Circular No. 8519

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SUPERNOVA 2005bu IN PGC 20840

Further to *IAUC* 8512, K. Shimasaki and W. Li report the LOSS discovery of an apparent supernova on unfiltered KAIT images taken on Apr. 21.19 (mag 17.4) and 22.16 UT (mag 17.5). SN 2005bu is located at $\alpha = 7^h22^m18^s.21$, $\delta = +22°02'39''.2$ (equinox 2000.0), which is 7''.3 east and 3''.8 south of the nucleus of PGC 20840. A KAIT image taken on Apr. 1.18 showed nothing at this position (limiting mag 19.5).

COMET C/2005 G2 (SOHO)

K. Battams reports that the following Marsden-group comet appeared in C2 images as very small and faint (with no tail, as always with Marsden-group comets), brightening slightly to mag 8.0 at $10.4R_{\odot}$ (Apr. 14.354 UT) via the C3 coronagraph. The initial position below continues the pattern from *IAUC* 8517:

Comet	2005 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2005 G2	Apr. 13.685	$1^h35^m.2$	$+ 8°55'$	C3/2	HS	2005-G94

B. G. Marsden remarks on *MPEC* 2005-H24 on the possibility that C/1999 N5 separated into both C/2005 E4 (see *IAUC* 8594) and C/2005 G2. Z. Sekanina and P. W. Chodas (Jet Propulsion Laboratory) find that such a separation with zero relative velocity on T = 1999 July 11.2 would involve a relative deceleration of 8.6 in units of 10^{-5} the solar attraction. The best zero-velocity fit gives separation 0.93 day before perihelion and deceleration 14.6 units. For the suggested separation (*IAUC* 8494) of C/1999 J6 and C/1999 N5 at their previous T in Nov. 1993 (and again with zero velocity) Sekanina and Chodas find a minimum relative deceleration of 16.6 units. On *MPEC* 2005-H24 Marsden points out that, if C/1999 P6 and C/1999 P8/P9 (see *IAUC* 7863) were also produced at the Nov. 1993 separation, they should return (if they still exist) within a few days of 2005 Apr. 28 and May 18, respectively.

COMET C/2004 Q2 (MACHHOLZ)

Total visual magnitude estimates: Mar. 9.98 UT, 5.7 (J. Carvajal, Madrid, Spain, 6×30 binoculars); 18.14, 6.5 (N. Biver, Poigny-la-foret, France, 7×50 binoculars); Apr. 1.85, 7.0 (A. Kammerer, Malsch, Germany, 9×63 binoculars); 10.85, 7.2 (A. Diepvens, Balen, Belgium, 20×50 binoculars); 17.84, 7.6 (A. Baransky, Bucha, Ukraine, 10×50 binoculars).

2005 April 22 *Daniel W. E. Green*