



**Dr. Lisa Bucci**

Hurricane Research Division  
NOAA's Atlantic Oceanographic  
and Meteorological Laboratory

## NOAA's Hurricane Field Program and its Exploration of a Doppler Wind Lidar

### Abstract

Each year the National Oceanic and Atmospheric Administration (NOAA) flies aircraft into and around North Atlantic and East Pacific tropical cyclones (TCs). Scientists from the Atlantic Oceanographic and Meteorological Laboratory (AOML) located in Miami, FL, use the aircraft as a flying laboratory to collect information at all stages in a TC's lifecycle. Their goals are to provide a real-time analysis of the storm structure to forecasters, deliver quality controlled observations of the atmosphere and ocean to numerical models, and test out new technologies to observe all aspects of the storm. One such wind observing technology new to the instrument suite is the airborne Doppler Wind Lidar (ADWL). The ADWL shows the potential to add unique measurements in unobserved or under observed regions of the TC. A validation study demonstrated the ADWL retrieved wind speed and directions are largely consistent with collocated independent wind observations. Finally, the preliminary impacts of these observations on numerical model analyses are presented and future benefits of this technology are discussed.

### Zoom Link

<https://fsu.zoom.us/j/97597910965?pwd=cVBoNIQ5MEtwRIFTM2Y0WG1DbHFGQT09>

**Time:** Thursday, Feb. 25, 2021 @ 3:30 PM

**Host:** Dr. Allison Wing

**Note:** Meeting the speaker at 3:00 PM. A post-seminar student-speaker session will start immediately after the seminar.