

Update on NOAA's National Weather Service (NWS)
WSR-88D Level II Data Collection and Distribution Network

Updated 3 March 2010

PURPOSE:

Update Weather Surveillance Radar-1988 Doppler (WSR-88D) Level II data users, real-time and archive, on WSR-88D changes that may impact data format, data reliability, and data quality. **This update provides the status of Build 12 deployment, the Dual Pol modification project, adding WSR-88D sites to the Level II network, and the modified Level II data collection and distribution architecture.**

CURRENT STATUS:

Reference NWS Service Change Notice 09-51, the NWS added the four WSR-88Ds in Hawaii to the Level II Network on 4 February. Data from these sites and ~20 NWS Eastern Region sites are flowing to users via the new Level II collection and distribution architecture (see attached figure). We plan to transition 6 sites per week to the new architecture. The target date for completion of the transition is June 2010. In the new architecture, the regional aggregation points will be replaced by a central aggregation point (NWS Telecommunications Communications Gateway, staffed 24/7) with full redundancy at an off-site location (the WSR-88D Radar Operations Center). NOAA Net communications will be used to send the data to the central aggregation point(s). This will result in an increased reliability of data flow.

FUTURE CHANGES:

Build 12: RPG Build 12 software Beta Test will begin in June 2010 at approximately 6 sites, to be identified soon. The software will be released to the field beginning in July 2010. The major change to the software will be the activation of the RPG algorithms and display products for Dual Pol data (after a site receives the Dual Polarization modification to the RDA), the use of Super Resolution data in the Mesocyclone Detection Algorithm, and enable the addition of the remaining 8 DoD CONUS WSR-88D sites to the Level II network. When the DoD sites come on line will vary from site to site based on when they install Build 12 and the required communication assets (Jul – Sep 2010).

Dual Pol Modification. The first Dual Pol retrofit of a WSR-88D has been completed on one (KOUN) of the two test bed WSR-88Ds in Norman. The first Dual Pol Beta Test date has been delayed to November 2010 at Wichita, KS. The Dual Pol deployment is now expected to start in March 2011 and be completed by the end of 2012. The NWS will provide sample Dual Pol Level II data and products, interface control documents, and live sample data from the ROC test bed KOUN. More information will soon be published in an NWS Technical Implementation Notice and on the ROC web site (<http://www.roc.noaa.gov/WSR88D/>).

ADDITIONAL INFORMATION:

NWS Family of Services Briefing (FOS). The briefing materials used at the 21 January 2010 FOS meeting in Atlanta, GA are available at:

<http://www.weather.gov/datamgmt/fos/fosindex.html>. Please consider reviewing these slides for important WSR-88D Level II updates and other meteorological information.

Those who use CODE (Common Operations and Development Environment) to process Level 2 data can update to Build 11 at <http://weather.gov/code88d/>. The ROC web site (<http://www.roc.noaa.gov/ssb/cm/sbuilds/>) provides a list of changes in each software build. The Build 12 version of CODE will be available approximately when field deployment begins in July 2010.

NWS-Maintained Level II Status Monitoring Site Available: The following web site provides the status of Level II data flow to the NWS Telecommunications Operations Center: <http://weather.noaa.gov/monitor/radar2/>. The site contains a color-coded display of radars on the Level II network, by NWS region. The colors help the user differentiate between radars with just a Level II outage and radars with both Level II and III outages (implying the radar is inoperable). In addition, users can click on the site of interest and view any applicable Operator Notes/Recent Free Text Messages, which provide more information on the radar's status. Apparent data latencies are also provided. The statuses of the Hawaii WSR-88Ds are listed in the Western Region "box."

The Radar Operations Center (ROC) has a new URL (https://ssm.roc.noaa.gov/main_ie.asp) for users to obtain:

1. A list of all radars and the RPG software build the radar is using, and
2. A list of all radars and the volume coverage pattern the radars are in, during the last automated hourly ROC call to the RPG.

Information about the Level II network is at:
http://www.roc.noaa.gov/wsr88d/Level_II/Level2Info.aspx.

Send comments/questions on this update to Tim.D.Crum@noaa.gov

2010 Level II Architecture Refresh

