

NOUS41 KWBC 052005 AAA
PNSWSH

Service Change Notice 18-95 Updated
National Weather Service Headquarters Silver Spring MD
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From: Carissa Klemmer
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 Implementation and Data Services Branch

Subject: Updated: Upgrade Multi-Radar, Multi-Sensor Application:
Effective November 7, 2018

Updated to remove the activation of FLASH data onto the Satellite Broadcast Network (SBN)/NOAAPort. FLASH data will only be available through the Web Services or on MRMS LDM.

Effective on or about Wednesday, November 7, 2018, the National Centers for Environmental Prediction (NCEP) will upgrade the Multi-Radar, Multi-Sensor (MRMS) Integrated Dissemination Program (IDP) application to Version 11.6.1.

The MRMS output can be found:

1. On the NCEP Web Services:
<http://mrms.ncep.noaa.gov/data/>
2. On the NCEP Local Data Manager (LDM) by requesting access here:
https://www.nssl.noaa.gov/projects/mrms/MRMS_data.php
3. On the Satellite Broadcast Network (SBN)/NOAAPort.

The technical enhancements include the following:

- Increasing the AutoNowCaster (ANC) product resolution from 0.05 x 0.05 degrees (~5km) to 0.01 x 0.01 degrees (~1km). Users should expect the ANC file sizes to increase by an order of magnitude. Product timing, filenames, domain bounds and access methods will remain unchanged. File patterns like:

MRMS_ANC_FinalForecast
MRMS_ANC_ConvectiveLikelihood

- Modifying color maps used by RIDGE2 to remove the differentiation between "no coverage" versus missing values. This product is only available on MRMS LDM.

- Updating the FLASH gridded binary version two (GRIB2) internal compression from "complex packing" to "PNG", reducing the volume by 50 percent. Currently, this data is available on LDM only. At this time, the FLASH data will not be made available on SBN/NOAAPort because there are bandwidth limitations preventing the addition of this data volume. The data will be available via the Web Services and LDM.

FLASH is a system with automated algorithms that are forced by rainfall estimates from MRMS Quantitative Precipitation Estimates (QPEs). FLASH converts the MRMS QPEs into Average Recurrence Intervals (ARIs) of rainfall, ratios of rainfall exceeding flash flood guidance, and forecasts of streamflow. The streamflow forecasts are produced by a suite of distributed hydrologic models with different representations of surface runoff mechanisms. All FLASH products are generated on the same grid as MRMS products and are updated every 2-10 minutes. The FLASH system encompasses the latest tools for rainfall-driven flash flooding to rapidly evolve services for flash flood forecasting.

A product reference guide and training for users are publicly available from the NWS Warning Decision Training Division website at:

<https://training.weather.gov/wdtd/courses/ffawoc/IC3/flash-bp/presentation.html>

FLASH products are generated on a 1 km grid over the Contiguous United States (CONUS) domain and updated as frequently as every two minutes. Data volume will vary, depending on the current meteorological conditions, but could be as high as 6.25GB per day.

World Meteorological Organization (WMO) Headers and official WMO titles for the new products are as follows:

YAUE01: QPE: CREST Unit Streamflow
YAUE02: QPE: CREST Streamflow
YAUE03: QPE: CREST Soil Saturation
YAUE04: QPE: SAC Unit Streamflow
YAUE05: QPE: SAC Streamflow
YAUE06: QPE: SAC Soil Saturation
YAUE07: QPE: Hydrophobic Unit Streamflow
YAUE08: QPE: Hydrophobic Streamflow
YAUE09: Precipitation Average Recurrence Interval 30 minutes, 1-hour, 3-hour, 6-hour, 12-hour, 24-hour, Maximum
YAUE10: QPE-to-FFG Ratio 1-hour, 3-hour, 6-hour, Maximum

Where CCCC = KWNR

Sample data can be requested by emailing the Onboarding Team below.

Sample data for V11.6.1 is available here:

<http://mrmst.ncep.noaa.gov/data/>

NCEP encourages users to ensure their decoders are flexible and are able to adequately handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the GRIB

files, and any volume changes which may be forthcoming. These elements may change with future NCEP application upgrades. NCEP will make every attempt to alert users to these changes prior to any implementations.

NCEP will evaluate all comments to determine whether to proceed with this upgrade.

For questions regarding these changes, please contact:

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For questions regarding the data flow aspects of these data sets, please contact:

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National Service Change Notices are online at:

<https://www.weather.gov/notification/archive>

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