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PNSWSH

Technical Implementation Notice 14-49 Corrected
National Weather Service Headquarters Washington DC
112 PM EDT Thu Jul 2 2015

To: Subscribers:
          -Family of Services
          -NOAA Weather Wire Service
          -Emergency Managers Weather Information Network
          -NOAAPort
          Other NWS Partners, Users and Employees

From: Timothy McClung
          Chief, Science Plans Branch
          Office of Science and Technology

Subject: Corrected: Multi-Radar, Multi-Sensor System Products Added to SBN
and NOAAPort: Effective July 8, 2015

Corrected date of adding products to July 8, 2015.

The unanticipated technical problems with a component of the Satellite
Broadcast Network (SBN) software has been fixed and implemented. On or
about Wednesday, July 8, 2015, the NOAA Advanced Weather Interactive
Processing System (AWIPS) Program Office will add the Multi-Radar, Multi-
Sensor (MRMS) to the SBN and NOAAPort.

Once implemented, selected products from the MRMS System produced by the
National Centers for Environmental Prediction (NCEP) will be added to the
SBN and NOAAPort. MRMS began operational production of gridded binary
version two (GRIB2) formatted products on September 29, 2014.

MRMS is a system with automated algorithms that quickly intelligently
integrate data streams from multiple radars, surface and upper air
observations, lightning detection systems and satellite and forecast
models. MRMS generates a high-resolution 3-Dimentional (3D) radar mosaic
and related 2-Dimensional (2D) severe weather products for numerical
weather prediction (NWP) model data assimilation and aviation
applications. It also produces a suite of quantitative precipitation
estimation (QPE) products for the monitoring and warnings of floods and
flash floods in support of comprehensive hydrologic ecosystem modeling.
Numerous 2D multiple-sensor products offer assistance for hail, wind,
tornado, QPE forecasts, convection, icing and turbulence diagnosis.
A product reference guide and training for users are available from the
NWS Warning Decision Training Branch website at

http://www.wdtb.noaa.gov/courses/mrms

Most MRMS products are generated on a one 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 14 GB per day or 13 MB every two

minutes. Due to the large data volumes this system generates, users who do not wish to receive MRMS products are advised to filter out the applicable World Meteorological Organization (WMO) headers from their NOAAPort feed.

WMO Headers and the official WMO titles for the new products are as follows:

YAUC01 Composite Reflectivity
YAUC02 Composite Reflectivity Height
YAUC03 Composite Reflectivity [0-4 km]
YAUD01 Radar Quality Index
YAUD02 Seamless Hybrid Scan Reflectivity
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 (POWR)
YAUP01 Surface Precipitation Type
YAUP02 Instantaneous Radar Precipitation Rate
YAUP03 Radar 1-hour (H), 3-H, 6-H, 12-H, 24-H, 48-H, 72-H QPE
YAUP04 Local Gauge Bias Corrected 1-H, 3-H, 6-H, 12-H, 24-H, 48-H, 72-H QPE
YAUP06 Mountain Mapper 1-H, 3-H, 6-H, 12-H, 24-H, 48-H, 72-H QPE
YAUQ01 Base Reflectivity
YAUS04 Low-Level Rotation Tracks (60 and 1,440 minute accum.)
YAUS06 Mid-Level Rotation Tracks (60 and 1,440 minute accum.)
YAUS10 Maximum Estimated Size of Hail (MESH)
YAUS11 MESH Tracks (60 and 1,440 minute accum.)
YAUS13 Vertically Integrated Liquid (VIL)
YAUS15 Vertically Integrated Ice (VII)
YAUS16 18, 30, 50, and 60 dBZ Echo Top (ET)
YAUS17 Height of 50dBZ Echo Above -20°C
YAUS18 Height of 50dBZ Echo Above 0°C
YAUS20 Height of 60dBZ Echo Above 0°C
YAUS21 Reflectivity at 0°C, -10°C, -20°C
YAUS22 Reflectivity at Lowest Altitude (RALA)

CCCC = KWNR

In addition to NOAAPort dissemination, MRMS products can be retrieved via Local Data Manager (LDM) directly from NCEP Central Operations. To learn more about this dissemination path, please contact the points of contact (POCs) listed below.

Additional technical information regarding the MRMS system can be found at:

http://www.nssl.noaa.gov/projects/mrms/

Information on WMO Headers and NCEP GRIB messages is online at:

http://www.nco.ncep.noaa.gov/pmb/docs/on388/appendixa.html

For questions concerning the MRMS system, contact:

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National Severe Storms Laboratory (NSSL)
Norman, OK
Phone: 405-535-9863
Email: kenneth.howard@noaa.gov

For questions regarding SBN and NOAAPort activation, contact:

Scott Jacobs
NCEP/NCO
College Park, MD
Phone: 301-683-3910
Email: scott.jacobs@noaa.gov

National Technical Implementation Notices are online at:

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

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