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COMET C/2006 M4 (SWAN)

R. D. Matson, Irvine, CA; and M. Mattiazzo, Adelaide, S. Australia, report independently that they found images of a moving object at small solar elongations on SOHO/SWAN images from late June, and both men asked southern-hemisphere observers to try confirming a possible comet in that vicinity (averaged SWAN positions from Matson and Mattiazzo are provided below). In response to Mattiazzo's request, T. Lovejoy (Thornlands, Qld., Australia) found an image of the suspected comet on CCD frames taken on June 30 with a Canon 350D camera (+ 100-mm-focal-length *f*/3.5 lens), noting the object to have a distinct greenish hue and an apparent circular coma of diameter $\sim 0'.5$. Confirming images taken by R. H. McNaught with the 0.5-m Uppsala Schmidt telescope on July 12 show a strongly condensed coma and a tail 80″ long in p.a. 205°.

2006 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
June 20	$8^h42^m.0$	$-9°29'$		SWAN
22	8 44.0	− 8 48		"
25	8 46.8	− 8 00		"
29	8 50.0	− 6 09		"
30.363	8 52.49	− 6 20.8	12	Lovejoy
July 2	8 52.4	− 5 14		SWAN
4	8 54.2	− 4 38		"
5	8 54.8	− 3 42		"
12.35695	$9\ 05\ 59^s.07$	$-1\ 55\ 43''.8$	12.3	McNaught
12.35925	9 05 59.27	− 1 55 41.0		"
12.36157	9 05 59.46	− 1 55 38.5		"
12.36387	9 05 59.63	− 1 55 35.6		"

The ephemeris below is provided to aid observers, taken from very uncertain parabolic orbital elements (T = 2006 Aug. 24.2 TT, q = 0.132 AU, $\omega = 112°.9$, $\Omega = 162°.6$, $i = 98°.8$, equinox 2000.0).

2006 TT	α_{2000}	δ_{2000}	Δ	r	ϵ	β	Mag.
July 4	$8^h56^m.02$	$-4°43'.2$	1.994	1.398	41°.1	28°.6	13.0
9	9 01.84	−3 03.4	1.958	1.299	37.0	28.1	12.6
14	9 08.08	−1 22.2	1.915	1.196	32.9	27.5	12.2
19	9 14.74	+0 22.2	1.864	1.089	28.7	26.7	11.7
24	9 21.88	+2 12.0	1.805	0.977	24.6	25.6	11.2

2006 July 12 *Daniel W. E. Green*