

**Title:** VORTEX-SE 2017 UAH MAX Surface Station Dataset

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**1.0 Dataset Overview**

The UAH Mobile Alabama X-Band radar (MAX) is a mobile radar platform that has an X-Band radar, a mounted surface station, and a 5m Campbell Scientific WXT510 Weather transmitter. Data from MAX was collected during each IOP unless otherwise noted.

**2.0 Instrument Description**

The surface station is mounted on a tower that is raised to 10m above ground level. The tower is outfitted with the following instruments:

- Campbell Scientific CR800 Data Logger
- RM Young Wind Monitor
- Campbell Scientific HMP45AC Temperature and relative humidity sensor

**3.0 Data Collection and Processing**

The surface data is collected every 1 second. No data processing has been completed.

**4.0 Data Format**

The UAH MAX surface station data files contain data from each IOP and are named max\_YYYYMMDD\_sfc.dat, where:

YYYY -> year  
MM -> month  
DD -> day  
sfc.dat -> sfc station data

A sample data line is given below:

```
(Column #) | 0 1 2 3 4 5 6 7 8  
           | 101,2016,73,2241,44,2.254,122.9,55.06,22.36
```

The data file records, column by column, are:

COLUMN	VARIABLE
0	-> Program Constant
1	-> Year

- 2 -> Julian Day
- 3 -> Hour (UTC)
- 4 -> Minute (UTC)
- 5 -> Second (UTC)
- 6 -> Wind Speed at 10m (m/s)
- 7 -> Wind Direction at 10m (deg)
- 8 -> Relative Humidity at 10 m (%)
- 9 -> Temperature at 10m (C)

## 5.0 Data Remarks

Know Data Issues

\*\*\*All wind direction information cannot be verified and should not be used\*\*\*

\*\*\*No Data for IOP 4C & 4D

IOP Dates:

IOP 1 - 3/13/2016 - 3/14/2016 1800 - 0915 UTC

IOP 2 - 3/24/2016 0900 - 2200 UTC

IOP 3 - 3/31/2016 - 4/1/2016 1800 - 0300 UTC

IOP 4A - 4/27/2016 1800 - 2330 UTC

IOP 4B - 4/29/2016 1730 - 2315 UTC

IOP 4C - 4/30/2016 1400 - 2330 UTC

IOP 4D - 5/1/2016 1630 - 2030 UTC