

Doppler Wind Lidar Wind Profiles in TCS-08

Ralph C. Foster and G. D. Emmitt

Abstract

During the Tropical Cyclone Structure 2008 (TCS-08) a coherent, 2-micron Doppler wind lidar (P3DWL) was installed on the NRL P-3 aircraft. The P3DWL included a computer-controlled 2-axis scanner with a range of pre-programmed scanning modes. In the standard conical scanning mode, 2-D wind vector profiles in the boundary layer surrounding a number of incipient and mature tropical cyclones in the Western Pacific ocean. These profiles were obtained with at $\sim$ km-scale separation along the flight track with vertical resolution of about 50 m. Most of these profiles extend from about 100 m above the sea surface to near or somewhat above the boundary layer top. We present preliminary analyses of these data. with time.

Recorded Presentation