

NOUS41 KWBC 061913  
PNSWSH

Technical Implementation Notice 11-54  
National Weather Service Headquarters Washington DC  
240 PM EDT Tues Dec 6 2011

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From: Tim McClung  
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Office of Science and Technology

Subject: Change To First Guess Used By Real-Time Mesoscale  
Analysis To Rapid Refresh (RAP): Scheduled for  
January 24, 2012

On or about Tuesday, January 24, 2012, with the 1200 Coordinated Universal Time (UTC) run, the Real-Time Mesoscale Analysis (RTMA) for CONUS at both 5-km and 2.5-km resolution will use the Rapid Refresh (RAP) instead of the Rapid Update Cycle (RUC) as the forecast model that provides the first guess. The current 5- and 2.5-km resolution RTMA terrain fields, which were created at ESRL/GSD, will also be replaced by terrain fields created at NCEP/EMC.

The RTMA is a set of gridded surface and near-surface analyses that are created by combining observations with the first guess, weighted by their error statistics.

The change of the first guess is necessary since the RUC is being replaced by the RAP on that same date (see NWS Technical Implementation Notice 11-53 for details of the RUC to RAP transition). The main impact of this change will occur in areas of sparse observational data where the RTMA analysis relies more heavily on the guess field than in areas with greater observational coverage. While the use of the new RTMA terrain will have little impact on the overall analysis on scales larger than a few grid lengths, users who might be using the RTMA terrain to locally adjust the analysis are advised of the need to use the updated terrain provided in the output files.

NCEP urges all users to ensure their decoders can handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the GRIB files, changes to the GRIB Bit Map Section (BMS), and volume changes. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes before

implementation.

For questions regarding these changes, please contact:

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NWS National Technical Implementation Notices are online at:

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