**2019 NOAA/AOML/HRD Hurricane Field Program - IFEX**

**EARLY STAGE EXPERIMENT**
***Science Goals & Observational Applications***

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**Airborne Doppler Wind Lidar (DWL) Module:** Lisa Bucci (PI), Kelly Ryan, Jun Zhang, G. David Emmitt (Simpson Weather Associates, Inc.), Sid Wood (Simpson Weather Associates, Inc.)

Goal: The goal is to create a more comprehensive 3-D analysis of the wind field within a TC through the addition of DWL observations to existing wind observing platforms [*IFEX Goals 1 & 2*]. Early-stage TCs often exhibit an asymmetric distribution of rain and the DWL can add wind observations in the precipitation-free regions of a developing storm. See the 2019 HRD HFP web page for additional details: http://www.aoml.noaa.gov/hrd/HFP2019/index.html

Observational Applications: The data collected during the module will be useful for the evaluation of data impact studies which include the DWL wind profiles. The more symmetric distribution of observations could lead to better initial conditions provided to the numerical models. A more accurate representation of the TC structure could generate more reliable intensity forecasts.