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Technical Implementation Notice 12-51
National Weather Service Headquarters Washington DC
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From: Timothy McClung
 Chief, Science Plans Branch
 Office of Science and Technology

Subject: Change to Parameters and Precision in RAP Native
 Files: Effective November 27, 2012

Effective on or about Tuesday, November 27, 2012, beginning with the 1200 Coordinated Universal Time (UTC) run, the National Centers for Environmental Prediction (NCEP) will make changes to the 13 and 20 km native bgrb files from the Rapid Refresh (RAP) model. The content will change for the files for forecast hours 04, 07, 10, 13, and 16, while the precision of the pressure on native levels records will change for all files. These changes affect only the bgrb output; there are no changes to any of the other RAP output files. These files are available in the following locations:

NWS FTP server:

ftp://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/MT.rap_CY.hh

where hh is the model cycle from 00 to 23

NCEP server:

<http://www.ftp.ncep.noaa.gov/data/nccf/com/rap/prod>

<ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/rap/prod>

The RAP bgrb files contain data on native model levels along with a few additional parameters. These files should contain 1-hr stratiform and convective precipitation data at forecast hours 1, 4, 7, 10, 13, and 16. They do contain 2-hr stratiform and convective precipitation data at forecast hours 2, 5, 8, 11, 14, and 17, and they do contain 3-hr stratiform and convective precipitation data at forecast hours 3, 6, 9, 12, 15, and 18. The 1-hr precipitation data is currently missing for forecast hours 4, 7, 10, 13, and 16 and will be added to those files with

this change.

These files contain data for pressure values on native model levels, and the precision will be changed for all 50 records. The current decimal scale factor is -2, while the binary scale factor is 1. These values will both become 0 with the changes to give more precision to these records.

The changes result in the size of the 13 km grib2 files increasing from approximately 30.5 MB each to approximately 34.5 MB. The size of the 20 km grib2 files increases from approximately 16.0 to 18.2 MB. NCEP urges all users to ensure their decoders can handle these changes. Sample forecast hour f04 modified native files at both 13 and 20 km resolution can be found at:

<ftp://ftp.emc.ncep.noaa.gov/mmb/mmbpll/rap/test>

For questions regarding these changes, please contact:

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NWS National Technical Implementation Notices are online at:

<http://www.nws.noaa.gov/os/notif.htm>

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