Super Resolution
Independent Verification and Validation (IV&V)

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Super Resolution IV&V

- Objectives
- CONOPS
- Risks

Super Resolution IV&V-Objectives

- Collect real time data
- Examine super resolution base data for any obvious biases
- Evaluate super resolution base data statistics
- Verify legacy resolution base moments meet WSR-88D system specification requirements
- Compare algorithms (if single data stream)
- Confirm NSSL results regarding windowing techniques Oversampling and Psuedo-whitening (if used)
- Verify compatibility w/clutter filter methods & SZ2

Super Resolution IV&V-CONOPS

- Team
  - ROC Engineering Branch
  - ROC Applications Branch
  - NSSL
- Data sources:
  - Historical Level I Data Cases
  - Newly Collected Cases
    - Level 1 – for detailed analysis using playback
    - Level 2 - statistical analysis and long duration algorithm processing

Super Resolution IV&V-Risks

- ORDA installation on KOUN
- Algorithm analysis cannot begin until real time data is collected
- Additional time may be required after installation of ORDA to work out any problems.
- ORDA CPU demands in conjunction with other new signal processing additions to the ORDA (SZ-2 phase coding, over sampling, and whitening)
- Testbed availability and occurrence of appropriate meteorological conditions

Super Resolution IV&V

- Rough timeline
  - ORDA installed on KOUN Mar 06
  - Early Findings -TAC Fall 06
  - Detailed Results -TAC Spring 07
  - Final Results - TAC Fall 07