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PNSWSH

Service Change Notice 21-17
National Weather Service Headquarters Silver Spring MD
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To:        Subscribers:
           -NOAA Weather Wire Service
           -Emergency Managers Weather Information Network
           -NOAAPort
           Other NWS Partners, Users and Employees

From:      Ben Kyger
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Subject: Upgrade of Multi-Radar Multi-Sensor (MRMS) System to v12.1.0:
Effective February 23, 2021

Effective on or about Tuesday, February 23, 2021, the National Centers for
Environmental Prediction (NCEP) Central Operations (NCO) will upgrade the
Multi-Radar, Multi-Sensor (MRMS) Integrated Dissemination Program (IDP)
application to Version 12.1.0.

The effective date of this change is sooner than specified by NWS
Instruction 10-1805.  The reduction of the normal advance lead-time was
approved because this change is required to support a transition deadline
for NWS forecasters.

The IDP MRMS output can be found:

-On the NCEP Web Services:
https://mrms.ncep.noaa.gov/data/

-On the NCEP Local Data Manager (LDM) by requesting access:
https://www.nssl.noaa.gov/projects/mrms/MRMS_data.php

-On Satellite Broadcast Network (SBN)/NOAAPort.

1) The following products will be added/removed:

- Certain MRMS products will be added to or removed from the SBN.  MRMS
products removed from the SBN will remain available on NCEP Web Services
and NCEP LDM.  NWS intends these changes to result in a more efficient,
reliable delivery process for new and future NWS products.  Comments on
these changes were previously solicited publicly from November 19, 2020
through December 19, 2020. Please see this link below for all the details
of what will be added and what will be removed, including World
Meteorological Organization (WMO) headers:

https://www.weather.gov/media/notification/pdf2/pns20-
86mrms_sbn_binary.pdf

- Binary data products will be removed from the MRMS LDM feed.  These products are available in GRIdded Binary version two (GRIB2) format.

2) The technical enhancements include the following:

- Correct MRMS directories on NCEP's Web Services to contain latest files for all MRMS products.

- The gap filling radar in Alamosa, CO will be added to several two-dimensional (2-D) mosaics and AzimuthalShear and RotationTrack products.  Handling of the Alamosa radar is improved for several Quantitative Precipitation Estimate (QPE) products.

- Quality control of the XMRG formatted RadarOnly_QPE and MultiSensor_QPE (Pass1, Pass2) products is improved to better retain low values.

- The latencies of the MultiSensor QPE and Gauge Influence Index products (Pass1 and Pass2) are significantly reduced.

- A small subset of MRMS v12 products were found to have incorrect background values.  These are corrected in MRMS v12.1.

- Added a radar only QPE since 12Z (RadarOnly_QPE_Since12Z) for all domains.

- ProbSevere configuration will be changed to use the GOES-East satellite data for the entire contiguous U.S. (CONUS) (not just the eastern U.S.).

- The color table for RIDGE2's VIL GeoTIFFs (L3_HVIL, L2_BVIL) was updated to properly display areas with very small values.  This change is valid for WSR-88Ds and Terminal Doppler Weather Radars (TDWRs).

- Additional products will be distributed in NIDS format.  Some existing NIDS Product Identification numbers will be modified to ensure that MRMS provided products have unique identifications, and that product ranges will work within National Centers Advanced Weather Interactive Processing System (N-AWIPS) display.

For more details on the SBN changes, new product output and changes to existing products, please see this additional link:

https://www.nco.ncep.noaa.gov/pmb/changes/MRMS_SCN_v12.1_Upgrade_Supplemental.pdf

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 application changes, please contact:

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National Service Change Notices are online at:

https://www.weather.gov/notification

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