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COMET 9P/TEMPEL

N. Biver, D. Bockelée-Morvan, P. Colom, J. Crovisier, and A. Lecacheux, Observatoire de Paris; and G. Paubert, Institut de Radioastronomie Millimétrique (IRAM), report: "Comet 9P/Tempel was observed with the IRAM 30-m radio telescope from May 4.8 to 9.0 UT. The HCN J = 3-2 and J = 1-0 lines were detected with mean integrated intensities of 111 $\pm$ 8 and 31 $\pm$ 4 mK km/s, respectively. Day-to-day variations in the HCN line intensities are observed and reveal periodic variability in HCN production from 5 to 10 $\times$ 10^{24} molecules/s. The periodicity is 1.7 days, consistent with the estimated nucleus rotational period. H_2S and CH_3OH were also marginally detected; CO, CS and H_2CO were searched for and undetected. The production-rate ratios, or their upper limits, of these molecules relative to HCN are 5.5, 21, $<$ 110, $<$ 1.1, and $<$ 17, respectively. All lines are blueshifted, suggesting preferential sunward outgassing."

Total-magnitude and coma-diameter estimates made with 25$\times$100 binoculars: Apr. 28.97 UT, 10.9, 3$'$ (J. J. Gonzalez, Asturias, Spain); May 5.54, 10.3, – (D. A. J. Seargent, The Entrance, N.S.W.); 26.90, 10.1, 4$'$ (M. Lehký, Hradec Králové, Czech Rep.); June 5.97, 10.1, 3$'$.5 (Gonzalez).

SUPERNOVAE 2005br, 2005bs, 2005cb

M. Turatto, S. Benetti, and A. Harutyunyan, Istituto Nazionale di Astrofisica (INAF), Padova; M. Riello, Cambridge Astronomical Survey Unit, Institute of Astronomy, University of Cambridge; E. Cappellaro, INAF, Napoli; M. T. Botticella, INAF, Teramo; E. Mason, European Southern Observatory (ESO), write that that obtained spectroscopy of three southern supernovae with the ANTU Very Large Telescope (+ Fors2) at ESO on May 25.2 UT under poor weather conditions. Based on the reduced spectra (range 380–920 nm, resolution 1.0 nm), SN 2005br in IC 5084 (*IAUC* 8516) appears to be a type-Ib SN $\sim$ 40 days past maximum; the spectrum is very reddened and shows a strong interstellar Na I D absorption with EW $\sim$ 0.25 nm. SN 2005bs (*IAUC* 8517) is a normal type-Ia supernova about 30 days past maximum. SN 2005cb in NGC 6753 (*IAUC* 8530) appears to be a type-Ib/c supernova, similar to SN 1997X (Munari *et al.* 1998, *A.Ap.* **333**, 159) at about 10 days after maximum.

T. Davis, G. Anderson, and B. Schmidt, Australian National University (ANU), report that a spectrogram (range 340–920 nm) of SN 2005cb (cf. *IAUC* 8530), obtained on May 19.76 UT with the ANU 2.3-m telescope (+ DBS), reveals it to be a type-Ic supernova $\approx$ 1 week past maximum light.

2005 June 7 *Daniel W. E. Green*