MRMS Data for VORTEX-SE 2016

1. General Description

This data set contains the gridded precipitation data from the National Centers for Environmental Prediction (NCEP) Multi-Radar/Multi-Sensor (MRMS) system for days that VORTEX-SE conducted operations during its 2016 field season as well as surrounding days (12-15, 23-25, and 30-31 March; 1, 26-30 April; and 1-2 May 2016). These data are in GRIB2 format.

2. VORTEX-SE 2016 Field Season

VORTEX-SE conducted four Intensive Observing Periods (IOPs) during the 2016 field season.

Table 1. VORTEX-SE 2016 IOPs

IOP	Start Date	End Date
IOP1	20160313	20160314
IOP2	20160324	20160324
IOP3	20160331	20160401
IOP4A	20160427	20160427
IOP4B	20160429	20160429
IOP4C	20160430	20160430
IOP4D	20160501	20160501

3. Data Format Description

These data are in the GRIB2 format. Information about this format is available with the World Meteorological Organization (WMO) Manual on Codes (WMO No. 306). This order includes the Guide to FM92 GRIB edition 2 (GRIB2_062006.pdf) and the Introduction to GRIB Edition 1 and GRIB Edition 2 (Introduction_GRIB1-GRIB2.pdf). At the time of this readme, complete information on GRIB2 was available from the WMO at:

http://www.wmo.int/pages/prog/www/WMOCodes.html and from NCEP here: http://www.nco.ncep.noaa.gov/pmb/docs/grib2/grib2_doc.shtml

Included in the data set are the following data sets:

GaugeCorr_QPE_01H – Quantitative Precipitation Estimate – Radar with Gauge Bias Correction (1 hour accumulation) in mm

PrecipFlag – Surface Precipitation Type Flag
- 3 = No coverage
0 = No precipitation
1 - Warm stratiform rain
2 = warm stratiform rain
3 = snow
4 = snow
5 = reserved for future use
6 = convective rain
7 = rain mixed with hail
8 = reserved for future use
9 = no longer used
10 = cold stratiform rain
91 = tropical/stratiform rain mix
96 = tropical/convective rain mix

PrecipRate – Radar Precipitation Rate (SPR) in mm/hr every two minutes

RadarOnly_QPE_01H – Quantitative Precipitation Estimate – Radar Only (1 hour accumulation in mm

RadarOnly_QPE_24H - Quantitative Precipitation Estimate – Radar Only (24 hour accumulation in mm

SeamlessHSR – Seamless Hybrid Scan Reflectivity (SHSR) in dBZ every two minutes

4. **Data Remarks**

These data were retrieved from the Iowa State University archives on 2 December 2016. At that time the archives were located here:

http://mtarchive.geol.iastate.edu/YYYY/MM/DD/mrms/ncep/