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PNSWSH

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From: Stephan Smith
 Acting Director
 NWS Office of Science and Technology Integration

Subject: Soliciting Public Comments through December 19, 2020 on Proposed Changes to MRMS Products Available on the SBN and the Removal of Binary Products from the MRMS System

The NWS is soliciting comments through December 19, 2020 on adding or removing certain Multi-Radar Multi-Sensor (MRMS) products from the Satellite Broadcast Network (SBN) and the removal of binary products from the MRMS system. NWS intends these changes to result in a more efficient, reliable delivery process for new and future NWS products.

Tables 1-3 below contain descriptions of the recommended SBN actions for MRMS products. Products removed from the SBN will remain available on:

1. The National Centers for Environmental Prediction (NCEP) Web Services:

<https://mrms.ncep.noaa.gov/data/>

2. The NCEP Local Data Manager (LDM) by requesting access:

https://www.nssl.noaa.gov/projects/mrms/MRMS_data.php

Table 1. World Meteorological Organization (WMO) Headers and Product Names for MRMS Products Proposed for Addition to the MRMS SBN

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Contiguous United States (CONUS) Products to be added to the MRMS SBN:
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YAUE01   Flooded Locations and Simulated Hydrographs (FLASH)
          Coupled Routing and Excess Storage (CREST) Unit Streamflow
YAUE04   FLASH Sacramento Soil Moisture Accounting (SAC) Unit Streamflow
YAUE06   FLASH SAC Soil Saturation
YAUE09   FLASH Precipitation Average Recurrence Interval
YAUE10   FLASH Quantitative Precipitation Estimate to Flash Flood
          Guidance (QPE-to-FFG) Ratio
YAUS09   Probability of Severe Hail
YAUF01   Probability of Severe (JSON format)
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Alaska Products to be Added to the MRMS SBN:

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YAAC01  Composite Reflectivity
YAAP02  PrecipRate
YAAP03  RadarOnly_QPE_01-hour, 03-hour, 06-hour, 12-hour, 24-hour,
        48-hour, 72-hour
YAAP04  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass1
YAAP06  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass2
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Hawaii Products to be Added to the MRMS SBN:

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YAHP02  PrecipRate
YAHP03  RadarOnly_QPE_01-hour, 03-hour, 06-hour, 12-hour, 24-hour,
        48-hour, 72-hour
YAHP04  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass1
YAHP06  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass2
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Table 2. WMO Headers and Product Names for MRMS Products Currently on the MRMS SBN to be Retained

CONUS Products to be Retained on the MRMS SBN

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YAUC01  Composite Reflectivity
YAUP01  Surface Precipitation Type (Convective, Stratiform, Tropical,
        Hail, Snow)
YAUP02  Precipitation Rate
YAUP03  Radar Precipitation Accumulation
YAUP04  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass1
YAUP06  MultiSensor_QPE_[01, 03, 06, 12, 24, 48, 72]hour_Pass2
YAUQ01  Mosaic Base Reflectivity (optimal method)
YAUS04  Low-Level Rotation Tracks (30, 60, ... minutes accumulation)
YAUS06  Mid-Level Rotation Tracks (30, 60, ... minutes accumulation)
YAUS10  Maximum Estimated Size of Hail (MESH)
YAUS11  MESH Hail Swath (* min)
YAUS15  Vertically Integrated Ice (VII)
YAUS22  Reflectivity at Lowest Altitude (RALA)
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Table 3. WMO Headers and Product Names for MRMS Products Proposed for Removal from the MRMS SBN

CONUS Products to be Removed from the MRMS SBN

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YAUC02  Composite Reflectivity Height
YAUC03  Composite Reflectivity [0-4 km]
YAUD01  Radar Quality Index
YAUD02  Seamless Hybrid Scan Reflectivity (HSR)
YAUL01  Cloud-to-Ground Lightning Density (1, 5, 15, 30 minutes)
YAUL02  Cloud-to-Ground Lightning Probability (0-30 minutes)
YAUM03  Probability of Warm Rain
YAUS13  Vertically Integrated Liquid (VIL)
YAUS16  xx dBZ Echo Top (ET)
YAUS17  Height of 50dBZ Echo Above -20C
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YAUS18 Height of 50dBZ Echo Above 0C
YAUS20 Height of 60dBZ Echo Above 0C
YAUS21 Reflectivity at xC

NWS is also proposing to remove binary data products from the MRMS LDM feed. These products are available in GRIdded Binary version two (GRIB2) format. The binary data files being proposed for removal from the MRMS Local Data Manager (LDM) feed and their equivalent GRIB2 data files are listed in Table 4 below.

Table 4. Product Identifiers for the MRMS Files being Proposed for Removal from the MRMS LDM and their Equivalent in GRIB2 Format

Binary	GRIB2
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cref/CREF	MergedReflectivityQCComposite
etp18/ETP18	EchoTop_18
etp30/ETP30	EchoTop_30
posh/POSH	POSH
shi/SHI	SHI
vil/VIL	VIL
tile01/mrefl/MREF3D33L	MergedReflectivityQC*
tile02/mrefl/MREF3D33L	MergedReflectivityQC*
tile03/mrefl/MREF3D33L	MergedReflectivityQC*
tile04/mrefl/MREF3D33L	MergedReflectivityQC*

The intermediate binary format of these products are available only for the contiguous U.S. (CONUS) and only via LDM (feedtype: NOTHER). They are not distributed by any other method.

There are 33 2D MergedReflectivityQC products (one per vertical level of the MRMS 3-dimensional (3D) reflectivity mosaic). The intermediate binary files are 3D products covering a quarter of the CONUS each. Tile 01, 02, 03 and 04 represent the CONUS northwest, northeast, southwest and southeast tiles, respectively.

These changes will occur when NCEP implements the next version of MRMS, Version 12.1, into operations. NWS will collect comments on these proposed product changes for 30 days. If product changes are approved, NWS will issue a Service Change Notice at least 30 days before implementing these changes.

Send comments on this proposal to:

Tabitha Huntemann
NWS/Office of Science and Technology Integration
Silver Spring, MD
tabitha.huntemann@noaa.gov

National Public Information Statements are online at:

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

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