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Technical Implementation Notice 14-28 Amended
National Weather Service Headquarters Washington DC
230 PM EDT Mon Sep 8 2014

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

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

Subject: Amended: High-Resolution Rapid Refresh Model Added to SBN and NOAAPort: Effective September 30, 2014

Amended to change effective date to September 30, 2014 and to mention the gradual turn on of data to NOAAPort.

Effective Tuesday, September 30, 2014, with the 1400 Coordinated Universal Time (UTC) run, the High-Resolution Rapid Refresh (HRRR) model produced by the National Centers for Environmental Prediction (NCEP) will be added to the Satellite Broadcast Network (SBN) and NOAAPort.

The HRRR model is a three 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 three 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 (NDFD) 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 gridded binary version two (GRIB2) format.

The 00-hour 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 World Meteorological Organization (WMO) Headings for these products will be as follows:

T1: Data Format of GRIB2 /Y/
T2: Parameter Code /One of ADEFHKMNOPQSTUVWXYZ/
A1: Grid Code /C/
A2: Forecast Time /One of ABCDEFGHIJKLMZ/
II: Layer or Level /One of 00 01 50 70 73 74 85 86 89 92 98 99/
CCCC: KWBY

Note: NOAAPort data dissemination will begin October 1, 2014 and parameters will be turned on gradually until all parameters are available by the end of October 2, 2014.

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:

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

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