

superior conj	499 Mar 31 j 07:05	11°♃26'17	-1°-6'-40	min. Earth dist.	501 Aug 17 j 05:53	24°♁25'34	0.28297 AU
minimum elong	499 Mar 31 j 16:42	11°♃55'58	1°06'24	morning rise	501 Aug 19 j 21:25	22°♁48'33	
max. Earth dist.	499 Apr 02 j 20:14	14°♃34'57	1.73077 AU	direct	501 Sep 07 j 02:32	16°♁37'17	
	499 Apr 15 j 08:31	0°♄		greatest brilliancy	501 Sep 21 j 10:29	20°♁17'58	-4.6m
asc. node	499 May 02 j 12:30	21°♄06'14			501 Oct 06 j 09:24	0°♅	
evening rise	499 May 07 j 18:27	27°♄32'40		asc. node	501 Oct 17 j 07:27	9°♅23'29	
	499 May 09 j 18:30	0°♅		morning max el	501 Oct 27 j 12:41	19°♅19'28	46°43'58
	499 Jun 03 j 06:30	0°♆			501 Nov 06 j 17:32	0°♆	
	499 Jun 27 j 20:38	0°♇			501 Dec 03 j 07:10	0°♇	
	499 Jul 22 j 14:03	0°♈			501 Dec 28 j 12:03	0°♈	
	499 Aug 16 j 12:55	0°♉			502 Jan 22 j 04:47	0°♉	
desc. node	499 Aug 22 j 01:57	6°♉36'44		desc. node	502 Feb 05 j 21:07	17°♉57'10	
	499 Sep 10 j 20:50	0°♊			502 Feb 15 j 17:08	0°♊	
	499 Oct 06 j 21:26	0°♋			502 Mar 12 j 04:14	0°♋	
	499 Nov 03 j 14:45	0°♌			502 Apr 05 j 15:25	0°♌	
evening max el	499 Nov 04 j 04:39	0°♌35'21	47°22'41		502 Apr 30 j 02:56	0°♍	
	499 Dec 09 j 19:45	0°♍		morning set	502 May 02 j 04:10	2°♍30'48	
greatest brilliancy	499 Dec 12 j 09:13	1°♍14'54	-4.7m		502 May 24 j 14:14	0°♎	
asc. node	499 Dec 13 j 05:09	1°♍36'50		asc. node	502 May 30 j 00:27	6°♎39'32	
retrograde	499 Dec 25 j 04:32	4°♍19'41		max. Earth dist.	502 Jun 06 j 02:53	15°♎22'42	1.73612 AU
	500 Jan 08 j 18:55	30°♏					
evening set	500 Jan 10 j 03:11	29°♏14'22		superior conj	502 Jun 07 j 16:25	17°♎17'57	0°20'22
min. Earth dist.	500 Jan 13 j 21:56	26°♏57'09	0.27132 AU	minimum elong	502 Jun 07 j 12:24	17°♎05'37	0°20'11
inferior conj	500 Jan 14 j 22:05	26°♏19'38	7°09'46		502 Jun 18 j 00:22	0°♏	
minimum elong	500 Jan 14 j 12:23	26°♏34'42	7°08'01		502 Jul 12 j 08:47	0°♁	
morning rise	500 Jan 18 j 22:05	23°♏53'39		evening rise	502 Jul 13 j 10:21	1°♁18'50	
direct	500 Feb 04 j 10:55	18°♏33'08			502 Aug 05 j 15:59	0°♂	
greatest brilliancy	500 Feb 15 j 00:27	20°♏38'31	-4.6m		502 Aug 29 j 23:13	0°♃	
	500 Mar 02 j 06:49	0°♄		desc. node	502 Sep 18 j 13:51	24°♃09'20	
morning max el	500 Mar 24 j 23:41	19°♄48'57	46°13'35		502 Sep 23 j 07:54	0°♄	
desc. node	500 Apr 02 j 18:39	28°♄36'17			502 Oct 17 j 19:27	0°♅	
	500 Apr 04 j 03:15	0°♆			502 Nov 11 j 12:20	0°♆	
	500 May 01 j 21:56	0°♇			502 Dec 06 j 17:16	0°♇	
	500 May 28 j 05:17	0°♈			503 Jan 02 j 04:30	0°♈	
	500 Jun 22 j 18:47	0°♉		asc. node	503 Jan 09 j 17:06	8°♈01'07	
	500 Jul 17 j 19:37	0°♊		evening max el	503 Jan 14 j 18:49	13°♈14'17	46°46'24
asc. node	500 Jul 24 j 22:03	8°♊36'36			503 Feb 01 j 18:11	0°♉	
	500 Aug 11 j 09:52	0°♋		greatest brilliancy	503 Feb 19 j 20:45	12°♉18'05	-4.6m
	500 Sep 04 j 15:33	0°♌		retrograde	503 Mar 06 j 03:09	15°♉59'28	
morning set	500 Sep 18 j 09:51	17°♌10'56		evening set	503 Mar 23 j 06:17	10°♉18'16	
	500 Sep 28 j 15:24	0°♍		inferior conj	503 Mar 27 j 10:10	7°♉42'28	7°02'19
	500 Oct 22 j 12:18	0°♎		minimum elong	503 Mar 27 j 19:15	7°♉28'07	7°00'48
max. Earth dist.	500 Oct 26 j 17:59	5°♎19'50	1.71145 AU	min. Earth dist.	503 Mar 27 j 09:02	7°♉44'17	0.28666 AU
				morning rise	503 Apr 01 j 08:29	4°♉39'50	
superior conj	500 Oct 27 j 11:04	6°♎13'32	0°39'04		503 Apr 12 j 16:41	30°♉	
minimum elong	500 Oct 27 j 20:01	6°♎41'42	0°38'40	direct	503 Apr 17 j 17:44	29°♉29'43	
desc. node	500 Nov 13 j 11:38	27°♎39'02			503 Apr 22 j 22:01	0°♊	
	500 Nov 15 j 08:27	0°♋		greatest brilliancy	503 Apr 29 j 19:33	2°♊05'33	-4.5m
evening rise	500 Dec 07 j 22:57	28°♋25'02		desc. node	503 May 01 j 06:27	2°♊42'51	
	500 Dec 09 j 05:12	0°♌		morning max el	503 Jun 05 j 11:56	29°♊18'25	45°44'56
	501 Jan 02 j 03:39	0°♍			503 Jun 06 j 05:19	0°♋	
	501 Jan 26 j 05:28	0°♆			503 Jul 05 j 05:41	0°♌	
	501 Feb 19 j 13:20	0°♇			503 Jul 31 j 20:15	0°♍	
asc. node	501 Mar 06 j 14:45	18°♇20'09		asc. node	503 Aug 22 j 09:53	25°♍23'39	
	501 Mar 16 j 06:59	0°♈			503 Aug 26 j 06:10	0°♎	
	501 Apr 10 j 15:37	0°♉			503 Sep 19 j 21:59	0°♏	
	501 May 07 j 01:12	0°♊			503 Oct 14 j 02:28	0°♐	
	501 Jun 04 j 15:58	0°♋			503 Nov 07 j 00:59	0°♑	
evening max el	501 Jun 07 j 22:07	3°♋08'41	45°24'44		503 Nov 30 j 21:20	0°♒	
desc. node	501 Jun 26 j 04:19	19°♋02'38		morning set	503 Dec 03 j 00:33	2°♒41'09	
	501 Jul 14 j 02:58	0°♌		desc. node	503 Dec 11 j 23:27	13°♒57'12	
greatest brilliancy	501 Jul 14 j 15:44	0°♌12'54	-4.5m		503 Dec 24 j 17:46	0°♓	
retrograde	501 Jul 26 j 12:29	2°♌41'26					
	501 Aug 07 j 07:12	30°♌		superior conj	504 Jan 13 j 23:24	25°♓23'59	-1°-8'-1
evening set	501 Aug 13 j 06:51	26°♌50'28		minimum elong	504 Jan 13 j 11:57	24°♓48'08	1°07'41
inferior conj	501 Aug 16 j 17:39	24°♌44'28	-8°-37'-17		504 Jan 17 j 15:31	0°♔	
minimum elong	501 Aug 16 j 14:14	24°♌49'45	8°37'09	max. Earth dist.	504 Jan 17 j 15:24	29°♓59'38	1.71482 AU

	504 Feb 10 j 15:38	0° $\text{H}$		asc. node	506 Sep 18 j 21:46	14° $\text{Q}$ 07'47	
evening rise	504 Feb 23 j 12:16	15° $\text{H}$ 59'50			506 Oct 02 j 14:34	0° $\text{M}$	
	504 Mar 05 j 19:21	0° $\text{Y}$			506 Oct 27 j 14:51	0° $\text{L}$	
	504 Mar 30 j 03:58	0° $\text{B}$			506 Nov 20 j 23:48	0° $\text{M}$	
asc. node	504 Apr 03 j 02:45	4° $\text{B}$ 50'13			506 Dec 15 j 02:14	0° $\text{Z}$	
	504 Apr 23 j 18:37	0° $\text{II}$			507 Jan 08 j 02:51	0° $\text{Z}$	
	504 May 18 j 16:43	0° $\text{E}$		desc. node	507 Jan 08 j 11:18	0° $\text{Z}$ 26'21	
	504 Jun 13 j 01:12	0° $\text{Q}$			507 Feb 01 j 04:00	0° $\approx$	
	504 Jul 09 j 02:42	0° $\text{M}$		morning set	507 Feb 18 j 00:25	20° $\approx$ 58'23	
desc. node	504 Jul 23 j 16:03	16° $\text{M}$ 10'26			507 Feb 25 j 06:46	0° $\text{H}$	
	504 Aug 05 j 13:55	0° $\text{L}$			507 Mar 21 j 11:47	0° $\text{Y}$	
evening max el	504 Aug 19 j 15:30	14° $\text{L}$ 13'19	46°25'43				
	504 Sep 06 j 05:06	0° $\text{M}$		superior conj	507 Mar 28 j 22:32	9° $\text{Y}$ 12'14	-1°-8'-46
greatest brilliancy	504 Sep 27 j 20:44	13° $\text{M}$ 24'24	-4.6m	minimum elong	507 Mar 29 j 08:02	9° $\text{Y}$ 41'34	1°08'31
retrograde	504 Oct 08 j 09:05	15° $\text{M}$ 27'10		max. Earth dist.	507 Mar 31 j 16:00	12° $\text{Y}$ 34'19	1.73033 AU
evening set	504 Oct 23 j 14:07	10° $\text{M}$ 58'17			507 Apr 14 j 19:21	0° $\text{B}$	
inferior conj	504 Oct 28 j 23:50	7° $\text{M}$ 48'38	-3°-57'-15	asc. node	507 May 01 j 14:41	20° $\text{B}$ 39'38	
minimum elong	504 Oct 29 j 08:09	7° $\text{M}$ 36'01	3°54'51	evening rise	507 May 05 j 12:18	25° $\text{B}$ 26'54	
min. Earth dist.	504 Oct 29 j 12:08	7° $\text{M}$ 30'00	0.26572 AU		507 May 09 j 05:21	0° $\text{II}$	
morning rise	504 Nov 04 j 01:39	4° $\text{M}$ 16'11			507 Jun 02 j 17:30	0° $\text{E}$	
asc. node	504 Nov 13 j 19:19	0° $\text{M}$ 34'52			507 Jun 27 j 07:57	0° $\text{Q}$	
direct	504 Nov 18 j 10:42	0° $\text{M}$ 08'04			507 Jul 22 j 01:53	0° $\text{M}$	
greatest brilliancy	504 Dec 01 j 07:57	3° $\text{M}$ 13'11	-4.7m		507 Aug 16 j 01:36	0° $\text{L}$	
	505 Jan 04 j 16:11	0° $\text{Z}$		desc. node	507 Aug 21 j 03:57	6° $\text{L}$ 04'13	
morning max el	505 Jan 08 j 02:09	3° $\text{Z}$ 25'00	46°53'14		507 Sep 10 j 10:55	0° $\text{M}$	
	505 Feb 01 j 20:41	0° $\text{Z}$			507 Oct 06 j 14:07	0° $\text{Z}$	
	505 Feb 28 j 01:09	0° $\approx$		evening max el	507 Nov 01 j 20:01	28° $\text{Z}$ 14'15	47°22'01
desc. node	505 Mar 05 j 08:55	6° $\approx$ 13'26			507 Nov 03 j 13:59	0° $\text{Z}$	
	505 Mar 25 j 12:07	0° $\text{H}$		greatest brilliancy	507 Dec 10 j 01:10	28° $\text{Z}$ 50'51	-4.7m
	505 Apr 19 j 15:00	0° $\text{Y}$		asc. node	507 Dec 12 j 07:15	29° $\text{Z}$ 47'04	
	505 May 14 j 13:08	0° $\text{B}$			507 Dec 12 j 21:08	0° $\approx$	
	505 Jun 08 j 07:07	0° $\text{II}$		retrograde	507 Dec 22 j 18:37	1° $\approx$ 52'43	
asc. node	505 Jun 26 j 12:16	22° $\text{II}$ 13'49			508 Jan 01 j 05:59	30° $\text{Z}$	
	505 Jul 02 j 20:26	0° $\text{E}$		evening set	508 Jan 07 j 13:02	26° $\text{Z}$ 53'39	
morning set	505 Jul 08 j 14:25	7° $\text{E}$ 03'40		min. Earth dist.	508 Jan 11 j 11:08	24° $\text{Z}$ 31'30	0.27067 AU
	505 Jul 27 j 04:42	0° $\text{Q}$		inferior conj	508 Jan 12 j 11:20	23° $\text{Z}$ 53'53	6°56'17
max. Earth dist.	505 Aug 10 j 10:55	17° $\text{Q}$ 40'44	1.72555 AU	minimum elong	508 Jan 12 j 01:24	24° $\text{Z}$ 09'20	6°54'21
				morning rise	508 Jan 16 j 14:18	21° $\text{Z}$ 23'38	
superior conj	505 Aug 14 j 02:33	22° $\text{Q}$ 13'05	1°22'52	direct	508 Feb 02 j 00:04	16° $\text{Z}$ 08'44	
minimum elong	505 Aug 13 j 22:55	22° $\text{Q}$ 01'46	1°22'50	greatest brilliancy	508 Feb 12 j 12:26	18° $\text{Z}$ 13'08	-4.6m
	505 Aug 20 j 08:37	0° $\text{M}$			508 Mar 02 j 23:03	0° $\approx$	
	505 Sep 13 j 09:45	0° $\text{L}$		morning max el	508 Mar 22 j 13:06	17° $\approx$ 28'05	46°15'01
evening rise	505 Sep 20 j 15:04	9° $\text{L}$ 01'29		desc. node	508 Apr 01 j 20:51	27° $\approx$ 50'29	
	505 Oct 07 j 09:51	0° $\text{M}$			508 Apr 03 j 22:49	0° $\text{H}$	
desc. node	505 Oct 16 j 01:52	10° $\text{M}$ 49'57			508 May 01 j 12:58	0° $\text{Y}$	
	505 Oct 31 j 10:12	0° $\text{Z}$			508 May 27 j 18:22	0° $\text{B}$	
	505 Nov 24 j 11:54	0° $\text{Z}$			508 Jun 22 j 06:50	0° $\text{II}$	
	505 Dec 18 j 16:52	0° $\approx$			508 Jul 17 j 07:06	0° $\text{E}$	
	506 Jan 12 j 05:11	0° $\text{H}$		asc. node	508 Jul 24 j 00:02	8° $\text{E}$ 08'06	
asc. node	506 Feb 06 j 04:49	29° $\text{H}$ 49'09			508 Aug 10 j 21:02	0° $\text{Q}$	
	506 Feb 06 j 08:32	0° $\text{Y}$			508 Sep 04 j 02:35	0° $\text{M}$	
	506 Mar 04 j 18:25	0° $\text{B}$		morning set	508 Sep 16 j 00:52	14° $\text{M}$ 53'21	
evening max el	506 Mar 26 j 18:40	22° $\text{B}$ 51'32	45°36'56		508 Sep 28 j 02:25	0° $\text{L}$	
	506 Apr 03 j 09:00	0° $\text{II}$			508 Oct 21 j 23:22	0° $\text{M}$	
greatest brilliancy	506 Apr 29 j 22:36	19° $\text{II}$ 17'19	-4.5m	max. Earth dist.	508 Oct 23 j 22:47	2° $\text{M}$ 29'06	1.71175 AU
retrograde	506 May 14 j 13:58	23° $\text{II}$ 01'05					
desc. node	506 May 28 j 18:26	19° $\text{II}$ 05'39		superior conj	508 Oct 24 j 22:49	3° $\text{M}$ 44'42	0°42'24
evening set	506 May 29 j 13:59	18° $\text{II}$ 39'32		minimum elong	508 Oct 25 j 08:15	4° $\text{M}$ 14'21	0°42'00
inferior conj	506 Jun 05 j 00:49	14° $\text{II}$ 48'21	-1°-41'-37	desc. node	508 Nov 12 j 13:46	27° $\text{M}$ 10'35	
minimum elong	506 Jun 04 j 21:08	14° $\text{II}$ 54'07	1°40'34		508 Nov 14 j 19:37	0° $\text{Z}$	
min. Earth dist.	506 Jun 05 j 02:40	14° $\text{II}$ 45'29	0.28977 AU	evening rise	508 Dec 05 j 08:40	25° $\text{Z}$ 49'23	
morning rise	506 Jun 11 j 04:13	11° $\text{II}$ 07'06			508 Dec 08 j 16:29	0° $\text{Z}$	
direct	506 Jun 26 j 17:03	6° $\text{II}$ 29'57			509 Jan 01 j 15:02	0° $\approx$	
greatest brilliancy	506 Jul 10 j 17:34	9° $\text{II}$ 55'21	-4.5m		509 Jan 25 j 16:59	0° $\text{H}$	
	506 Aug 07 j 15:29	0° $\text{E}$			509 Feb 19 j 01:07	0° $\text{Y}$	
morning max el	506 Aug 14 j 20:31	6° $\text{E}$ 45'56	46°00'55	asc. node	509 Mar 05 j 16:53	17° $\text{Y}$ 50'06	
	506 Sep 06 j 06:12	0° $\text{Q}$			509 Mar 15 j 19:17	0° $\text{B}$	

	509 Apr 10 j 05:00	0°♁			511 Sep 19 j 09:47	0°♁	
	509 May 06 j 16:53	0°♁			511 Oct 13 j 14:00	0°♁	
	509 Jun 04 j 14:08	0°♁			511 Nov 06 j 12:22	0°♁	
evening max el	509 Jun 05 j 12:21	0°♁53'13	45°23'46	morning set	511 Nov 30 j 10:59	0°♁07'28	
desc. node	509 Jun 25 j 06:20	17°♁55'27			511 Nov 30 j 08:37	0°♁	
greatest brilliancy	509 Jul 12 j 04:34	27°♁56'44	-4.5m	desc. node	511 Dec 11 j 01:28	13°♁28'12	
	509 Jul 19 j 04:27	0°♁			511 Dec 24 j 04:59	0°♁	
retrograde	509 Jul 24 j 02:25	0°♁26'58					
	509 Jul 28 j 21:48	30°♁		superior conj	512 Jan 11 j 09:50	22°♁51'14	-1°-5'-34
evening set	509 Aug 10 j 19:06	24°♁39'29		minimum elong	512 Jan 10 j 22:08	22°♁14'32	1°05'12
inferior conj	509 Aug 14 j 08:40	22°♁29'28	-8°-32'-58	max. Earth dist.	512 Jan 14 j 21:06	27°♁12'09	1.71443 AU
minimum elong	509 Aug 14 j 04:26	22°♁36'00	8°32'44		512 Jan 17 j 02:41	0°♁	
min. Earth dist.	509 Aug 14 j 20:33	22°♁11'05	0.28343 AU		512 Feb 10 j 02:48	0°♁	
morning rise	509 Aug 17 j 13:32	20°♁31'43		evening rise	512 Feb 21 j 00:50	13°♁35'05	
direct	509 Sep 04 j 17:29	14°♁21'28			512 Mar 05 j 06:35	0°♁	
greatest brilliancy	509 Sep 19 j 02:17	18°♁02'01	-4.6m		512 Mar 29 j 15:19	0°♁	
	509 Oct 06 j 20:48	0°♁		asc. node	512 Apr 02 j 04:52	4°♁21'53	
asc. node	509 Oct 16 j 09:34	8°♁26'20			512 Apr 23 j 06:14	0°♁	
morning max el	509 Oct 25 j 02:04	16°♁55'39	46°42'45		512 May 18 j 04:53	0°♁	
	509 Nov 06 j 12:24	0°♁			512 Jun 12 j 14:24	0°♁	
	509 Dec 02 j 22:17	0°♁			512 Jul 08 j 17:53	0°♁	
	509 Dec 28 j 01:34	0°♁		desc. node	512 Jul 22 j 18:04	15°♁29'35	
	510 Jan 21 j 17:26	0°♁			512 Aug 05 j 09:37	0°♁	
desc. node	510 Feb 04 j 23:06	17°♁25'42		evening max el	512 Aug 17 j 04:56	11°♁51'21	46°23'09
	510 Feb 15 j 05:11	0°♁			512 Sep 06 j 19:45	0°♁	
	510 Mar 11 j 15:51	0°♁		greatest brilliancy	512 Sep 25 j 08:32	10°♁56'12	-4.6m
	510 Apr 05 j 02:43	0°♁		retrograde	512 Oct 05 j 21:42	12°♁59'12	
	510 Apr 29 j 14:00	0°♁		evening set	512 Oct 21 j 05:03	8°♁26'13	
morning set	510 Apr 29 j 21:40	0°♁23'29		inferior conj	512 Oct 26 j 12:03	5°♁20'17	-4°-18'-45
	510 May 24 j 01:11	0°♁		minimum elong	512 Oct 26 j 20:56	5°♁06'49	4°16'16
asc. node	510 May 29 j 02:28	6°♁12'10		min. Earth dist.	512 Oct 27 j 01:18	5°♁00'13	0.26613 AU
max. Earth dist.	510 Jun 03 j 22:48	13°♁22'57	1.73623 AU	morning rise	512 Nov 01 j 12:21	1°♁50'12	
					512 Nov 05 j 07:19	30°♁	
superior conj	510 Jun 05 j 10:50	15°♁13'36	0°17'20	asc. node	512 Nov 12 j 21:20	27°♁51'02	
minimum elong	510 Jun 05 j 07:23	15°♁03'01	0°17'09	direct	512 Nov 15 j 23:54	27°♁39'01	
	510 Jun 17 j 11:18	0°♁			512 Nov 27 j 03:09	0°♁	
evening rise	510 Jul 11 j 05:08	29°♁14'45		greatest brilliancy	512 Nov 28 j 22:38	0°♁46'31	-4.7m
	510 Jul 11 j 19:49	0°♁			513 Jan 04 j 16:14	0°♁	
	510 Aug 05 j 03:12	0°♁		morning max el	513 Jan 05 j 16:56	1°♁02'23	46°54'00
	510 Aug 29 j 10:45	0°♁			513 Feb 01 j 13:34	0°♁	
desc. node	510 Sep 17 j 16:02	23°♁39'35			513 Feb 27 j 15:22	0°♁	
	510 Sep 22 j 19:52	0°♁		desc. node	513 Mar 04 j 11:09	5°♁39'15	
	510 Oct 17 j 07:59	0°♁			513 Mar 25 j 01:00	0°♁	
	510 Nov 11 j 01:45	0°♁			513 Apr 19 j 03:05	0°♁	
	510 Dec 06 j 08:16	0°♁			513 May 14 j 00:42	0°♁	
	511 Jan 01 j 23:10	0°♁			513 Jun 07 j 18:21	0°♁	
asc. node	511 Jan 08 j 19:01	7°♁12'47		asc. node	513 Jun 25 j 14:17	21°♁46'06	
evening max el	511 Jan 12 j 08:35	10°♁52'07	46°48'41		513 Jul 02 j 07:28	0°♁	
	511 Feb 02 j 04:37	0°♁		morning set	513 Jul 06 j 08:16	4°♁57'11	
greatest brilliancy	511 Feb 17 j 13:28	10°♁04'15	-4.6m		513 Jul 26 j 15:41	0°♁	
retrograde	511 Mar 03 j 19:06	13°♁45'41		max. Earth dist.	513 Aug 08 j 04:14	15°♁31'20	1.72606 AU
evening set	511 Mar 21 j 00:54	8°♁00'19					
inferior conj	511 Mar 25 j 02:06	5°♁28'46	7°13'54	superior conj	513 Aug 11 j 19:33	20°♁02'32	1°22'08
minimum elong	511 Mar 25 j 10:55	5°♁14'47	7°12'30	minimum elong	513 Aug 11 j 15:17	19°♁49'18	1°22'06
min. Earth dist.	511 Mar 25 j 00:33	5°♁31'13	0.28639 AU		513 Aug 19 j 19:38	0°♁	
morning rise	511 Mar 29 j 21:09	2°♁30'57			513 Sep 12 j 20:54	0°♁	
	511 Apr 03 j 15:41	30°♁		evening rise	513 Sep 18 j 05:02	6°♁40'11	
direct	511 Apr 15 j 08:30	27°♁16'20			513 Oct 06 j 21:12	0°♁	
greatest brilliancy	511 Apr 27 j 10:10	29°♁51'47	-4.5m	desc. node	513 Oct 15 j 03:57	10°♁20'46	
	511 Apr 27 j 18:10	0°♁			513 Oct 30 j 21:45	0°♁	
desc. node	511 Apr 30 j 08:33	1°♁10'13			513 Nov 23 j 23:42	0°♁	
morning max el	511 Jun 03 j 03:22	27°♁06'09	45°45'18		513 Dec 18 j 05:02	0°♁	
	511 Jun 06 j 03:31	0°♁			514 Jan 11 j 17:55	0°♁	
	511 Jul 04 j 21:27	0°♁		asc. node	514 Feb 05 j 07:00	29°♁14'53	
	511 Jul 31 j 09:42	0°♁			514 Feb 05 j 22:26	0°♁	
asc. node	511 Aug 21 j 11:57	24°♁52'32			514 Mar 04 j 11:05	0°♁	
	511 Aug 25 j 18:31	0°♁		evening max el	514 Mar 24 j 11:26	20°♁42'14	45°38'35

	514 Apr 03 j 11:25	0°♁		superior conj	516 Oct 22 j 10:27	1°♁15'38	0°45'40
greatest brilliancy	514 Apr 27 j 15:00	17°♁08'36	-4.5m	minimum elong	516 Oct 22 j 20:18	1°♁46'36	0°45'16
retrograde	514 May 12 j 06:36	20°♁52'11		desc. node	516 Nov 11 j 15:44	26°♁41'53	
evening set	514 May 27 j 06:30	16°♁30'47			516 Nov 14 j 06:43	0°♁	
desc. node	514 May 27 j 20:27	16°♁11'31		evening rise	516 Dec 02 j 18:18	23°♁13'52	
inferior conj	514 Jun 02 j 17:14	12°♁39'13	-1°-22'-11		516 Dec 08 j 03:40	0°♁	
minimum elong	514 Jun 02 j 14:14	12°♁43'55	1°21'19		517 Jan 01 j 02:17	0°♁	
min. Earth dist.	514 Jun 02 j 18:59	12°♁36'29	0.28980 AU		517 Jan 25 j 04:22	0°♁	
morning rise	514 Jun 08 j 21:59	8°♁55'56			517 Feb 18 j 12:47	0°♁	
direct	514 Jun 24 j 09:56	4°♁20'56		asc. node	517 Mar 04 j 19:01	17°♁20'26	
greatest brilliancy	514 Jul 08 j 07:47	7°♁43'38	-4.5m		517 Mar 15 j 07:29	0°♁	
	514 Aug 07 j 16:36	0°♁			517 Apr 09 j 18:17	0°♁	
morning max el	514 Aug 12 j 12:25	4°♁34'25	45°59'36		517 May 06 j 08:35	0°♁	
	514 Sep 05 j 22:45	0°♁		evening max el	517 Jun 03 j 02:12	28°♁37'35	45°22'49
asc. node	514 Sep 17 j 23:58	13°♁31'16			517 Jun 04 j 12:56	0°♁	
	514 Oct 02 j 04:29	0°♁		desc. node	517 Jun 24 j 08:22	16°♁47'01	
	514 Oct 27 j 03:35	0°♁		greatest brilliancy	517 Jul 09 j 15:52	25°♁39'21	-4.5m
	514 Nov 20 j 11:56	0°♁		retrograde	517 Jul 21 j 16:33	28°♁13'02	
	514 Dec 14 j 13:59	0°♁		evening set	517 Aug 08 j 06:58	22°♁28'59	
	515 Jan 07 j 14:21	0°♁		inferior conj	517 Aug 11 j 23:34	20°♁14'40	-8°-27'-48
desc. node	515 Jan 07 j 13:18	29°♁56'45		minimum elong	517 Aug 11 j 18:35	20°♁22'21	8°27'27
	515 Jan 31 j 15:16	0°♁		min. Earth dist.	517 Aug 12 j 11:03	19°♁56'55	0.28394 AU
morning set	515 Feb 15 j 12:57	18°♁33'32		morning rise	517 Aug 15 j 05:56	18°♁14'43	
	515 Feb 24 j 17:50	0°♁		direct	517 Sep 02 j 08:25	12°♁05'39	
	515 Mar 20 j 22:43	0°♁		greatest brilliancy	517 Sep 16 j 19:18	15°♁47'55	-4.6m
					517 Oct 07 j 05:13	0°♁	
superior conj	515 Mar 26 j 14:08	6°♁58'30	-1°-10'-45	asc. node	517 Oct 15 j 11:35	7°♁30'12	
minimum elong	515 Mar 26 j 23:26	7°♁27'12	1°10'31	morning max el	517 Oct 22 j 16:14	14°♁34'02	46°41'36
max. Earth dist.	515 Mar 29 j 12:59	10°♁37'17	1.72986 AU		517 Nov 06 j 06:45	0°♁	
	515 Apr 14 j 06:13	0°♁			517 Dec 02 j 13:06	0°♁	
asc. node	515 Apr 30 j 16:42	20°♁12'22			517 Dec 27 j 14:50	0°♁	
evening rise	515 May 03 j 06:10	23°♁20'59			518 Jan 21 j 05:47	0°♁	
	515 May 08 j 16:16	0°♁		desc. node	518 Feb 04 j 01:18	16°♁55'45	
	515 Jun 02 j 04:37	0°♁			518 Feb 14 j 16:56	0°♁	
	515 Jun 26 j 19:25	0°♁			518 Mar 11 j 03:11	0°♁	
	515 Jul 21 j 13:54	0°♁			518 Apr 04 j 13:43	0°♁	
	515 Aug 15 j 14:28	0°♁		morning set	518 Apr 27 j 15:16	28°♁17'10	
desc. node	515 Aug 20 j 06:07	5°♁31'41			518 Apr 29 j 00:49	0°♁	
	515 Sep 10 j 01:14	0°♁			518 May 23 j 11:52	0°♁	
	515 Oct 06 j 07:09	0°♁		asc. node	518 May 28 j 04:32	5°♁45'47	
evening max el	515 Oct 30 j 10:37	25°♁51'10	47°21'19	max. Earth dist.	518 Jun 01 j 20:16	11°♁28'49	1.73631 AU
	515 Nov 03 j 14:16	0°♁					
greatest brilliancy	515 Dec 07 j 17:42	26°♁27'29	-4.7m	superior conj	518 Jun 03 j 05:27	13°♁10'44	0°14'16
asc. node	515 Dec 11 j 09:16	27°♁52'55		minimum elong	518 Jun 03 j 02:35	13°♁01'56	0°14'08
retrograde	515 Dec 20 j 08:09	29°♁25'38		behind sun begin	518 Jun 02 j 16:27	12°♁30'47	
evening set	516 Jan 04 j 23:00	24°♁32'45		behind sun end	518 Jun 03 j 12:44	13°♁33'04	
min. Earth dist.	516 Jan 09 j 00:49	22°♁05'14	0.27002 AU		518 Jun 16 j 21:56	0°♁	
inferior conj	516 Jan 10 j 00:36	21°♁28'14	6°41'55	evening rise	518 Jul 09 j 00:13	27°♁12'34	
minimum elong	516 Jan 09 j 14:31	21°♁43'56	6°39'51		518 Jul 11 j 06:33	0°♁	
morning rise	516 Jan 14 j 06:34	18°♁53'32			518 Aug 04 j 14:10	0°♁	
direct	516 Jan 30 j 12:44	13°♁44'18			518 Aug 28 j 22:04	0°♁	
greatest brilliancy	516 Feb 10 j 01:24	15°♁48'37	-4.6m	desc. node	518 Sep 16 j 18:05	23°♁09'57	
	516 Mar 03 j 11:07	0°♁			518 Sep 22 j 07:40	0°♁	
morning max el	516 Mar 20 j 01:50	15°♁05'28	46°16'35		518 Oct 16 j 20:25	0°♁	
desc. node	516 Mar 31 j 22:53	27°♁05'14			518 Nov 10 j 15:06	0°♁	
	516 Apr 03 j 17:44	0°♁			518 Dec 05 j 23:15	0°♁	
	516 May 01 j 03:41	0°♁			519 Jan 01 j 18:03	0°♁	
	516 May 27 j 07:15	0°♁		asc. node	519 Jan 07 j 21:12	6°♁25'13	
	516 Jun 21 j 18:46	0°♁		evening max el	519 Jan 09 j 23:05	8°♁32'34	46°51'15
	516 Jul 16 j 18:31	0°♁			519 Feb 02 j 18:03	0°♁	
asc. node	516 Jul 23 j 02:11	7°♁40'15		greatest brilliancy	519 Feb 15 j 05:17	7°♁50'15	-4.6m
	516 Aug 10 j 08:11	0°♁		retrograde	519 Mar 01 j 11:34	11°♁32'58	
	516 Sep 03 j 13:36	0°♁		evening set	519 Mar 18 j 19:30	5°♁43'17	
morning set	516 Sep 13 j 15:36	12°♁35'00		inferior conj	519 Mar 22 j 18:03	3°♁15'57	7°24'53
	516 Sep 27 j 13:24	0°♁		minimum elong	519 Mar 23 j 02:34	3°♁02'28	7°23'36
max. Earth dist.	516 Oct 21 j 03:54	29°♁39'36	1.71203 AU	min. Earth dist.	519 Mar 22 j 15:47	3°♁19'33	0.28609 AU
	516 Oct 21 j 10:24	0°♁		morning rise	519 Mar 27 j 09:49	0°♁23'12	

	519 Mar 28 j 01:46	30°♋		evening rise	521 Sep 15 j 19:33	4°♌21'51	
direct	519 Apr 12 j 23:36	25°♋03'52			521 Oct 06 j 08:09	0°♌	
greatest brilliancy	519 Apr 25 j 00:34	27°♋38'55	-4.5m	desc. node	521 Oct 14 j 05:56	9°♌52'31	
desc. node	519 Apr 29 j 10:35	29°♋41'46			521 Oct 30 j 08:57	0°♌	
	519 Apr 30 j 00:27	0°♌			521 Nov 23 j 11:13	0°♌	
morning max el	519 May 31 j 19:47	24°♌57'23	45°45'46		521 Dec 17 j 16:58	0°♌	
	519 Jun 06 j 00:26	0°♌			522 Jan 11 j 06:31	0°♌	
	519 Jul 04 j 12:34	0°♌		asc. node	522 Feb 04 j 09:06	28°♌40'47	
	519 Jul 30 j 22:39	0°♌			522 Feb 05 j 12:17	0°♌	
asc. node	519 Aug 20 j 14:09	24°♌23'03			522 Mar 04 j 03:52	0°♌	
	519 Aug 25 j 06:27	0°♌		evening max el	522 Mar 22 j 03:40	18°♌32'06	45°40'27
	519 Sep 18 j 21:13	0°♌			522 Apr 03 j 15:08	0°♌	
	519 Oct 13 j 01:12	0°♌		greatest brilliancy	522 Apr 25 j 08:04	15°♌01'32	-4.5m
	519 Nov 05 j 23:28	0°♌		retrograde	522 May 09 j 22:48	18°♌44'20	
morning set	519 Nov 27 j 21:05	27°♌33'25		evening set	522 May 24 j 23:16	14°♌22'54	
	519 Nov 29 j 19:40	0°♌		desc. node	522 May 26 j 22:31	13°♌15'50	
desc. node	519 Dec 10 j 03:34	13°♌00'04		inferior conj	522 May 31 j 09:44	10°♌31'19	-1°-2'-40
	519 Dec 23 j 15:58	0°♌		minimum elong	522 May 31 j 07:26	10°♌34'55	1°02'01
				min. Earth dist.	522 May 31 j 11:41	10°♌28'16	0.28977 AU
superior conj	520 Jan 08 j 19:38	20°♌17'04	-1°-2'-55	morning rise	522 Jun 06 j 15:39	6°♌46'01	
minimum elong	520 Jan 08 j 07:45	19°♌39'48	1°02'32	direct	522 Jun 22 j 02:35	2°♌13'09	
max. Earth dist.	520 Jan 12 j 03:53	24°♌28'44	1.71401 AU	greatest brilliancy	522 Jul 05 j 21:42	5°♌32'32	-4.5m
	520 Jan 16 j 13:37	0°♌			522 Aug 07 j 16:06	0°♌	
	520 Feb 09 j 13:41	0°♌		morning max el	522 Aug 10 j 03:34	2°♌22'08	45°58'23
evening rise	520 Feb 18 j 13:02	11°♌10'06			522 Sep 05 j 14:38	0°♌	
	520 Mar 04 j 17:29	0°♌		asc. node	522 Sep 17 j 01:52	12°♌55'15	
	520 Mar 29 j 02:20	0°♌			522 Oct 01 j 17:55	0°♌	
asc. node	520 Apr 01 j 06:53	3°♌54'15			522 Oct 26 j 15:55	0°♌	
	520 Apr 22 j 17:32	0°♌			522 Nov 19 j 23:40	0°♌	
	520 May 17 j 16:45	0°♌			522 Dec 14 j 01:23	0°♌	
	520 Jun 12 j 03:18	0°♌		desc. node	523 Jan 06 j 15:28	29°♌28'33	
	520 Jul 08 j 08:49	0°♌			523 Jan 07 j 01:32	0°♌	
desc. node	520 Jul 21 j 20:18	14°♌50'15			523 Jan 31 j 02:18	0°♌	
	520 Aug 05 j 05:22	0°♌		morning set	523 Feb 13 j 01:03	16°♌07'52	
evening max el	520 Aug 14 j 19:10	9°♌33'01	46°20'31		523 Feb 24 j 04:43	0°♌	
	520 Sep 07 j 14:21	0°♌			523 Mar 20 j 09:28	0°♌	
greatest brilliancy	520 Sep 22 j 20:11	8°♌29'42	-4.6m				
retrograde	520 Oct 03 j 10:11	10°♌32'42		superior conj	523 Mar 24 j 05:16	4°♌43'44	-1°-12'-38
evening set	520 Oct 18 j 20:13	5°♌55'42		minimum elong	523 Mar 24 j 14:17	5°♌11'36	1°12'25
inferior conj	520 Oct 24 j 00:21	2°♌53'25	-4°-39'-38	max. Earth dist.	523 Mar 27 j 08:13	8°♌35'18	1.72935 AU
minimum elong	520 Oct 24 j 09:45	2°♌39'12	4°37'03		523 Apr 13 j 16:54	0°♌	
min. Earth dist.	520 Oct 24 j 14:23	2°♌32'10	0.26661 AU	asc. node	523 Apr 29 j 18:44	19°♌45'43	
	520 Oct 28 j 21:53	30°♌		evening rise	523 Apr 30 j 23:31	21°♌14'03	
morning rise	520 Oct 29 j 22:51	29°♌25'48			523 May 08 j 03:00	0°♌	
asc. node	520 Nov 11 j 23:25	25°♌14'38			523 Jun 01 j 15:31	0°♌	
direct	520 Nov 13 j 13:33	25°♌11'31			523 Jun 26 j 06:40	0°♌	
greatest brilliancy	520 Nov 26 j 12:51	28°♌20'14	-4.7m		523 Jul 21 j 01:43	0°♌	
	520 Nov 29 j 20:26	0°♌			523 Aug 15 j 03:12	0°♌	
morning max el	521 Jan 03 j 07:24	28°♌39'29	46°54'28	desc. node	523 Aug 19 j 08:08	4°♌59'20	
	521 Jan 04 j 15:01	0°♌			523 Sep 09 j 15:27	0°♌	
	521 Feb 01 j 05:56	0°♌			523 Oct 06 j 00:15	0°♌	
	521 Feb 27 j 05:14	0°♌		evening max el	523 Oct 28 j 00:20	23°♌26'45	47°20'34
desc. node	521 Mar 03 j 13:11	5°♌05'21			523 Nov 03 j 15:22	0°♌	
	521 Mar 24 j 13:32	0°♌		greatest brilliancy	523 Dec 05 j 10:11	24°♌04'53	-4.7m
	521 Apr 18 j 14:48	0°♌		asc. node	523 Dec 10 j 11:23	25°♌55'17	
	521 May 13 j 11:52	0°♌		retrograde	523 Dec 17 j 21:16	26°♌59'39	
	521 Jun 07 j 05:11	0°♌		evening set	524 Jan 02 j 09:06	22°♌12'30	
asc. node	521 Jun 24 j 16:25	21°♌19'53		min. Earth dist.	524 Jan 06 j 14:53	19°♌39'30	0.26943 AU
	521 Jul 01 j 18:08	0°♌		inferior conj	524 Jan 07 j 13:57	19°♌03'38	6°26'41
morning set	521 Jul 04 j 02:23	2°♌52'41		minimum elong	524 Jan 07 j 03:46	19°♌19'29	6°24'29
	521 Jul 26 j 02:17	0°♌		morning rise	524 Jan 11 j 22:56	16°♌24'29	
max. Earth dist.	521 Aug 05 j 20:11	13°♌18'55	1.72655 AU	direct	524 Jan 28 j 01:06	11°♌20'32	
				greatest brilliancy	524 Feb 07 j 15:33	13°♌26'06	-4.6m
superior conj	521 Aug 09 j 13:02	17°♌54'43	1°21'18		524 Mar 03 j 19:48	0°♌	
minimum elong	521 Aug 09 j 08:11	17°♌39'38	1°21'14	morning max el	524 Mar 17 j 14:27	12°♌42'48	46°18'03
	521 Aug 19 j 06:18	0°♌		desc. node	524 Mar 31 j 00:53	26°♌20'52	
	521 Sep 12 j 07:41	0°♌			524 Apr 03 j 12:03	0°♌	

	524 Apr 30 j 18:10	0°♃			526 Dec 05 j 14:36	0°♁	
	524 May 26 j 19:59	0°♄			527 Jan 01 j 13:40	0°♁	
	524 Jun 21 j 06:34	0°♂		asc. node	527 Jan 06 j 23:19	5°♁36'09	
	524 Jul 16 j 05:47	0°♆		evening max el	527 Jan 07 j 14:39	6°♁15'08	46°53'43
asc. node	524 Jul 22 j 04:16	7°♆12'38			527 Feb 03 j 12:29	0°♃	
	524 Aug 09 j 19:10	0°♁		greatest brilliancy	527 Feb 12 j 21:19	5°♃35'54	-4.6m
	524 Sep 03 j 00:28	0°♂		retrograde	527 Feb 27 j 04:18	9°♃19'22	
morning set	524 Sep 11 j 06:30	10°♂17'34		evening set	527 Mar 16 j 13:57	3°♃25'37	
	524 Sep 27 j 00:16	0°♂		inferior conj	527 Mar 20 j 09:54	1°♃02'17	7°35'07
max. Earth dist.	524 Oct 18 j 11:12	26°♂57'15	1.71235 AU	minimum elong	527 Mar 20 j 18:03	0°♃49'24	7°33'59
				min. Earth dist.	527 Mar 20 j 06:32	1°♃07'38	0.28575 AU
superior conj	524 Oct 19 j 22:23	28°♂47'53	0°48'50		527 Mar 22 j 01:25	30°♁	
minimum elong	524 Oct 20 j 08:34	29°♂19'52	0°48'24	morning rise	527 Mar 24 j 22:23	28°♁14'42	
	524 Oct 20 j 21:20	0°♂		direct	527 Apr 10 j 15:06	22°♁50'47	
desc. node	524 Nov 10 j 17:51	26°♂13'57		greatest brilliancy	527 Apr 22 j 13:54	25°♁24'19	-4.5m
	524 Nov 13 j 17:44	0°♂		desc. node	527 Apr 28 j 12:40	28°♁15'56	
evening rise	524 Nov 30 j 04:17	20°♂39'48			527 May 01 j 11:57	0°♃	
	524 Dec 07 j 14:44	0°♂		morning max el	527 May 29 j 12:32	22°♃48'56	45°46'08
	524 Dec 31 j 13:26	0°♁			527 Jun 05 j 20:52	0°♄	
	525 Jan 24 j 15:40	0°♁			527 Jul 04 j 03:42	0°♂	
	525 Feb 18 j 00:23	0°♃			527 Jul 30 j 11:46	0°♆	
asc. node	525 Mar 03 j 20:59	16°♃50'26		asc. node	527 Aug 19 j 16:05	23°♆52'04	
	525 Mar 14 j 19:41	0°♄			527 Aug 24 j 18:35	0°♁	
	525 Apr 09 j 07:40	0°♂			527 Sep 18 j 08:51	0°♂	
	525 May 06 j 00:33	0°♆			527 Oct 12 j 12:36	0°♂	
evening max el	525 May 31 j 16:37	26°♆23'22	45°22'08		527 Nov 05 j 10:45	0°♂	
	525 Jun 04 j 12:48	0°♁		morning set	527 Nov 25 j 07:23	24°♂59'27	
desc. node	525 Jun 23 j 10:32	15°♁36'59			527 Nov 29 j 06:54	0°♂	
greatest brilliancy	525 Jul 07 j 02:36	23°♁21'40	-4.5m	desc. node	527 Dec 09 j 05:39	12°♂31'22	
retrograde	525 Jul 19 j 07:27	25°♁59'44			527 Dec 23 j 03:09	0°♂	
evening set	525 Aug 05 j 18:49	20°♁19'14					
inferior conj	525 Aug 09 j 14:37	18°♁00'22	-8°-21'-48	superior conj	528 Jan 06 j 05:21	17°♂41'53	-1°00'-8
minimum elong	525 Aug 09 j 08:56	18°♁09'07	8°21'21	minimum elong	528 Jan 05 j 17:26	17°♂04'30	0°59'44
min. Earth dist.	525 Aug 10 j 01:20	17°♁43'50	0.28441 AU	max. Earth dist.	528 Jan 09 j 13:06	21°♂52'04	1.71364 AU
morning rise	525 Aug 12 j 22:47	15°♁57'53			528 Jan 16 j 00:47	0°♁	
direct	525 Aug 30 j 23:49	9°♁50'28			528 Feb 09 j 00:51	0°♁	
greatest brilliancy	525 Sep 14 j 12:28	13°♁34'45	-4.6m	evening rise	528 Feb 16 j 01:08	8°♁43'54	
	525 Oct 07 j 11:07	0°♂			528 Mar 04 j 04:39	0°♃	
asc. node	525 Oct 14 j 13:42	6°♂35'48			528 Mar 28 j 13:37	0°♄	
morning max el	525 Oct 20 j 07:22	12°♂15'20	46°40'18	asc. node	528 Mar 31 j 08:58	3°♄26'05	
	525 Nov 06 j 00:37	0°♂			528 Apr 22 j 05:06	0°♂	
	525 Dec 02 j 03:44	0°♂			528 May 17 j 04:54	0°♁	
	525 Dec 27 j 04:00	0°♂			528 Jun 11 j 16:36	0°♁	
	526 Jan 20 j 18:06	0°♂			528 Jul 08 j 00:19	0°♂	
desc. node	526 Feb 03 j 03:17	16°♂25'09		desc. node	528 Jul 20 j 22:14	14°♂08'39	
	526 Feb 14 j 04:40	0°♁			528 Aug 05 j 02:13	0°♂	
	526 Mar 10 j 14:30	0°♁		evening max el	528 Aug 12 j 09:29	7°♂13'45	46°17'47
	526 Apr 04 j 00:46	0°♃			528 Sep 08 j 16:18	0°♂	
morning set	526 Apr 25 j 08:49	26°♃10'27		greatest brilliancy	528 Sep 20 j 08:38	6°♂03'07	-4.6m
	526 Apr 28 j 11:40	0°♄		retrograde	528 Sep 30 j 22:11	8°♂05'06	
	526 May 22 j 22:38	0°♂		evening set	528 Oct 16 j 11:31	3°♂24'15	
asc. node	526 May 27 j 06:41	5°♂19'22		inferior conj	528 Oct 21 j 12:40	0°♂25'42	-4°-59'-48
max. Earth dist.	526 May 30 j 18:39	9°♂37'07	1.73641 AU	minimum elong	528 Oct 21 j 22:29	0°♂10'49	4°57'11
					528 Oct 22 j 05:37	30°♂	
superior conj	526 May 31 j 23:54	11°♂06'56	0°11'11	min. Earth dist.	528 Oct 22 j 03:32	0°♂03'10	0.26707 AU
minimum elong	526 May 31 j 21:38	10°♂59'59	0°11'04	morning rise	528 Oct 27 j 09:03	27°♂00'41	
behind sun begin	526 May 31 j 05:27	10°♂10'18		direct	528 Nov 11 j 02:59	22°♂43'18	
behind sun end	526 Jun 01 j 13:49	11°♂49'41		asc. node	528 Nov 11 j 01:32	22°♂43'18	
	526 Jun 16 j 08:42	0°♆		greatest brilliancy	528 Nov 24 j 02:42	25°♂52'33	-4.7m
evening rise	526 Jul 06 j 19:09	25°♆09'36			528 Dec 01 j 13:25	0°♂	
	526 Jul 10 j 17:25	0°♁		morning max el	528 Dec 31 j 20:44	26°♂12'49	46°54'50
	526 Aug 04 j 01:16	0°♂			529 Jan 04 j 13:13	0°♂	
	526 Aug 28 j 09:31	0°♂			529 Jan 31 j 22:20	0°♂	
desc. node	526 Sep 15 j 20:03	22°♂39'49			529 Feb 26 j 19:18	0°♁	
	526 Sep 21 j 19:37	0°♂		desc. node	529 Mar 02 j 15:08	4°♁30'28	
	526 Oct 16 j 09:01	0°♂			529 Mar 24 j 02:20	0°♁	
	526 Nov 10 j 04:41	0°♂			529 Apr 18 j 02:49	0°♃	

	529 May 12 j 23:22	0°♄		asc. node	531 Dec 09 j 13:28	23°♁50'31	
	529 Jun 06 j 16:20	0°♁		retrograde	531 Dec 15 j 10:07	24°♁31'22	
asc. node	529 Jun 23 j 18:29	20°♁52'27		evening set	531 Dec 30 j 18:54	19°♁49'25	
	529 Jul 01 j 05:06	0°♁		min. Earth dist.	532 Jan 04 j 04:42	17°♁11'11	0.26885 AU
morning set	529 Jul 01 j 20:31	0°♁47'20		inferior conj	532 Jan 05 j 02:58	16°♁36'37	6°10'29
	529 Jul 25 j 13:14	0°♁		minimum elong	532 Jan 04 j 16:45	16°♁52'29	6°08'10
max. Earth dist.	529 Aug 03 j 11:40	11°♁04'05	1.72710 AU	morning rise	532 Jan 09 j 15:01	13°♁53'11	
				direct	532 Jan 25 j 12:59	8°♁54'10	
superior conj	529 Aug 07 j 06:32	15°♁45'57	1°20'20	greatest brilliancy	532 Feb 05 j 06:09	11°♁02'06	-4.6m
minimum elong	529 Aug 07 j 01:07	15°♁29'09	1°20'16		532 Mar 04 j 02:38	0°♁	
	529 Aug 18 j 17:20	0°♁		morning max el	532 Mar 15 j 03:14	10°♁19'10	46°19'41
	529 Sep 11 j 18:52	0°♁		desc. node	532 Mar 30 j 03:05	25°♁36'36	
evening rise	529 Sep 13 j 10:00	2°♁02'07			532 Apr 03 j 06:17	0°♁	
	529 Oct 05 j 19:32	0°♁			532 Apr 30 j 08:47	0°♁	
desc. node	529 Oct 13 j 08:04	9°♁23'23			532 May 26 j 08:57	0°♁	
	529 Oct 29 j 20:34	0°♁			532 Jun 20 j 18:37	0°♁	
	529 Nov 22 j 23:08	0°♁			532 Jul 15 j 17:19	0°♁	
	529 Dec 17 j 05:18	0°♁		asc. node	532 Jul 21 j 06:15	6°♁43'54	
	530 Jan 10 j 19:32	0°♁			532 Aug 09 j 06:24	0°♁	
asc. node	530 Feb 03 j 11:02	28°♁04'56			532 Sep 02 j 11:34	0°♁	
	530 Feb 05 j 02:38	0°♁		morning set	532 Sep 08 j 21:46	8°♁00'44	
	530 Mar 03 j 21:25	0°♁			532 Sep 26 j 11:21	0°♁	
evening max el	530 Mar 19 j 19:03	16°♁18'35	45°42'19	max. Earth dist.	532 Oct 15 j 22:12	24°♁25'51	1.71272 AU
	530 Apr 03 j 21:20	0°♁					
greatest brilliancy	530 Apr 23 j 00:56	12°♁52'54	-4.5m	superior conj	532 Oct 17 j 10:35	26°♁20'16	0°51'51
retrograde	530 May 07 j 14:45	16°♁35'26		minimum elong	532 Oct 17 j 21:00	26°♁52'59	0°51'26
evening set	530 May 22 j 16:09	12°♁13'34			532 Oct 20 j 08:29	0°♁	
desc. node	530 May 26 j 00:38	10°♁16'45		desc. node	532 Nov 09 j 19:58	25°♁45'15	
inferior conj	530 May 29 j 02:15	8°♁22'23	0°-43'-8		532 Nov 13 j 04:59	0°♁	
minimum elong	530 May 29 j 00:40	8°♁24'52	0°42'41	evening rise	532 Nov 27 j 14:14	18°♁04'50	
min. Earth dist.	530 May 29 j 04:39	8°♁18'37	0.28975 AU		532 Dec 07 j 02:05	0°♁	
morning rise	530 Jun 04 j 09:09	4°♁35'16			532 Dec 31 j 00:53	0°♁	
direct	530 Jun 19 j 18:46	0°♁04'16			533 Jan 24 j 03:16	0°♁	
greatest brilliancy	530 Jul 03 j 12:18	3°♁21'17	-4.5m		533 Feb 17 j 12:18	0°♁	
	530 Aug 07 j 15:01	0°♁		asc. node	533 Mar 02 j 23:06	16°♁20'05	
morning max el	530 Aug 07 j 18:00	0°♁07'12	45°57'13		533 Mar 14 j 08:12	0°♁	
	530 Sep 05 j 06:38	0°♁			533 Apr 08 j 21:24	0°♁	
asc. node	530 Sep 16 j 04:02	12°♁19'09			533 May 05 j 17:04	0°♁	
	530 Oct 01 j 07:38	0°♁		evening max el	533 May 29 j 07:47	24°♁10'21	45°21'32
	530 Oct 26 j 04:37	0°♁			533 Jun 04 j 14:10	0°♁	
	530 Nov 19 j 11:49	0°♁		desc. node	533 Jun 22 j 12:32	14°♁23'54	
	530 Dec 13 j 13:11	0°♁		greatest brilliancy	533 Jul 04 j 13:18	21°♁03'28	-4.5m
desc. node	531 Jan 05 j 17:30	28°♁58'44		retrograde	533 Jul 16 j 22:41	23°♁45'48	
	531 Jan 06 j 13:06	0°♁		evening set	533 Aug 03 j 06:30	18°♁09'14	
	531 Jan 30 j 13:40	0°♁		inferior conj	533 Aug 07 j 05:36	15°♁45'32	-8°-15'-3
morning set	531 Feb 10 j 12:46	13°♁39'51		minimum elong	533 Aug 06 j 23:16	15°♁55'17	8°14'29
	531 Feb 23 j 15:56	0°♁		min. Earth dist.	533 Aug 07 j 15:13	15°♁30'42	0.28483 AU
	531 Mar 19 j 20:33	0°♁		morning rise	533 Aug 10 j 15:47	13°♁40'12	
				direct	533 Aug 28 j 15:40	7°♁35'00	
superior conj	531 Mar 21 j 20:13	2°♁27'22	-1°-14'-25	greatest brilliancy	533 Sep 12 j 04:53	11°♁20'27	-4.6m
minimum elong	531 Mar 22 j 04:55	2°♁54'14	1°14'14		533 Oct 07 j 15:12	0°♁	
max. Earth dist.	531 Mar 25 j 01:54	6°♁27'23	1.72884 AU	asc. node	533 Oct 13 j 15:49	5°♁42'14	
	531 Apr 13 j 03:57	0°♁		morning max el	533 Oct 17 j 22:54	9°♁57'42	46°39'03
evening rise	531 Apr 28 j 16:44	19°♁05'34			533 Nov 05 j 18:10	0°♁	
asc. node	531 Apr 28 j 20:54	19°♁18'21			533 Dec 01 j 18:17	0°♁	
	531 May 07 j 14:07	0°♁			533 Dec 26 j 17:11	0°♁	
greatest brilliancy	531 May 13 j 14:57	7°♁23'33	-3.9m	desc. node	534 Jan 20 j 06:29	0°♁	
	531 Jun 01 j 02:48	0°♁			534 Feb 02 j 05:19	15°♁54'14	
	531 Jun 25 j 18:17	0°♁			534 Feb 13 j 16:31	0°♁	
	531 Jul 20 j 13:54	0°♁			534 Mar 10 j 01:58	0°♁	
	531 Aug 14 j 16:19	0°♁			534 Apr 03 j 11:56	0°♁	
desc. node	531 Aug 18 j 10:09	4°♁25'53		morning set	534 Apr 23 j 01:59	24°♁02'11	
	531 Sep 09 j 06:11	0°♁			534 Apr 27 j 22:38	0°♁	
	531 Oct 05 j 18:10	0°♁			534 May 22 j 09:28	0°♁	
evening max el	531 Oct 25 j 13:14	20°♁58'55	47°19'34	asc. node	534 May 26 j 08:40	4°♁52'12	
	531 Nov 03 j 18:29	0°♁		max. Earth dist.	534 May 28 j 18:05	7°♁48'26	1.73646 AU
greatest brilliancy	531 Dec 03 j 01:52	21°♁39'04	-4.7m				

superior conj	534 May 29 j 18:02	9°♁01'57	0°08'03	min. Earth dist.	536 Oct 19 j 17:02	27°♁34'47	0.26755 AU
minimum elong	534 May 29 j 16:23	8°♁56'56	0°07'58	morning rise	536 Oct 24 j 19:01	24°♁36'50	
behind sun begin	534 May 28 j 20:49	7°♁56'48		direct	536 Nov 08 j 15:54	20°♁15'57	
behind sun end	534 May 30 j 11:58	9°♁57'04		asc. node	536 Nov 10 j 03:33	20°♁18'38	
	534 Jun 15 j 19:33	0°♁		greatest brilliancy	536 Nov 21 j 17:13	23°♁26'26	-4.7m
evening rise	534 Jul 04 j 14:01	23°♁06'12			536 Dec 02 j 17:33	0°♁	
	534 Jul 10 j 04:22	0°♁		morning max el	536 Dec 29 j 09:12	23°♁44'38	46°55'25
	534 Aug 03 j 12:27	0°♁			537 Jan 04 j 10:17	0°♁	
	534 Aug 27 j 21:03	0°♁			537 Jan 31 j 14:06	0°♁	
desc. node	534 Sep 14 j 22:14	22°♁10'09			537 Feb 26 j 08:52	0°♁	
	534 Sep 21 j 07:36	0°♁		desc. node	537 Mar 01 j 17:21	3°♁57'37	
	534 Oct 15 j 21:38	0°♁			537 Mar 23 j 14:43	0°♁	
	534 Nov 09 j 18:17	0°♁			537 Apr 17 j 14:27	0°♁	
	534 Dec 05 j 06:04	0°♁			537 May 12 j 10:31	0°♁	
	535 Jan 01 j 09:50	0°♁			537 Jun 06 j 03:11	0°♁	
evening max el	535 Jan 05 j 06:42	3°♁58'54	46°55'56	asc. node	537 Jun 22 j 20:30	20°♁25'43	
asc. node	535 Jan 06 j 01:14	4°♁45'52		morning set	537 Jun 29 j 14:35	28°♁42'38	
	535 Feb 04 j 13:45	0°♁			537 Jun 30 j 15:48	0°♁	
greatest brilliancy	535 Feb 10 j 14:18	3°♁22'25	-4.6m		537 Jul 24 j 23:53	0°♁	
retrograde	535 Feb 24 j 20:54	7°♁04'58		max. Earth dist.	537 Aug 01 j 04:22	8°♁54'05	1.72764 AU
evening set	535 Mar 14 j 08:13	1°♁07'32					
	535 Mar 16 j 03:57	30°♁		superior conj	537 Aug 05 j 00:02	13°♁38'18	1°19'15
min. Earth dist.	535 Mar 17 j 20:58	28°♁55'19	0.28541 AU	minimum elong	537 Aug 04 j 18:07	13°♁19'56	1°19'10
inferior conj	535 Mar 18 j 01:37	28°♁47'58	7°44'47		537 Aug 18 j 04:03	0°♁	
minimum elong	535 Mar 18 j 09:21	28°♁35'45	7°43'48	evening rise	537 Sep 11 j 00:39	29°♁44'09	
morning rise	535 Mar 22 j 10:44	26°♁05'31			537 Sep 11 j 05:44	0°♁	
direct	535 Apr 08 j 06:49	20°♁37'17			537 Oct 05 j 06:36	0°♁	
greatest brilliancy	535 Apr 20 j 02:21	23°♁08'14	-4.5m	desc. node	537 Oct 12 j 10:08	8°♁55'01	
desc. node	535 Apr 27 j 14:46	26°♁52'35			537 Oct 29 j 07:55	0°♁	
	535 May 02 j 13:15	0°♁			537 Nov 22 j 10:47	0°♁	
morning max el	535 May 27 j 04:47	20°♁39'15	45°46'29		537 Dec 16 j 17:20	0°♁	
	535 Jun 05 j 16:39	0°♁			538 Jan 10 j 08:13	0°♁	
	535 Jul 03 j 18:35	0°♁		asc. node	538 Feb 02 j 13:13	27°♁30'58	
	535 Jul 30 j 00:41	0°♁			538 Feb 04 j 16:39	0°♁	
asc. node	535 Aug 18 j 18:11	23°♁21'58			538 Mar 03 j 14:48	0°♁	
	535 Aug 24 j 06:34	0°♁		evening max el	538 Mar 17 j 09:37	14°♁04'30	45°44'14
	535 Sep 17 j 20:23	0°♁			538 Apr 04 j 05:10	0°♁	
	535 Oct 11 j 23:54	0°♁		greatest brilliancy	538 Apr 20 j 16:54	10°♁44'38	-4.5m
	535 Nov 04 j 21:54	0°♁		retrograde	538 May 05 j 07:00	14°♁28'27	
morning set	535 Nov 22 j 18:11	22°♁27'32		evening set	538 May 20 j 09:18	10°♁05'34	
	535 Nov 28 j 17:57	0°♁		desc. node	538 May 25 j 02:37	7°♁18'15	
desc. node	535 Dec 08 j 07:40	12°♁02'57		inferior conj	538 May 26 j 18:56	6°♁15'09	0°-23'-37
	535 Dec 22 j 14:09	0°♁		minimum elong	538 May 26 j 18:04	6°♁16'31	0°23'23
				min. Earth dist.	538 May 26 j 21:51	6°♁10'34	0.28977 AU
superior conj	536 Jan 03 j 15:25	15°♁08'25	0°-57'-15	morning rise	538 Jun 02 j 02:44	2°♁26'31	
minimum elong	536 Jan 03 j 03:35	14°♁31'16	0°56'50		538 Jun 07 j 05:01	30°♁	
max. Earth dist.	536 Jan 07 j 00:40	19°♁23'23	1.71325 AU	direct	538 Jun 17 j 10:47	27°♁56'52	
	536 Jan 15 j 11:44	0°♁			538 Jun 28 j 04:30	0°♁	
	536 Feb 08 j 11:47	0°♁		greatest brilliancy	538 Jul 01 j 04:23	1°♁13'13	-4.5m
evening rise	536 Feb 13 j 13:20	6°♁18'32		morning max el	538 Aug 05 j 08:59	27°♁54'45	45°56'06
	536 Mar 03 j 15:38	0°♁			538 Aug 07 j 12:34	0°♁	
	536 Mar 28 j 00:43	0°♁			538 Sep 04 j 21:59	0°♁	
asc. node	536 Mar 30 j 11:05	2°♁58'28		asc. node	538 Sep 15 j 06:10	11°♁44'20	
	536 Apr 21 j 16:31	0°♁			538 Sep 30 j 20:51	0°♁	
	536 May 16 j 16:58	0°♁			538 Oct 25 j 16:50	0°♁	
	536 Jun 11 j 05:49	0°♁			538 Nov 18 j 23:31	0°♁	
	536 Jul 07 j 15:52	0°♁			538 Dec 13 j 00:36	0°♁	
desc. node	536 Jul 20 j 00:18	13°♁27'29		desc. node	539 Jan 04 j 19:30	28°♁29'58	
	536 Aug 04 j 23:33	0°♁			539 Jan 06 j 00:18	0°♁	
evening max el	536 Aug 09 j 22:52	4°♁52'56	46°15'00		539 Jan 30 j 00:40	0°♁	
	536 Sep 10 j 04:09	0°♁		morning set	539 Feb 08 j 00:27	11°♁12'48	
greatest brilliancy	536 Sep 17 j 21:59	3°♁38'25	-4.6m		539 Feb 23 j 02:44	0°♁	
retrograde	536 Sep 28 j 09:45	5°♁38'29					
evening set	536 Oct 14 j 02:57	0°♁53'40		superior conj	539 Mar 19 j 11:22	0°♁12'53	-1°-16'-4
	536 Oct 15 j 16:30	30°♁		minimum elong	539 Mar 19 j 19:41	0°♁38'34	1°15'54
inferior conj	536 Oct 19 j 01:04	27°♁59'05	-5°-19'-17		539 Mar 19 j 07:12	0°♁	
minimum elong	536 Oct 19 j 11:11	27°♁43'40	5°16'42	max. Earth dist.	539 Mar 22 j 18:24	4°♁17'13	1.72829 AU



	539 Apr 12 j 14:33	0°♄			541 Nov 05 j 11:10	0°♁		
evening rise	539 Apr 26 j 10:11	16°♄59'11			541 Dec 01 j 08:30	0°♁		
asc. node	539 Apr 27 j 22:54	18°♄51'54			541 Dec 26 j 06:05	0°♄		
	539 May 07 j 00:46	0°♁			542 Jan 19 j 18:37	0°♁		
	539 May 31 j 13:40	0°♁		desc. node	542 Feb 01 j 07:31	15°♁24'35		
	539 Jun 25 j 05:31	0°♁			542 Feb 13 j 04:08	0°♁		
	539 Jul 20 j 01:44	0°♁			542 Mar 09 j 13:12	0°♁		
	539 Aug 14 j 05:09	0°♁			542 Apr 02 j 22:54	0°♁		
desc. node	539 Aug 17 j 12:19	3°♁53'51		morning set	542 Apr 20 j 19:13	21°♁54'40		
	539 Sep 08 j 20:42	0°♁			542 Apr 27 j 09:24	0°♄		
	539 Oct 05 j 12:03	0°♄			542 May 21 j 20:07	0°♁		
evening max el	539 Oct 23 j 02:15	18°♄32'45	47°18'34	asc. node	542 May 25 j 10:45	4°♁25'54		
	539 Nov 03 j 22:46	0°♁		max. Earth dist.	542 May 26 j 17:37	6°♁00'38	1.73644 AU	
greatest brilliancy	539 Nov 30 j 16:29	19°♁13'01	-4.7m					
asc. node	539 Dec 08 j 15:27	21°♁41'35		superior conj	542 May 27 j 12:22	6°♁58'15	0°04'56	
retrograde	539 Dec 12 j 23:18	22°♁04'12		minimum elong	542 May 27 j 11:22	6°♁55'09	0°04'53	
evening set	539 Dec 28 j 04:47	17°♁26'47		behind sun begin	542 May 26 j 13:51	5°♁49'04		
min. Earth dist.	540 Jan 01 j 18:12	14°♁43'55	0.26832 AU	behind sun end	542 May 28 j 08:53	8°♁01'15		
inferior conj	540 Jan 02 j 15:53	14°♁10'22	5°53'29		542 Jun 15 j 06:10	0°♁		
minimum elong	540 Jan 02 j 05:44	14°♁26'06	5°51'03	evening rise	542 Jul 02 j 09:11	21°♁04'31		
morning rise	540 Jan 07 j 07:05	11°♁22'51			542 Jul 09 j 15:06	0°♁		
direct	540 Jan 23 j 01:07	6°♁28'25			542 Aug 02 j 23:26	0°♁		
greatest brilliancy	540 Feb 02 j 20:30	8°♁38'45	-4.6m		542 Aug 27 j 08:25	0°♁		
	540 Mar 04 j 06:57	0°♁		desc. node	542 Sep 14 j 00:16	21°♁40'30		
morning max el	540 Mar 12 j 17:03	7°♁59'03	46°21'27		542 Sep 20 j 19:29	0°♁		
desc. node	540 Mar 29 j 05:04	24°♁53'28			542 Oct 15 j 10:14	0°♄		
	540 Apr 02 j 23:39	0°♁			542 Nov 09 j 07:57	0°♁		
	540 Apr 29 j 22:47	0°♁			542 Dec 04 j 21:45	0°♁		
	540 May 25 j 21:22	0°♄			543 Jan 01 j 06:38	0°♁		
	540 Jun 20 j 06:11	0°♁		evening max el	543 Jan 02 j 22:36	1°♁42'11	46°58'07	
	540 Jul 15 j 04:24	0°♁		asc. node	543 Jan 05 j 03:26	3°♁55'26		
asc. node	540 Jul 20 j 08:23	6°♁16'51			543 Feb 06 j 01:36	0°♁		
	540 Aug 08 j 17:15	0°♁		greatest brilliancy	543 Feb 08 j 08:14	1°♁10'05	-4.6m	
	540 Sep 01 j 22:20	0°♁		retrograde	543 Feb 22 j 13:06	4°♁50'11		
morning set	540 Sep 06 j 13:09	5°♁45'21			543 Mar 10 j 02:47	30°♁		
	540 Sep 25 j 22:08	0°♁		evening set	543 Mar 12 j 02:21	28°♁49'28		
max. Earth dist.	540 Oct 13 j 09:46	21°♁57'18	1.71306 AU	inferior conj	543 Mar 15 j 17:16	26°♁33'27	7°53'53	
				minimum elong	543 Mar 16 j 00:30	26°♁21'59	7°53'01	
superior conj	540 Oct 14 j 22:51	23°♁53'52	0°54'46	min. Earth dist.	543 Mar 15 j 11:27	26°♁42'39	0.28502 AU	
minimum elong	540 Oct 15 j 09:25	24°♁27'04	0°54'22	morning rise	543 Mar 19 j 22:58	23°♁56'01		
	540 Oct 19 j 19:20	0°♁		direct	543 Apr 05 j 22:31	18°♁23'42		
desc. node	540 Nov 08 j 21:56	25°♁17'09		greatest brilliancy	543 Apr 17 j 14:23	20°♁51'26	-4.5m	
	540 Nov 12 j 15:55	0°♄		desc. node	543 Apr 26 j 16:47	25°♁31'43		
evening rise	540 Nov 25 j 00:10	15°♄30'51			543 May 03 j 07:50	0°♁		
	540 Dec 06 j 13:07	0°♁		morning max el	543 May 24 j 20:12	18°♁27'32	45°46'59	
	540 Dec 30 j 12:02	0°♁			543 Jun 05 j 11:48	0°♄		
	541 Jan 23 j 14:36	0°♁			543 Jul 03 j 09:11	0°♁		
	541 Feb 16 j 23:57	0°♁			543 Jul 29 j 13:27	0°♁		
asc. node	541 Mar 02 j 01:12	15°♁50'28		asc. node	543 Aug 17 j 20:20	22°♁52'21		
	541 Mar 13 j 20:28	0°♄			543 Aug 23 j 18:26	0°♁		
	541 Apr 08 j 10:54	0°♁			543 Sep 17 j 07:48	0°♁		
	541 May 05 j 09:26	0°♁			543 Oct 11 j 11:07	0°♁		
evening max el	541 May 26 j 23:46	22°♁00'42	45°21'03		543 Nov 04 j 09:03	0°♁		
	541 Jun 04 j 16:19	0°♁		morning set	543 Nov 20 j 04:49	19°♁54'58		
desc. node	541 Jun 21 j 14:34	13°♁10'10			543 Nov 28 j 05:03	0°♄		
greatest brilliancy	541 Jul 02 j 00:49	18°♁47'56	-4.5m	desc. node	543 Dec 07 j 09:47	11°♄34'37		
retrograde	541 Jul 14 j 14:02	21°♁33'32			543 Dec 22 j 01:14	0°♁		
evening set	541 Jul 31 j 18:22	16°♁01'16						
inferior conj	541 Aug 04 j 20:48	13°♁32'24	-8°-7'-41	superior conj	544 Jan 01 j 01:00	12°♁33'03	0°-54'-13	
minimum elong	541 Aug 04 j 13:51	13°♁43'06	8°06'58	minimum elong	543 Dec 31 j 13:20	11°♁56'28	0°53'46	
min. Earth dist.	541 Aug 05 j 05:10	13°♁19'29	0.28525 AU	max. Earth dist.	544 Jan 04 j 09:01	16°♁44'11	1.71287 AU	
morning rise	541 Aug 08 j 09:09	11°♁23'50			544 Jan 14 j 22:47	0°♁		
direct	541 Aug 26 j 08:01	5°♁21'25			544 Feb 07 j 22:50	0°♁		
greatest brilliancy	541 Sep 09 j 20:34	9°♁06'31	-4.6m	evening rise	544 Feb 11 j 00:53	3°♁50'40		
	541 Oct 07 j 17:22	0°♁			544 Mar 03 j 02:43	0°♁		
asc. node	541 Oct 12 j 17:47	4°♁50'02			544 Mar 27 j 11:58	0°♄		
morning max el	541 Oct 15 j 14:33	7°♁41'13	46°37'34	asc. node	544 Mar 29 j 13:05	2°♄30'08		

	544 Apr 21 j 04:06	0°♁			546 Sep 04 j 13:29	0°♁
	544 May 16 j 05:12	0°♁		asc. node	546 Sep 14 j 08:05	11°♁08'09
	544 Jun 10 j 19:15	0°♁			546 Sep 30 j 10:17	0°♁
	544 Jul 07 j 07:43	0°♁			546 Oct 25 j 05:17	0°♁
desc. node	544 Jul 19 j 02:30	12°♁46'06			546 Nov 18 j 11:26	0°♁
	544 Aug 04 j 21:41	0°♁			546 Dec 12 j 12:13	0°♁
evening max el	544 Aug 07 j 11:26	2°♁30'18	46°12'23	desc. node	547 Jan 03 j 21:41	28°♁01'03
	544 Sep 12 j 10:17	0°♁			547 Jan 05 j 11:43	0°♁
greatest brilliancy	544 Sep 15 j 11:37	1°♁14'37	-4.6m		547 Jan 29 j 11:55	0°♁
retrograde	544 Sep 25 j 21:17	3°♁12'53		morning set	547 Feb 05 j 11:54	8°♁43'54
	544 Oct 08 j 16:56	30°♁			547 Feb 22 j 13:51	0°♁
evening set	544 Oct 11 j 18:36	28°♁23'40				
inferior conj	544 Oct 16 j 13:43	25°♁33'19	-5°-37'-56	superior conj	547 Mar 17 j 02:04	27°♁55'42 -1°-17'-37
minimum elong	544 Oct 17 j 00:05	25°♁17'31	5°35'23	minimum elong	547 Mar 17 j 09:54	28°♁19'57 1°17'28
min. Earth dist.	544 Oct 17 j 06:54	25°♁07'08	0.26809 AU		547 Mar 18 j 18:15	0°♁
morning rise	544 Oct 22 j 05:04	22°♁14'09		max. Earth dist.	547 Mar 20 j 08:58	1°♁59'44 1.72779 AU
direct	544 Nov 06 j 04:37	17°♁49'08			547 Apr 12 j 01:34	0°♁
asc. node	544 Nov 09 j 05:37	18°♁00'11		evening rise	547 Apr 24 j 03:07	14°♁49'58
greatest brilliancy	544 Nov 19 j 08:51	21°♁02'01	-4.7m	asc. node	547 Apr 27 j 00:57	18°♁24'18
	544 Dec 03 j 14:06	0°♁			547 May 06 j 11:52	0°♁
morning max el	544 Dec 26 j 21:34	21°♁15'34	46°55'44		547 May 31 j 00:57	0°♁
	545 Jan 04 j 06:51	0°♁			547 Jun 24 j 17:11	0°♁
	545 Jan 31 j 05:53	0°♁			547 Jul 19 j 14:03	0°♁
	545 Feb 25 j 22:36	0°♁			547 Aug 13 j 18:30	0°♁
desc. node	545 Feb 28 j 19:22	3°♁23'28		desc. node	547 Aug 16 j 14:19	3°♁19'56
	545 Mar 23 j 03:17	0°♁			547 Sep 08 j 11:49	0°♁
	545 Apr 17 j 02:18	0°♁			547 Oct 05 j 06:46	0°♁
	545 May 11 j 21:52	0°♁		evening max el	547 Oct 20 j 16:15	16°♁08'27 47°17'44
	545 Jun 05 j 14:15	0°♁			547 Nov 04 j 05:20	0°♁
asc. node	545 Jun 21 j 22:39	19°♁58'43		greatest brilliancy	547 Nov 28 j 06:37	16°♁46'01 -4.7m
morning set	545 Jun 27 j 08:33	26°♁36'58		asc. node	547 Dec 07 j 17:36	19°♁27'08
	545 Jun 30 j 02:42	0°♁		retrograde	547 Dec 10 j 13:10	19°♁36'49
	545 Jul 24 j 10:47	0°♁		evening set	547 Dec 25 j 15:03	15°♁03'35
max. Earth dist.	545 Jul 29 j 22:37	6°♁48'09	1.72814 AU	min. Earth dist.	547 Dec 30 j 07:32	12°♁16'46 0.26778 AU
				inferior conj	547 Dec 31 j 04:57	11°♁43'45 5°35'43
superior conj	545 Aug 02 j 17:43	11°♁30'30	1°18'05	minimum elong	547 Dec 30 j 18:55	11°♁59'12 5°33'14
minimum elong	545 Aug 02 j 11:19	11°♁10'38	1°17'57	morning rise	548 Jan 04 j 23:16	8°♁52'20
	545 Aug 17 j 14:59	0°♁		direct	548 Jan 20 j 13:55	4°♁02'28
evening rise	545 Sep 08 j 15:46	27°♁27'11		greatest brilliancy	548 Jan 31 j 09:59	6°♁14'06 -4.6m
	545 Sep 10 j 16:47	0°♁			548 Mar 04 j 09:51	0°♁
	545 Oct 04 j 17:50	0°♁		morning max el	548 Mar 10 j 07:38	5°♁40'03 46°22'54
desc. node	545 Oct 11 j 12:08	8°♁25'59		desc. node	548 Mar 28 j 07:08	24°♁10'10
	545 Oct 28 j 19:25	0°♁			548 Apr 02 j 17:02	0°♁
	545 Nov 21 j 22:38	0°♁			548 Apr 29 j 13:04	0°♁
	545 Dec 16 j 05:39	0°♁			548 May 25 j 10:10	0°♁
	546 Jan 09 j 21:17	0°♁			548 Jun 19 j 18:10	0°♁
asc. node	546 Feb 01 j 15:17	26°♁55'14			548 Jul 14 j 15:54	0°♁
	546 Feb 04 j 07:12	0°♁		asc. node	548 Jul 19 j 10:29	5°♁48'25
	546 Mar 03 j 09:05	0°♁			548 Aug 08 j 04:29	0°♁
evening max el	546 Mar 14 j 23:53	11°♁48'13	45°46'20		548 Sep 01 j 09:28	0°♁
	546 Apr 04 j 16:46	0°♁		morning set	548 Sep 04 j 04:27	3°♁28'42
greatest brilliancy	546 Apr 18 j 07:50	8°♁33'22	-4.5m		548 Sep 25 j 09:17	0°♁
retrograde	546 May 02 j 23:25	12°♁19'43		max. Earth dist.	548 Oct 10 j 19:37	19°♁22'15 1.71339 AU
evening set	546 May 18 j 02:23	7°♁55'21				
inferior conj	546 May 24 j 11:24	4°♁06'01	0°-3'-54	superior conj	548 Oct 12 j 11:14	21°♁26'44 0°57'35
minimum elong	546 May 24 j 11:15	4°♁06'15	0°03'52	minimum elong	548 Oct 12 j 21:52	22°♁00'06 0°57'11
transit begin	546 May 24 j 07:19	4°♁12'26			548 Oct 19 j 06:33	0°♁
transit end	546 May 24 j 15:12	4°♁00'04		desc. node	548 Nov 08 j 00:05	24°♁48'25
desc. node	546 May 24 j 04:43	4°♁16'30			548 Nov 12 j 03:13	0°♁
min. Earth dist.	546 May 24 j 14:42	4°♁00'51	0.28978 AU	evening rise	548 Nov 22 j 10:12	12°♁56'04
morning rise	546 May 30 j 19:59	0°♁16'16			548 Dec 06 j 00:28	0°♁
	546 May 31 j 07:55	30°♁			548 Dec 29 j 23:28	0°♁
direct	546 Jun 15 j 02:33	25°♁47'27			549 Jan 23 j 02:12	0°♁
greatest brilliancy	546 Jun 28 j 20:55	29°♁04'17	-4.5m		549 Feb 16 j 11:54	0°♁
	546 Jun 30 j 20:04	0°♁		asc. node	549 Mar 01 j 03:10	15°♁19'36
morning max el	546 Aug 03 j 00:38	25°♁42'52	45°55'09		549 Mar 13 j 09:05	0°♁
	546 Aug 07 j 09:50	0°♁			549 Apr 08 j 00:53	0°♁

	549 May 05 j 02:36	0°☉			551 Oct 10 j 22:30	0°♌	
evening max el	549 May 24 j 15:58	19°☉50'12	45°20'28		551 Nov 03 j 20:20	0°♍	
	549 Jun 04 j 20:46	0°♌		morning set	551 Nov 17 j 15:23	17°♌21'42	
desc. node	549 Jun 20 j 16:46	11°♌52'53			551 Nov 27 j 16:17	0°♎	
greatest brilliancy	549 Jun 29 j 13:35	16°♌32'25	-4.5m	desc. node	551 Dec 06 j 11:53	11°♎05'53	
retrograde	549 Jul 12 j 05:02	19°♌19'43			551 Dec 21 j 12:26	0°♏	
evening set	549 Jul 29 j 06:08	13°♌52'14					
inferior conj	549 Aug 02 j 11:58	11°♌18'03	-7°-59'-33	superior conj	551 Dec 29 j 10:30	9°♏57'03	0°-51'-2
minimum elong	549 Aug 02 j 04:29	11°♌29'36	7°58'41	minimum elong	551 Dec 28 j 23:07	9°♏21'19	0°50'36
min. Earth dist.	549 Aug 02 j 19:23	11°♌06'35	0.28563 AU	max. Earth dist.	552 Jan 01 j 14:04	13°♏54'15	1.71251 AU
morning rise	549 Aug 06 j 02:38	9°♌05'48			552 Jan 14 j 09:59	0°♐	
direct	549 Aug 24 j 00:08	3°♌06'46			552 Feb 07 j 10:01	0°♑	
greatest brilliancy	549 Sep 07 j 10:58	6°♌49'45	-4.6m	evening rise	552 Feb 08 j 12:22	1°♑22'08	
	549 Oct 07 j 18:39	0°♍			552 Mar 02 j 13:54	0°♒	
asc. node	549 Oct 11 j 19:58	3°♍58'09			552 Mar 26 j 23:15	0°♓	
morning max el	549 Oct 13 j 05:19	5°♍21'33	46°36'02	asc. node	552 Mar 28 j 15:13	2°♓02'07	
	549 Nov 05 j 04:13	0°♎			552 Apr 20 j 15:43	0°♈	
	549 Nov 30 j 22:55	0°♏			552 May 15 j 17:29	0°♉	
	549 Dec 25 j 19:13	0°♐			552 Jun 10 j 08:49	0°♊	
	550 Jan 19 j 06:57	0°♑			552 Jul 06 j 23:53	0°♋	
desc. node	550 Jan 31 j 09:29	14°♑53'33		desc. node	552 Jul 18 j 04:27	12°♋03'15	
	550 Feb 12 j 15:56	0°♒			552 Aug 04 j 20:53	0°♌	
	550 Mar 09 j 00:38	0°♓		evening max el	552 Aug 04 j 23:31	0°♌06'21	46°09'38
	550 Apr 02 j 10:03	0°♈		greatest brilliancy	552 Sep 13 j 00:47	28°♌49'51	-4.6m
morning set	550 Apr 18 j 12:38	19°♈47'02			552 Sep 16 j 22:01	0°♍	
	550 Apr 26 j 20:22	0°♉		retrograde	552 Sep 23 j 08:56	0°♍47'06	
	550 May 21 j 07:00	0°♊			552 Sep 29 j 15:41	30°♌	
max. Earth dist.	550 May 24 j 16:10	4°♊09'05	1.73645 AU	evening set	552 Oct 09 j 10:14	25°♌52'59	
asc. node	550 May 24 j 12:54	3°♊59'05		inferior conj	552 Oct 14 j 02:19	23°♌07'10	-5°-55'-50
				minimum elong	552 Oct 14 j 12:51	22°♌51'06	5°53'20
superior conj	550 May 25 j 06:45	4°♊53'51	0°01'47	min. Earth dist.	552 Oct 14 j 20:44	22°♌39'07	0.26866 AU
minimum elong	550 May 25 j 06:23	4°♊52'43	0°01'46	morning rise	552 Oct 19 j 14:55	19°♌51'36	
behind sun begin	550 May 24 j 08:03	3°♊44'09		direct	552 Nov 03 j 17:13	15°♌21'43	
behind sun end	550 May 26 j 04:43	6°♊01'17		asc. node	552 Nov 08 j 07:45	15°♌46'47	
	550 Jun 14 j 17:05	0°♋		greatest brilliancy	552 Nov 17 j 01:06	18°♌38'11	-4.7m
evening rise	550 Jun 30 j 04:13	19°♋01'27			552 Dec 04 j 05:35	0°♎	
	550 Jul 09 j 02:09	0°♌		morning max el	552 Dec 24 j 10:38	18°♎48'04	46°56'06
	550 Aug 02 j 10:44	0°♍			553 Jan 04 j 02:51	0°♏	
	550 Aug 26 j 20:06	0°♎			553 Jan 30 j 21:27	0°♐	
desc. node	550 Sep 13 j 02:16	21°♎09'48		desc. node	553 Feb 25 j 12:12	0°♑	
	550 Sep 20 j 07:41	0°♏			553 Feb 27 j 21:22	2°♑49'30	
	550 Oct 14 j 23:10	0°♐			553 Mar 22 j 15:46	0°♒	
	550 Nov 08 j 22:02	0°♑			553 Apr 16 j 14:03	0°♓	
	550 Dec 04 j 13:56	0°♒			553 May 11 j 09:07	0°♈	
evening max el	550 Dec 31 j 13:59	29°♒23'15	47°00'18		553 Jun 05 j 01:11	0°♉	
	551 Jan 01 j 04:27	0°♓		asc. node	553 Jun 21 j 00:43	19°♊31'52	
asc. node	551 Jan 04 j 05:32	3°♓03'12		morning set	553 Jun 25 j 02:58	24°♊33'01	
greatest brilliancy	551 Feb 06 j 03:02	28°♓58'20	-4.6m		553 Jun 29 j 13:30	0°♋	
	551 Feb 08 j 09:56	0°♈			553 Jul 23 j 21:33	0°♌	
retrograde	551 Feb 20 j 05:04	2°♈35'09		max. Earth dist.	553 Jul 27 j 19:13	4°♌49'54	1.72868 AU
	551 Mar 03 j 10:42	30°♈					
evening set	551 Mar 09 j 20:29	26°♈31'39		superior conj	553 Jul 31 j 11:41	9°♌23'59	1°16'47
min. Earth dist.	551 Mar 13 j 02:20	24°♈29'37	0.28457 AU	minimum elong	553 Jul 31 j 04:50	9°♌02'44	1°16'39
inferior conj	551 Mar 13 j 09:03	24°♈18'58	8°02'10		553 Aug 17 j 01:50	0°♍	
minimum elong	551 Mar 13 j 15:46	24°♈08'19	8°01'26	evening rise	553 Sep 06 j 07:08	25°♍11'12	
morning rise	551 Mar 17 j 11:21	21°♈46'23			553 Sep 10 j 03:49	0°♎	
direct	551 Apr 03 j 13:48	16°♈10'17			553 Oct 04 j 05:06	0°♏	
greatest brilliancy	551 Apr 15 j 02:38	18°♈34'50	-4.5m	desc. node	553 Oct 10 j 14:18	7°♏57'25	
desc. node	551 Apr 25 j 18:54	24°♈13'28			553 Oct 28 j 06:57	0°♐	
	551 May 03 j 21:42	0°♉			553 Nov 21 j 10:29	0°♑	
morning max el	551 May 22 j 10:52	16°♉13'45	45°47'27		553 Dec 15 j 17:57	0°♒	
	551 Jun 05 j 06:30	0°♊			554 Jan 09 j 10:21	0°♓	
	551 Jul 02 j 23:45	0°♋		asc. node	554 Jan 31 j 17:15	26°♓19'17	
	551 Jul 29 j 02:19	0°♌			554 Feb 03 j 21:51	0°♈	
asc. node	551 Aug 16 j 22:17	22°♌21'34			554 Mar 03 j 03:43	0°♉	
	551 Aug 23 j 06:28	0°♍		evening max el	554 Mar 12 j 15:04	9°♉34'38	45°48'35
	551 Sep 16 j 19:25	0°♎			554 Apr 05 j 07:57	0°♊	

greatest brilliancy	554 Apr 15 j 22:44	6°II22'53	-4.5m			556 Sep 24 j 20:02	0°♁	
retrograde	554 Apr 30 j 16:30	10°II12'02		max. Earth dist.		556 Oct 08 j 04:43	16°♁46'09	1.71376 AU
evening set	554 May 15 j 19:47	5°II46'01						
inferior conj	554 May 22 j 04:00	1°II57'54	0°15'44	superior conj		556 Oct 10 j 00:15	19°♁02'53	1°00'14
minimum elong	554 May 22 j 04:35	1°II57'00	0°15'34	minimum elong		556 Oct 10 j 10:50	19°♁36'07	0°59'51
transit begin	554 May 22 j 03:27	1°II58'47				556 Oct 18 j 17:24	0°♁	
transit end	554 May 22 j 05:43	1°II55'13		desc. node		556 Nov 07 j 02:11	24°♁20'41	
min. Earth dist.	554 May 22 j 07:23	1°II52'36	0.28975 AU			556 Nov 11 j 14:10	0°♁	
desc. node	554 May 23 j 06:50	1°II15'55		evening rise		556 Nov 19 j 20:23	10°♁22'41	
	554 May 25 j 07:59	30°♁				556 Dec 05 j 11:32	0°♁	
morning rise	554 May 28 j 13:16	28°♁07'29				556 Dec 29 j 10:41	0°♁	
direct	554 Jun 12 j 18:49	23°♁39'13				557 Jan 22 j 13:38	0°♁	
greatest brilliancy	554 Jun 26 j 13:16	26°♁56'23	-4.5m			557 Feb 15 j 23:40	0°♁	
	554 Jul 02 j 10:47	0°II		asc. node		557 Feb 28 j 05:20	14°♁49'50	
morning max el	554 Jul 31 j 17:18	23°II34'35	45°54'12			557 Mar 12 j 21:32	0°♁	
	554 Aug 07 j 05:59	0°♁				557 Apr 07 j 14:43	0°II	
	554 Sep 04 j 04:28	0°♁				557 May 04 j 19:45	0°♁	
asc. node	554 Sep 13 j 10:16	10°♁33'43		evening max el		557 May 22 j 07:47	17°♁39'45	45°20'04
	554 Sep 29 j 23:23	0°♁				557 Jun 05 j 02:39	0°♁	
	554 Oct 24 j 17:31	0°♁		desc. node		557 Jun 19 j 18:43	10°♁34'04	
	554 Nov 17 j 23:14	0°♁		greatest brilliancy		557 Jun 27 j 03:16	14°♁19'21	-4.5m
	554 Dec 11 j 23:44	0°♁		retrograde		557 Jul 09 j 19:42	17°♁07'42	
desc. node	555 Jan 02 j 23:42	27°♁31'56		evening set		557 Jul 26 j 18:06	11°♁45'10	
	555 Jan 04 j 23:01	0°♁		inferior conj		557 Jul 31 j 03:21	9°♁05'43	-7°-50'-44
	555 Jan 28 j 23:02	0°♁		minimum elong		557 Jul 30 j 19:22	9°♁18'06	7°49'45
morning set	555 Feb 02 j 22:57	6°♁14'08		min. Earth dist.		557 Jul 31 j 10:11	8°♁55'07	0.28594 AU
	555 Feb 22 j 00:48	0°♁		morning rise		557 Aug 03 j 20:25	6°♁49'35	
				direct		557 Aug 21 j 15:58	0°♁54'08	
superior conj	555 Mar 14 j 16:31	25°♁38'14	-1°-19'-2	greatest brilliancy		557 Sep 05 j 01:13	4°♁34'32	-4.6m
minimum elong	555 Mar 14 j 23:51	26°♁00'56	1°18'55			557 Oct 07 j 18:07	0°♁	
max. Earth dist.	555 Mar 18 j 00:10	29°♁44'48	1.72728 AU	morning max el		557 Oct 10 j 19:18	3°♁01'38	46°34'36
	555 Mar 18 j 05:05	0°♁		asc. node		557 Oct 10 j 22:02	3°♁08'29	
	555 Apr 11 j 12:23	0°♁				557 Nov 04 j 20:24	0°♁	
evening rise	555 Apr 21 j 20:04	12°♁41'28				557 Nov 30 j 12:42	0°♁	
asc. node	555 Apr 26 j 03:08	17°♁57'49				557 Dec 25 j 07:50	0°♁	
	555 May 05 j 22:44	0°II				558 Jan 18 j 18:55	0°♁	
	555 May 30 j 12:00	0°♁		desc. node		558 Jan 30 j 11:31	14°♁23'38	
	555 Jun 24 j 04:34	0°♁				558 Feb 12 j 03:27	0°♁	
	555 Jul 19 j 02:04	0°♁				558 Mar 08 j 11:49	0°♁	
	555 Aug 13 j 07:35	0°♁				558 Apr 01 j 20:58	0°♁	
desc. node	555 Aug 15 j 16:22	2°♁47'06		morning set		558 Apr 16 j 05:29	17°♁38'22	
	555 Sep 08 j 02:46	0°♁				558 Apr 26 j 07:05	0°♁	
	555 Oct 05 j 01:39	0°♁				558 May 20 j 17:36	0°II	
evening max el	555 Oct 18 j 07:01	13°♁46'45	47°16'25	max. Earth dist.		558 May 22 j 13:15	2°II13'55	1.73639 AU
	555 Nov 04 j 14:11	0°♁						
greatest brilliancy	555 Nov 25 j 20:35	14°♁18'34	-4.7m	superior conj		558 May 23 j 00:46	2°II49'17	0°-1'-24
asc. node	555 Dec 06 j 19:40	17°♁06'18		minimum elong		558 May 23 j 01:03	2°II50'09	0°01'24
retrograde	555 Dec 08 j 02:52	17°♁08'23		behind sun begin		558 May 22 j 02:40	1°II41'26	
evening set	555 Dec 23 j 01:06	12°♁39'24		behind sun end		558 May 23 j 23:26	3°II58'52	
min. Earth dist.	555 Dec 27 j 20:30	9°♁48'34	0.26728 AU	asc. node		558 May 23 j 14:54	3°II32'42	
inferior conj	555 Dec 28 j 17:35	9°♁16'08	5°16'57			558 Jun 14 j 03:41	0°♁	
minimum elong	555 Dec 28 j 07:47	9°♁31'12	5°14'27	evening rise		558 Jun 27 j 23:08	16°♁59'03	
morning rise	556 Jan 02 j 15:01	6°♁20'49				558 Jul 08 j 12:54	0°♁	
direct	556 Jan 18 j 02:46	1°♁35'44				558 Aug 01 j 21:45	0°♁	
greatest brilliancy	556 Jan 28 j 22:33	3°♁47'47	-4.6m			558 Aug 26 j 07:28	0°♁	
	556 Mar 04 j 11:14	0°♁		desc. node		558 Sep 12 j 04:27	20°♁40'44	
morning max el	556 Mar 07 j 21:56	3°♁20'32	46°24'27			558 Sep 19 j 19:33	0°♁	
desc. node	556 Mar 27 j 09:18	23°♁28'11				558 Oct 14 j 11:44	0°♁	
	556 Apr 02 j 09:50	0°♁				558 Nov 08 j 11:46	0°♁	
	556 Apr 29 j 02:56	0°♁				558 Dec 04 j 05:57	0°♁	
	556 May 24 j 22:36	0°♁		evening max el		558 Dec 29 j 04:12	27°♁02'15	47°02'07
	556 Jun 19 j 05:47	0°II				559 Jan 01 j 02:42	0°♁	
	556 Jul 14 j 03:02	0°♁		asc. node		559 Jan 03 j 07:28	2°♁10'28	
asc. node	556 Jul 18 j 12:28	5°♁20'45		greatest brilliancy		559 Feb 03 j 21:08	26°♁45'39	-4.6m
	556 Aug 07 j 15:20	0°♁				559 Feb 13 j 18:11	0°♁	
	556 Aug 31 j 20:12	0°♁		retrograde		559 Feb 17 j 20:25	0°♁19'50	
morning set	556 Sep 01 j 20:20	1°♁15'10				559 Feb 21 j 20:47	30°♁	

evening set	559 Mar 07 j 14:07	24°♄13'44			561 Aug 16 j 12:36	0°♍	
min. Earth dist.	559 Mar 10 j 17:19	22°♄15'45	0.28418 AU	evening rise	561 Sep 03 j 22:23	22°♍55'11	
inferior conj	559 Mar 11 j 00:35	22°♄04'12	8°09'42		561 Sep 09 j 14:44	0°♌	
minimum elong	559 Mar 11 j 06:42	21°♄54'30	8°09'07		561 Oct 03 j 16:16	0°♌	
morning rise	559 Mar 14 j 23:32	19°♄36'23		desc. node	561 Oct 09 j 16:19	7°♌28'45	
direct	559 Apr 01 j 04:19	13°♄56'15			561 Oct 27 j 18:24	0°♌	
greatest brilliancy	559 Apr 12 j 15:53	16°♄19'01	-4.5m		561 Nov 20 j 22:17	0°♌	
desc. node	559 Apr 24 j 20:58	22°♄57'26			561 Dec 15 j 06:12	0°♌	
	559 May 04 j 07:59	0°♍			562 Jan 08 j 23:22	0°♄	
morning max el	559 May 20 j 01:03	13°♍58'54	45°48'06	asc. node	562 Jan 30 j 19:27	25°♄44'11	
	559 Jun 05 j 00:35	0°♄			562 Feb 03 j 12:29	0°♍	
	559 Jul 02 j 13:56	0°♌			562 Mar 02 j 22:39	0°♄	
	559 Jul 28 j 14:50	0°♌		evening max el	562 Mar 10 j 06:59	7°♄23'16	45°50'47
asc. node	559 Aug 16 j 00:26	21°♌52'19			562 Apr 06 j 04:20	0°♌	
	559 Aug 22 j 18:10	0°♌		greatest brilliancy	562 Apr 13 j 13:57	4°♌13'00	-4.5m
	559 Sep 16 j 06:42	0°♍		retrograde	562 Apr 28 j 09:39	8°♌04'04	
	559 Oct 10 j 09:35	0°♌		evening set	562 May 13 j 13:16	3°♌36'21	
	559 Nov 03 j 07:18	0°♌			562 May 19 j 13:42	30°♄	
morning set	559 Nov 15 j 02:28	14°♌51'03		inferior conj	562 May 19 j 20:29	29°♄49'23	0°35'22
	559 Nov 27 j 03:11	0°♌		minimum elong	562 May 19 j 21:47	29°♄47'21	0°35'00
desc. node	559 Dec 05 j 13:53	10°♌37'56		min. Earth dist.	562 May 19 j 23:42	29°♄44'20	0.28977 AU
	559 Dec 20 j 23:18	0°♌		desc. node	562 May 22 j 08:49	28°♄15'29	
				morning rise	562 May 26 j 06:18	25°♄58'29	
superior conj	559 Dec 26 j 20:27	7°♌23'30	0°-47'-47	direct	562 Jun 10 j 11:30	21°♄30'39	
minimum elong	559 Dec 26 j 09:27	6°♌48'57	0°47'21	greatest brilliancy	562 Jun 24 j 04:51	24°♄47'14	-4.5m
max. Earth dist.	559 Dec 29 j 18:05	11°♌02'09	1.71218 AU		562 Jul 03 j 13:59	0°♌	
	560 Jan 13 j 20:50	0°♌		morning max el	562 Jul 29 j 10:21	21°♌27'03	45°53'10
evening rise	560 Feb 06 j 00:04	28°♌55'11			562 Aug 07 j 01:40	0°♌	
	560 Feb 06 j 20:52	0°♄			562 Sep 03 j 19:21	0°♌	
	560 Mar 02 j 00:49	0°♍		asc. node	562 Sep 12 j 12:23	9°♌59'03	
	560 Mar 26 j 10:21	0°♄			562 Sep 29 j 12:26	0°♍	
asc. node	560 Mar 27 j 17:18	1°♄34'33			562 Oct 24 j 05:43	0°♌	
	560 Apr 20 j 03:12	0°♌			562 Nov 17 j 10:59	0°♌	
	560 May 15 j 05:41	0°♌			562 Dec 11 j 11:14	0°♌	
	560 Jun 09 j 22:20	0°♌		desc. node	563 Jan 02 j 01:43	27°♌02'52	
	560 Jul 06 j 16:09	0°♍			563 Jan 04 j 10:19	0°♌	
desc. node	560 Jul 17 j 06:32	11°♍20'42			563 Jan 28 j 10:08	0°♌	
evening max el	560 Aug 02 j 11:45	27°♍43'35	46°07'09	morning set	563 Jan 31 j 10:01	3°♌44'21	
	560 Aug 04 j 20:54	0°♌			563 Feb 21 j 11:45	0°♄	
greatest brilliancy	560 Sep 10 j 12:52	26°♌24'53	-4.6m				
retrograde	560 Sep 20 j 21:04	28°♌22'26		superior conj	563 Mar 12 j 06:58	23°♄20'37	-1°-20'-19
evening set	560 Oct 07 j 01:56	23°♌23'01		minimum elong	563 Mar 12 j 13:44	23°♄41'35	1°20'14
inferior conj	560 Oct 11 j 14:56	20°♌41'48	-6°-12'-56	max. Earth dist.	563 Mar 15 j 17:10	27°♄35'15	1.72675 AU
minimum elong	560 Oct 12 j 01:34	20°♌25'37	6°10'31		563 Mar 17 j 15:56	0°♍	
min. Earth dist.	560 Oct 12 j 10:17	20°♌12'23	0.26926 AU		563 Apr 10 j 23:12	0°♄	
morning rise	560 Oct 17 j 00:37	17°♌30'22		evening rise	563 Apr 19 j 13:02	10°♄32'56	
direct	560 Nov 01 j 06:18	12°♌55'02		asc. node	563 Apr 25 j 05:07	17°♄30'39	
asc. node	560 Nov 07 j 09:47	13°♌39'21			563 May 05 j 09:38	0°♌	
greatest brilliancy	560 Nov 14 j 17:25	16°♌15'23	-4.7m		563 May 29 j 23:07	0°♌	
	560 Dec 04 j 16:52	0°♌			563 Jun 23 j 16:07	0°♌	
morning max el	560 Dec 22 j 00:46	16°♌24'08	46°56'34		563 Jul 18 j 14:19	0°♍	
	561 Jan 03 j 21:58	0°♌			563 Aug 12 j 20:58	0°♌	
	561 Jan 30 j 12:31	0°♌		desc. node	563 Aug 14 j 18:30	2°♌13'43	
	561 Feb 25 j 01:25	0°♌			563 Sep 07 j 18:08	0°♌	
desc. node	561 Feb 26 j 23:34	2°♌17'08			563 Oct 04 j 21:16	0°♌	
	561 Mar 22 j 03:57	0°♄		evening max el	563 Oct 15 j 22:08	11°♌25'34	47°15'07
	561 Apr 16 j 01:34	0°♍			563 Nov 05 j 02:17	0°♌	
	561 May 10 j 20:15	0°♄		greatest brilliancy	563 Nov 23 j 11:08	11°♌51'30	-4.7m
	561 Jun 04 j 12:03	0°♌		retrograde	563 Dec 05 j 16:21	14°♌39'12	
asc. node	561 Jun 20 j 02:44	19°♌05'04		asc. node	563 Dec 05 j 21:41	14°♌39'08	
morning set	561 Jun 22 j 21:00	22°♌28'10		evening set	563 Dec 20 j 11:23	10°♌14'32	
	561 Jun 29 j 00:14	0°♌		min. Earth dist.	563 Dec 25 j 09:38	7°♌19'34	0.26677 AU
	561 Jul 23 j 08:15	0°♌		inferior conj	563 Dec 26 j 06:10	6°♌47'57	4°57'37
max. Earth dist.	561 Jul 25 j 15:51	2°♌52'03	1.72916 AU	minimum elong	563 Dec 25 j 20:42	7°♌02'33	4°55'05
				morning rise	563 Dec 31 j 06:36	3°♌48'38	
superior conj	561 Jul 29 j 05:17	7°♌16'35	1°15'22		564 Jan 09 j 05:00	30°♌	
minimum elong	561 Jul 28 j 22:02	6°♌54'08	1°15'13	direct	564 Jan 15 j 15:35	29°♌08'34	

	564 Jan 22 j 06:42	0°☾		evening rise	566 Jun 25 j 18:18	14°☾56'36	
greatest brilliancy	564 Jan 26 j 10:54	1°☾20'27	-4.6m		566 Jul 07 j 23:57	0°♁	
	564 Mar 04 j 11:34	0°♁			566 Aug 01 j 09:04	0°♁	
morning max el	564 Mar 05 j 11:40	0°♁59'02	46°26'00		566 Aug 25 j 19:13	0°♁	
desc. node	564 Mar 26 j 11:18	22°♁45'47		desc. node	566 Sep 11 j 06:28	20°♁09'54	
	564 Apr 02 j 02:29	0°♁			566 Sep 19 j 07:51	0°♁	
	564 Apr 28 j 16:49	0°♁			566 Oct 14 j 00:51	0°♁	
	564 May 24 j 11:06	0°♁			566 Nov 08 j 02:10	0°♁	
	564 Jun 18 j 17:30	0°♁			566 Dec 03 j 22:48	0°♁	
asc. node	564 Jul 13 j 14:19	0°♁		evening max el	566 Dec 26 j 17:57	24°♁38'28	47°04'10
	564 Jul 17 j 14:38	4°♁53'03			567 Jan 01 j 02:30	0°♁	
	564 Aug 07 j 02:25	0°♁		asc. node	567 Jan 02 j 09:40	1°♁15'55	
morning set	564 Aug 30 j 11:56	28°♁59'54		greatest brilliancy	567 Feb 01 j 14:15	24°♁30'15	-4.6m
	564 Aug 31 j 07:14	0°♁		retrograde	567 Feb 15 j 11:46	28°♁03'24	
	564 Sep 24 j 07:06	0°♁		evening set	567 Mar 05 j 07:33	21°♁54'40	
max. Earth dist.	564 Oct 05 j 10:25	13°♁58'33	1.71415 AU	min. Earth dist.	567 Mar 08 j 08:18	20°♁00'39	0.28374 AU
				inferior conj	567 Mar 08 j 16:07	19°♁48'14	8°16'36
superior conj	564 Oct 07 j 13:07	16°♁37'43	1°02'46	minimum elong	567 Mar 08 j 21:35	19°♁39'33	8°16'08
minimum elong	564 Oct 07 j 23:35	17°♁10'35	1°02'25	morning rise	567 Mar 12 j 11:49	17°♁25'14	
	564 Oct 18 j 04:32	0°♁		direct	567 Mar 29 j 18:33	11°♁40'52	
desc. node	564 Nov 06 j 04:09	23°♁51'41		greatest brilliancy	567 Apr 10 j 05:51	14°♁02'59	-4.5m
	564 Nov 11 j 01:24	0°♁		desc. node	567 Apr 23 j 23:00	21°♁42'38	
evening rise	564 Nov 17 j 06:17	7°♁47'40			567 May 04 j 15:56	0°♁	
	564 Dec 04 j 22:52	0°♁		morning max el	567 May 17 j 15:45	11°♁44'17	45°48'53
	564 Dec 28 j 22:09	0°♁			567 Jun 04 j 18:34	0°♁	
	565 Jan 22 j 01:19	0°♁			567 Jul 02 j 04:16	0°♁	
asc. node	565 Feb 15 j 11:43	0°♁			567 Jul 28 j 03:35	0°♁	
	565 Feb 27 j 07:24	14°♁18'58		asc. node	567 Aug 15 j 02:32	21°♁22'07	
	565 Mar 12 j 10:17	0°♁			567 Aug 22 j 06:08	0°♁	
	565 Apr 07 j 04:56	0°♁			567 Sep 15 j 18:17	0°♁	
	565 May 04 j 13:33	0°♁			567 Oct 09 j 20:59	0°♁	
evening max el	565 May 19 j 22:49	15°♁26'48	45°19'43		567 Nov 02 j 18:37	0°♁	
	565 Jun 05 j 11:14	0°♁		morning set	567 Nov 12 j 13:27	12°♁18'51	
desc. node	565 Jun 18 j 20:48	9°♁12'16			567 Nov 26 j 14:30	0°♁	
greatest brilliancy	565 Jun 24 j 16:35	12°♁05'17	-4.5m	desc. node	567 Dec 04 j 16:00	10°♁09'00	
retrograde	565 Jul 07 j 10:04	14°♁55'21			567 Dec 20 j 10:37	0°♁	
evening set	565 Jul 24 j 06:03	9°♁37'30					
inferior conj	565 Jul 28 j 18:49	6°♁52'54	-7°-41'-14	superior conj	567 Dec 24 j 05:49	4°♁46'38	0°-44'-23
minimum elong	565 Jul 28 j 10:21	7°♁06'02	7°40'06	minimum elong	567 Dec 23 j 19:17	4°♁13'34	0°43'57
min. Earth dist.	565 Jul 29 j 01:19	6°♁42'48	0.28631 AU	max. Earth dist.	567 Dec 26 j 20:31	8°♁03'37	1.71190 AU
morning rise	565 Aug 01 j 14:24	4°♁32'46			568 Jan 13 j 08:07	0°♁	
	565 Aug 11 j 03:26	30°♁		evening rise	568 Feb 03 j 11:11	26°♁25'07	
direct	565 Aug 19 j 07:30	28°♁40'44			568 Feb 06 j 08:08	0°♁	
	565 Aug 27 j 18:14	0°♁			568 Mar 01 j 12:07	0°♁	
greatest brilliancy	565 Sep 02 j 16:30	2°♁19'45	-4.6m		568 Mar 25 j 21:49	0°♁	
	565 Oct 07 j 17:06	0°♁		asc. node	568 Mar 26 j 19:17	1°♁05'34	
morning max el	565 Oct 08 j 08:54	0°♁39'32	46°33'05		568 Apr 19 j 15:03	0°♁	
asc. node	565 Oct 10 j 00:02	2°♁18'11			568 May 14 j 18:16	0°♁	
	565 Nov 04 j 12:49	0°♁			568 Jun 09 j 12:18	0°♁	
	565 Nov 30 j 02:49	0°♁			568 Jul 06 j 09:01	0°♁	
	565 Dec 24 j 20:48	0°♁		desc. node	568 Jul 16 j 08:43	10°♁37'08	
	566 Jan 18 j 07:11	0°♁		evening max el	568 Jul 31 j 01:05	25°♁23'07	46°04'46
desc. node	566 Jan 29 j 13:44	13°♁53'20			568 Aug 04 j 22:21	0°♁	
	566 Feb 11 j 15:15	0°♁		greatest brilliancy	568 Sep 07 j 23:48	23°♁58'52	-4.6m
	566 Mar 07 j 23:16	0°♁		retrograde	568 Sep 18 j 09:51	25°♁57'55	
	566 Apr 01 j 08:11	0°♁		evening set	568 Oct 04 j 17:49	20°♁53'11	
morning set	566 Apr 13 j 22:20	15°♁28'42		inferior conj	568 Oct 09 j 03:43	18°♁16'23	-6°-29'-5
	566 Apr 25 j 18:06	0°♁		minimum elong	568 Oct 09 j 14:22	18°♁00'13	6°26'48
	566 May 20 j 04:31	0°♁		min. Earth dist.	568 Oct 09 j 23:29	17°♁46'23	0.26990 AU
max. Earth dist.	566 May 20 j 09:14	0°♁14'28	1.73631 AU	morning rise	568 Oct 14 j 10:23	15°♁09'24	
				direct	568 Oct 29 j 20:10	10°♁28'31	
superior conj	566 May 20 j 18:58	0°♁44'22	0°-4'-33	asc. node	568 Nov 06 j 11:50	11°♁36'47	
minimum elong	566 May 20 j 19:55	0°♁47'15	0°04'32	greatest brilliancy	568 Nov 12 j 09:16	13°♁51'50	-4.7m
behind sun begin	566 May 19 j 22:11	29°♁40'31			568 Dec 05 j 01:30	0°♁	
behind sun end	566 May 21 j 17:39	1°♁53'57		morning max el	568 Dec 19 j 15:42	14°♁01'19	46°56'39
asc. node	566 May 22 j 16:58	3°♁05'32			569 Jan 03 j 17:00	0°♁	
	566 Jun 13 j 14:36	0°♁			569 Jan 30 j 03:50	0°♁	

	569 Feb 24 j 14:59	0°♊			571 Sep 07 j 09:44	0°♌		
desc. node	569 Feb 26 j 01:32	1°♊42'53			571 Oct 04 j 17:26	0°♍		
	569 Mar 21 j 16:28	0°♋		evening max el	571 Oct 13 j 13:00	9°♍03'56	47°13'42	
	569 Apr 15 j 13:24	0°♌			571 Nov 05 j 18:10	0°♎		
	569 May 10 j 07:37	0°♍		greatest brilliancy	571 Nov 21 j 02:41	9°♎26'11	-4.7m	
	569 Jun 03 j 23:09	0°♎		retrograde	571 Dec 03 j 05:29	12°♎10'38		
asc. node	569 Jun 19 j 04:52	18°♎37'57		asc. node	571 Dec 04 j 23:49	12°♎06'48		
morning set	569 Jun 20 j 15:12	20°♎23'07		evening set	571 Dec 17 j 22:05	7°♎50'11		
	569 Jun 28 j 11:12	0°♏		min. Earth dist.	571 Dec 22 j 23:20	4°♎50'56	0.26627 AU	
	569 Jul 22 j 19:11	0°♐		inferior conj	571 Dec 23 j 18:56	4°♎20'44	4°37'41	
max. Earth dist.	569 Jul 23 j 11:57	0°♐51'50	1.72960 AU	minimum elong	571 Dec 23 j 09:51	4°♎34'44	4°35'11	
				morning rise	571 Dec 28 j 22:14	1°♎17'21		
superior conj	569 Jul 26 j 23:11	5°♐09'27	1°13'52		571 Dec 31 j 09:07	30°♏		
minimum elong	569 Jul 26 j 15:36	4°♐45'57	1°13'41	direct	572 Jan 13 j 04:13	26°♏42'20		
	569 Aug 15 j 23:36	0°♑		greatest brilliancy	572 Jan 24 j 00:04	28°♏54'35	-4.6m	
evening rise	569 Sep 01 j 14:07	20°♑40'07			572 Jan 26 j 13:33	0°♐		
	569 Sep 09 j 01:52	0°♒		morning max el	572 Mar 03 j 00:28	28°♐35'29	46°27'23	
	569 Oct 03 j 03:37	0°♓			572 Mar 04 j 10:39	0°♑		
desc. node	569 Oct 08 j 18:21	6°♓59'32		desc. node	572 Mar 25 j 13:21	22°♑04'22		
	569 Oct 27 j 06:03	0°♈			572 Apr 01 j 18:45	0°♒		
	569 Nov 20 j 10:17	0°♉			572 Apr 28 j 06:31	0°♓		
	569 Dec 14 j 18:42	0°♊			572 May 23 j 23:31	0°♈		
	570 Jan 08 j 12:45	0°♋			572 Jun 18 j 05:09	0°♉		
asc. node	570 Jan 29 j 21:28	25°♋07'17			572 Jul 13 j 01:31	0°♊		
	570 Feb 03 j 03:39	0°♌		asc. node	572 Jul 16 j 16:41	4°♊25'20		
	570 Mar 02 j 18:34	0°♍			572 Aug 06 j 13:23	0°♋		
evening max el	570 Mar 07 j 23:35	5°♍12'29	45°53'05	morning set	572 Aug 28 j 03:38	26°♋45'27		
	570 Apr 07 j 09:10	0°♎			572 Aug 30 j 18:08	0°♌		
greatest brilliancy	570 Apr 11 j 06:39	2°♎04'08	-4.5m		572 Sep 23 j 18:02	0°♍		
retrograde	570 Apr 26 j 02:44	5°♎55'09		max. Earth dist.	572 Oct 02 j 17:18	11°♍15'10	1.71459 AU	
evening set	570 May 11 j 06:58	1°♎25'59						
	570 May 13 j 18:30	30°♏		superior conj	572 Oct 05 j 02:20	14°♍14'09	1°05'10	
inferior conj	570 May 17 j 12:59	27°♏40'13	0°54'58	minimum elong	572 Oct 05 j 12:38	14°♍46'28	1°04'51	
minimum elong	570 May 17 j 15:00	27°♏37'04	0°54'23		572 Oct 17 j 15:33	0°♎		
min. Earth dist.	570 May 17 j 15:58	27°♏35'32	0.28971 AU	desc. node	572 Nov 05 j 06:18	23°♎23'41		
desc. node	570 May 21 j 10:54	25°♏15'23			572 Nov 10 j 12:29	0°♏		
morning rise	570 May 23 j 23:08	23°♏48'56		evening rise	572 Nov 14 j 16:31	5°♏14'08		
direct	570 Jun 08 j 04:23	19°♏21'42			572 Dec 04 j 10:03	0°♐		
greatest brilliancy	570 Jun 21 j 19:12	22°♏36'07	-4.5m		572 Dec 28 j 09:26	0°♑		
	570 Jul 04 j 10:04	0°♒			573 Jan 21 j 12:48	0°♒		
morning max el	570 Jul 27 j 02:57	19°♒18'09	45°52'09		573 Feb 14 j 23:34	0°♓		
	570 Aug 06 j 20:54	0°♓		asc. node	573 Feb 26 j 09:22	13°♓48'23		
	570 Sep 03 j 10:10	0°♈			573 Mar 11 j 22:52	0°♈		
asc. node	570 Sep 11 j 14:18	9°♈23'43			573 Apr 06 j 19:06	0°♉		
	570 Sep 29 j 01:30	0°♊			573 May 04 j 07:37	0°♊		
	570 Oct 23 j 17:57	0°♋		evening max el	573 May 17 j 13:16	13°♋12'51	45°19'25	
	570 Nov 16 j 22:46	0°♌			573 Jun 05 j 22:39	0°♋		
	570 Dec 10 j 22:45	0°♍		desc. node	573 Jun 17 j 22:57	7°♋48'19		
desc. node	571 Jan 01 j 03:54	26°♍34'14		greatest brilliancy	573 Jun 22 j 05:23	9°♋51'04	-4.5m	
	571 Jan 03 j 21:38	0°♎		retrograde	573 Jul 05 j 00:48	12°♋43'57		
	571 Jan 27 j 21:18	0°♏		evening set	573 Jul 21 j 18:05	7°♋30'27		
morning set	571 Jan 28 j 21:06	1°♏14'18		inferior conj	573 Jul 26 j 10:21	4°♋40'57	-7°-31'-5	
	571 Feb 20 j 22:48	0°♐		minimum elong	573 Jul 26 j 01:30	4°♋54'41	7°29'47	
				min. Earth dist.	573 Jul 26 j 16:38	4°♋31'12	0.28664 AU	
superior conj	571 Mar 09 j 21:05	21°♐01'29	-1°-21'-29	morning rise	573 Jul 30 j 08:36	2°♋16'47		
minimum elong	571 Mar 10 j 03:11	21°♐20'26	1°21'25		573 Aug 03 j 11:38	30°♌		
max. Earth dist.	571 Mar 13 j 10:48	25°♐27'08	1.72624 AU	direct	573 Aug 16 j 22:51	26°♌28'08		
	571 Mar 17 j 02:55	0°♑			573 Aug 31 j 02:37	0°♍		
	571 Apr 10 j 10:10	0°♒		greatest brilliancy	573 Aug 31 j 08:53	0°♍07'24	-4.6m	
evening rise	571 Apr 17 j 05:32	8°♒22'29		morning max el	573 Oct 05 j 22:44	28°♍18'59	46°31'36	
asc. node	571 Apr 24 j 07:11	17°♒03'22			573 Oct 07 j 14:51	0°♎		
	571 May 04 j 20:39	0°♓		asc. node	573 Oct 09 j 02:11	1°♎29'55		
	571 May 29 j 10:20	0°♈			573 Nov 04 j 04:39	0°♏		
	571 Jun 23 j 03:45	0°♉			573 Nov 29 j 16:30	0°♐		
	571 Jul 18 j 02:40	0°♊			573 Dec 24 j 09:25	0°♑		
	571 Aug 12 j 10:30	0°♋			574 Jan 17 j 19:08	0°♒		
desc. node	571 Aug 13 j 20:29	1°♋39'37		desc. node	574 Jan 28 j 15:41	13°♒23'10		

	574 Feb 11 j 02:45	0°≈		greatest brilliancy	576 Sep 05 j 10:31	21°♁33'33	-4.6m
	574 Mar 07 j 10:25	0°✠		retrograde	576 Sep 15 j 22:42	23°♁33'54	
	574 Mar 31 j 19:03	0°♃		evening set	576 Oct 02 j 09:42	18°♁24'08	
morning set	574 Apr 11 j 15:13	13°♃19'59		inferior conj	576 Oct 06 j 16:25	15°♁51'38	-6°-44'-36
	574 Apr 25 j 04:47	0°♄		minimum elong	576 Oct 07 j 03:00	15°♁35'33	6°42'25
max. Earth dist.	574 May 18 j 05:14	28°♄15'57	1.73627 AU	min. Earth dist.	576 Oct 07 j 12:17	15°♁21'28	0.27053 AU
				morning rise	576 Oct 11 j 19:51	12°♁49'16	
superior conj	574 May 18 j 13:12	28°♄40'25	0°-7'-42	direct	576 Oct 27 j 10:16	8°♁02'57	
minimum elong	574 May 18 j 14:47	28°♄45'17	0°07'38	asc. node	576 Nov 05 j 13:58	9°♁39'45	
behind sun begin	574 May 17 j 18:49	27°♄43'58		greatest brilliancy	576 Nov 10 j 00:03	11°♁27'44	-4.7m
behind sun end	574 May 19 j 10:46	29°♄46'36			576 Dec 05 j 07:23	0°♁	
	574 May 19 j 15:08	0°♁		morning max el	576 Dec 17 j 06:27	11°♁39'06	46°56'42
asc. node	574 May 21 j 19:08	2°♁39'35			577 Jan 03 j 11:10	0°♁	
	574 Jun 13 j 01:16	0°♁			577 Jan 29 j 18:33	0°♁	
evening rise	574 Jun 23 j 13:28	12°♁55'02			577 Feb 24 j 04:02	0°≈	
	574 Jul 07 j 10:46	0°♁		desc. node	577 Feb 25 j 03:35	1°≈10'13	
	574 Jul 31 j 20:09	0°♁			577 Mar 21 j 04:33	0°✠	
	574 Aug 25 j 06:40	0°♁			577 Apr 15 j 00:51	0°♃	
desc. node	574 Sep 10 j 08:28	19°♁39'56			577 May 09 j 18:39	0°♄	
	574 Sep 18 j 19:53	0°♁			577 Jun 03 j 09:55	0°♁	
	574 Oct 13 j 13:42	0°♁		morning set	577 Jun 18 j 09:39	18°♁20'00	
	574 Nov 07 j 16:20	0°♁		asc. node	577 Jun 18 j 06:55	18°♁11'38	
	574 Dec 03 j 15:34	0°≈			577 Jun 27 j 21:49	0°♁	
evening max el	574 Dec 24 j 08:02	22°≈16'31	47°06'09	max. Earth dist.	577 Jul 21 j 07:25	28°♁50'49	1.73005 AU
	575 Jan 01 j 03:00	0°✠			577 Jul 22 j 05:47	0°♁	
asc. node	575 Jan 01 j 11:43	0°✠20'55					
greatest brilliancy	575 Jan 30 j 06:33	22°✠14'39	-4.6m	superior conj	577 Jul 24 j 17:18	3°♁04'05	1°12'16
retrograde	575 Feb 13 j 03:29	25°✠48'01		minimum elong	577 Jul 24 j 09:24	2°♁39'39	1°12'04
evening set	575 Mar 03 j 00:43	19°✠36'45			577 Aug 15 j 10:17	0°♁	
min. Earth dist.	575 Mar 05 j 23:02	17°✠46'45	0.28329 AU	evening rise	577 Aug 30 j 05:58	18°♁26'17	
inferior conj	575 Mar 06 j 07:37	17°✠33'08	8°22'38		577 Sep 08 j 12:45	0°♁	
minimum elong	575 Mar 06 j 12:26	17°✠25'31	8°22'17		577 Oct 02 j 14:46	0°♁	
morning rise	575 Mar 10 j 00:19	15°✠14'53		desc. node	577 Oct 07 j 20:30	6°♁31'25	
direct	575 Mar 27 j 08:54	9°✠26'21			577 Oct 26 j 17:29	0°♁	
greatest brilliancy	575 Apr 07 j 19:54	11°✠48'15	-4.5m		577 Nov 19 j 22:04	0°♁	
desc. node	575 Apr 23 j 01:06	20°✠31'19			577 Dec 14 j 06:59	0°≈	
	575 May 04 j 21:02	0°♃		asc. node	578 Jan 08 j 01:56	0°✠	
morning max el	575 May 15 j 07:13	9°♃32'41	45°49'42		578 Jan 28 j 23:28	24°✠30'58	
	575 Jun 04 j 11:42	0°♄			578 Feb 02 j 18:43	0°♃	
	575 Jul 01 j 18:05	0°♁			578 Mar 02 j 14:47	0°♄	
	575 Jul 27 j 15:57	0°♁		evening max el	578 Mar 05 j 16:00	3°♄01'54	45°55'19
asc. node	575 Aug 14 j 04:29	20°♁52'31		greatest brilliancy	578 Apr 09 j 00:28	29°♄57'23	-4.5m
	575 Aug 21 j 17:46	0°♁			578 Apr 09 j 02:38	0°♁	
	575 Sep 15 j 05:32	0°♁		retrograde	578 Apr 23 j 19:22	3°♁46'50	
	575 Oct 09 j 08:02	0°♁			578 May 07 j 16:14	30°♄	
	575 Nov 02 j 05:35	0°♁		evening set	578 May 09 j 00:49	29°♄16'12	
morning set	575 Nov 10 j 00:38	9°♁48'28		inferior conj	578 May 15 j 05:29	25°♄31'48	1°14'36
	575 Nov 26 j 01:26	0°♁		minimum elong	578 May 15 j 08:11	25°♄27'33	1°13'48
desc. node	575 Dec 03 j 18:06	9°♁41'12		min. Earth dist.	578 May 15 j 08:24	25°♄27'12	0.28963 AU
	575 Dec 19 j 21:33	0°♁		desc. node	578 May 20 j 13:02	22°♄17'33	
				morning rise	578 May 21 j 15:45	21°♄40'09	
superior conj	575 Dec 21 j 15:08	2°♁10'42	0°-40'-53	direct	578 Jun 05 j 21:11	17°♄13'36	
minimum elong	575 Dec 21 j 05:10	1°♁39'23	0°40'27	greatest brilliancy	578 Jun 19 j 08:52	20°♄24'51	-4.5m
max. Earth dist.	575 Dec 24 j 02:28	5°♁17'11	1.71167 AU		578 Jul 05 j 00:35	0°♁	
	576 Jan 12 j 19:03	0°≈		morning max el	578 Jul 24 j 18:37	17°♁07'55	45°51'15
evening rise	576 Jan 31 j 22:19	23°≈56'08			578 Aug 06 j 15:16	0°♁	
	576 Feb 05 j 19:03	0°✠			578 Sep 03 j 00:28	0°♁	
	576 Feb 29 j 23:05	0°♃		asc. node	578 Sep 10 j 16:30	8°♁50'18	
	576 Mar 25 j 08:57	0°♄			578 Sep 28 j 14:14	0°♁	
asc. node	576 Mar 25 j 21:25	0°♄38'04			578 Oct 23 j 05:56	0°♁	
	576 Apr 19 j 02:35	0°♁			578 Nov 16 j 10:23	0°♁	
	576 May 14 j 06:32	0°♁			578 Dec 10 j 10:07	0°♁	
	576 Jun 09 j 02:00	0°♁		desc. node	578 Dec 31 j 05:53	26°♁05'27	
	576 Jul 06 j 01:51	0°♁			579 Jan 03 j 08:48	0°♁	
desc. node	576 Jul 15 j 10:39	9°♁53'13		morning set	579 Jan 26 j 07:44	28°♁43'16	
evening max el	576 Jul 28 j 15:10	23°♁05'30	46°02'14		579 Jan 27 j 08:18	0°≈	
	576 Aug 05 j 00:52	0°♁			579 Feb 20 j 09:40	0°✠	



superior conj	579 Mar 07 j 10:54	18° $\Upsilon$ 41'59	-1°-22'-31	morning rise	581 Jul 28 j 02:53	0° $\Omega$ 00'34	
minimum elong	579 Mar 07 j 16:18	18° $\Upsilon$ 58'44	1°22'28		581 Jul 28 j 03:16	30° $\Theta$	
max. Earth dist.	579 Mar 11 j 05:14	23° $\Upsilon$ 22'05	1.72570 AU	direct	581 Aug 14 j 14:18	24° $\Theta$ 15'10	
	579 Mar 16 j 13:42	0° $\Upsilon$		greatest brilliancy	581 Aug 29 j 02:09	27° $\Theta$ 56'08	-4.6m
	579 Apr 09 j 20:57	0° $\Upsilon$			581 Sep 02 j 00:25	0° $\Omega$	
evening rise	579 Apr 14 j 21:52	6° $\Upsilon$ 11'58		morning max el	581 Oct 03 j 13:25	26° $\Omega$ 00'38	46°30'20
asc. node	579 Apr 23 j 09:20	16° $\Upsilon$ 36'50			581 Oct 07 j 11:54	0° $\Upsilon$	
	579 May 04 j 07:31	0° $\Upsilon$		asc. node	581 Oct 08 j 04:16	0° $\Upsilon$ 42'05	
	579 May 28 j 21:25	0° $\Theta$			581 Nov 03 j 20:16	0° $\Omega$	
	579 Jun 22 j 15:15	0° $\Omega$			581 Nov 29 j 06:07	0° $\Upsilon$	
	579 Jul 17 j 14:53	0° $\Upsilon$			581 Dec 23 j 22:01	0° $\Upsilon$	
	579 Aug 11 j 23:55	0° $\Omega$			582 Jan 17 j 07:09	0° $\Theta$	
desc. node	579 Aug 12 j 22:34	1° $\Omega$ 06'15		desc. node	582 Jan 27 j 17:44	12° $\Theta$ 53'03	
	579 Sep 07 j 01:21	0° $\Upsilon$			582 Feb 10 j 14:21	0° $\approx$	
	579 Oct 04 j 14:05	0° $\Upsilon$			582 Mar 06 j 21:43	0° $\Upsilon$	
evening max el	579 Oct 11 j 02:38	6° $\Upsilon$ 39'29	47°11'57		582 Mar 31 j 06:06	0° $\Upsilon$	
	579 Nov 06 j 15:26	0° $\Theta$		morning set	582 Apr 09 j 07:39	11° $\Upsilon$ 09'14	
greatest brilliancy	579 Nov 18 j 18:26	7° $\Theta$ 00'37	-4.7m		582 Apr 24 j 15:39	0° $\Upsilon$	
retrograde	579 Nov 30 j 17:41	9° $\Theta$ 41'18		max. Earth dist.	582 May 16 j 02:02	26° $\Upsilon$ 19'21	1.73620 AU
asc. node	579 Dec 04 j 01:52	9° $\Theta$ 27'32					
evening set	579 Dec 15 j 08:40	5° $\Theta$ 24'38		superior conj	582 May 16 j 07:08	26° $\Upsilon$ 34'59	0°-10'-51
min. Earth dist.	579 Dec 20 j 13:13	2° $\Theta$ 20'53	0.26583 AU	minimum elong	582 May 16 j 09:22	26° $\Upsilon$ 41'50	0°10'45
inferior conj	579 Dec 21 j 07:27	1° $\Theta$ 52'47	4°16'50	behind sun begin	582 May 15 j 16:34	25° $\Upsilon$ 50'17	
minimum elong	579 Dec 20 j 22:50	2° $\Theta$ 06'03	4°14'24	behind sun end	582 May 17 j 02:09	27° $\Upsilon$ 33'23	
	579 Dec 24 j 09:36	30° $\Upsilon$			582 May 19 j 01:55	0° $\Upsilon$	
morning rise	579 Dec 26 j 13:32	28° $\Upsilon$ 45'22		asc. node	582 May 20 j 21:07	2° $\Upsilon$ 12'34	
direct	580 Jan 10 j 16:12	24° $\Upsilon$ 15'02			582 Jun 12 j 12:06	0° $\Theta$	
greatest brilliancy	580 Jan 21 j 14:16	26° $\Upsilon$ 29'04	-4.6m	evening rise	582 Jun 21 j 08:34	10° $\Theta$ 52'49	
	580 Jan 28 j 18:39	0° $\Theta$			582 Jul 06 j 21:46	0° $\Omega$	
morning max el	580 Feb 29 j 12:22	26° $\Theta$ 09'15	46°28'55		582 Jul 31 j 07:26	0° $\Upsilon$	
	580 Mar 04 j 08:52	0° $\approx$			582 Aug 24 j 18:22	0° $\Omega$	
desc. node	580 Mar 24 j 15:32	21° $\approx$ 23'48		desc. node	582 Sep 09 j 10:39	19° $\Omega$ 09'49	
	580 Apr 01 j 10:42	0° $\Upsilon$			582 Sep 18 j 08:08	0° $\Upsilon$	
	580 Apr 27 j 20:03	0° $\Upsilon$			582 Oct 13 j 02:48	0° $\Upsilon$	
	580 May 23 j 11:48	0° $\Upsilon$			582 Nov 07 j 06:47	0° $\Theta$	
	580 Jun 17 j 16:43	0° $\Upsilon$			582 Dec 03 j 08:47	0° $\approx$	
	580 Jul 12 j 12:39	0° $\Theta$		evening max el	582 Dec 21 j 22:50	19° $\approx$ 56'05	47°08'02
asc. node	580 Jul 15 j 18:41	3° $\Theta$ 57'34		asc. node	582 Dec 31 j 13:42	29° $\approx$ 24'15	
	580 Aug 06 j 00:18	0° $\Omega$			583 Jan 01 j 04:55	0° $\Upsilon$	
morning set	580 Aug 25 j 19:42	24° $\Omega$ 32'19		greatest brilliancy	583 Jan 27 j 22:12	19° $\Upsilon$ 57'33	-4.6m
	580 Aug 30 j 04:58	0° $\Upsilon$		retrograde	583 Feb 10 j 19:38	23° $\Upsilon$ 31'45	
	580 Sep 23 j 04:54	0° $\Omega$		evening set	583 Feb 28 j 17:33	17° $\Upsilon$ 18'13	
max. Earth dist.	580 Sep 30 j 04:03	8° $\Omega$ 44'09	1.71504 AU	min. Earth dist.	583 Mar 03 j 13:20	15° $\Upsilon$ 32'19	0.28287 AU
				inferior conj	583 Mar 03 j 23:03	15° $\Upsilon$ 16'57	8°27'49
superior conj	580 Oct 02 j 15:59	11° $\Omega$ 52'13	1°07'26	minimum elong	583 Mar 04 j 03:11	15° $\Upsilon$ 10'26	8°27'34
minimum elong	580 Oct 03 j 02:02	12° $\Omega$ 23'44	1°07'07	morning rise	583 Mar 07 j 12:59	13° $\Upsilon$ 03'11	
	580 Oct 17 j 02:29	0° $\Upsilon$		direct	583 Mar 24 j 23:42	7° $\Upsilon$ 10'46	
desc. node	580 Nov 04 j 08:23	22° $\Upsilon$ 55'36		greatest brilliancy	583 Apr 05 j 09:37	9° $\Upsilon$ 32'08	-4.5m
	580 Nov 09 j 23:33	0° $\Upsilon$		desc. node	583 Apr 22 j 03:11	19° $\Upsilon$ 21'02	
evening rise	580 Nov 12 j 03:02	2° $\Upsilon$ 41'40			583 May 05 j 00:44	0° $\Upsilon$	
	580 Dec 03 j 21:14	0° $\Theta$		morning max el	583 May 12 j 23:19	7° $\Upsilon$ 21'43	45°50'29
	580 Dec 27 j 20:48	0° $\approx$			583 Jun 04 j 04:49	0° $\Upsilon$	
	581 Jan 21 j 00:24	0° $\Upsilon$			583 Jul 01 j 08:03	0° $\Upsilon$	
	581 Feb 14 j 11:34	0° $\Upsilon$			583 Jul 27 j 04:30	0° $\Theta$	
asc. node	581 Feb 25 j 11:33	13° $\Upsilon$ 17'59		asc. node	583 Aug 13 j 06:40	20° $\Theta$ 22'55	
	581 Mar 11 j 11:38	0° $\Upsilon$			583 Aug 21 j 05:37	0° $\Omega$	
	581 Apr 06 j 09:31	0° $\Upsilon$			583 Sep 14 j 17:01	0° $\Upsilon$	
	581 May 04 j 02:14	0° $\Theta$			583 Oct 08 j 19:20	0° $\Omega$	
evening max el	581 May 15 j 03:34	10° $\Theta$ 58'26	45°19'20		583 Nov 01 j 16:48	0° $\Upsilon$	
	581 Jun 06 j 14:08	0° $\Omega$		morning set	583 Nov 07 j 12:11	7° $\Upsilon$ 18'30	
desc. node	581 Jun 17 j 00:56	6° $\Omega$ 21'05			583 Nov 25 j 12:37	0° $\Upsilon$	
greatest brilliancy	581 Jun 19 j 17:12	7° $\Omega$ 35'32	-4.5m	desc. node	583 Dec 02 j 20:06	9° $\Upsilon$ 12'22	
retrograde	581 Jul 02 j 16:02	10° $\Omega$ 32'29					
evening set	581 Jul 19 j 06:06	5° $\Omega$ 23'00		superior conj	583 Dec 19 j 00:45	29° $\Upsilon$ 34'57	0°-37'-18
inferior conj	581 Jul 24 j 01:52	2° $\Omega$ 28'43	-7°-20'-10	minimum elong	583 Dec 18 j 15:27	29° $\Upsilon$ 05'42	0°36'55
minimum elong	581 Jul 23 j 16:40	2° $\Omega$ 42'58	7°18'44		583 Dec 19 j 08:43	0° $\Theta$	
min. Earth dist.	581 Jul 24 j 07:44	2° $\Omega$ 19'37	0.28696 AU	max. Earth dist.	583 Dec 21 j 11:19	2° $\Theta$ 39'05	1.71141 AU

	584 Jan 12 j 06:11	0°≈		morning max el	586 Jul 22 j 09:42	14°II55'22	45°50'19
evening rise	584 Jan 29 j 09:44	21°≈27'17			586 Aug 06 j 09:33	0°☉	
	584 Feb 05 j 06:11	0°✠			586 Sep 02 j 14:58	0°♁	
	584 Feb 29 j 10:18	0°♃		asc. node	586 Sep 09 j 18:36	8°♁15'47	
	584 Mar 24 j 20:23	0°♄			586 Sep 28 j 03:12	0°♃	
asc. node	584 Mar 24 j 23:31	0°♄09'34			586 Oct 22 j 18:10	0°♅	
	584 Apr 18 j 14:26	0°♆			586 Nov 15 j 22:14	0°♇	
	584 May 13 j 19:11	0°☉			586 Dec 09 j 21:44	0°♁	
	584 Jun 08 j 16:11	0°♁		desc. node	586 Dec 30 j 07:56	25°♁35'59	
	584 Jul 05 j 19:22	0°♃			587 Jan 02 j 20:14	0°♄	
desc. node	584 Jul 14 j 12:46	9°♃08'17		morning set	587 Jan 23 j 18:13	26°♄10'47	
evening max el	584 Jul 26 j 05:33	20°♃47'49	45°59'45		587 Jan 26 j 19:35	0°≈	
	584 Aug 05 j 05:24	0°♅			587 Feb 19 j 20:49	0°✠	
greatest brilliancy	584 Sep 02 j 22:02	19°♅08'41	-4.6m				
retrograde	584 Sep 13 j 11:20	21°♅09'20		superior conj	587 Mar 05 j 00:48	16°✠21'47	-1°-23'-24
evening set	584 Sep 30 j 01:43	15°♅54'50		minimum elong	587 Mar 05 j 05:27	16°✠36'15	1°23'22
inferior conj	584 Oct 04 j 05:15	13°♅26'29	-6°-59'-10	max. Earth dist.	587 Mar 08 j 22:25	21°✠12'12	1.72509 AU
minimum elong	584 Oct 04 j 15:41	13°♅10'37	6°57'09		587 Mar 16 j 00:46	0°♃	
min. Earth dist.	584 Oct 05 j 01:10	12°♅56'11	0.27115 AU		587 Apr 09 j 07:57	0°♄	
morning rise	584 Oct 09 j 05:16	10°♅28'43		evening rise	587 Apr 12 j 14:16	4°♄00'57	
direct	584 Oct 25 j 00:29	5°♅37'03		asc. node	587 Apr 22 j 11:21	16°♄09'10	
asc. node	584 Nov 04 j 16:00	7°♅46'25			587 May 03 j 18:35	0°♆	
greatest brilliancy	584 Nov 07 j 14:19	9°♅02'07	-4.7m		587 May 28 j 08:44	0°☉	
	584 Dec 05 j 11:44	0°♇			587 Jun 22 j 03:02	0°♁	
morning max el	584 Dec 14 j 20:34	9°♇14'19	46°56'46		587 Jul 17 j 03:26	0°♃	
	585 Jan 03 j 05:14	0°♁			587 Aug 11 j 13:45	0°♅	
	585 Jan 29 j 09:22	0°♄		desc. node	587 Aug 12 j 00:42	0°♅31'56	
	585 Feb 23 j 17:15	0°≈			587 Sep 06 j 17:32	0°♇	
desc. node	585 Feb 24 j 05:46	0°≈37'24			587 Oct 04 j 11:46	0°♁	
	585 Mar 20 j 16:49	0°✠		evening max el	587 Oct 08 j 15:16	4°♁11'53	47°10'15
	585 Apr 14 j 12:31	0°♃			587 Nov 07 j 20:59	0°♄	
	585 May 09 j 05:56	0°♄		greatest brilliancy	587 Nov 16 j 09:56	4°♄33'58	-4.7m
	585 Jun 02 j 20:59	0°♆		retrograde	587 Nov 28 j 05:49	7°♄11'32	
morning set	585 Jun 16 j 04:05	16°♆15'53		asc. node	587 Dec 03 j 03:53	6°♄41'37	
asc. node	585 Jun 17 j 08:58	17°♆44'19		evening set	587 Dec 12 j 19:27	2°♄57'52	
	585 Jun 27 j 08:45	0°☉			587 Dec 17 j 20:41	30°♁	
max. Earth dist.	585 Jul 19 j 01:19	26°☉44'06	1.73049 AU	min. Earth dist.	587 Dec 18 j 03:14	29°♁49'56	0.26546 AU
	585 Jul 21 j 16:42	0°♁		inferior conj	587 Dec 18 j 19:59	29°♁24'09	3°55'30
				minimum elong	587 Dec 18 j 11:54	29°♁36'36	3°53'09
superior conj	585 Jul 22 j 11:24	0°♁57'50	1°10'33	morning rise	587 Dec 24 j 04:46	26°♁13'00	
minimum elong	585 Jul 22 j 03:15	0°♁32'39	1°10'21	direct	588 Jan 08 j 03:53	21°♁46'44	
	585 Aug 14 j 21:17	0°♃		greatest brilliancy	588 Jan 19 j 05:17	24°♁03'39	-4.6m
evening rise	585 Aug 27 j 21:52	16°♃11'48			588 Jan 30 j 06:04	0°♄	
	585 Sep 07 j 23:57	0°♅		morning max el	588 Feb 27 j 00:44	23°♄43'08	46°30'32
	585 Oct 02 j 02:13	0°♇			588 Mar 04 j 06:33	0°≈	
desc. node	585 Oct 06 j 22:31	6°♇01'53		desc. node	588 Mar 23 j 17:30	20°≈42'21	
	585 Oct 26 j 05:16	0°♁			588 Apr 01 j 02:40	0°✠	
	585 Nov 19 j 10:13	0°♄			588 Apr 27 j 09:41	0°♃	
	585 Dec 13 j 19:40	0°≈			588 May 23 j 00:11	0°♄	
	586 Jan 07 j 15:32	0°✠			588 Jun 17 j 04:23	0°♆	
asc. node	586 Jan 28 j 01:41	23°✠54'09			588 Jul 11 j 23:55	0°☉	
	586 Feb 02 j 10:17	0°♃		asc. node	588 Jul 14 j 20:53	3°☉30'04	
	586 Mar 02 j 11:57	0°♄			588 Aug 05 j 11:22	0°♁	
evening max el	586 Mar 03 j 07:38	0°♄48'33	45°57'37	morning set	588 Aug 23 j 11:50	22°♁18'53	
greatest brilliancy	586 Apr 06 j 18:27	27°♄50'22	-4.5m		588 Aug 29 j 16:00	0°♃	
	586 Apr 12 j 00:49	0°♆			588 Sep 22 j 15:59	0°♅	
retrograde	586 Apr 21 j 11:46	1°♆38'19		max. Earth dist.	588 Sep 27 j 16:25	6°♅17'34	1.71551 AU
	586 Apr 30 j 13:21	30°♄					
evening set	586 May 06 j 18:57	27°♄06'01		superior conj	588 Sep 30 j 05:36	9°♅29'32	1°09'34
inferior conj	586 May 12 j 22:11	23°♄23'15	1°33'54	minimum elong	588 Sep 30 j 15:20	10°♅00'02	1°09'17
minimum elong	586 May 13 j 01:34	23°♄17'56	1°32'55		588 Oct 16 j 13:39	0°♇	
min. Earth dist.	586 May 13 j 01:17	23°♄18'22	0.28957 AU	desc. node	588 Nov 03 j 10:23	22°♇26'35	
morning rise	586 May 19 j 08:22	19°♄31'17			588 Nov 09 j 10:48	0°♁	
desc. node	586 May 19 j 15:00	19°♄22'14		evening rise	588 Nov 09 j 13:28	0°♁08'22	
direct	586 Jun 03 j 13:48	15°♄05'16			588 Dec 03 j 08:37	0°♄	
greatest brilliancy	586 Jun 16 j 23:01	18°♄13'32	-4.5m		588 Dec 27 j 08:21	0°≈	
	586 Jul 05 j 11:45	0°♆			589 Jan 20 j 12:12	0°✠	

	589 Feb 13 j 23:47	0°♃			591 Jul 26 j 16:53	0°♄	
asc. node	589 Feb 24 j 13:36	12°♃46'32		asc. node	591 Aug 12 j 08:44	19°♄53'33	
	589 Mar 11 j 00:39	0°♄			591 Aug 20 j 17:17	0°♅	
	589 Apr 06 j 00:16	0°♅			591 Sep 14 j 04:17	0°♆	
	589 May 03 j 21:27	0°♆			591 Oct 08 j 06:26	0°♇	
evening max el	589 May 12 j 18:43	8°♄46'03	45°19'31		591 Nov 01 j 03:52	0°♈	
	589 Jun 07 j 10:52	0°♇		morning set	591 Nov 04 j 23:54	4°♈49'30	
desc. node	589 Jun 16 j 03:01	4°♇51'26			591 Nov 24 j 23:42	0°♉	
greatest brilliancy	589 Jun 17 j 04:41	5°♇20'06	-4.5m	desc. node	591 Dec 01 j 22:14	8°♉44'16	
retrograde	589 Jun 30 j 08:00	8°♇21'43					
evening set	589 Jul 16 j 18:27	3°♇16'08		superior conj	591 Dec 16 j 10:02	26°♉58'21	0°-33'-37
inferior conj	589 Jul 21 j 17:35	0°♇17'06	-7°-8'-44	minimum elong	591 Dec 16 j 01:30	26°♉31'31	0°33'14
minimum elong	589 Jul 21 j 08:05	0°♇31'47	7°07'10	max. Earth dist.	591 Dec 18 j 19:35	29°♉59'21	1.71121 AU
min. Earth dist.	589 Jul 21 j 22:40	0°♇09'15	0.28728 AU		591 Dec 18 j 19:48	0°♊	
	589 Jul 22 j 04:38	30°♄			592 Jan 11 j 17:15	0°♋	
morning rise	589 Jul 25 j 21:25	27°♄45'00		evening rise	592 Jan 26 j 20:30	18°♋56'27	
direct	589 Aug 12 j 06:21	22°♄02'59			592 Feb 04 j 17:15	0°♌	
greatest brilliancy	589 Aug 26 j 19:19	25°♄45'22	-4.6m		592 Feb 28 j 21:26	0°♍	
	589 Sep 03 j 07:12	0°♈		asc. node	592 Mar 24 j 01:30	29°♍40'59	
morning max el	589 Oct 01 j 05:12	23°♈45'10	46°28'47		592 Mar 24 j 07:44	0°♎	
	589 Oct 07 j 08:19	0°♎			592 Apr 18 j 02:13	0°♏	
asc. node	589 Oct 07 j 06:17	29°♈54'43			592 May 13 j 07:46	0°♐	
	589 Nov 03 j 11:47	0°♏			592 Jun 08 j 06:21	0°♑	
	589 Nov 28 j 19:45	0°♐			592 Jul 05 j 13:04	0°♒	
	589 Dec 23 j 10:41	0°♑		desc. node	592 Jul 13 j 14:56	8°♒23'27	
	590 Jan 16 j 19:13	0°♒		evening max el	592 Jul 23 j 19:44	18°♒30'29	45°57'24
desc. node	590 Jan 26 j 19:57	12°♒23'14			592 Aug 05 j 11:32	0°♓	
	590 Feb 10 j 02:01	0°♓		greatest brilliancy	592 Aug 31 j 10:38	16°♓46'30	-4.6m
	590 Mar 06 j 09:03	0°♈		retrograde	592 Sep 10 j 23:42	18°♓46'32	
	590 Mar 30 j 17:11	0°♉		evening set	592 Sep 27 j 17:55	13°♓27'35	
morning set	590 Apr 06 j 23:53	8°♉57'34		inferior conj	592 Oct 01 j 18:21	11°♓03'20	-7°-12'-45
	590 Apr 24 j 02:35	0°♊		minimum elong	592 Oct 02 j 04:32	10°♓47'49	7°10'54
				min. Earth dist.	592 Oct 02 j 14:27	10°♓32'42	0.27176 AU
superior conj	590 May 14 j 00:59	24°♊29'07	0°-14'00	morning rise	592 Oct 06 j 14:47	8°♓10'11	
minimum elong	590 May 14 j 03:52	24°♊37'59	0°13'53	direct	592 Oct 22 j 14:25	3°♓13'10	
behind sun begin	590 May 13 j 16:50	24°♊04'06		asc. node	592 Nov 03 j 18:05	5°♓59'03	
behind sun end	590 May 14 j 14:54	25°♊11'51		greatest brilliancy	592 Nov 05 j 04:34	6°♓38'04	-4.7m
max. Earth dist.	590 May 13 j 23:42	24°♊25'10	1.73609 AU		592 Dec 05 j 14:00	0°♔	
	590 May 18 j 12:45	0°♋		morning max el	592 Dec 12 j 09:48	6°♔48'08	46°56'31
asc. node	590 May 19 j 23:13	1°♋45'46			593 Jan 02 j 22:38	0°♕	
	590 Jun 11 j 22:57	0°♌			593 Jan 28 j 23:49	0°♖	
evening rise	590 Jun 19 j 03:47	8°♌51'00			593 Feb 23 j 06:14	0°♗	
	590 Jul 06 j 08:45	0°♍		desc. node	593 Feb 23 j 07:44	0°♗04'29	
	590 Jul 30 j 18:41	0°♎			593 Mar 20 j 04:54	0°♘	
	590 Aug 24 j 06:02	0°♏			593 Apr 14 j 00:00	0°♙	
desc. node	590 Sep 08 j 12:39	18°♏39'11			593 May 08 j 17:02	0°♚	
	590 Sep 17 j 20:25	0°♐			593 Jun 02 j 07:49	0°♛	
	590 Oct 12 j 16:00	0°♑		morning set	593 Jun 13 j 22:13	14°♛11'29	
	590 Nov 06 j 21:29	0°♒		asc. node	593 Jun 16 j 11:06	17°♛17'59	
	590 Dec 03 j 02:30	0°♓			593 Jun 26 j 19:28	0°♜	
evening max el	590 Dec 19 j 14:24	17°♓37'09	47°09'50	max. Earth dist.	593 Jul 16 j 18:31	24°♜35'57	1.73092 AU
asc. node	590 Dec 30 j 15:54	28°♓26'24					
	591 Jan 01 j 08:34	0°♈		superior conj	593 Jul 20 j 05:27	28°♜52'12	1°08'45
greatest brilliancy	591 Jan 25 j 14:09	17°♈40'02	-4.6m	minimum elong	593 Jul 19 j 21:06	28°♜26'24	1°08'31
retrograde	591 Feb 08 j 11:45	21°♈14'06			593 Jul 21 j 03:23	0°♉	
evening set	591 Feb 26 j 09:49	14°♈58'55			593 Aug 14 j 08:03	0°♊	
min. Earth dist.	591 Mar 01 j 02:58	13°♈17'09	0.28239 AU	evening rise	593 Aug 25 j 13:59	13°♊58'52	
inferior conj	591 Mar 01 j 14:09	12°♈59'30	8°32'20		593 Sep 07 j 10:53	0°♋	
minimum elong	591 Mar 01 j 17:32	12°♈54'10	8°32'10		593 Oct 01 j 13:23	0°♌	
morning rise	591 Mar 05 j 01:28	10°♈49'58		desc. node	593 Oct 06 j 00:33	5°♌33'21	
direct	591 Mar 22 j 14:36	4°♈54'13			593 Oct 25 j 16:42	0°♍	
greatest brilliancy	591 Apr 02 j 21:57	7°♈13'51	-4.5m		593 Nov 18 j 22:02	0°♎	
desc. node	591 Apr 21 j 05:14	18°♈12'22			593 Dec 13 j 08:04	0°♏	
	591 May 05 j 02:55	0°♉			594 Jan 07 j 04:57	0°♐	
morning max el	591 May 10 j 15:19	5°♉10'24	45°51'19	asc. node	594 Jan 27 j 03:41	23°♐17'08	
	591 Jun 03 j 21:34	0°♊			594 Feb 02 j 01:50	0°♑	
	591 Jun 30 j 21:49	0°♋		evening max el	594 Feb 28 j 22:17	28°♑33'03	45°59'52

	594 Mar 02 j 09:45	0°♄			596 Sep 22 j 02:46	0°♄		
greatest brilliancy	594 Apr 04 j 11:39	25°♄42'11	-4.5m	max. Earth dist.	596 Sep 25 j 05:56	3°♄55'35	1.71598 AU	
retrograde	594 Apr 19 j 03:49	29°♄29'38						
evening set	594 May 04 j 12:56	24°♄55'14		superior conj	596 Sep 27 j 19:09	7°♄07'32	1°11'34	
inferior conj	594 May 10 j 14:39	21°♄14'34	1°53'12	minimum elong	596 Sep 28 j 04:30	7°♄36'51	1°11'20	
minimum elong	594 May 10 j 18:42	21°♄08'11	1°52'03		596 Oct 16 j 00:31	0°♄		
min. Earth dist.	594 May 10 j 18:12	21°♄08'58	0.28950 AU	desc. node	596 Nov 02 j 12:31	21°♄58'54		
morning rise	594 May 17 j 00:34	17°♄22'31		evening rise	596 Nov 06 j 23:58	27°♄36'11		
desc. node	594 May 18 j 17:07	16°♄29'02			596 Nov 08 j 21:47	0°♄		
direct	594 Jun 01 j 05:37	12°♄56'40			596 Dec 02 j 19:43	0°♄		
greatest brilliancy	594 Jun 14 j 13:47	16°♄03'07	-4.5m		596 Dec 26 j 19:35	0°♄		
	594 Jul 05 j 19:45	0°♄			597 Jan 19 j 23:38	0°♄		
morning max el	594 Jul 20 j 00:20	12°♄42'19	45°49'32		597 Feb 13 j 11:37	0°♄		
	594 Aug 06 j 03:07	0°♄		asc. node	597 Feb 23 j 15:36	12°♄16'06		
	594 Sep 02 j 05:01	0°♄			597 Mar 10 j 13:20	0°♄		
asc. node	594 Sep 08 j 20:32	7°♄41'57			597 Apr 05 j 14:49	0°♄		
	594 Sep 27 j 15:47	0°♄			597 May 03 j 16:57	0°♄		
	594 Oct 22 j 06:02	0°♄		evening max el	597 May 10 j 10:45	6°♄36'31	45°19'34	
	594 Nov 15 j 09:42	0°♄			597 Jun 08 j 15:07	0°♄		
	594 Dec 09 j 08:56	0°♄		greatest brilliancy	597 Jun 14 j 16:40	3°♄05'42	-4.5m	
desc. node	594 Dec 29 j 10:06	25°♄08'11		desc. node	597 Jun 15 j 05:10	3°♄19'06		
	595 Jan 02 j 07:15	0°♄		retrograde	597 Jun 27 j 23:56	6°♄11'02		
morning set	595 Jan 21 j 04:50	23°♄39'48		evening set	597 Jul 14 j 06:47	1°♄09'28		
	595 Jan 26 j 06:28	0°♄			597 Jul 16 j 06:24	30°♄		
	595 Feb 19 j 07:37	0°♄		inferior conj	597 Jul 19 j 09:10	28°♄05'39	-6°-56'-38	
				minimum elong	597 Jul 18 j 23:27	28°♄20'40	6°54'56	
superior conj	595 Mar 02 j 14:32	14°♄02'07	-1°-24'-9	min. Earth dist.	597 Jul 19 j 13:20	27°♄59'11	0.28757 AU	
minimum elong	595 Mar 02 j 18:23	14°♄14'05	1°24'08	morning rise	597 Jul 23 j 15:52	25°♄29'28		
max. Earth dist.	595 Mar 06 j 13:14	18°♄55'58	1.72454 AU	direct	597 Aug 09 j 22:44	19°♄51'09		
	595 Mar 15 j 11:30	0°♄		greatest brilliancy	597 Aug 24 j 11:21	23°♄33'37	-4.5m	
	595 Apr 08 j 18:41	0°♄			597 Sep 04 j 05:11	0°♄		
evening rise	595 Apr 10 j 06:12	1°♄49'15		morning max el	597 Sep 28 j 21:08	21°♄30'53	46°27'13	
asc. node	595 Apr 21 j 13:25	15°♄42'30		asc. node	597 Oct 06 j 08:26	29°♄08'59		
	595 May 03 j 05:25	0°♄			597 Oct 07 j 03:53	0°♄		
	595 May 27 j 19:48	0°♄			597 Nov 03 j 02:51	0°♄		
	595 Jun 21 j 14:34	0°♄			597 Nov 28 j 09:02	0°♄		
	595 Jul 16 j 15:47	0°♄			597 Dec 22 j 23:03	0°♄		
	595 Aug 11 j 03:26	0°♄		desc. node	598 Jan 16 j 07:01	0°♄		
desc. node	595 Aug 11 j 02:41	29°♄57'49		desc. node	598 Jan 25 j 21:52	11°♄53'19		
	595 Sep 06 j 09:40	0°♄			598 Feb 09 j 13:23	0°♄		
	595 Oct 04 j 09:54	0°♄			598 Mar 05 j 20:06	0°♄		
evening max el	595 Oct 06 j 03:43	1°♄44'59	47°08'38		598 Mar 30 j 03:58	0°♄		
	595 Nov 09 j 14:34	0°♄		morning set	598 Apr 04 j 16:25	6°♄47'40		
greatest brilliancy	595 Nov 14 j 00:48	2°♄07'43	-4.7m		598 Apr 23 j 13:12	0°♄		
retrograde	595 Nov 25 j 18:21	4°♄43'14						
asc. node	595 Dec 02 j 06:03	3°♄51'01		superior conj	598 May 11 j 18:59	22°♄24'27	0°-17'-7	
evening set	595 Dec 10 j 06:27	0°♄31'51		minimum elong	598 May 11 j 22:30	22°♄35'15	0°16'58	
	595 Dec 11 j 05:38	30°♄		max. Earth dist.	598 May 11 j 23:11	22°♄37'20	1.73600 AU	
min. Earth dist.	595 Dec 15 j 17:08	27°♄20'25	0.26509 AU		598 May 17 j 23:21	0°♄		
inferior conj	595 Dec 16 j 08:31	26°♄56'48	3°33'40	asc. node	598 May 19 j 01:21	1°♄19'51		
minimum elong	595 Dec 16 j 01:01	27°♄08'19	3°31'26		598 Jun 11 j 09:36	0°♄		
morning rise	595 Dec 21 j 19:55	23°♄42'20		evening rise	598 Jun 16 j 23:01	6°♄49'49		
direct	596 Jan 05 j 15:35	19°♄19'37			598 Jul 05 j 19:35	0°♄		
greatest brilliancy	596 Jan 16 j 20:09	21°♄39'38	-4.6m		598 Jul 30 j 05:49	0°♄		
	596 Jan 31 j 06:29	0°♄			598 Aug 23 j 17:36	0°♄		
morning max el	596 Feb 24 j 13:53	21°♄20'21	46°32'06	desc. node	598 Sep 07 j 14:41	18°♄08'58		
	596 Mar 04 j 02:56	0°♄			598 Sep 17 j 08:39	0°♄		
desc. node	596 Mar 22 j 19:36	20°♄03'02			598 Oct 12 j 05:11	0°♄		
	596 Mar 31 j 17:57	0°♄			598 Nov 06 j 12:13	0°♄		
	596 Apr 26 j 22:51	0°♄			598 Dec 02 j 20:28	0°♄		
	596 May 22 j 12:14	0°♄		evening max el	598 Dec 17 j 06:31	15°♄19'47	47°11'31	
	596 Jun 16 j 15:45	0°♄		asc. node	598 Dec 29 j 17:56	27°♄27'16		
	596 Jul 11 j 10:54	0°♄			599 Jan 01 j 13:52	0°♄		
asc. node	596 Jul 13 j 22:54	3°♄02'50		greatest brilliancy	599 Jan 23 j 07:22	15°♄24'32	-4.6m	
	596 Aug 04 j 22:10	0°♄		retrograde	599 Feb 06 j 03:53	18°♄56'41		
morning set	596 Aug 21 j 03:46	20°♄05'52		evening set	599 Feb 24 j 01:54	12°♄40'39		
	596 Aug 29 j 02:45	0°♄		min. Earth dist.	599 Feb 26 j 16:43	11°♄02'27	0.28184 AU	

inferior conj	599 Feb 27 j 05:18	10° <del>♁</del> 42'34	8°36'07
minimum elong	599 Feb 27 j 07:56	10° <del>♁</del> 38'25	8°36'01
morning rise	599 Mar 02 j 14:12	8° <del>♁</del> 36'46	
direct	599 Mar 20 j 05:41	2° <del>♁</del> 38'30	
greatest brilliancy	599 Mar 31 j 09:18	4° <del>♁</del> 55'03	-4.5m
desc. node	599 Apr 20 j 07:19	17° <del>♁</del> 06'26	
	599 May 05 j 03:27	0° <del>♁</del>	
morning max el	599 May 08 j 06:49	2° <del>♁</del> 58'35	45°52'10
	599 Jun 03 j 13:45	0° <del>♁</del>	
	599 Jun 30 j 11:17	0° <del>♁</del>	
	599 Jul 26 j 05:07	0° <del>♁</del>	
asc. node	599 Aug 11 j 10:42	19° <del>♁</del> 24'04	
	599 Aug 20 j 04:53	0° <del>♁</del>	
	599 Sep 13 j 15:34	0° <del>♁</del>	
	599 Oct 07 j 17:33	0° <del>♁</del>	
	599 Oct 31 j 14:56	0° <del>♁</del>	
morning set	599 Nov 02 j 11:33	2° <del>♁</del> 20'24	
	599 Nov 24 j 10:46	0° <del>♁</del>	
desc. node	599 Dec 01 j 00:19	8° <del>♁</del> 16'03	
superior conj	599 Dec 13 j 19:17	24° <del>♁</del> 21'47	0°-29'-52
minimum elong	599 Dec 13 j 11:35	23° <del>♁</del> 57'33	0°29'31
max. Earth dist.	599 Dec 16 j 02:50	27° <del>♁</del> 16'26	1.71099 AU
	599 Dec 18 j 06:51	0° <del>♁</del>	
	600 Jan 11 j 04:19	0° <del>♁</del>	
evening rise	600 Jan 24 j 07:11	16° <del>♁</del> 25'18	
	600 Feb 04 j 04:20	0° <del>♁</del>	
	600 Feb 28 j 08:35	0° <del>♁</del>	
asc. node	600 Mar 23 j 03:39	29° <del>♁</del> 12'57	
	600 Mar 23 j 19:05	0° <del>♁</del>	
	600 Apr 17 j 13:58	0° <del>♁</del>	
	600 May 12 j 20:21	0° <del>♁</del>	
	600 Jun 07 j 20:36	0° <del>♁</del>	
	600 Jul 05 j 07:11	0° <del>♁</del>	
desc. node	600 Jul 12 j 16:51	7° <del>♁</del> 37'20	
evening max el	600 Jul 21 j 09:05	16° <del>♁</del> 11'01	45°54'49
	600 Aug 05 j 20:11	0° <del>♁</del>	