DQ Explorer & Production VAPs

**DQ Explorer** (available at http://dq.arm.gov) web application has many new features that help streamline the quality control (QC) of VAPs:

- Displays QC summary metrics from multiple datastreams on the same page using a common hourly grid
- Provides quick access to metrics for VAP input datastreams via the “Input Datastreams” link on each table
- Handles any number of bit-packed QC tests, including those created by the DQ Office, with color coding for multiple assessment levels
- Displays metrics and plots for multiple data levels of the same datastream

**Potential Problem Identification for MERGESONDE VAP**

DQ Explorer hourly QC metrics for MERGESONDE and MWRRET VAPs. The MWRRET metrics indicate a problem with PWV values used for the MERGESONDE rh_scaled field.

DQ Explorer plots of MWRRET PWV, LWP, and Best-Estimate Retrieval Flag. Best-estimate PWV data were missing during a portion of the problem period identified in the hourly metrics.

DQ Explorer plot of MERGESONDE rh_scaled. Values are saturated at 101% for much of the problem period identified in the hourly metrics.

Updated Data Quality Assessment Reporting

The **Data Quality Assessment (DQA)** tool, developed and maintained at BNL, has undergone updates to utilize VAP dependency information:

- Queries web service hosted at PNNL for datastream-level VAP dependencies
- DQ analyst sees a problem with SGP E9 SIRS and notes it in QCRAD DQA
- DQ analyst can quickly scan and access open DQPRs and DQRs from associated input datastreams

**Evaluation Products & DQ Inspector**

**DQ Inspector** enables the DQ Office to troubleshoot development VAPs for developers:

Vertical profile of temperature_mean from CCNPROF VAP: 9/15/06-3/08/11
Same data plotted as time series to quickly identify outliers

Vertical profile of cccn_3 from CCNPROF VAP: 9/02/10-9/16/10
Time series subset at 1.05 km shows values incorrectly set to missing: 9/10/10-9/11/10