Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL `http://www.cfa.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET C/2009 U5 (GRAUER)

A. D. Grauer reports the discovery of a comet on four co-added 60-s CCD exposures taken with the Mount Lemmon 1.5-m reflector, the object having a very condensed coma $\sim 7''$ wide and a faint tail $20''$ long in p.a. 280°. Following posting on the Minor Planet Center's 'NEOCP' webpage, W. H. Ryan reported finding a tail in p.a. $\sim 270°$ on CCD exposures taken by E. V. Ryan and himself with the Magdalena Ridge Observatory 2.4-m *f*/8.9 reflector on Oct. 24.5 and 25.4 UT.

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Oct. 23.45917	$8^h57^m56^s.19$	$+18°02'13''.0$	19.4	Grauer

Additional astrometry, the following very preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2009-U100:

$$T = 2010 \text{ Aug. } 23.034 \text{ TT} \qquad \left.\begin{array}{l}\omega = 139^\circ.324\\ \Omega = 118.302\\ i = 43.016\end{array}\right\}2000.0$$

$$q = 0.57126 \text{ AU}$$

COMETS C/2009 J3–J10 (SOHO)

Further to *IAUC* 9084, additional Kreutz sungrazers have been found on SOHO website images. C/2009 J3 (peak mag $\sim$ 6.5), C/2009 J5 (mag $\sim$ 8–8.5), C/2009 J7 (mag $\sim$ 8.5), and C/2009 J9 (mag $\sim$ 7.5–8) were all stellar in appearance and generally small or tiny. C/2009 J4 was a diffuse streak (mag $\sim$ 7.5–8). C/2009 J6 was slightly diffuse and tiny (mag $\sim$ 7.5) in C3 images, and slightly diffuse but elongated in C2 images. C/2009 J8 was quite condensed (mag $\sim$ 7). C/2009 J10 was quite diffuse and slightly elongated (mag $\sim$ 7.5–8).

Comet	2009 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2009 J3	May 3.846	$2^h51^m.6$	$+13°05'$	C3	TH	2009-N46
C/2009 J4	5.033	2 50.3	+14 41	C2	MU	2009-N46
C/2009 J5	6.192	2 56.8	+15 05	C2	BZ	2009-N46
C/2009 J6	6.529	3 00.7	+14 54	C3/2	RK	2009-N47
C/2009 J7	6.617	2 58.8	+15 15	C2	ML	2009-N47
C/2009 J8	8.633	3 06.2	+15 50	C2	MK	2009-N47
C/2009 J9	9.576	3 09.7	+15 59	C2	MK	2009-N47
C/2009 J10	11.351	3 16.1	+16 26	C2	RK	2009-N49

2009 October 25 *Daniel W. E. Green*