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NOVA IN THE LARGE MAGELLANIC CLOUD 2009 No. 2

W. Liller, Viña del Mar, Chile, reports the discovery of an apparent nova (mag $\approx$ 12.1) in the Large Magellanic Cloud from two photographs taken with Kodak Technical Pan film on May 4.994 UT, the position given as $\alpha = 5^h31^m28^s \pm 3^s$, $\delta = -67°05'38'' \pm 8''$ (equinox 2000.0). No star brighter than mag $\sim$ 19 appears at this position on a U.K. Schmidt image of the field, and nothing brighter than mag 14.0 was visible on Liller's photograph from 2009 Apr. 23.01. L. A. G. Monard, Pretoria, South Africa, reports a confirmation of the presumed nova at unfiltered mag 12.5 on CCD images taken under less-than-ideal conditions on May 7.716, the position end figures measured as $26^s.42$, $39''.4$, adding that no star is visible at this position on the Digitized Sky Survey (limiting red mag 20), though there is a star of red mag $\approx$ 18.5 located $\sim 1''$ southwest of the new object.

2009 HC_{82}

Another minor planet in a retrograde orbit but showing no apparent cometary features has been discovered (cf. *MPEC* 2009-J04) by the Catalina Sky Survey. The following orbital elements are from *MPO* 157545:

$$\text{Epoch} = \text{2009 June 18.0 TT}$$
$$\begin{array}{llll} T = \text{2008 Nov. 3.8564 TT} & \omega = 296°.5814 & & \\ e = 0.810058 & \Omega = 294.6157 & \Big\} 2000.0 & \\ q = 0.463311 \text{ AU} & i = 154.5642 & & \end{array}$$
$$a = 2.439225 \text{ AU} \qquad n° = 0.2587178 \qquad P = 3.81 \text{ years}$$

COMETS C/2009 A2, C/2009 A3, C/2009 A4, C/2009 A5 (SOHO)

Further to *IAUC* 9039, additional Kreutz sungrazers have been found on SOHO website images, being tiny and stellar in appearance (peak mag $\sim$ 7.5, except C/2009 A2 at mag $\sim$ 7) in C3 images. C/2009 A3 was small and "roughly stellar" in C2 images. All except C/2009 A2 (condensed, and teardrop-shaped) were slightly diffuse and elongated (peak mag $\sim$ 11, except C/2009 A2 and A3 at mag $\sim$ 10) in STEREO HI1-A images.

Comet	2009	UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2009 A2	Jan.	1.054	$18^h55^m.8$	$-25°55'$	C3	HS	2009-F18
C/2009 A3		1.613	18 58.2	−25 28	C3/2	HS	2009-F30
C/2009 A4		2.154	19 01.1	−25 14	C3	HS	2009-F30
C/2009 A5		2.488	19 05.1	−25 39	C3	HS	2009-F30

2009 May 8 *Daniel W. E. Green*