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COMET C/2008 L2 (HILL)

R. E. Hill reports his discovery of a comet on CCD images taken with the 0.68-m Catalina Schmidt telescope (discovery observation tabulated below), four co-added 30-s exposures on June 12 showing the new object with a $5''$–$7''$ coma and a short, diffuse tail in p.a. 270° in $2''$–$4''$ seeing; co-added images from June 13.4 UT show a cendensed $12''$–$14''$ coma with a $10''$ diffuse tail in p.a. 290°, and co-added images from June 14.4 show a diffuse, fan-shaped tail $\sim 20''$ long in p.a. 250°. Following posting on the Minor Planet Center's 'NEOCP' webpage, J. M. Aymami (Tiana, Spain, 0.25-m reflector) writes that co-added CCD images from June 13.1 show a quasi-stellar object with a faint tail $35''$ long in p.a. 256°.

2008 UT	α_{2000}	δ_{2000}	Mag.
June 12.44006	$23^{\mathrm{h}}40^{\mathrm{m}}43^{\mathrm{s}}.93$	$+22^{\circ}42'02''.7$	18.3

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2008-L55.

$$
\begin{array}{lll}
T = \text{2008 July 27.949 TT} & \omega = 130^{\circ}.899 & \\
 & \Omega = 222.914 & \Big\}\, 2000.0 \\
q = 2.50913\ \text{AU} & i = 25.341 &
\end{array}
$$

COMETS C/2008 C6, C/2008 C7, C/2008 C8, C/2008 C9 (SOHO)

Further to *IAUC* 8933, additional apparent comets have been found on SOHO website images; all are Kreutz sungrazers except for C/2008 C9 (non-group). C/2008 C6 (mag 7.5) and C/2008 C7 (mag 7) were both stellar in appearance. C/2008 C8 reached mag ~ 5.5 and appeared teardrop-shaped in C3 images, while it was a very faint, thin streak in C2 images. C/2008 C9 was marginally diffuse and very small (mag ~ 7.5). An asterisk in the instrumentation column below indicates that astrometry was also obtained from STEREO-A/SECCHI HI1 images (see *IAUC* 8926).

Comet	2008 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2008 C6	Feb. 7.696	$21^{\mathrm{h}}36^{\mathrm{m}}.9$	$-16^{\circ}16'$	C3*	BZ	2008-L18
C/2008 C7	9.196	21 47.1	−16 17	C3*	HS	2008-L18
C/2008 C8	14.821	22 17.9	−15 38	C3/2	JS	2008-L18
C/2008 C9	15.063	21 53.3	−11 33	C2	RK	2008-L18

2008 June 14 *Daniel W. E. Green*