MRMS Data for VORTEX-SE 2018

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 2018 field season as well as surrounding days (8-12,18-21, 24-31 March; 1-8 and 12-15 April 2018). These data are in GRIB2 format.

2. VORTEX-SE 2018 Field Season

VORTEX-SE conducted four Intensive Observing Periods (IOPs) during the 2018 field season.

Table 1. VORTEX-SE 2016 IOPs

IOP	Start Date	End Date
IOP0	20180310	20180311
IOP1	20180319	20180320
IOP2A	20180328	20180329
IOP2B	20180329	20180330
IOP3	20180403	20180404
IOP4	20180406	20180407
IOP5	20180413	20180414

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 27 April 2018. At that time the archives were located here:

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