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COMET C/2009 F4 (McNAUGHT)

R. H. McNaught reports his discovery of a strongly condensed comet on CCD images taken with the 0.5-m Uppsala Schmidt reflector at Siding Spring (discovery observation tabulated below), the object showing some diffuseness. Stacked follow-up images by McNaught on Mar. 20.6–20.8 UT show the comet to appear softer than the images of nearby stars of similar brightness. Following posting on the Minor Planet Center's 'NEOCP' webpage, G. Sostero, E. Guido, V. Gonano, and P. Camilleri report that nineteen co-added unfiltered CCD 300-s exposures taken on Mar. 20.1 with a 0.45-m $f/4.4$ reflector at Remanzacco, Italy, show the object to be slightly diffuse when compared to nearby stars of similar brightness, with a short extension nearly $12''$ long toward the west. R. Ligustri, Talmassons, Udine, Italy, reports that eleven stacked 180-s images taken remotely with a 0.25-m $f/3$ reflector near Mayhill, NM, U.S.A., on Mar. 20.4 shows the object's images to have a FHWM that is 30 percent larger than stars of similar brightness.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Mar. 19.68311	$15^h47^m03^s.25$	$-23°10'41''.8$	17.8	McNaught

The available astrometry, the following very preliminary parabolic orbital elements by B. G. Marsden, and an ephemeris appear on *MPEC* 2009-F54.

$$\begin{array}{lcl} T = 2012\ \text{Jan.}\ 10.967\ \text{TT} & & \omega = 256^\circ.890 \\ & & \Omega = 53.687 \\ q = 5.80600\ \text{AU} & & i = 80.138 \end{array} \left.\vphantom{\begin{array}{l}a\\b\\c\end{array}}\right\} 2000.0$$

COMETS C/2008 X13, C/2008 X14, C/2008 Y4, C/2008 Y5 (SOHO)

Further to *IAUC* 9031, additional Kreutz sungrazers have been found on SOHO website images. K. Battams notes that C/2008 X13 was quite diffuse (mag ~ 7.5) with a very short, diffuse tail. C/2008 X14 was extremely faint (mag ~ 8.5) and slightly diffuse. C/2008 Y4 and C/2008 Y5 were tiny and stellar in appearance (mag ~ 8–8.5).

Comet	2008 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2008 X13	Dec. 10.729	$17^h14^m.0$	$-24°52'$	C2	RK	2009-E61
C/2008 X14	13.663	17 28.5	−25 04	C2	ZX	2009-E63
C/2008 Y4	19.712	17 56.4	−25 08	C2	BZ	2009-E63
C/2008 Y5	19.896	17 57.7	−25 08	C2	ZJ	2009-E63

2009 March 21 *Daniel W. E. Green*