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Technical Implementation Notice 11-54 Amended
National Weather Service Headquarters Washington DC
330 PM EDT Mon Apr 16 2012

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

Subject: Amended: Change to First Guess Used by Real-Time Mesoscale
Analysis To Rapid Refresh (RAP): Effective Date Set for May 1, 2012

Amended to set the implementation date for Tuesday, May 1, 2012. Users
are cautioned that if a Critical Weather Day (CWD) designation is in
effect on May 1, this implementation will be delayed until the conclusion
of CWD. You can monitor the CWD status at the following webpage:

<http://www.nco.ncep.noaa.gov/pmb/cwd/>

On Tuesday, May 1, 2012, with the 1200 Coordinated Universal Time (UTC)
run, the Real-Time Mesoscale Analysis (RTMA) for the contiguous U.S.
(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 Earth Systems Research Laboratory
(ESRL)/Global Services Division (GSD), will also be replaced by terrain
fields created at the National Centers for Environmental Prediction
(NCEP)/Environmental Modeling Center (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 gridded binary (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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For questions regarding the dataflow aspects of these datasets, please contact:

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National Technical Implementation Notices are online at:

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

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