:50	0°♁			1652 Jun 07 10:43	0°♁		
	1650 Jan 15 15:36	0°♁			1652 Jul 06 04:30	0°♁		
desc. node	1650 Jan 28 01:30	15°♁27'26		evening max el	1652 Jul 08 09:05	2°♁06'33	45°31'35	
	1650 Feb 08 17:38	0°♁		desc. node	1652 Jul 14 20:32	8°♁07'50		
	1650 Mar 04 20:00	0°♁		greatest brilliancy	1652 Aug 14 17:37	29°♁29'38	-4.5m	
morning set	1650 Mar 23 02:26	22°♁41'24			1652 Aug 16 03:02	0°♁		
	1650 Mar 28 23:54	0°♁		retrograde	1652 Aug 26 01:27	1°♁46'21		
	1650 Apr 22 06:02	0°♁			1652 Sep 04 14:08	30°♁		
				evening set	1652 Sep 13 02:09	25°♁46'07		
superior conj	1650 Apr 30 08:17	9°♁59'05	0°-46'-57	inferior conj	1652 Sep 16 05:14	23°♁51'41	-8°-38'-56	
minimum elong	1650 Apr 30 17:06	10°♁26'15	0°46'36	minimum elong	1652 Sep 16 08:33	23°♁46'34	8°38'47	
max. Earth dist.	1650 May 02 12:48	12°♁40'56	1.73199 AU	min. Earth dist.	1652 Sep 16 23:47	23°♁23'02	0.28116 AU	
	1650 May 16 14:26	0°♁		morning rise	1652 Sep 19 14:42	21°♁47'07		
asc. node	1650 May 21 05:06	5°♁40'08		direct	1652 Oct 07 11:06	15°♁46'11		
evening rise	1650 Jun 06 11:18	25°♁38'12		greatest brilliancy	1652 Oct 21 18:48	19°♁27'25	-4.6m	
	1650 Jun 10 00:39	0°♁		asc. node	1652 Nov 05 00:01	28°♁38'01		
	1650 Jul 04 12:23	0°♁			1652 Nov 06 17:23	0°♁		
	1650 Jul 29 02:01	0°♁		morning max el	1652 Nov 27 00:03	18°♁43'51	46°48'19	
	1650 Aug 22 18:55	0°♁			1652 Dec 07 17:32	0°♁		
desc. node	1650 Sep 09 18:14	21°♁39'59			1653 Jan 03 06:39	0°♁		
	1650 Sep 16 17:08	0°♁			1653 Jan 28 12:54	0°♁		
	1650 Oct 11 23:50	0°♁			1653 Feb 22 07:18	0°♁		
	1650 Nov 06 22:40	0°♁		desc. node	1653 Feb 24 13:22	2°♁44'41		
evening max el	1650 Dec 04 14:52	29°♁59'55	47°19'55		1653 Mar 18 21:01	0°♁		
	1650 Dec 04 14:54	0°♁			1653 Apr 12 09:14	0°♁		
asc. node	1650 Dec 31 21:39	24°♁16'21			1653 May 06 21:19	0°♁		
	1651 Jan 10 08:44	0°♁			1653 May 31 09:21	0°♁		
greatest brilliancy	1651 Jan 11 14:36	0°♁35'21	-4.7m	morning set	1653 May 31 21:38	0°♁37'37		
retrograde	1651 Jan 24 14:14	3°♁44'00		asc. node	1653 Jun 17 16:53	21°♁13'20		
	1651 Feb 07 02:18	30°♁			1653 Jun 24 20:30	0°♁		
evening set	1651 Feb 10 19:10	27°♁54'02		max. Earth dist.	1653 Jul 05 09:54	12°♁58'32	1.73524 AU	
min. Earth dist.	1651 Feb 13 12:48	26°♁13'00	0.27420 AU					
inferior conj	1651 Feb 14 09:23	25°♁40'51	8°28'57	superior conj	1653 Jul 07 09:52	15°♁26'02	0°44'32	
minimum elong	1651 Feb 14 03:42	25°♁49'45	8°28'28	minimum elong	1653 Jul 07 02:06	15°♁02'08	0°44'13	
morning rise	1651 Feb 17 12:31	23°♁45'11			1653 Jul 19 05:51	0°♁		
direct	1651 Mar 07 01:40	17°♁50'16		evening rise	1653 Aug 12 05:11	29°♁35'01		
greatest brilliancy	1651 Mar 17 15:36	19°♁55'29	-4.6m		1653 Aug 12 13:17	0°♁		

	1653 Sep 05 19:41	0°♁		morning max el	1656 Feb 08 17:00	2°♁58'28	46°51'20
	1653 Sep 30 02:22	0°♁			1656 Mar 04 23:55	0°♁	
desc. node	1653 Oct 07 06:16	8°♁50'20		desc. node	1656 Mar 24 01:20	21°♁39'29	
	1653 Oct 24 10:22	0°♁			1656 Mar 31 06:04	0°♁	
	1653 Nov 17 20:53	0°♁			1656 Apr 25 18:12	0°♁	
	1653 Dec 12 12:53	0°♁			1656 May 20 21:53	0°♁	
	1654 Jan 06 18:08	0°♁			1656 Jun 14 20:15	0°♁	
asc. node	1654 Jan 28 09:29	24°♁36'23			1656 Jul 09 13:41	0°♁	
	1654 Feb 02 08:26	0°♁		asc. node	1656 Jul 15 04:41	6°♁51'40	
evening max el	1654 Feb 14 04:32	12°♁20'51	46°36'47		1656 Aug 03 01:44	0°♁	
	1654 Mar 05 09:41	0°♁		morning set	1656 Aug 07 13:25	5°♁31'22	
greatest brilliancy	1654 Mar 21 22:55	10°♁58'55	-4.6m		1656 Aug 27 08:33	0°♁	
retrograde	1654 Apr 05 07:43	14°♁42'22		max. Earth dist.	1656 Sep 09 21:40	16°♁49'44	1.72375 AU
evening set	1654 Apr 21 14:26	9°♁33'28					
inferior conj	1654 Apr 26 15:44	6°♁27'06	5°10'35	superior conj	1656 Sep 13 05:51	20°♁59'20	1°24'14
minimum elong	1654 Apr 27 01:01	6°♁12'25	5°08'22	minimum elong	1656 Sep 13 08:09	21°♁06'28	1°24'13
min. Earth dist.	1654 Apr 26 16:44	6°♁25'30	0.28642 AU		1656 Sep 20 11:22	0°♁	
morning rise	1654 May 02 11:49	2°♁53'59			1656 Oct 14 11:55	0°♁	
	1654 May 08 14:25	30°♁		evening rise	1656 Oct 21 12:07	8°♁45'51	
direct	1654 May 17 23:43	28°♁14'39		desc. node	1656 Nov 03 18:12	25°♁20'18	
desc. node	1654 May 19 22:47	28°♁19'04			1656 Nov 07 11:40	0°♁	
	1654 May 27 20:29	0°♁			1656 Dec 01 11:35	0°♁	
greatest brilliancy	1654 May 30 11:26	0°♁59'43	-4.5m		1656 Dec 25 12:51	0°♁	
morning max el	1654 Jul 05 17:17	27°♁57'30	45°43'38		1657 Jan 18 17:58	0°♁	
	1654 Jul 07 20:20	0°♁			1657 Feb 12 07:32	0°♁	
	1654 Aug 05 16:09	0°♁		asc. node	1657 Feb 24 21:25	15°♁05'05	
	1654 Sep 01 03:17	0°♁			1657 Mar 09 13:28	0°♁	
asc. node	1654 Sep 10 02:25	10°♁30'56			1657 Apr 05 03:17	0°♁	
	1654 Sep 26 10:00	0°♁		evening max el	1657 Apr 26 03:05	21°♁40'27	45°34'02
	1654 Oct 20 23:32	0°♁			1657 May 05 01:44	0°♁	
	1654 Nov 14 03:03	0°♁		greatest brilliancy	1657 May 30 10:31	18°♁04'42	-4.5m
	1654 Dec 08 01:39	0°♁		retrograde	1657 Jun 13 20:42	21°♁41'22	
desc. node	1654 Dec 30 15:38	28°♁22'51		desc. node	1657 Jun 16 10:42	21°♁33'31	
	1654 Dec 31 22:33	0°♁		evening set	1657 Jun 29 03:43	17°♁10'49	
morning set	1655 Jan 03 09:08	3°♁04'10		inferior conj	1657 Jul 05 07:47	13°♁28'42	-4°-14'-52
	1655 Jan 24 19:33	0°♁		minimum elong	1657 Jul 04 23:26	13°♁41'44	4°12'45
				min. Earth dist.	1657 Jul 05 05:47	13°♁31'49	0.28994 AU
superior conj	1655 Feb 14 00:57	25°♁21'40	-1°-21'-58	morning rise	1657 Jul 10 19:11	10°♁09'58	
minimum elong	1655 Feb 13 18:05	25°♁00'09	1°21'53	direct	1657 Jul 27 00:04	5°♁11'13	
	1655 Feb 17 17:55	0°♁		greatest brilliancy	1657 Aug 10 00:06	8°♁36'58	-4.5m
max. Earth dist.	1655 Feb 17 17:26	29°♁58'30	1.71638 AU		1657 Sep 08 06:01	0°♁	
	1655 Mar 13 18:56	0°♁		morning max el	1657 Sep 14 06:28	5°♁42'58	46°04'46
evening rise	1655 Mar 26 02:44	15°♁18'15			1657 Oct 07 11:59	0°♁	
	1655 Apr 06 23:50	0°♁		asc. node	1657 Oct 07 14:19	0°♁06'26	
asc. node	1655 Apr 22 19:19	19°♁27'59			1657 Nov 02 16:09	0°♁	
	1655 May 01 09:37	0°♁			1657 Nov 27 14:44	0°♁	
	1655 May 26 01:01	0°♁			1657 Dec 21 23:45	0°♁	
	1655 Jun 19 23:26	0°♁			1658 Jan 15 03:08	0°♁	
	1655 Jul 15 08:01	0°♁		desc. node	1658 Jan 27 03:36	14°♁58'27	
	1655 Aug 10 09:34	0°♁			1658 Feb 08 04:52	0°♁	
desc. node	1655 Aug 12 08:19	2°♁11'40			1658 Mar 04 07:00	0°♁	
	1655 Sep 06 20:29	0°♁		morning set	1658 Mar 20 16:00	20°♁20'57	
evening max el	1655 Sep 20 07:05	13°♁37'52	46°34'19		1658 Mar 28 10:44	0°♁	
	1655 Oct 08 11:00	0°♁			1658 Apr 21 16:43	0°♁	
greatest brilliancy	1655 Oct 29 06:49	13°♁00'09	-4.6m				
retrograde	1655 Nov 09 05:12	15°♁13'14		superior conj	1658 Apr 28 00:20	7°♁47'40	0°-49'-44
evening set	1655 Nov 23 16:24	11°♁05'49		minimum elong	1658 Apr 28 09:29	8°♁15'53	0°49'24
inferior conj	1655 Nov 29 18:15	7°♁34'07	0°-58'-6	max. Earth dist.	1658 Apr 30 10:01	10°♁45'31	1.73158 AU
minimum elong	1655 Nov 29 20:29	7°♁30'44	0°57'24		1658 May 16 01:04	0°♁	
min. Earth dist.	1655 Nov 29 22:25	7°♁27'49	0.26462 AU	asc. node	1658 May 20 07:05	5°♁13'34	
asc. node	1655 Dec 03 11:45	5°♁20'31		evening rise	1658 Jun 04 05:35	23°♁34'17	
morning rise	1655 Dec 06 00:16	3°♁56'27			1658 Jun 09 11:20	0°♁	
	1655 Dec 18 05:28	30°♁			1658 Jul 03 23:14	0°♁	
direct	1655 Dec 20 04:02	29°♁55'20			1658 Jul 28 13:11	0°♁	
	1655 Dec 22 03:02	0°♁			1658 Aug 22 06:37	0°♁	
greatest brilliancy	1656 Jan 01 14:03	2°♁48'11	-4.7m	desc. node	1658 Sep 08 20:25	21°♁09'45	
	1656 Feb 05 17:20	0°♁			1658 Sep 16 05:41	0°♁	

	1658 Oct 11 13:46	0°♁			1661 Mar 18 08:51	0°♁		
	1658 Nov 06 15:09	0°♁			1661 Apr 11 20:37	0°♁		
evening max el	1658 Dec 02 05:46	27°♁38'11	47°19'40		1661 May 06 08:23	0°♁		
	1658 Dec 04 13:57	0°♁		morning set	1661 May 29 15:19	28°♁31'31		
asc. node	1658 Dec 30 23:42	22°♁54'07			1661 May 30 20:12	0°♁		
greatest brilliancy	1659 Jan 09 07:20	28°♁14'10	-4.7m	asc. node	1661 Jun 16 18:53	20°♁46'30		
	1659 Jan 13 21:49	0°♁			1661 Jun 24 07:15	0°♁		
retrograde	1659 Jan 22 04:13	1°♁19'24		max. Earth dist.	1661 Jul 03 07:00	11°♁02'54	1.73543 AU	
	1659 Jan 30 03:20	30°♁						
evening set	1659 Feb 08 05:37	25°♁35'38		superior conj	1661 Jul 05 04:18	13°♁22'07	0°41'50	
min. Earth dist.	1659 Feb 11 02:10	23°♁50'12	0.27358 AU	minimum elong	1661 Jul 04 20:50	12°♁59'10	0°41'31	
inferior conj	1659 Feb 11 23:04	23°♁17'31	8°22'29		1661 Jul 18 16:36	0°♁		
minimum elong	1659 Feb 11 16:38	23°♁27'35	8°21'51	evening rise	1661 Aug 09 23:28	27°♁29'43		
morning rise	1659 Feb 15 03:56	21°♁19'07			1661 Aug 12 00:09	0°♁		
direct	1659 Mar 04 14:47	15°♁28'10			1661 Sep 05 06:46	0°♁		
greatest brilliancy	1659 Mar 15 03:54	17°♁32'20	-4.6m		1661 Sep 29 13:46	0°♁		
	1659 Apr 04 12:04	0°♁		desc. node	1661 Oct 06 08:20	8°♁21'18		
desc. node	1659 Apr 21 13:06	15°♁07'27			1661 Oct 23 22:11	0°♁		
morning max el	1659 Apr 23 01:12	16°♁34'47	46°09'52		1661 Nov 17 09:15	0°♁		
	1659 May 06 08:09	0°♁			1661 Dec 12 02:06	0°♁		
	1659 Jun 02 21:51	0°♁			1662 Jan 06 08:57	0°♁		
	1659 Jun 29 02:51	0°♁		asc. node	1662 Jan 27 11:35	23°♁53'56		
	1659 Jul 24 14:14	0°♁			1662 Feb 02 03:04	0°♁		
asc. node	1659 Aug 12 16:36	22°♁55'30		evening max el	1662 Feb 11 19:02	10°♁01'53	46°39'08	
	1659 Aug 18 12:39	0°♁			1662 Mar 05 21:36	0°♁		
	1659 Sep 12 00:31	0°♁		greatest brilliancy	1662 Mar 19 14:43	8°♁45'17	-4.6m	
	1659 Oct 06 04:30	0°♁		retrograde	1662 Apr 03 00:06	12°♁29'57		
morning set	1659 Oct 17 13:45	14°♁13'56		evening set	1662 Apr 19 09:05	7°♁16'45		
	1659 Oct 30 03:38	0°♁		inferior conj	1662 Apr 24 07:41	4°♁14'33	5°26'49	
	1659 Nov 23 00:31	0°♁		minimum elong	1662 Apr 24 17:11	3°♁59'34	5°24'37	
max. Earth dist.	1659 Nov 25 09:28	2°♁59'04	1.71143 AU	min. Earth dist.	1662 Apr 24 08:32	4°♁13'13	0.28622 AU	
				morning rise	1662 Apr 30 01:31	0°♁44'53		
superior conj	1659 Nov 26 03:47	3°♁56'40	0°14'32		1662 May 01 10:16	30°♁		
minimum elong	1659 Nov 26 07:31	4°♁08'25	0°14'20	direct	1662 May 15 14:57	26°♁02'16		
behind sun begin	1659 Nov 25 18:58	3°♁28'58		desc. node	1662 May 19 00:44	26°♁15'33		
behind sun end	1659 Nov 26 20:04	4°♁47'52		greatest brilliancy	1662 May 28 02:20	28°♁47'17	-4.5m	
desc. node	1659 Dec 02 05:57	11°♁36'18			1662 May 30 18:47	0°♁		
	1659 Dec 16 20:52	0°♁		morning max el	1662 Jul 03 09:39	25°♁48'11	45°43'49	
evening rise	1660 Jan 06 14:32	26°♁03'45			1662 Jul 07 17:47	0°♁		
	1660 Jan 09 17:48	0°♁			1662 Aug 05 07:34	0°♁		
	1660 Feb 02 16:38	0°♁			1662 Aug 31 16:30	0°♁		
	1660 Feb 26 19:29	0°♁		asc. node	1662 Sep 09 04:31	9°♁59'16		
asc. node	1660 Mar 22 05:11	0°♁			1662 Sep 25 22:12	0°♁		
	1660 Mar 24 09:27	2°♁39'16			1662 Oct 20 11:13	0°♁		
	1660 Apr 16 01:14	0°♁			1662 Nov 13 14:28	0°♁		
	1660 May 11 12:42	0°♁			1662 Dec 07 12:55	0°♁		
	1660 Jun 07 02:21	0°♁		desc. node	1662 Dec 29 17:47	27°♁54'31		
evening max el	1660 Jul 05 22:42	29°♁49'56	45°30'24		1662 Dec 31 09:42	0°♁		
	1660 Jul 06 02:55	0°♁		morning set	1662 Dec 31 19:13	0°♁29'55		
desc. node	1660 Jul 13 22:37	7°♁12'59			1663 Jan 24 06:38	0°♁		
greatest brilliancy	1660 Aug 12 05:33	27°♁12'10	-4.5m					
retrograde	1660 Aug 23 15:15	29°♁31'20		superior conj	1663 Feb 11 12:11	22°♁51'57	-1°-20'-43	
evening set	1660 Sep 10 17:03	23°♁29'49		minimum elong	1663 Feb 11 04:27	22°♁27'45	1°20'36	
inferior conj	1660 Sep 13 19:57	21°♁35'47	-8°-41'-18	max. Earth dist.	1663 Feb 15 01:56	27°♁20'24	1.71595 AU	
minimum elong	1660 Sep 13 22:26	21°♁31'58	8°41'15		1663 Feb 17 04:57	0°♁		
min. Earth dist.	1660 Sep 14 14:09	21°♁07'42	0.28175 AU		1663 Mar 13 05:58	0°♁		
morning rise	1660 Sep 17 03:33	19°♁34'02		evening rise	1663 Mar 23 16:07	12°♁56'45		
direct	1660 Oct 05 01:54	13°♁29'12			1663 Apr 06 10:56	0°♁		
greatest brilliancy	1660 Oct 19 11:38	17°♁12'09	-4.6m	asc. node	1663 Apr 21 21:16	18°♁59'45		
asc. node	1660 Nov 04 01:56	27°♁28'27			1663 Apr 30 20:50	0°♁		
	1660 Nov 07 03:36	0°♁			1663 May 25 12:33	0°♁		
morning max el	1660 Nov 24 14:05	16°♁21'36	46°47'17		1663 Jun 19 11:32	0°♁		
	1660 Dec 07 12:10	0°♁			1663 Jul 14 21:11	0°♁		
	1661 Jan 02 21:35	0°♁			1663 Aug 10 00:45	0°♁		
	1661 Jan 28 02:14	0°♁		desc. node	1663 Aug 11 10:29	1°♁34'38		
	1661 Feb 21 19:44	0°♁			1663 Sep 06 16:14	0°♁		
desc. node	1661 Feb 23 15:30	2°♁13'28		evening max el	1663 Sep 17 21:24	11°♁17'46	46°31'53	

	1663 Oct 09 02:03	0°♁			1666 Apr 21 03:41	0°♁	
greatest brilliancy	1663 Oct 26 19:14	10°♁32'07	-4.6m				
retrograde	1663 Nov 06 17:52	12°♁44'38		superior conj	1666 Apr 25 16:31	5°♁35'46	0°-52'-27
evening set	1663 Nov 21 06:07	8°♁35'25		minimum elong	1666 Apr 26 01:57	6°♁04'51	0°52'06
inferior conj	1663 Nov 27 06:27	5°♁05'31	-1°-22'-28	max. Earth dist.	1666 Apr 28 07:11	8°♁49'00	1.73115 AU
minimum elong	1663 Nov 27 09:36	5°♁00'44	1°21'28		1666 May 15 11:59	0°♁	
min. Earth dist.	1663 Nov 27 11:47	4°♁57'25	0.26482 AU	asc. node	1666 May 19 09:09	4°♁46'21	
asc. node	1663 Dec 02 13:50	1°♁58'33		evening rise	1666 Jun 01 23:52	21°♁29'25	
morning rise	1663 Dec 03 12:50	1°♁27'34			1666 Jun 08 22:20	0°♁	
	1663 Dec 06 12:46	30°♁			1666 Jul 03 10:26	0°♁	
direct	1663 Dec 17 17:17	27°♁26'28			1666 Jul 28 00:45	0°♁	
	1663 Dec 29 08:38	0°♁			1666 Aug 21 18:45	0°♁	
greatest brilliancy	1663 Dec 30 04:05	0°♁20'50	-4.7m	desc. node	1666 Sep 07 22:23	20°♁37'36	
	1664 Feb 05 17:12	0°♁			1666 Sep 15 18:40	0°♁	
morning max el	1664 Feb 06 07:18	0°♁35'27	46°52'14		1666 Oct 11 04:11	0°♁	
	1664 Mar 04 16:39	0°♁			1666 Nov 06 08:17	0°♁	
desc. node	1664 Mar 23 03:26	21°♁03'04		evening max el	1666 Nov 29 19:33	25°♁12'42	47°19'24
	1664 Mar 30 20:10	0°♁			1666 Dec 04 14:22	0°♁	
	1664 Apr 25 06:59	0°♁		asc. node	1666 Dec 30 01:51	21°♁28'22	
	1664 May 20 09:52	0°♁		greatest brilliancy	1667 Jan 07 00:00	25°♁51'49	-4.7m
	1664 Jun 14 07:44	0°♁		retrograde	1667 Jan 19 17:41	28°♁53'52	
	1664 Jul 09 00:51	0°♁		evening set	1667 Feb 05 15:50	23°♁16'23	
asc. node	1664 Jul 14 06:51	6°♁24'22		min. Earth dist.	1667 Feb 08 15:50	21°♁25'55	0.27297 AU
	1664 Aug 02 12:44	0°♁		inferior conj	1667 Feb 09 12:44	20°♁53'15	8°15'06
morning set	1664 Aug 05 06:56	3°♁23'41		minimum elong	1667 Feb 09 05:36	21°♁04'25	8°14'17
	1664 Aug 26 19:30	0°♁		morning rise	1667 Feb 12 19:38	18°♁51'44	
max. Earth dist.	1664 Sep 07 12:17	14°♁31'51	1.72425 AU	direct	1667 Mar 02 03:25	13°♁04'50	
				greatest brilliancy	1667 Mar 12 17:22	15°♁09'20	-4.6m
superior conj	1664 Sep 10 22:16	18°♁46'49	1°24'33		1667 Apr 04 23:06	0°♁	
minimum elong	1664 Sep 10 23:48	18°♁51'37	1°24'34	morning max el	1667 Apr 20 13:58	14°♁12'23	46°11'28
	1664 Sep 19 22:23	0°♁		desc. node	1667 Apr 20 15:01	14°♁14'57	
	1664 Oct 13 23:04	0°♁			1667 May 06 02:56	0°♁	
evening rise	1664 Oct 19 01:12	6°♁21'40			1667 Jun 02 12:34	0°♁	
desc. node	1664 Nov 02 20:09	24°♁51'06			1667 Jun 28 15:48	0°♁	
	1664 Nov 06 23:00	0°♁			1667 Jul 24 02:16	0°♁	
	1664 Nov 30 23:07	0°♁		asc. node	1667 Aug 11 18:39	22°♁26'35	
	1664 Dec 25 00:39	0°♁			1667 Aug 18 00:11	0°♁	
	1665 Jan 18 06:07	0°♁			1667 Sep 11 11:48	0°♁	
	1665 Feb 11 20:17	0°♁			1667 Oct 05 15:40	0°♁	
asc. node	1665 Feb 23 23:32	14°♁32'04		morning set	1667 Oct 15 03:54	11°♁53'03	
	1665 Mar 09 03:26	0°♁			1667 Oct 29 14:46	0°♁	
	1665 Apr 04 20:11	0°♁			1667 Nov 22 11:41	0°♁	
evening max el	1665 Apr 23 19:28	19°♁30'12	45°35'16	max. Earth dist.	1667 Nov 22 15:22	0°♁11'36	1.71165 AU
	1665 May 05 05:15	0°♁					
greatest brilliancy	1665 May 28 02:53	15°♁55'39	-4.5m	superior conj	1667 Nov 23 14:37	1°♁24'42	0°18'21
retrograde	1665 Jun 11 12:44	19°♁32'02		minimum elong	1667 Nov 23 19:17	1°♁39'22	0°18'08
desc. node	1665 Jun 15 12:49	19°♁13'09		desc. node	1667 Dec 01 08:03	11°♁07'47	
evening set	1665 Jun 26 18:42	15°♁03'40			1667 Dec 16 08:05	0°♁	
inferior conj	1665 Jul 03 00:08	11°♁19'19	-3°-57'-29	evening rise	1668 Jan 04 00:25	23°♁28'45	
minimum elong	1665 Jul 02 16:13	11°♁31'42	3°55'26		1668 Jan 09 05:04	0°♁	
min. Earth dist.	1665 Jul 02 22:07	11°♁22'29	0.28993 AU		1668 Feb 02 03:59	0°♁	
morning rise	1665 Jul 08 13:46	7°♁57'04			1668 Feb 26 06:59	0°♁	
direct	1665 Jul 24 16:38	3°♁01'59			1668 Mar 21 17:00	0°♁	
greatest brilliancy	1665 Aug 07 14:06	6°♁24'32	-4.5m	asc. node	1668 Mar 23 11:24	2°♁09'10	
	1665 Sep 08 06:27	0°♁			1668 Apr 15 13:37	0°♁	
morning max el	1665 Sep 11 21:14	3°♁27'58	46°03'19		1668 May 11 02:13	0°♁	
asc. node	1665 Oct 06 16:19	29°♁26'25			1668 Jun 06 18:23	0°♁	
	1665 Oct 07 04:25	0°♁		evening max el	1668 Jul 03 12:28	27°♁33'23	45°29'16
	1665 Nov 02 06:05	0°♁			1668 Jul 06 02:30	0°♁	
	1665 Nov 27 03:31	0°♁		desc. node	1668 Jul 13 00:43	6°♁16'32	
	1665 Dec 21 11:56	0°♁		greatest brilliancy	1668 Aug 09 16:08	24°♁52'44	-4.5m
	1666 Jan 14 14:56	0°♁		retrograde	1668 Aug 21 05:32	27°♁15'40	
desc. node	1666 Jan 26 05:41	14°♁28'37		evening set	1668 Sep 08 07:26	21°♁13'12	
	1666 Feb 07 16:24	0°♁		inferior conj	1668 Sep 11 10:34	19°♁18'57	-8°-42'-53
	1666 Mar 03 18:18	0°♁		minimum elong	1668 Sep 11 12:11	19°♁16'27	8°42'52
morning set	1666 Mar 18 05:38	17°♁59'40		min. Earth dist.	1668 Sep 12 04:02	18°♁52'01	0.28239 AU
	1666 Mar 27 21:50	0°♁		morning rise	1668 Sep 14 16:41	17°♁19'34	

direct	1668 Oct 02 16:59	11° \mathbb{M} 11'17			1671 Apr 05 21:54	0° \mathcal{B}		
greatest brilliancy	1668 Oct 17 04:58	14° \mathbb{M} 56'49	-4.6m	asc. node	1671 Apr 20 23:22	18° \mathcal{B} 32'21		
asc. node	1668 Nov 03 04:02	26° \mathbb{M} 20'07			1671 Apr 30 07:57	0° \mathbb{I}		
	1668 Nov 07 11:30	0° \mathcal{B}			1671 May 24 23:58	0° \mathcal{B}		
morning max el	1668 Nov 22 05:02	14° \mathcal{B} 00'55	46°46'14		1671 Jun 18 23:33	0° \mathcal{B}		
	1668 Dec 07 06:39	0° \mathbb{M}			1671 Jul 14 10:16	0° \mathbb{M}		
	1669 Jan 02 12:35	0° \mathcal{B}			1671 Aug 09 15:55	0° \mathcal{B}		
	1669 Jan 27 15:38	0° \mathcal{B}		desc. node	1671 Aug 10 12:29	0° \mathcal{B} 57'30		
	1669 Feb 21 08:12	0° \approx			1671 Sep 06 12:19	0° \mathbb{M}		
desc. node	1669 Feb 22 17:32	1° \approx 41'46		evening max el	1671 Sep 15 11:46	8° \mathbb{M} 58'41	46°29'21	
	1669 Mar 17 20:42	0° \mathcal{H}			1671 Oct 09 21:37	0° \mathcal{B}		
	1669 Apr 11 08:03	0° \mathcal{Y}		greatest brilliancy	1671 Oct 24 08:02	8° \mathcal{B} 05'32	-4.6m	
	1669 May 05 19:31	0° \mathcal{B}		retrograde	1671 Nov 04 06:02	10° \mathcal{B} 16'41		
morning set	1669 May 27 09:07	26° \mathcal{B} 25'24		evening set	1671 Nov 18 20:02	6° \mathcal{B} 05'39		
	1669 May 30 07:08	0° \mathbb{I}		inferior conj	1671 Nov 24 18:38	2° \mathcal{B} 37'41	-1°-46'-37	
asc. node	1669 Jun 15 21:05	20° \mathbb{I} 19'59		minimum elong	1671 Nov 24 22:41	2° \mathcal{B} 31'33	1°45'21	
	1669 Jun 23 18:04	0° \mathcal{B}		min. Earth dist.	1671 Nov 25 01:14	2° \mathcal{B} 27'40	0.26510 AU	
max. Earth dist.	1669 Jul 01 05:38	9° \mathcal{B} 11'42	1.73558 AU		1671 Nov 29 04:55	30° \mathbb{M}		
				morning rise	1671 Dec 01 01:06	28° \mathbb{M} 59'29		
superior conj	1669 Jul 02 22:51	11° \mathcal{B} 18'23	0°39'06	asc. node	1671 Dec 01 15:59	28° \mathbb{M} 40'10		
minimum elong	1669 Jul 02 15:43	10° \mathcal{B} 56'29	0°38'47	direct	1671 Dec 15 06:30	24° \mathbb{M} 58'20		
	1669 Jul 18 03:24	0° \mathcal{B}		greatest brilliancy	1671 Dec 27 18:07	27° \mathbb{M} 53'46	-4.7m	
evening rise	1669 Aug 07 17:58	25° \mathcal{B} 25'03			1671 Dec 31 23:10	0° \mathcal{B}		
	1669 Aug 11 11:03	0° \mathbb{M}		morning max el	1672 Feb 03 20:40	28° \mathcal{B} 10'07	46°52'55	
	1669 Sep 04 17:55	0° \mathcal{B}			1672 Feb 05 15:59	0° \mathcal{B}		
	1669 Sep 29 01:16	0° \mathbb{M}		desc. node	1672 Mar 04 09:02	0° \approx		
desc. node	1669 Oct 05 10:18	7° \mathbb{M} 51'37			1672 Mar 22 05:23	20° \approx 26'46		
	1669 Oct 23 10:09	0° \mathcal{B}			1672 Mar 30 10:02	0° \mathcal{H}		
	1669 Nov 16 21:49	0° \mathcal{B}			1672 Apr 24 19:31	0° \mathcal{Y}		
	1669 Dec 11 15:34	0° \approx			1672 May 19 21:35	0° \mathcal{B}		
	1670 Jan 06 00:05	0° \mathcal{H}			1672 Jun 13 18:55	0° \mathbb{I}		
asc. node	1670 Jan 26 13:39	23° \mathcal{H} 10'37			1672 Jul 08 11:43	0° \mathcal{B}		
	1670 Feb 01 22:17	0° \mathcal{Y}		asc. node	1672 Jul 13 08:50	5° \mathcal{B} 57'20		
evening max el	1670 Feb 09 10:18	7° \mathcal{Y} 44'42	46°41'40		1672 Aug 01 23:27	0° \mathcal{B}		
	1670 Mar 06 13:36	0° \mathcal{B}		morning set	1672 Aug 03 00:33	1° \mathcal{B} 17'16		
greatest brilliancy	1670 Mar 17 06:41	6° \mathcal{B} 31'53	-4.6m		1672 Aug 26 06:11	0° \mathbb{M}		
retrograde	1670 Mar 31 16:48	10° \mathcal{B} 17'20		max. Earth dist.	1672 Sep 05 02:14	12° \mathbb{M} 12'47	1.72475 AU	
evening set	1670 Apr 17 03:46	4° \mathcal{B} 59'49						
inferior conj	1670 Apr 21 23:35	2° \mathcal{B} 01'45	5°42'42	superior conj	1672 Sep 08 15:04	16° \mathbb{M} 36'30	1°24'45	
minimum elong	1670 Apr 22 09:15	1° \mathcal{B} 46'31	5°40'32	minimum elong	1672 Sep 08 15:52	16° \mathbb{M} 39'00	1°24'45	
min. Earth dist.	1670 Apr 21 23:52	2° \mathcal{B} 01'18	0.28599 AU		1672 Sep 19 09:07	0° \mathcal{B}		
	1670 Apr 25 05:48	30° \mathcal{Y}			1672 Oct 13 09:55	0° \mathbb{M}		
morning rise	1670 Apr 27 14:59	28° \mathcal{Y} 35'52		evening rise	1672 Oct 16 14:45	4° \mathbb{M} 00'00		
direct	1670 May 13 06:39	23° \mathcal{Y} 49'49		desc. node	1672 Nov 01 22:19	24° \mathbb{M} 23'33		
desc. node	1670 May 18 02:56	24° \mathcal{Y} 16'34			1672 Nov 06 10:00	0° \mathcal{B}		
greatest brilliancy	1670 May 25 16:28	26° \mathcal{Y} 33'59	-4.5m		1672 Nov 30 10:21	0° \mathcal{B}		
	1670 Jun 01 12:57	0° \mathcal{B}			1672 Dec 24 12:11	0° \approx		
morning max el	1670 Jul 01 02:29	23° \mathcal{B} 40'10	45°44'02		1673 Jan 17 18:03	0° \mathcal{H}		
	1670 Jul 07 14:24	0° \mathbb{I}			1673 Feb 11 08:53	0° \mathcal{Y}		
	1670 Aug 04 22:41	0° \mathcal{B}		asc. node	1673 Feb 23 01:28	13° \mathcal{Y} 58'53		
	1670 Aug 31 05:31	0° \mathcal{B}			1673 Mar 08 17:20	0° \mathcal{B}		
asc. node	1670 Sep 08 06:30	9° \mathcal{B} 27'45			1673 Apr 04 13:11	0° \mathbb{I}		
	1670 Sep 25 10:14	0° \mathbb{M}		evening max el	1673 Apr 21 10:55	17° \mathbb{I} 18'19	45°36'47	
	1670 Oct 19 22:47	0° \mathcal{B}			1673 May 05 10:12	0° \mathcal{B}		
	1670 Nov 13 01:50	0° \mathbb{M}		greatest brilliancy	1673 May 25 19:06	13° \mathcal{B} 47'18	-4.5m	
	1670 Dec 07 00:10	0° \mathcal{B}		retrograde	1673 Jun 09 04:33	17° \mathcal{B} 23'58		
morning set	1670 Dec 29 04:55	27° \mathcal{B} 54'25		desc. node	1673 Jun 14 14:52	16° \mathcal{B} 49'12		
desc. node	1670 Dec 28 19:54	27° \mathcal{B} 26'03		evening set	1673 Jun 24 09:55	12° \mathcal{B} 57'21		
	1670 Dec 30 20:52	0° \mathcal{B}		inferior conj	1673 Jun 30 16:35	9° \mathcal{B} 11'14	-3°-39'-49	
	1671 Jan 23 17:42	0° \approx		minimum elong	1673 Jun 30 09:08	9° \mathcal{B} 22'53	3°37'51	
				min. Earth dist.	1673 Jun 30 14:47	9° \mathcal{B} 14'02	0.28990 AU	
superior conj	1671 Feb 08 22:45	20° \approx 20'09	-1°-19'-16	morning rise	1673 Jul 06 08:20	5° \mathcal{B} 45'35		
minimum elong	1671 Feb 08 14:12	19° \approx 53'20	1°19'07	direct	1673 Jul 22 08:51	0° \mathcal{B} 53'56		
max. Earth dist.	1671 Feb 12 11:51	24° \approx 46'41	1.71548 AU	greatest brilliancy	1673 Aug 05 04:57	4° \mathcal{B} 14'16	-4.5m	
	1671 Feb 16 15:57	0° \mathcal{H}			1673 Sep 08 05:20	0° \mathcal{B}		
	1671 Mar 12 16:55	0° \mathcal{Y}		morning max el	1673 Sep 09 11:29	1° \mathcal{B} 12'51	46°02'00	
evening rise	1671 Mar 21 05:02	10° \mathcal{Y} 34'03		asc. node	1673 Oct 05 18:21	28° \mathcal{B} 48'01		

	1673 Oct 06 20:11	0°♍		evening max el	1676 Jul 01 03:12	25°♏20'16	45°28'20
	1673 Nov 01 19:29	0°♌			1676 Jul 06 02:49	0°♍	
	1673 Nov 26 15:50	0°♍		desc. node	1676 Jul 12 02:43	5°♍19'34	
	1673 Dec 20 23:39	0°♎		greatest brilliancy	1676 Aug 07 02:37	22°♍34'36	-4.5m
	1674 Jan 14 02:18	0°♏		retrograde	1676 Aug 18 20:26	25°♍01'29	
desc. node	1674 Jan 25 07:40	13°♏59'43		evening set	1676 Sep 05 21:39	18°♍58'44	
	1674 Feb 07 03:32	0°♎		inferior conj	1676 Sep 09 01:19	17°♍03'39	-8°-43'-36
	1674 Mar 03 05:15	0°♏		minimum elong	1676 Sep 09 02:07	17°♍02'26	8°43'36
morning set	1674 Mar 15 18:52	15°♏37'58		min. Earth dist.	1676 Sep 09 17:40	16°♍38'28	0.28298 AU
	1674 Mar 27 08:37	0°♏		morning rise	1676 Sep 12 06:22	15°♍06'00	
	1674 Apr 20 14:21	0°♏		direct	1676 Sep 30 08:40	8°♍55'08	
				greatest brilliancy	1676 Oct 14 21:40	12°♍42'18	-4.6m
superior conj	1674 Apr 23 08:19	3°♏23'34	0°-55'-7	asc. node	1676 Nov 02 06:12	25°♍14'58	
minimum elong	1674 Apr 23 17:58	3°♏53'20	0°54'45		1676 Nov 07 16:36	0°♌	
max. Earth dist.	1674 Apr 26 01:51	6°♏45'42	1.73068 AU	morning max el	1676 Nov 19 20:39	11°♌43'18	46°45'00
	1674 May 14 22:36	0°♍			1676 Dec 07 00:20	0°♍	
asc. node	1674 May 18 11:17	4°♍20'18			1677 Jan 02 03:04	0°♎	
evening rise	1674 May 30 17:44	19°♍24'20			1677 Jan 27 04:38	0°♏	
	1674 Jun 08 09:00	0°♎			1677 Feb 20 20:19	0°♎	
	1674 Jul 02 21:18	0°♏		desc. node	1677 Feb 21 19:32	1°♎10'57	
	1674 Jul 27 11:59	0°♍			1677 Mar 17 08:13	0°♏	
	1674 Aug 21 06:33	0°♌			1677 Apr 10 19:09	0°♏	
desc. node	1674 Sep 07 00:24	20°♌06'34			1677 May 05 06:20	0°♏	
	1674 Sep 15 07:23	0°♍		morning set	1677 May 25 02:58	24°♏20'20	
	1674 Oct 10 18:23	0°♎			1677 May 29 17:47	0°♍	
	1674 Nov 06 01:18	0°♏		asc. node	1677 Jun 14 23:03	19°♍53'39	
evening max el	1674 Nov 27 08:40	22°♏46'59	47°19'09		1677 Jun 23 04:37	0°♎	
	1674 Dec 04 15:25	0°♎		max. Earth dist.	1677 Jun 29 04:41	7°♎22'33	1.73573 AU
asc. node	1674 Dec 29 03:49	20°♎00'56					
greatest brilliancy	1675 Jan 04 15:58	23°♎29'59	-4.7m	superior conj	1677 Jun 30 17:17	9°♎15'05	0°36'17
retrograde	1675 Jan 17 07:13	26°♎30'06		minimum elong	1677 Jun 30 10:33	8°♎54'22	0°35'59
evening set	1675 Feb 03 01:56	20°♎58'42			1677 Jul 17 13:58	0°♏	
min. Earth dist.	1675 Feb 06 05:37	19°♎03'04	0.27241 AU	evening rise	1677 Aug 05 12:22	23°♏20'47	
inferior conj	1675 Feb 07 02:27	18°♎30'32	8°06'40		1677 Aug 10 21:45	0°♍	
minimum elong	1675 Feb 06 18:41	18°♎42'40	8°05'41		1677 Sep 04 04:51	0°♌	
morning rise	1675 Feb 10 11:41	16°♎25'38			1677 Sep 28 12:34	0°♍	
direct	1675 Feb 27 15:59	10°♎42'48		desc. node	1677 Oct 04 12:27	7°♍23'08	
greatest brilliancy	1675 Mar 10 07:39	12°♎48'41	-4.6m		1677 Oct 22 21:54	0°♎	
	1675 Apr 05 06:40	0°♏			1677 Nov 16 10:13	0°♏	
morning max el	1675 Apr 18 03:13	11°♏52'10	46°12'59		1677 Dec 11 04:56	0°♎	
desc. node	1675 Apr 19 17:13	13°♏25'13			1678 Jan 05 15:14	0°♏	
	1675 May 05 20:52	0°♏		asc. node	1678 Jan 25 15:40	22°♏27'07	
	1675 Jun 02 02:48	0°♏			1678 Feb 01 17:52	0°♏	
	1675 Jun 28 04:20	0°♍		evening max el	1678 Feb 07 02:18	5°♏29'46	46°44'08
	1675 Jul 23 13:54	0°♎			1678 Mar 07 10:54	0°♏	
asc. node	1675 Aug 10 20:39	21°♎58'38		greatest brilliancy	1678 Mar 14 23:53	4°♏20'36	-4.6m
	1675 Aug 17 11:19	0°♏		retrograde	1678 Mar 29 09:36	8°♏05'04	
	1675 Sep 10 22:40	0°♍		evening set	1678 Apr 14 22:33	2°♏43'31	
	1675 Oct 05 02:26	0°♌			1678 Apr 19 08:47	30°♏	
morning set	1675 Oct 12 18:13	9°♌34'00		inferior conj	1678 Apr 19 15:28	29°♏49'28	5°58'01
	1675 Oct 29 01:32	0°♍		minimum elong	1678 Apr 20 01:15	29°♏34'03	5°55'54
max. Earth dist.	1675 Nov 19 23:52	27°♍33'21	1.71190 AU	min. Earth dist.	1678 Apr 19 14:57	29°♏50'17	0.28570 AU
				morning rise	1678 Apr 25 04:17	26°♏27'30	
superior conj	1675 Nov 21 01:42	28°♍54'34	0°22'08	direct	1678 May 10 22:37	21°♏38'12	
minimum elong	1675 Nov 21 07:15	29°♍12'01	0°21'52	desc. node	1678 May 17 04:56	22°♏22'36	
	1675 Nov 21 22:30	0°♎		greatest brilliancy	1678 May 23 05:23	24°♏19'58	-4.5m
desc. node	1675 Nov 30 10:09	10°♎40'18			1678 Jun 02 17:31	0°♏	
	1675 Dec 15 18:58	0°♏		morning max el	1678 Jun 28 18:58	21°♏31'59	45°44'09
evening rise	1676 Jan 01 10:37	20°♏55'52			1678 Jul 07 10:08	0°♍	
	1676 Jan 08 16:00	0°♎			1678 Aug 04 13:25	0°♎	
	1676 Feb 01 14:58	0°♏			1678 Aug 30 18:20	0°♏	
	1676 Feb 25 18:07	0°♏		asc. node	1678 Sep 07 08:36	8°♏56'59	
	1676 Mar 21 04:26	0°♏			1678 Sep 24 22:09	0°♍	
asc. node	1676 Mar 22 13:31	1°♏40'42			1678 Oct 19 10:15	0°♌	
	1676 Apr 15 01:41	0°♍			1678 Nov 12 13:03	0°♍	
	1676 May 10 15:30	0°♎			1678 Dec 06 11:16	0°♎	
	1676 Jun 06 10:22	0°♏		morning set	1678 Dec 26 14:44	25°♏19'41	

desc. node	1678 Dec 27 21:49	26°♁57'26		evening set	1681 Jun 22 01:16	10°♁49'55	
	1678 Dec 30 07:54	0°♁		inferior conj	1681 Jun 28 09:01	7°♁02'27	-3°-21'-45
	1679 Jan 23 04:41	0°♁		minimum elong	1681 Jun 28 02:05	7°♁13'19	3°19'53
superior conj	1679 Feb 06 09:14	17°♁48'11	-1°-17'-39	min. Earth dist.	1681 Jun 28 07:34	7°♁04'44	0.28985 AU
minimum elong	1679 Feb 05 23:57	17°♁19'03	1°17'29	morning rise	1681 Jul 04 02:49	3°♁33'44	
max. Earth dist.	1679 Feb 09 23:02	22°♁17'02	1.71505 AU	direct	1681 Jul 20 00:39	28°♁45'07	
	1679 Feb 16 02:55	0°♁			1681 Jul 28 07:31	0°♁	
evening rise	1679 Mar 12 03:52	0°♁		greatest brilliancy	1681 Aug 02 20:40	2°♁04'33	-4.5m
	1679 Mar 18 17:48	8°♁10'49		morning max el	1681 Sep 07 01:55	28°♁57'39	46°00'45
	1679 Apr 05 08:51	0°♁			1681 Sep 08 03:32	0°♁	
asc. node	1679 Apr 20 01:30	18°♁05'06		asc. node	1681 Oct 04 20:31	28°♁09'43	
	1679 Apr 29 19:01	0°♁			1681 Oct 06 11:56	0°♁	
	1679 May 24 11:21	0°♁			1681 Nov 01 09:04	0°♁	
	1679 Jun 18 11:34	0°♁			1681 Nov 26 04:26	0°♁	
	1679 Jul 13 23:27	0°♁			1681 Dec 20 11:43	0°♁	
	1679 Aug 09 07:20	0°♁			1682 Jan 13 14:02	0°♁	
desc. node	1679 Aug 09 14:29	0°♁19'54		desc. node	1682 Jan 24 09:47	13°♁30'10	
	1679 Sep 06 09:09	0°♁			1682 Feb 06 15:00	0°♁	
evening max el	1679 Sep 13 01:29	6°♁37'47	46°26'42		1682 Mar 02 16:31	0°♁	
	1679 Oct 11 00:24	0°♁		morning set	1682 Mar 13 07:38	13°♁13'45	
greatest brilliancy	1679 Oct 21 21:52	5°♁39'55	-4.6m		1682 Mar 26 19:43	0°♁	
retrograde	1679 Nov 01 17:41	7°♁48'36			1682 Apr 20 01:20	0°♁	
evening set	1679 Nov 16 10:08	3°♁35'33					
inferior conj	1679 Nov 22 06:52	0°♁09'53	-2°-10'-30	superior conj	1682 Apr 20 23:53	1°♁09'35	0°-57'-42
minimum elong	1679 Nov 22 11:46	0°♁02'26	2°08'57	minimum elong	1682 Apr 21 09:42	1°♁39'54	0°57'22
min. Earth dist.	1679 Nov 22 15:00	29°♁57'31	0.26540 AU	max. Earth dist.	1682 Apr 23 18:45	4°♁35'56	1.73023 AU
	1679 Nov 22 13:22	30°♁			1682 May 14 09:34	0°♁	
morning rise	1679 Nov 28 13:07	26°♁31'33		asc. node	1682 May 17 13:15	3°♁52'36	
asc. node	1679 Nov 30 17:55	25°♁25'41		evening rise	1682 May 28 11:29	17°♁17'47	
direct	1679 Dec 12 19:11	22°♁30'07			1682 Jun 07 20:03	0°♁	
greatest brilliancy	1679 Dec 25 08:31	25°♁26'58	-4.7m		1682 Jul 02 08:32	0°♁	
	1680 Jan 02 14:35	0°♁			1682 Jul 26 23:33	0°♁	
morning max el	1680 Feb 01 08:59	25°♁41'50	46°53'33		1682 Aug 20 18:42	0°♁	
	1680 Feb 05 13:57	0°♁		desc. node	1682 Sep 06 02:34	19°♁34'57	
	1680 Mar 04 01:12	0°♁			1682 Sep 14 20:29	0°♁	
desc. node	1680 Mar 21 07:32	19°♁51'06			1682 Oct 10 09:05	0°♁	
	1680 Mar 29 23:53	0°♁			1682 Nov 05 19:10	0°♁	
	1680 Apr 24 08:06	0°♁		evening max el	1682 Nov 24 21:47	20°♁19'53	47°18'39
	1680 May 19 09:23	0°♁			1682 Dec 04 18:33	0°♁	
	1680 Jun 13 06:12	0°♁		asc. node	1682 Dec 28 05:53	18°♁28'25	
	1680 Jul 07 22:41	0°♁		greatest brilliancy	1683 Jan 02 06:49	21°♁04'25	-4.7m
asc. node	1680 Jul 12 10:52	5°♁30'12		retrograde	1683 Jan 14 20:48	24°♁03'43	
morning set	1680 Jul 31 18:18	29°♁10'54		evening set	1683 Jan 31 11:28	18°♁38'18	
	1680 Aug 01 10:16	0°♁		min. Earth dist.	1683 Feb 03 18:48	16°♁37'39	0.27185 AU
	1680 Aug 25 17:00	0°♁		inferior conj	1683 Feb 04 15:47	16°♁05'00	7°57'07
max. Earth dist.	1680 Sep 02 17:29	9°♁57'26	1.72531 AU	minimum elong	1683 Feb 04 07:25	16°♁18'02	7°55'58
				morning rise	1683 Feb 08 03:38	13°♁56'31	
superior conj	1680 Sep 06 07:59	14°♁26'10	1°24'49	direct	1683 Feb 25 04:22	8°♁17'54	
minimum elong	1680 Sep 06 08:02	14°♁26'20	1°24'49	greatest brilliancy	1683 Mar 07 21:25	10°♁25'17	-4.6m
	1680 Sep 18 20:01	0°♁			1683 Apr 05 12:43	0°♁	
	1680 Oct 12 20:59	0°♁		morning max el	1683 Apr 15 16:56	9°♁31'31	46°14'36
evening rise	1680 Oct 14 04:19	1°♁37'51		desc. node	1683 Apr 18 19:16	12°♁34'36	
desc. node	1680 Nov 01 00:22	23°♁54'56			1683 May 05 14:52	0°♁	
	1680 Nov 05 21:15	0°♁			1683 Jun 01 17:17	0°♁	
	1680 Nov 29 21:50	0°♁			1683 Jun 27 17:13	0°♁	
	1680 Dec 23 23:56	0°♁			1683 Jul 23 01:55	0°♁	
	1681 Jan 17 06:13	0°♁		asc. node	1683 Aug 09 22:46	21°♁29'55	
	1681 Feb 10 21:45	0°♁			1683 Aug 16 22:49	0°♁	
asc. node	1681 Feb 22 03:36	13°♁25'28			1683 Sep 10 09:54	0°♁	
	1681 Mar 08 07:36	0°♁			1683 Oct 04 13:32	0°♁	
	1681 Apr 04 06:51	0°♁		morning set	1683 Oct 10 08:59	7°♁15'23	
evening max el	1681 Apr 19 01:39	15°♁03'45	45°38'22		1683 Oct 28 12:39	0°♁	
	1681 May 05 17:47	0°♁		max. Earth dist.	1683 Nov 17 11:25	25°♁03'37	1.71218 AU
greatest brilliancy	1681 May 23 10:38	11°♁37'10	-4.5m				
retrograde	1681 Jun 06 20:34	15°♁15'19		superior conj	1683 Nov 18 13:05	26°♁24'16	0°25'50
desc. node	1681 Jun 13 16:52	14°♁19'50		minimum elong	1683 Nov 18 19:26	26°♁44'15	0°25'31

	1683 Nov 21 09:41	0°♁		greatest brilliancy	1686 May 20 17:50	22°♃03'51	-4.5m
desc. node	1683 Nov 29 12:06	10°♁11'16			1686 Jun 03 14:57	0°♄	
	1683 Dec 15 06:14	0°♃		morning max el	1686 Jun 26 10:32	19°♄20'25	45°44'17
evening rise	1683 Dec 29 20:45	18°♃21'29			1686 Jul 07 05:41	0°♂	
	1684 Jan 08 03:20	0°♁			1686 Aug 04 04:18	0°♄	
	1684 Feb 01 02:24	0°♁		asc. node	1686 Aug 30 07:22	0°♂	
	1684 Feb 25 05:44	0°♃			1686 Sep 06 10:40	8°♂25'24	
asc. node	1684 Mar 20 16:23	0°♄			1686 Sep 24 10:17	0°♃	
	1684 Mar 21 15:36	1°♄10'37			1686 Oct 18 21:56	0°♂	
	1684 Apr 14 14:16	0°♂			1686 Nov 12 00:30	0°♃	
	1684 May 10 05:23	0°♄			1686 Dec 05 22:34	0°♁	
	1684 Jun 06 03:09	0°♂		morning set	1686 Dec 24 01:00	22°♁45'49	
evening max el	1684 Jun 28 18:42	23°♂07'39	45°27'26	desc. node	1686 Dec 26 23:58	26°♁28'58	
	1684 Jul 06 05:02	0°♃			1686 Dec 29 19:05	0°♃	
desc. node	1684 Jul 11 04:48	4°♃20'05			1687 Jan 22 15:48	0°♁	
greatest brilliancy	1684 Aug 04 13:43	20°♃15'57	-4.5m				
retrograde	1684 Aug 16 11:16	22°♃45'53		superior conj	1687 Feb 03 20:06	15°♁17'03	-1°-15'-54
evening set	1684 Sep 03 11:28	16°♃43'45		minimum elong	1687 Feb 03 10:10	14°♁45'55	1°15'41
inferior conj	1684 Sep 06 16:02	14°♃47'09	-8°-43'-29	max. Earth dist.	1687 Feb 07 10:37	19°♁48'14	1.71460 AU
minimum elong	1684 Sep 06 16:00	14°♃47'13	8°43'31		1687 Feb 15 13:58	0°♁	
min. Earth dist.	1684 Sep 07 07:05	14°♃23'57	0.28350 AU		1687 Mar 11 14:54	0°♃	
morning rise	1684 Sep 09 20:20	12°♃50'35		evening rise	1687 Mar 16 06:40	5°♃47'25	
direct	1684 Sep 28 00:33	6°♃38'05			1687 Apr 04 19:57	0°♄	
greatest brilliancy	1684 Oct 12 13:00	10°♃25'05	-4.6m	asc. node	1687 Apr 19 03:25	17°♄36'44	
asc. node	1684 Nov 01 08:06	24°♃09'56			1687 Apr 29 06:16	0°♂	
	1684 Nov 07 20:19	0°♂			1687 May 23 22:57	0°♄	
morning max el	1684 Nov 17 12:05	9°♂24'33	46°43'48		1687 Jun 17 23:50	0°♂	
	1684 Dec 06 17:57	0°♃			1687 Jul 13 12:56	0°♃	
	1685 Jan 01 17:42	0°♁		desc. node	1687 Aug 08 16:39	29°♃41'52	
	1685 Jan 26 17:53	0°♃			1687 Aug 08 23:12	0°♂	
	1685 Feb 20 08:45	0°♁			1687 Sep 06 06:56	0°♃	
desc. node	1685 Feb 20 21:40	0°♁39'30		evening max el	1687 Sep 10 14:06	4°♃13'50	46°24'02
	1685 Mar 16 20:07	0°♁			1687 Oct 12 14:34	0°♁	
	1685 Apr 10 06:40	0°♃		greatest brilliancy	1687 Oct 19 12:13	3°♁14'29	-4.6m
	1685 May 04 17:34	0°♄		retrograde	1687 Oct 30 05:00	5°♁20'21	
morning set	1685 May 22 20:26	22°♄12'53		evening set	1687 Nov 14 00:22	1°♁04'45	
	1685 May 29 04:49	0°♂			1687 Nov 15 22:44	30°♃	
asc. node	1685 Jun 14 01:04	19°♂26'15		inferior conj	1687 Nov 19 19:06	27°♃41'52	-2°-34'00
	1685 Jun 22 15:33	0°♄		minimum elong	1687 Nov 20 00:49	27°♃33'10	2°32'15
max. Earth dist.	1685 Jun 27 03:41	5°♄32'07	1.73584 AU	min. Earth dist.	1687 Nov 20 05:05	27°♃26'39	0.26571 AU
				morning rise	1687 Nov 26 00:50	24°♃03'43	
superior conj	1685 Jun 28 11:26	7°♄09'42	0°33'24	asc. node	1687 Nov 29 20:00	22°♃15'05	
minimum elong	1685 Jun 28 05:07	6°♄50'19	0°33'07	direct	1687 Dec 10 07:20	20°♃01'20	
	1685 Jul 17 00:55	0°♂		greatest brilliancy	1687 Dec 22 23:51	23°♃00'57	-4.7m
evening rise	1685 Aug 03 06:40	21°♂15'04			1688 Jan 03 18:21	0°♁	
	1685 Aug 10 08:50	0°♃		morning max el	1688 Jan 29 21:05	23°♁12'38	46°54'28
	1685 Sep 03 16:12	0°♂			1688 Feb 05 11:08	0°♃	
	1685 Sep 28 00:14	0°♃			1688 Mar 03 17:04	0°♁	
desc. node	1685 Oct 03 14:28	6°♃53'08		desc. node	1688 Mar 20 09:34	19°♁15'31	
	1685 Oct 22 10:01	0°♁			1688 Mar 29 13:32	0°♁	
	1685 Nov 15 22:55	0°♃			1688 Apr 23 20:33	0°♃	
	1685 Dec 10 18:37	0°♁			1688 May 18 21:06	0°♄	
	1686 Jan 05 06:49	0°♁			1688 Jun 12 17:28	0°♂	
asc. node	1686 Jan 24 17:45	21°♁42'32			1688 Jul 07 09:40	0°♄	
	1686 Feb 01 14:22	0°♃		asc. node	1688 Jul 11 13:01	5°♄03'20	
evening max el	1686 Feb 04 18:14	3°♃13'40	46°46'19	morning set	1688 Jul 29 11:55	27°♄04'07	
	1686 Mar 08 17:16	0°♄			1688 Jul 31 21:06	0°♂	
greatest brilliancy	1686 Mar 12 17:57	2°♄09'08	-4.6m		1688 Aug 25 03:49	0°♃	
retrograde	1686 Mar 27 01:57	5°♄51'07		max. Earth dist.	1688 Aug 31 10:38	7°♃47'58	1.72585 AU
evening set	1686 Apr 12 17:17	0°♄25'45					
	1686 Apr 13 10:32	30°♃		superior conj	1688 Sep 04 00:49	12°♃15'42	1°24'45
inferior conj	1686 Apr 17 07:16	27°♃35'43	6°12'50	minimum elong	1688 Sep 04 00:08	12°♃13'35	1°24'45
minimum elong	1686 Apr 17 17:06	27°♃20'13	6°10'48		1688 Sep 18 06:54	0°♂	
min. Earth dist.	1686 Apr 17 06:04	27°♃37'37	0.28543 AU	evening rise	1688 Oct 11 18:00	29°♂16'18	
morning rise	1686 Apr 22 17:17	24°♃17'41			1688 Oct 12 08:00	0°♃	
direct	1686 May 08 14:31	19°♃25'12		desc. node	1688 Oct 31 02:19	23°♃26'04	
desc. node	1686 May 16 06:55	20°♃31'21			1688 Nov 05 08:29	0°♁	

	1688 Nov 29 09:18	0°☾			1691 Jun 27 05:37	0°♁		
	1688 Dec 23 11:42	0°♁			1691 Jul 22 13:28	0°☾		
	1689 Jan 16 18:21	0°♁		asc. node	1691 Aug 09 00:49	21°☾02'14		
asc. node	1689 Feb 10 10:33	0°♁			1691 Aug 16 09:56	0°♁		
	1689 Feb 21 05:40	12°♁52'16			1691 Sep 09 20:47	0°♁		
	1689 Mar 07 21:48	0°♁			1691 Oct 04 00:22	0°♁		
evening max el	1689 Apr 04 00:38	0°♁		morning set	1691 Oct 07 23:50	4°♁58'00		
	1689 Apr 16 16:15	12°♁49'43	45°40'02		1691 Oct 27 23:29	0°♁		
greatest brilliancy	1689 May 06 03:41	0°☾		max. Earth dist.	1691 Nov 14 21:42	22°♁30'53	1.71244 AU	
retrograde	1689 May 21 01:01	9°☾26'27	-4.5m					
desc. node	1689 Jun 04 13:04	13°☾07'47		superior conj	1691 Nov 16 00:28	23°♁54'58	0°29'28	
evening set	1689 Jun 12 18:58	11°☾46'56		minimum elong	1691 Nov 16 07:34	24°♁17'18	0°29'08	
inferior conj	1689 Jun 19 16:54	8°☾43'03			1691 Nov 20 20:35	0°♁		
minimum elong	1689 Jun 26 01:37	4°☾54'33	-3°-3'-31	desc. node	1691 Nov 28 14:16	9°♁43'46		
min. Earth dist.	1689 Jun 25 19:13	5°☾04'34	3°01'46		1691 Dec 14 17:11	0°☾		
morning rise	1689 Jun 26 00:23	4°☾56'29	0.28986 AU	evening rise	1691 Dec 27 06:46	15°☾47'42		
	1689 Jul 01 21:24	1°☾23'03			1692 Jan 07 14:21	0°♁		
direct	1689 Jul 04 12:02	30°♁			1692 Jan 31 13:31	0°♁		
greatest brilliancy	1689 Jul 17 16:34	26°♁36'59			1692 Feb 24 17:02	0°♁		
	1689 Jul 31 13:31	29°♁56'56	-4.5m		1692 Mar 20 04:02	0°♁		
morning max el	1689 Jul 31 16:13	0°☾		asc. node	1692 Mar 20 17:33	0°♁41'06		
	1689 Sep 04 17:28	26°☾45'42	45°59'30		1692 Apr 14 02:33	0°♁		
asc. node	1689 Sep 08 00:46	0°♁			1692 May 09 18:56	0°☾		
	1689 Oct 03 22:27	27°♁31'30			1692 Jun 05 19:42	0°♁		
	1689 Oct 06 03:19	0°♁		evening max el	1692 Jun 26 10:39	20°♁57'42	45°26'35	
	1689 Oct 31 22:24	0°♁			1692 Jul 06 08:02	0°♁		
	1689 Nov 25 16:47	0°♁		desc. node	1692 Jul 10 06:54	3°♁20'59		
	1689 Dec 19 23:33	0°♁		greatest brilliancy	1692 Aug 02 01:49	18°♁00'31	-4.5m	
desc. node	1690 Jan 13 01:33	0°☾		retrograde	1692 Aug 14 01:59	20°♁32'28		
	1690 Jan 23 11:50	13°☾01'04		evening set	1692 Sep 01 01:13	14°♁31'47		
	1690 Feb 06 02:17	0°♁		inferior conj	1692 Sep 04 07:03	12°♁32'58	-8°-42'-34	
morning set	1690 Mar 02 03:34	0°♁		minimum elong	1692 Sep 04 06:10	12°♁34'20	8°42'34	
	1690 Mar 10 20:25	10°♁50'07		min. Earth dist.	1692 Sep 04 20:54	12°♁11'35	0.28403 AU	
	1690 Mar 26 06:33	0°♁		morning rise	1692 Sep 07 10:58	10°♁36'47		
superior conj	1690 Apr 18 15:40	28°♁57'04	-1°00'-11	direct	1692 Sep 25 16:40	4°♁23'25		
minimum elong	1690 Apr 19 01:37	29°♁27'47	0°59'51	greatest brilliancy	1692 Oct 10 03:38	8°♁08'36	-4.6m	
	1690 Apr 19 12:03	0°♁		asc. node	1692 Oct 31 10:13	23°♁08'08		
max. Earth dist.	1690 Apr 21 11:36	2°♁26'48	1.72975 AU	morning max el	1692 Nov 07 22:02	0°♁		
	1690 May 13 20:14	0°♁			1692 Nov 15 03:10	7°♁05'59	46°42'22	
asc. node	1690 May 16 15:20	3°♁26'17			1692 Dec 06 10:54	0°♁		
evening rise	1690 May 26 05:33	15°♁13'10			1693 Jan 01 07:54	0°♁		
	1690 Jun 07 06:48	0°☾			1693 Jan 26 06:43	0°☾		
	1690 Jul 01 19:30	0°♁		desc. node	1693 Feb 19 20:47	0°♁		
	1690 Jul 26 10:54	0°♁			1693 Feb 19 23:42	0°♁08'56		
	1690 Aug 20 06:41	0°♁			1693 Mar 16 07:37	0°♁		
desc. node	1690 Sep 05 04:32	19°♁03'13			1693 Apr 09 17:48	0°♁		
	1690 Sep 14 09:27	0°♁		morning set	1693 May 04 04:26	0°♁		
	1690 Oct 09 23:44	0°♁			1693 May 20 14:04	20°♁07'01		
	1690 Nov 05 13:09	0°☾			1693 May 28 15:28	0°♁		
evening max el	1690 Nov 22 11:43	17°☾55'48	47°18'10	asc. node	1693 Jun 13 03:15	19°♁00'32		
	1690 Dec 04 23:00	0°♁			1693 Jun 22 02:06	0°☾		
asc. node	1690 Dec 27 07:59	16°♁53'30		max. Earth dist.	1693 Jun 25 01:50	3°☾40'19	1.73587 AU	
greatest brilliancy	1690 Dec 30 21:00	18°♁38'50	-4.7m	superior conj	1693 Jun 26 05:55	5°☾06'36	0°30'31	
retrograde	1691 Jan 12 10:57	21°♁38'02		minimum elong	1693 Jun 26 00:04	4°☾48'38	0°30'14	
evening set	1691 Jan 28 20:55	16°♁18'30			1693 Jul 16 11:27	0°♁		
min. Earth dist.	1691 Feb 01 07:41	14°♁13'09	0.27128 AU	evening rise	1693 Aug 01 01:24	19°♁12'04		
inferior conj	1691 Feb 02 05:03	13°♁40'00	7°46'44		1693 Aug 09 19:30	0°♁		
minimum elong	1691 Feb 01 20:09	13°♁53'49	7°45'22		1693 Sep 03 03:07	0°♁		
morning rise	1691 Feb 05 19:41	11°♁27'48			1693 Sep 27 11:32	0°♁		
direct	1691 Feb 22 17:09	5°♁53'37		desc. node	1693 Oct 02 16:29	6°♁24'17		
greatest brilliancy	1691 Mar 05 10:25	8°♁01'44	-4.6m		1693 Oct 21 21:49	0°♁		
	1691 Apr 05 16:26	0°♁			1693 Nov 15 11:25	0°☾		
morning max el	1691 Apr 13 07:37	7°♁14'10	46°16'20		1693 Dec 10 08:11	0°♁		
desc. node	1691 Apr 17 21:12	11°♁45'31			1694 Jan 04 22:24	0°♁		
	1691 May 05 08:05	0°♁		asc. node	1694 Jan 23 19:48	20°♁57'58		
	1691 Jun 01 07:13	0°♁			1694 Feb 01 11:17	0°♁		

evening max el	1694 Feb 02 09:26	0° Υ 56'11	46°48'32	morning set	1696 Jul 27 05:32	24° \ominus 57'42	
greatest brilliancy	1694 Mar 10 12:28	29° Υ 58'44	-4.6m		1696 Jul 31 07:49	0° Ω	
	1694 Mar 10 13:31	0° Υ			1696 Aug 24 14:31	0° Υ	
retrograde	1694 Mar 24 17:46	3° Υ 37'36		max. Earth dist.	1696 Aug 29 05:06	5° Υ 43'04	1.72634 AU
	1694 Apr 07 04:10	30° Υ					
evening set	1694 Apr 10 11:59	28° Υ 08'32		superior conj	1696 Sep 01 17:54	10° Υ 06'23	1°24'33
inferior conj	1694 Apr 14 23:00	25° Υ 22'35	6°27'15	minimum elong	1696 Sep 01 16:31	10° Υ 02'04	1°24'33
minimum elong	1694 Apr 15 08:47	25° Υ 07'07	6°25'18		1696 Sep 17 17:40	0° Ω	
min. Earth dist.	1694 Apr 14 21:22	25° Υ 25'10	0.28512 AU	evening rise	1696 Oct 09 08:13	26° Ω 57'00	
morning rise	1694 Apr 20 05:59	22° Υ 08'36			1696 Oct 11 18:53	0° Υ	
direct	1694 May 06 05:56	17° Υ 12'49		desc. node	1696 Oct 30 04:29	22° Υ 58'25	
desc. node	1694 May 15 09:07	18° Υ 44'57			1696 Nov 04 19:33	0° Υ	
greatest brilliancy	1694 May 18 06:25	19° Υ 48'28	-4.5m		1696 Nov 28 20:37	0° Υ	
	1694 Jun 04 06:27	0° Υ			1696 Dec 22 23:19	0° \approx	
morning max el	1694 Jun 24 01:25	17° Υ 07'58	45°44'39		1697 Jan 16 06:25	0° Υ	
	1694 Jul 07 00:19	0° Υ			1697 Feb 09 23:24	0° Υ	
	1694 Aug 03 18:36	0° Υ		asc. node	1697 Feb 20 07:37	12° Υ 18'25	
	1694 Aug 29 19:54	0° Ω			1697 Mar 07 12:14	0° Υ	
asc. node	1694 Sep 05 12:39	7° Ω 54'58			1697 Apr 03 19:01	0° Υ	
	1694 Sep 23 21:59	0° Υ		evening max el	1697 Apr 14 07:26	10° Υ 36'38	45°41'50
	1694 Oct 18 09:14	0° Ω			1697 May 06 17:26	0° Υ	
	1694 Nov 11 11:36	0° Υ		greatest brilliancy	1697 May 18 14:56	7° Υ 14'29	-4.5m
	1694 Dec 05 09:34	0° Υ		retrograde	1697 Jun 02 05:46	10° Υ 59'18	
morning set	1694 Dec 21 10:59	20° Υ 11'48		desc. node	1697 Jun 11 21:02	9° Υ 08'34	
desc. node	1694 Dec 26 02:04	26° Υ 01'06		evening set	1697 Jun 17 08:28	6° Υ 34'58	
	1694 Dec 29 06:03	0° Υ		inferior conj	1697 Jun 23 17:56	2° Υ 45'38	-2°-44'-52
	1695 Jan 22 02:43	0° \approx		minimum elong	1697 Jun 23 12:07	2° Υ 54'43	2°43'15
				min. Earth dist.	1697 Jun 23 16:42	2° Υ 47'34	0.28984 AU
superior conj	1695 Feb 01 06:22	12° \approx 44'35	-1°-13'-58		1697 Jun 28 06:00	30° Υ	
minimum elong	1695 Jan 31 19:52	12° \approx 11'38	1°13'42	morning rise	1697 Jun 29 15:40	29° Υ 11'40	
max. Earth dist.	1695 Feb 04 17:46	17° \approx 06'03	1.71416 AU	direct	1697 Jul 15 08:37	24° Υ 27'52	
	1695 Feb 15 00:51	0° Υ		greatest brilliancy	1697 Jul 29 05:59	27° Υ 48'27	-4.5m
	1695 Mar 11 01:46	0° Υ			1697 Aug 02 14:13	0° Υ	
evening rise	1695 Mar 13 18:50	3° Υ 22'20		morning max el	1697 Sep 02 09:47	24° Υ 35'37	45°58'23
	1695 Apr 04 06:51	0° Υ			1697 Sep 07 21:19	0° Ω	
asc. node	1695 Apr 18 05:33	17° Υ 09'32		asc. node	1697 Oct 03 00:33	26° Ω 54'04	
	1695 Apr 28 17:19	0° Υ			1697 Oct 05 18:29	0° Υ	
	1695 May 23 10:22	0° Υ			1697 Oct 31 11:36	0° Ω	
	1695 Jun 17 11:56	0° Ω			1697 Nov 25 05:02	0° Υ	
	1695 Jul 13 02:15	0° Υ			1697 Dec 19 11:17	0° Υ	
desc. node	1695 Aug 07 18:39	29° Υ 04'01			1698 Jan 12 12:58	0° Υ	
	1695 Aug 08 14:58	0° Ω		desc. node	1698 Jan 22 13:50	12° Υ 32'00	
	1695 Sep 06 05:05	0° Υ			1698 Feb 05 13:29	0° \approx	
evening max el	1695 Sep 08 02:20	1° Υ 50'22	46°21'34		1698 Mar 01 14:36	0° Υ	
	1695 Oct 15 00:07	0° Υ		morning set	1698 Mar 08 08:58	8° Υ 25'37	
greatest brilliancy	1695 Oct 17 02:01	0° Υ 50'18	-4.6m		1698 Mar 25 17:28	0° Υ	
retrograde	1695 Oct 27 16:38	2° Υ 54'27					
	1695 Nov 08 19:49	30° Υ		superior conj	1698 Apr 16 06:59	26° Υ 42'39	-1°-2'-36
evening set	1695 Nov 11 14:58	28° Υ 35'36		minimum elong	1698 Apr 16 17:00	27° Υ 13'33	1°02'16
inferior conj	1695 Nov 17 07:38	25° Υ 15'53	-2°-56'-55		1698 Apr 18 22:53	0° Υ	
minimum elong	1695 Nov 17 14:06	25° Υ 06'01	2°54'57	max. Earth dist.	1698 Apr 19 03:56	0° Υ 15'38	1.72932 AU
min. Earth dist.	1695 Nov 17 19:23	24° Υ 57'59	0.26612 AU		1698 May 13 07:03	0° Υ	
morning rise	1695 Nov 23 12:41	21° Υ 38'22		asc. node	1698 May 15 17:27	2° Υ 59'30	
asc. node	1695 Nov 28 22:08	19° Υ 11'47		evening rise	1698 May 23 23:06	13° Υ 06'30	
direct	1695 Dec 07 19:42	17° Υ 34'15			1698 Jun 06 17:42	0° Υ	
greatest brilliancy	1695 Dec 20 16:10	20° Υ 37'42	-4.7m		1698 Jul 01 06:37	0° Ω	
	1696 Jan 04 14:09	0° Υ			1698 Jul 25 22:25	0° Υ	
morning max el	1696 Jan 27 10:04	20° Υ 46'13	46°55'03		1698 Aug 19 18:51	0° Ω	
	1696 Feb 05 07:27	0° Υ		desc. node	1698 Sep 04 06:34	18° Υ 31'13	
	1696 Mar 03 08:36	0° \approx			1698 Sep 13 22:40	0° Υ	
desc. node	1696 Mar 19 11:34	18° \approx 40'16			1698 Oct 09 14:41	0° Υ	
	1696 Mar 29 03:00	0° Υ			1698 Nov 05 07:38	0° Υ	
	1696 Apr 23 08:53	0° Υ		evening max el	1698 Nov 20 02:48	15° Υ 34'43	47°17'45
	1696 May 18 08:42	0° Υ			1698 Dec 05 05:25	0° \approx	
	1696 Jun 12 04:35	0° Υ		asc. node	1698 Dec 26 09:59	15° \approx 15'14	
	1696 Jul 06 20:30	0° Υ		greatest brilliancy	1698 Dec 28 11:15	16° \approx 13'40	-4.7m
asc. node	1696 Jul 10 15:00	4° Υ 36'21		retrograde	1699 Jan 10 01:25	19° \approx 12'33	

evening set	1699 Jan 26 06:34	13°≈59'01	
min. Earth dist.	1699 Jan 29 20:33	11°≈49'08	0.27071 AU
inferior conj	1699 Jan 30 18:26	11°≈15'15	7°35'27
minimum elong	1699 Jan 30 09:06	11°≈29'42	7°33'54
morning rise	1699 Feb 03 11:59	8°≈59'05	
direct	1699 Feb 20 06:33	3°≈29'50	
greatest brilliancy	1699 Mar 02 22:35	5°≈37'25	-4.6m
	1699 Apr 05 18:36	0°✕	
morning max el	1699 Apr 10 22:27	4°✕56'57	46°17'44
desc. node	1699 Apr 16 23:26	10°✕57'50	
	1699 May 05 01:06	0°∇	
	1699 May 31 21:15	0°♁	
	1699 Jun 26 18:13	0°♂	
	1699 Jul 22 01:16	0°♄	
asc. node	1699 Aug 08 02:49	20°♄33'42	
	1699 Aug 15 21:16	0°♅	
	1699 Sep 09 07:52	0°♆	
	1699 Oct 03 11:22	0°♇	
morning set	1699 Oct 05 14:33	2°♇39'45	
	1699 Oct 27 10:32	0°♈	
max. Earth dist.	1699 Nov 12 05:21	19°♈49'15	1.71270 AU
superior conj	1699 Nov 13 11:58	21°♈25'29	0°33'03
minimum elong	1699 Nov 13 19:45	21°♈49'56	0°32'42
	1699 Nov 20 07:41	0°♉	
desc. node	1699 Nov 27 16:18	9°♉15'15	
	1699 Dec 14 04:20	0°♊	
evening rise	1699 Dec 24 16:51	13°♊13'29	
	1700 Jan 07 01:33	0°♋	
	1700 Jan 31 00:49	0°♌	
	1700 Feb 24 04:30	0°♍	
	1700 Mar 20 15:51	0°♎	
asc. node	1700 Mar 20 19:41	0°♎11'39	
	1700 Apr 14 15:04	0°♏	
	1700 May 10 08:54	0°♐	
	1700 Jun 06 13:00	0°♑	
evening max el	1700 Jun 25 02:09	18°♑45'28	45°25'40
	1700 Jul 07 13:25	0°♒	
desc. node	1700 Jul 10 08:54	2°♒19'02	
greatest brilliancy	1700 Jul 31 14:48	15°♒44'44	-4.5m
retrograde	1700 Aug 12 16:06	18°♒17'42	