

**Title:** VORTEX-SE Meso18-19 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 and a mounted surface station. Data from MAX was collected during each IOP unless otherwise noted. Locations and operating times are as follows:

IOP 1

Time Period: 2018/11/06 0030Z to 2018/11/06 0957Z

Location: 34.419 N, -86.025 W elevation: 386 m

IOP 2 - Did Not Deploy

IOP 3 - Did Not Deploy

IOP 4 - Did not deploy

IOP 5

Time Period: 2019/02/23 1806Z to 2019/02/24 0326 Z

Location: 34.8006 deg N, -87.7674 deg W elevation: 179 m

IOP 6 - Did Not Deploy

IOP 7

Time Period: 2019/03/09 1853Z to 2019/03/10 0238Z

Location: 34.8006 deg N, -87.7674 deg W elevation: 179 m

IOP 8

Time Period: 2019/04/13 2350Z to 2019/04/14 0829Z

Location: 34.8006 deg N, -87.7674 deg W elevation: 179 m

IOP 9

Time Period: 2019/04/18 1807Z to 2019/04/19 0151Z

Location: 34.8006 deg N, -87.7674 deg W elevation: 179 m

**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

- No surface data for IOP 1