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COMET C/2009 K2 (CATALINA)

An apparently asteroidal object discovered (as tabulated below) by the Catalina Sky Survey (observer R. A. Kowalski), and posted on the Minor Planet Center's 'NEOCP' confirmation page, has been found by CCD astrometrists to show cometary appearance. W. H. Ryan (Magdalena Ridge 2.4-m reflector, near Socorro, NM; May 18.4 UT) notes a distinct tail in p.a. $\approx 200^{\circ}$. J. Young (Table Mountain 0.61-m reflector) reports a bright, well-defined coma of diameter $5''$ with a poorly defined $16''$ extension in p.a. $\sim 235^{\circ}$ on images taken during May 18.43–18.46 (light cirrus clouds present); he adds that additional images from May 19.33–19.35 show a small bright coma with a definite broad tail spanning p.a. 210°–250°, its greatest length being $14''$ in p.a. 235°. L. Bittesini, D. Di Maria, E. Pettarin, and F. Piani (Farra D'Isonzo, Italy, 0.40-m reflector; May 18.9) find that forty co-added 60-s exposures reveal a $10''$ coma that is elongated in p.a. 190°. P. Birtwhistle (Great Shefford, Berkshire, England, 0.40-m reflector; May 18.9) reports an almost-stellar center of diameter $4''$ with a $6''$ tail in p.a. 210°. E. Guido, Castellammare di Stabia, Italy, writes that G. Sostero and he co-added 33 unfiltered 120-s exposures obtained remotely with a 0.25-m $f/3.4$ reflector near Mayhill, NM, U.S.A., on May 19.2, revealing a tiny, compact coma $\sim 7''$ in diameter with a tail $\sim 12''$ long toward p.a. 240°.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
May 18.33287	$16^{h}39^{m}44^{s}.35$	$+60^{\circ}58'07''.0$	19.4	Kowalski

The available astrometry, the following very preliminary orbital elements, and an ephemeris appear on *MPEC* 2009-K20.

$$T = 2010 \text{ Aug. } 18.870 \text{ TT} \qquad \left.\begin{aligned} \omega &= 162^{\circ}.060 \\ \Omega &= 112.706 \\ i &= 70.910 \end{aligned}\right\} 2000.0$$
$$q = 3.83854 \text{ AU}$$

COMET 220P/2009 H2 (McNAUGHT)

J. L. Montani, Lunar and Planetary Laboratory, University of Arizona, reports that he has examined the "incidental astrometry" images of this comet (cf. *IAUC* 9040) obtained on Apr. 28 with the Spacewatch 0.9-m Mosaic telescope at Kitt Peak by T. H. Bressi. In $1''.1$ seeing, the comet's images appear to be stellar, with no trace of extended coma or tail, to the limiting magnitude of the $\approx$ 120-s single exposures.

2009 May 19 *Daniel W. E. Green*