**Release Notes**

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| **Model** | High-Resolution Rapid Refresh (HRRR) |
| **Version** | V1.0.4 |
| **Implementation date/time** | September 30, 2014, 14Z |
| **Purpose** | The HRRR is a high-resolution model that is run hourly to 15 hours over a domain that covers an area slightly larger than the contiguous United States.  The HRRR provides forecasts, in high detail, of critical weather events such as severe thunderstorms, flash flooding, and localized bands of heavy winter precipitation.   Since the HRRR is run hourly and assimilates many data sources including radar reflectivity data, the HRRR helps provides critical details to forecasters in rapidly-changing and evolving weather events.   The HRRR will also eventually become part of a high-resolution ensemble system, and it will be used to help create a first guess for the Real-Time Mesoscale Analysis. |
| **Changes being made for this release** | Initial implementation of this model |
| **Developed by** | NOAA/OAR/Earth Systems Research Laboratory |
| **Runs on** | The National Weather Service (NWS) Weather and Climate Operational Supercomputing System (WCOSS) |
| **Community software** | Weather Research and Forecasting (WRF) model - ARW core |
| **Input** | Rapid Refresh (RAP) model data and various observational data sources, featuring 15 minute radar reflectivity data. |
| **Output and where to find it** | The HRRR runs hourly and produces output every 15 minutes from 0 to 15 hours. Gridded output on a 3km CONUS grid and station time series BUFR data are sent to [www.ftp.ncep.noaa.gov/data/nccf/nonoperational/com/hrrr/prod/hrrr.\*](http://www.ftp.ncep.noaa.gov/data/nccf/nonoperational/com/hrrr/prod/hrrr.*), where \* is the year, month and day, and also to NOMADS. Hourly output on the 2.5km CONUS NDFD grid is available on NOAAPORT. WMO headers can be found at http://www.nco.ncep.noaa.gov/pmb/changes/hrrr\_wmo\_headers.shtml . Imagery from the HRRR is available on the Model Analysis and Guidance (MAG) webpage at mag.ncep.noaa.gov . |
| **Primary users** | NCEP Service Centers, FAA, NWS offices (except those in Alaska and Pacific regions), NOAA labs, various private sector companies including the wind and solar energy sectors, and forecasters - especially those concerned about convective evolution. |
| **In the future** | The next version of the HRRR will have various upgrades including changes to address current warm dry daytime bias in warm season and cold bias in cool season.   It will also feature various WRF updates and enhancements to the assimilation of radar reflectivity and other data.   Plans are to eventually expand the HRRR to cover Alaska |

For more information on this model, please contact [ncep.pmb.dataflow@noaa.gov](mailto:ncep.pmb.dataflow@noaa.gov) .