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Technical Implementation Notice 14-28
National Weather Service Headquarters Washington DC
741 AM EDT Tue Jul 1 2014

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

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

Subject: High-Resolution Rapid Refresh Model Added to SBN and
 NOAAPORT: Effective September 16, 2014

Effective Tuesday, September 16, 2014, with the 1200 Coordinated Universal Time (UTC) run, the High-Resolution Rapid Refresh (HRRR) model produced by the National Centers for Environmental Prediction will be added to the Satellite Broadcast Network (SBN) and NOAAPORT.

The HRRR model is a 3 km, hourly model with explicit convection that is initialized by the 13 km Rapid Refresh Model. A 1-hour spin-up forecast is run, introducing temperature tendencies obtained from assimilating radar data every 15 minutes during the hour to help initialize ongoing convection. A 3 km Gridpoint Statistical Interpolation (GSI) analysis is then performed before the 15-hour model integration.

The grid NWS will provide over the SBN and NOAAPORT is the 2.5 km National Digital Forecast Database grid #184. This grid is not the expanded 2.5 km grid #187. The data will be provided for the analysis and each forecast hour out to the end of the model integration at hour 15. The sub-hourly (15 minute) HRRR output will not be available over the SBN or NOAAPORT with this initial release and datasets will only be available in GRIB2 format.

The 00-hr GRIB2 files will be available approximately 47 minutes after the synoptic time and will arrive sequentially with the final 15-hour files available approximately 83 minutes after the synoptic time. The per cycle data volume will be approximately 1.9 GB.

The WMO Heading for these products will be as follows:

T1: DATA FORMAT OF GRIB2 /Y/
T2: PARAMETER CODE /ONE OF ACDEFHKMNPQRSTUWXYZ/

A1: GRID CODE /C/
A2: FORECAST TIME /ONE OF ABCDEFGHIJKLMZ/
II: LAYER OR LEVEL /ONE OF 00 01 73 74 86 98/
CCCC: KWBY

A complete explanation of the WMO headers for all of the products is available at:

http://www.nco.ncep.noaa.gov/pmb/changes/hrrr_wmo_headers.shtml

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

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

A complete Technical Implementation Notice with detailed HRRR implementation information will be sent by the end of July.

For questions concerning the HRRR model, contact:

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National Technical Implementation Notices are online at:

<http://www.weather.gov/os/notif.htm>

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