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COMET 33P/DANIEL

Sometime between Jan. 11 and 30, comet 33P appears to have undergone an outburst of $\sim$ 3 mag in total brightness (from mag $\sim$ 18 to $\sim$ 15), according to CCD astrometric observations contributed to the Minor Planet Center. CCD observations by K. Kadota (Ageo, Japan, 0.25-m $f/5$ reflector) and others indicate an additional brightening of $\sim$ 1 mag between Feb. 7 and 20. A standard power-law formula (cf. *2008/2009 Comet Handbook*, p. 64) predicts little change in the comet's brightness over this span (T = 2008 July 20.3 TT). Recent astrometry, revised orbital elements by B. G. Marsden, and an updated ephemeris appear on *MPEC* 2009-D52.

COMETS C/2008 U6, C/2008 U9–U16, C/2008 V1–V3 (SOHO)

A revised orbit on *MPEC* 2009-B70 shows C/2008 U6 (cf. *IAUC* 9021) to be a member of the Meyer group. Additional near-sun presumed comets have been found on SOHO website images, with their "discovery" observations tabulated below — all Kreutz sungrazers except for C/2008 V2 (Meyer group). C/2008 U9 was very diffuse (mag $\sim$ 8–8.5). C/2008 U10 and C/2008 U15 were faint (mag $\sim$ 8) and diffuse. C/2008 U11 was slightly diffuse; it appeared small (mag $\sim$ 7) in C3 images, with a short, diffuse tail in C2 images. C/2008 U12 and C/2008 V3 were very diffuse (mag $\sim$ 8). C/2008 U13 was stellar in appearance (mag $\sim$ 7.5) in C3 images, and quite condensed with no tail in C2 images. C/2008 U14 was slightly diffuse and elongated (mag $\sim$ 8). C/2008 U16 was small and condensed (mag $\sim$ 7.5–8). C/2008 V1 was slightly diffuse; in C3 images, it was faint (mag $\sim$ 7.5). C/2008 V2 was stellar in appearance (mag $\sim$ 7).

Comet	2008	UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2008 U9	Oct.	21.621	$13^h39^m.7$	$-12^\circ03'$	C2	HS	2009-B67
C/2008 U10		24.521	13 50.7	−13 06	C2	ZX	2009-B70
C/2008 U11		24.696	13 44.3	−13 52	C3/2	HS	2009-B70
C/2008 U12		26.329	13 57.7	−13 40	C2	BZ	2009-B70
C/2008 U13		26.988	13 53.6	−14 38	C3/2	RM	2009-B71
C/2008 U14		27.454	14 02.9	−14 10	C2	RK	2009-B71
C/2008 U15		28.413	14 06.6	−14 31	C2	JR	2009-B71
C/2008 U16		31.079	14 16.7	−15 23	C2	RM	2009-B71
C/2008 V1	Nov.	2.821	14 24.9	−16 55	C3/2	RM	2009-C46
C/2008 V2		4.246	14 31.5	−16 07	C2	RK	2009-C46
C/2008 V3		6.329	14 41.9	−17 25	C2	RM	2009-C46

2009 February 24 *Daniel W. E. Green*