Circular No. 9046

Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL http://www.cfa.harvard.edu/iau/cbat.html ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

2002 XH_{91}

K. S. Noll, Space Telescope Science Institute (STSI); W. M. Grundy, Lowell Observatory; S. D. Benecchi and E. A. Barker, STSI; and H. A. Levison, Southwest Research Institute, report that images taken during 2008 Nov. 8.9381–8.9700 UT with the Wide Field Planetary Camera 2 on the Hubble Space Telescope reveal a binary companion to 2002 XH_{91} (cf. *MPEC* 2004-E32). The two components, detected in each of four dithered 260-s exposures made through the F606W (wide-V) filter, were separated by $0''.582 \pm 0''.009$. The secondary, fainter by 1.04 magnitude, was located at $0''.538 \pm 0''.004$ in α and $0''.222 \pm 0''.008$ in δ relative to the primary.

V1280 SCORPII

R. Russell, R. Rudy, and B. Kaneshiro, The Aerospace Corporation; M. Skinner and S. Gregory, Boeing LTS; and M. Sitko, University of Cincinnati, report observations of V1280 Sco (Nova Sco 2007; cf. *IAUC* 8845) using the "Broadband Array Spectrograph System" (BASS; range 3–13.5 μm) on the 3.6-m AEOS telescope at Haleakala on Apr. 6 UT, and the NASA Infrared Telescope Facility (IRTF) 3-m telescope (+ SpeX; range 2.3–5.5 μm) on Apr. 27. These spectra exhibit detections of the unidentified infrared bands near 3.3, 3.4, 8, and 11.4 μm via BASS, and near 3.3 and 3.4 μm via SpeX, along with Brα. The wavelengths are shifted per the studies of Geballe (1997, *ASP Conf. Ser.* **122**, 119). These features are superposed on a fairly flat continuum from about 3 to 5 μm. If a single temperature were associated with the underlying continuum, it would be on the order of 600–650 K. After the initial BASS detection and subsequent SpeX confirmation, SpeX data from Oct. 2008 were examined more closely, and suggestions of the 3.3- and 3.4-μm features were seen.

M. Sitko, Space Science Institute; and R. Russell, D. Lynch, and R. Rudy, The Aerospace Corporation, report 0.8- to 5.5-μm spectroscopy of V1280 Sco on May 20.5 UT using the SpeX instrument of the IRTF. The excitation of the emission-line spectrum remains very low, with features of neutral carbon weak but still detectable. N I is also present, along with very strong lines of Fe II. O I features are also prominent, with continuum fluorescence now rivaling fluorescence by Lyβ as the dominant excitation mechanism. The reddening deduced from the O I lines is $E(B-V) = 0.95$. There is a weak P-Cyg absorption on the He I singlet at 2.058 μm. The unidentified infrared emission features at 3.3 and 3.4 μm reported above by Russell *et al.* are also seen.

2009 May 27 *Daniel W. E. Green*