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COMETS C/2004 V6–V13

Further to *IAUC* 8455, all the SOHO comets announced there were Kreutz sungrazers except for C/2004 V9 and C/2004 V10, which belong to the Marsden group. Marsden adds (*MPEC* 2004-X73) that C/2004 V9 may be identical with C/1999 J6, with a 5.49-yr period. Also, S. Hönig reports that he learned of the appearance of C/2004 V13 on the C3 images from J. Sachs, who evidently was the first to notice it.

SUPERNOVAE 2004gt AND 2004gv

K. Kinugasa and H. Kawakita, Gunma Astronomical Observatory; and H. Yamaoka, Kyushu University, report that a low-resolution spectrogram (range 390–750 nm) of SN 2004gt, taken on Dec. 17.8 UT with the Gunma 0.65-m telescope (+ GCS), shows He I 587.6-nm absorption prominently, suggesting that it is a type-Ib supernova near maximum light. A W-shaped absorption around 500 nm is also prominent. Adopting the NED recession velocity (1648 km/s), the expansion velocity (deduced from the absorption minimum of He I) is ~ 12000 km/s.

M. Ganeshalingam, B. J. Swift, and A. V. Filippenko, University of California, Berkeley, report that inspection of CCD spectra (range 330–1060 nm), obtained on Dec. 18 UT with the Shane 3-m reflector at Lick Observatory, reveals that SN 2004gt (*IAUC* 8454) is of type Ib/Ic, not far from maximum brightness. The He I/Na I absorption near 570 nm is strong, but the only clear He I line is an absorption trough near 1040 nm attributed to He I 1083-nm. Other type-Ic supernovae have shown evidence for a small quantity of He (e.g., SN 1994I; Filippenko *et al.* 1995, *Ap.J.* **450**, L11). The substantial strength of the O I 777.4-nm trough in SN 2004gt is more consistent with a type-Ic than a type-Ib classification (Matheson *et al.* 2001, *A.J.* **121**, 1648), though type Ib is still a possibility. It is difficult to distinguish unambiguously between the Ib and Ic subclasses with a single optical spectrum obtained near maximum brightness; further observations are thus encouraged.

Ganeshalingam, Swift, F. J. D. Serduke, and Filippenko add that inspection of CCD spectra obtained on Dec. 17 UT reveals that SN 2004gv (*IAUC* 8454) is probably of type Ib/Ic, not far from maximum brightness. The O I 777.4-nm line is weak, perhaps suggesting that the supernova is of type Ib rather than Ic (Matheson *et al.* 2001, *A.J.* **121**, 1648). SN 2004gv appears to be associated with young stars in the outskirts of the type-S0 host galaxy, as evidenced by narrow emission lines typical of H II regions.