NOUS41 KWBC 231745 PNSWSH

Service Change Notice 25-46 National Weather Service Headquarters Silver Spring MD 145 PM EDT Mon Jun 23 2025

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From: George Jungbluth

Director, Office of Dissemination

Subject: Upgrade of Multi-Radar Multi-Sensor (MRMS) to version 12.3: Effective on July 22, 2025

Effective on or about July 22, 2025, 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 12.3.0 (v12.3).

The technical enhancements with v12.3 include the following:

- 1) Support for NWS radar Volume Coverage Pattern (VCP) 34 This change enables MRMS to ingest and fully process data from WSR-88Ds (Weather Surveillance Radar-1988 Doppler) running in VCP 34.
- 2) Upgrade the ProbSevere (PS) Portion of MRMS ProbSevere PSv3 outputs are more statistically reliable than PSv2 outputs and exhibit better probability of detection of severe storms and decreased false alarms. This upgrade also re-enables the inclusion of GOES-East ABI (Advanced Baseline Imager) data in the ProbSevere output generation process.
- 3) Multi-PRF Dealiasing Algorithm (MPDA) Support MRMS Rotation Tracks products will benefit from improved radial velocity data processing when MPDA is turned on for a WSR-88D operating in either VCP 212 or 215.
- 4) Lightning Scale Parameter Changes
- An internal parameter used to generate MRMS lightning probabilities is being modified in this release to reduce the computational footprint required for these products. This change will improve the timeliness of MRMS lightning products.
- 5) Quantitative Precipitation Estimate (QPE) Improvements:
 MRMS QPEs will benefit from better melting layer delineation. The Radar Quality Index will also be modified to improve the performance of Multi-Sensor QPE products in the warm season.
- 6) Improvements to MRMS Quality Control (QC)

- MRMS QC routines will be updated to improve handling of excessive ground clutter and beam blockage at certain radar sites. New wind farm location tables will also be implemented in this release.

For details about format changes to ProbSevere v3 outputs (item 2 above), please see the following URL:

https://www.weather.gov/idp/MRMS v12.3 Supplemental

For a real-time feed of data that includes all the changes listed in this notice, please see the following URL:

https://mrms-qa.ncep.noaa.gov

To report problems or operational issues with MRMS, please contact:

NCEP Central Operations Tech Control nco.ops@noaa.gov

For questions related to the updates, please contact: corey.pieper@noaa.gov

Please send all other comments and questions to: nws.webfeedback@noaa.gov

National Public Information Statements are online at: https://www.weather.gov/notification/

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