

**Central Bureau for Astronomical Telegrams  
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*2005 NB<sub>7</sub>*

M. K. Shepard, Bloomsburg University of Pennsylvania; M. C. Nolan, National Astronomy and Ionosphere Center; L. A. M. Benner, J. D. Giorgini, and S. J. Ostro, Jet Propulsion Laboratory, and C. Magri, University of Maine at Farmington, report: “Arecibo delay-Doppler images (2380 MHz, 12.6 cm) obtained on Apr. 11–12 show that the Apollo-type object 2005 NB<sub>7</sub> (e.g., *MPECs* 2005-N32, 2005-T82, 2008-F18; *MPO* 135910) is a binary system. Preliminary estimates of average diameters, based on range estimates at 7.5-m resolution, are 0.5 and 0.2 km ( $\pm 0.1$ ) km. The rotation period of the primary has not been determined but, based on the estimated diameter and observed bandwidth, is  $\geq 2.5$  hr. The semi-major axis of the relative orbit is  $\geq 0.6$  km; the system orbital period is not known.”

*V2468 CYGNI*

R. J. Rudy, R. W. Russell, and D. K. Lynch, The Aerospace Corporation; and C. E. Woodward, University of Minnesota, report on SpeX observations (wavelength range 0.8–2.5  $\mu\text{m}$ ) made with the Infrared Telescope Facility (IRTF) on Mar. 13 and Apr. 12 UT: “V2468 Cyg (cf. *IAUCs* 8927, 8928) continues to display a very rich emission-line spectrum. Although features of C I, N I, O I, and Fe II still persist, the Ca II infrared triplet, which was very strong in March, is nearly undetectable in the April spectrum. The He I lines are now quite strong, and He II features are beginning to emerge. The O I lines indicate a reddening of  $E(B-V) = 0.77$ . There is no indication yet of dust formation.”

*V459 VULPECULAE*

R. W. Russell, D. K. Lynch, R. J. Rudy, The Aerospace Corporation; and C. E. Woodward, University of Minnesota, report on IRTF SpeX observations, obtained as above on Apr. 12.62 UT: “V459 Vul (cf. *IAUC* 8907) is one of the small number of classical novae to display C I and coronal lines simultaneously. Of the latter, [S IX] at 1.25  $\mu\text{m}$  is the highest-excitation and [Si VI] at 1.96  $\mu\text{m}$  is the strongest. He II lines and the unidentified novae lines are present as well. The O I lines, which are still quite strong, indicate a reddening of  $E(B-V) = 1.0$ , some of which is probably local to the nova since the spectrum exhibits thermal emission from dust beyond 1.5  $\mu\text{m}$ .”