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INTERNATIONAL ASTRONOMICAL UNION**

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*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.  $280^\circ$ . Following posting on the Minor Planet Center's 'NEOCP' webpage, W. H. Ryan reported finding a tail in p.a.  $\sim 270^\circ$  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	$\alpha_{2000}$	$\delta_{2000}$	Mag.	Observer
Oct. 23.45917		$8^{\text{h}}57^{\text{m}}56^{\text{s}}.19$	$+18^\circ02'13.0''$	19.4	Grauer

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

$$\left. \begin{array}{ll} T = 2010 \text{ Aug. } 23.034 \text{ TT} & \omega = 139.324 \\ & \Omega = 118.302 \\ q = 0.57126 \text{ AU} & i = 43.016 \end{array} \right\} 2000.0$$

*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	$\alpha_{2000}$	$\delta_{2000}$	Inst.	F	<i>MPEC</i>
C/2009 J3	May	3.846	$2^{\text{h}}51^{\text{m}}.6$	$+13^\circ05'$	C3	TH	2009-N46
C/2009 J4		5.033	$2^{\text{h}}50.3$	$+14^{\circ}41'$	C2	MU	2009-N46
C/2009 J5		6.192	$2^{\text{h}}56.8$	$+15^\circ05'$	C2	BZ	2009-N46
C/2009 J6		6.529	$3^{\text{h}}00.7$	$+14^\circ54'$	C3/2	RK	2009-N47
C/2009 J7		6.617	$2^{\text{h}}58.8$	$+15^\circ15'$	C2	ML	2009-N47
C/2009 J8		8.633	$3^{\text{h}}06.2$	$+15^\circ50'$	C2	MK	2009-N47
C/2009 J9		9.576	$3^{\text{h}}09.7$	$+15^\circ59'$	C2	MK	2009-N47
C/2009 J10		11.351	$3^{\text{h}}16.1$	$+16^\circ26'$	C2	RK	2009-N49