NEXRAD
RADAR OPERATIONS CENTER

BUILD 13 CMD TAC BRIEFING

Presented by
Olen Boydstun
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Identified Merge Issues Early

- Couldn't bring back CMD exactly as was
  - Build 11 CMD design relied on the RVP8 being able to make filtered and unfiltered versions of every variable that was to be passed on to the RPG, for the CMD active cut
  - Build11 only Z sent to RPG
    - The RVP8 can provide both filtered and unfiltered Z.
    - Decision made in RDASC on RCP8
  - Build13 DP variables ZDR, RHOHV, and PHIDP must be sent. The RVP8 does not create a filtered and unfiltered stream of DP variables

- Rework required

Updated Design

- Moved decision to create filtered or unfiltered variables into the signal processor
  - Solves the DP variables concern
  - Allows implementation of CMD on non-split cuts (A CCR requested this feature)
  - There is concern over hotspots
  - The enlargement processes of growing super res CMD flags into legacy res bypass map of the original CMD was empirically determined method to solve hotspot issue of Build 11.0
  - WTDB DQ presentation on Build 11.1 CMD
    - WFO reported concerns on false alarms
    - Requested improvement in Build13

DQ MOU

- MOU TIM with NCAR in June 2010
  - Address CMD hotspot (missed detection) issues with new "In-Fill" filter, and modified CPA calculation
  - Solve CMD false detection issues with DP variables and speckle filter of CMD flags
  - DP variables are the most effective at removing false detections
- NCAR will brief Build 13 CMD

Questions/Comments