

Title: VORTEX-SE 2020 UAH Drop Trailer 10-m Tower Dataset

Authors:

Preston Pangle	preston.pangle@uah.edu	University of Alabama In Huntsville
Kevin Knupp(PI)	kevin.knupp@uah.edu	University of Alabama In Huntsville
Dustin Phillips	phillips@nsstc.uah.edu	University of Alabama in Huntsville

1.0 Dataset Overview

UAH Drop Trailer is a mobile surface station trailer mounted to a flatbed trailer.

2.0 Instrument Description

This platform includes a 10-m tower which is outfitted with a RM Young Wind monitor and Campbell Scientific 107 temperature probe, RM Young 81000 10 Hz sonic anemometer at 4 meters, Jenoptik CHM 15K ceilometer, and Texas Electronics tipping bucket rain gage.

3.0 Data Collection and Processing

Data is recorded every 1-second. Not processing has been completed.

4.0 Data Format

Data is collected in CSV format. File naming convention is as follows: YYYYMMDD_trailer_sfc.dat where:

YYYY -> Year

MM -> Month

DD -> Day

trailer_sfc -> 10m tower surface data

A sample data line is given below:

```
(Column #) | 0  1  2  3  4  5  6  7  8  9  10 |  
101,2020,115,2359,13,11.38,24.48,21.04,0.882,141.5,0
```

The data file records, column by column, are:

COLUMN VARIABLE

0 -> Program Constant
1 -> Year
2 -> Julian Day
3-4 -> Hour & minute, Second (UTC)
5 -> Battery Voltage (V)
6 -> Panel Temp (C)

- 7 -> Tower Temp (10m) (C)
- 8 -> Wind Speed (m/s)
- 9 -> Wind Direction (degrees)
- 10 -> Rain Total (mm)

5.0 Data Remarks

- No data for IOP 1