Title: VORTEX-SE 2018 UAH MAX Mobile Radar Data

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1.0 Data Set Overview:

UAH MAX data

IOP 1 - Sand Mountain
Time Period: 2018/03/19 1711Z to 2018/03/20 0119Z
Location: Sylvania, AL 34.5357 N, -85.7563 W elevation: 405 m

IOP 2A - Western AL
Time Period: 2018/03/28 2116Z to 2018/03/28 2208Z
Location: Tanner, AL 34.7307 deg N, -86.9375 deg W elevation: 189 m

IOP 2B - Sand Mountain
Time Period: 2018/03/29 1646Z to 2018/03/29 1901Z
Location: Lakeview, AL 34.4191 deg N, -86.0263 deg W elevation: 355 m

IOP 3 - Western AL
Time Period: 2018/04/03 2015Z to 2018/04/04 0404Z
Location: Tanner, AL 34.7307 deg N, -86.9375 deg W elevation: 189 m

IOP 4 - Northern LA; Did not deploy

UFO 1 - Western AL
Time Period: 2018/04/09 2048Z to 2018/04/10 0115Z
Location: Tanner, AL 34.7307 deg N, -86.9375 deg W elevation: 189 m

IOP 5 - Western AL
Time Period: 2018/04/14 1653Z to 2018/04/14 1829Z
Location: Tanner, AL 34.7307 deg N, -86.9375 deg W elevation: 189 m

2.0 Instrument Description:

UAH Mobile Alabama X-Band Dual Polarization Radar
https://www.nsstc.uah.edu/mips/max/

3.0 Data Collection and Processing:

No data correction was applied. Typical operating strategies included full volume scans in 4 to 6 minute intervals. Specific scanning strategies used during each IOP are included in table 2.

Table 2 - Description of various scanning strategies

IOP 1	Sector scans from 180 to 360 deg were performed between 00Z 3/20 to 0030Z 3/20. Sector scans from 160 to 360 deg were performed between 0035Z 3/20 to 0040Z 3/20. Sector scans from 150 to 360 deg were performed between 0045Z to 0050Z 3/20. RHIs were performed between 0009Z to 0050Z 3/20 at 246, 302, 306, 230, 236, 318, 324, 314, 316, 320, 210, 208, 206, and 202 deg.
IOP 2A	Only full volumes were performed.
IOP 2B	RHIs began at 3/29 1721Z. Angles were 18 deg and 318 deg.
IOP 3	RHIs began at 4/04 0253. Angles were 18, 318, 298, 300, 240, 244, 246, 226, 228, 230, 234, and 236 and ended on 04/04 0329Z. 180 to 360 deg sector scans began at 04/04 0250Z and ended at 04/04 0328Z.
IOP 4	Did not deploy.
UFO 1	RHI angles used were 133, 180, 205, 225, and 245.
IOP 5	Only full volume scans were performed.

4.0 Data Format

Vaisala RAW format. An example of the file naming convention is below:

RAW_NA_000_100_20180319191517.gz

Where RAW indicates the file type, 100 indicates the scan type, 20180319 indicates the date in the format YYYYMMDD, and 191517 indicates the time in the format HHMMss.

5.0 Data Remarks:

Typical Operating Parameters:

Pulse Width: 0.8 microsec
PRF: 1200 Hz
Gate Spacing: 125 m
Gates: 959
Nyquist: 9.5 m/s
Range: 120 km

Notes:

IOP 1 - Data gap between 2018/03/19 1913Z to 2018/03/19 2210 Z. Sector scans

Access and view data with:

Radx
http://www.ral.ucar.edu/projects/titan/docs/radial_formats/radx.html
solo3
https://www.eol.ucar.edu/software/solo3