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2000 QL_{251}

K. S. Noll, Space Telescope Science Institute; D. C. Stephens, Johns Hopkins University; W. M. Grundy, Lowell Observatory; and H. F. Levison, Southwest Research Institute, report the detection of a binary companion to the transneptunian object 2000 QL_{251} (cf. *MPEC* 2001-M34, 2001-S09; *MPO* 77471; orbital elements a = 47.65 AU, e = 0.216, i = $3^{\circ}.68$, epoch 2006 Sept. 22.0 TT); orbit integrations carried out by the Deep Ecliptic Survey group show this object to be in 1:2 resonance with Neptune. It is the first binary to be found in this dynamical group, sometimes referred to as "twotinos". The observations were made during 2006 July 25.433–25.459 UT with the High Resolution Camera of the Advanced Camera for Surveys on the Hubble Space Telescope (HST), using the clear filters with one 300-s exposure at each of four dithered positions on the detector. The two components are clearly resolved in each image and in the coadded image. The two components are separated by an angular distance of $0''.261 \pm 0''.001$. The two components are indistinguishable in magnitude within measurement uncertainties. One of the two equal brightness components lies at a position angle of $247^{\circ}.6 \pm 0^{\circ}.4$ as measured from the other component. The projected separation of the objects in the sky plane is 7250 ± 30 km. The HST corrected for parallax and tracked both components of 2000 QL_{251} as they moved together at an average rate of $0''.022$/min.

BF CYGNI

M. L. Sitko, University of Cincinnati and Space Science Institute; and D. K. Lynch, R. W. Russell, and C. C. Venturini, Aerospace Corporation, report on 0.8- to 5.5-μm spectroscopy of BF Cyg on Aug. 22.37 UT using SpeX at the Infrared Telescope Facility. The star appears to show a low-excitation shell. Many weak emission lines are present against what appears to be a normal stellar continuum. The H I Paschen lines are very weak in emission, and the Brackett and Pfund lines were undetected except for weak Brγ. He I 1.0830-μm showed a P-Cyg profile, but He I 2.0581-μm was not detected. Weak absorption of the first overtone of CO at 2.3 μm was seen, and the Ca II infrared triplet was present in emission. A strong emission line appears near 3.3145 μm. The lines were not resolved spectrally and thus are very narrow.

2006 September 12 *Daniel W. E. Green*