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S/2005 (2003 UB$_{313}$) 1

M. E. Brown, California Institute of Technology, on behalf of the adaptive-optics team at Keck Observatory, reports the discovery of a satellite of the transneptunian object 2003 UB$_{313}$ (cf. IAUC 8577) from six 60-s $K'$-band exposures taken on Sept. 10.52 UT with the “Laser Guide Star Adaptive Optics” system at the Keck II telescope. The satellite was found to be 4.43 $\pm$ 0.05 mag fainter than the primary and to be separated 0$''$.53 $\pm$ 0$''$.01 from the primary in p.a. 275$^\circ$ $\pm$ 1$^\circ$. Additional Hubble Space Telescope observations are planned for November.

SUPERNOVA 2005et IN UGC 2413

Further to IAUC 8607, T. Puckett and M. O'Connor report the discovery of an apparent supernova (mag 18.3) on an unfiltered CCD frame taken with the 0.60-m automated supernova patrol telescope on Sept. 23.34 UT. The new object was also present on images taken on Sept. 15.35 (a hint), Oct. 1.31 (at mag 17.9), and 2.30 (mag 17.9). SN 2005et is located at $\alpha = 2^h 56^m 30^s .53$, $\delta = +15^\circ 56' 12'' .8$ (equinox 2000.0), which is 25$''$.2 east and 75$''$.1 north of the center of UGC 2413. Nothing is present at this location on images taken by Puckett on Sept. 6 and 9 (limiting mag $\sim$ 20.0).

SUPERNOVA 2005eq IN MCG –01-9-6

M. Modjaz, R. Kirshner, and P. Challis, Harvard-Smithsonian Center for Astrophysics, report that a spectrogram (range 350–740 nm) of SN 2005eq (cf. IAUC 8608), obtained by M. Calkins on Oct. 2.05 UT with the Mt. Hopkins 1.5-m telescope (+ FAST), shows it to be a peculiar type-Ia supernova with a spectral-feature age (Riess et al. 1997, A.J. 114, 722) of $\sim$ 3 ($\pm$ 2) days before maximum light. The spectrum exhibits a blue continuum and a shallow Si II (rest 635.5 nm) absorption, as well as strong Fe III features observed at 500 and 431 nm. The spectrum is similar to those of SN 1998es (IAUC 7054) and SN 1999dq (IAUC 7250) at 3 days before maximum; this might imply that SN 2005eq will have a slow declining lightcurve. Adopting the NED recession velocity of 8687 km/s for the host galaxy (from the Sloan Digital Sky Survey 2003), the supernova expansion velocity derived from the Ca II H+K absorption (rest 394.5 nm) is $\sim$ 19900 km/s — and from the Si II absorption (rest 635.5 nm) is $\sim$ 8500 km/s.

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