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

Updated 20 November 2009

PURPOSE:

Update Weather Surveillance Radar-1988 Doppler (WSR-88D) Level II data users, realtime 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, and the plan to update the Level II data collection and distribution architecture and number of sites sending Level II data.**

CURRENT STATUS:

The NWS has announced plans to add 12 sites to the Level II Data Collection, Distribution, and Archive Network during the next year. Details are available on this web site (List of Connected Sites and Planned Sites) and NWS System Change Notice 09-51 available at: http://www.nws.noaa.gov/om/notif.htm.

FUTURE CHANGES:

<u>Build 12:</u> RPG Build 12 software Beta Test will begin in March 2010 at sites to be announced. The software will be released to the field in June 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) and the use of Super Resolution data in the Mesocyclone Detection Algorithm. The Build 12 RDA software release will accompany the installation of the Dual Pol modification at a site.

<u>Dual Pol Modification</u>. The first Dual Pol retrofit of a WSR-88D has been completed on one (KOUN) of the two test WSR-88Ds in Norman. The Dual Pol System Test start date has been delayed beyond the planned start date, but no firm start date has been established. The dates of the first Dual Pol Beta Test and operational use period, of the Dual Pol modification will be announced. The NWS plans to provide sample Dual Pol Level II data and products, interface control documents, and live sample data from the ROC test bed KOUN at a date to be announced in 2010. The NWS plans to issue a Technical Implementation Notice providing detailed Dual Pol information in 1CY10. We will post this information on this web site too, so please check back at this web site periodically. If you like, we can add you to a "recipient undisclosed" email list for future Level II updates by sending the request to the ROC webmaster: http://www.roc.noaa.gov/WSR88D/Comments.aspx.

Update the Level II Data Collection and Distribution Architecture. The NWS is planning to change the architecture of the Level II data collection and distribution beginning this fall. The regional aggregation points will be replaced by a central aggregation point (staffed 24/7) with full redundancy at an off-site location. NOAANet communications will be used to send the data to the central aggregation point(s). This will result in an increased reliability of data flow.

ADDITIONAL INFORMATION:

<u>Family of Services Briefing (FOS).</u> All briefing materials include those on radar topics, used at the 25 June 2009 FOS meeting in Silver Spring, MD are available at: http://www.weather.gov/datamgmt/fos/fosindex.html. There will be a presentation on WSR-88D product and Level II data, and TDWR data at the next FOS meeting on 21 January 2010 in conjunction with the American Meteorological Society annual meeting in Atlanta, GA.

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 all changes. The Build 12 version will be available approximately when field deployment begins in June 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 Radar Operations Center (ROC) has a URL (http://www.roc.noaa.gov/ops/ssm.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/NWS_Level_2/.

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