

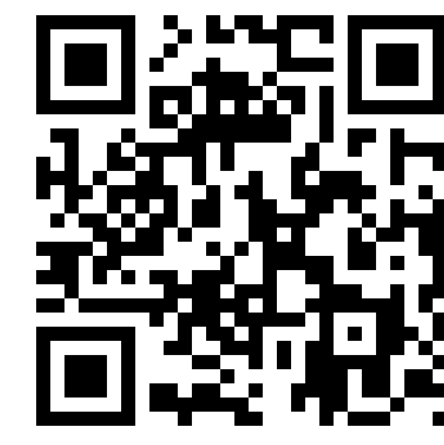
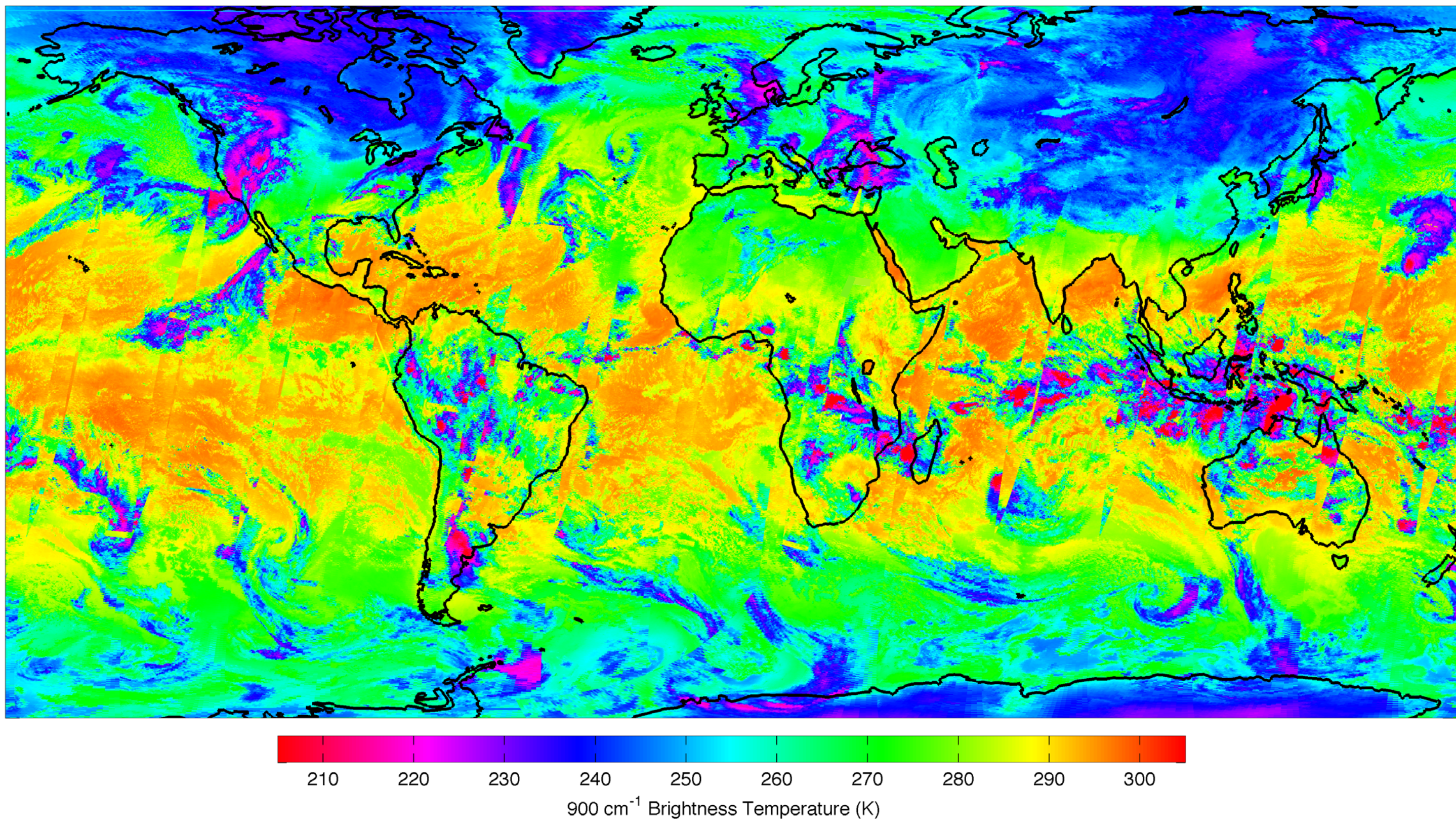
Early Checkout of the Cross-track Infrared Sounder (CrIS) on Suomi NPP



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 Joe Taylor, Lori Borg, Graeme Martin, Ray Garcia
 and the CrIS Cal/Val, NPP, and Atmosphere PEATE teams
 Cooperative Institute for Meteorological Satellite Studies
 Space Science and Engineering Center
 University of Wisconsin-Madison

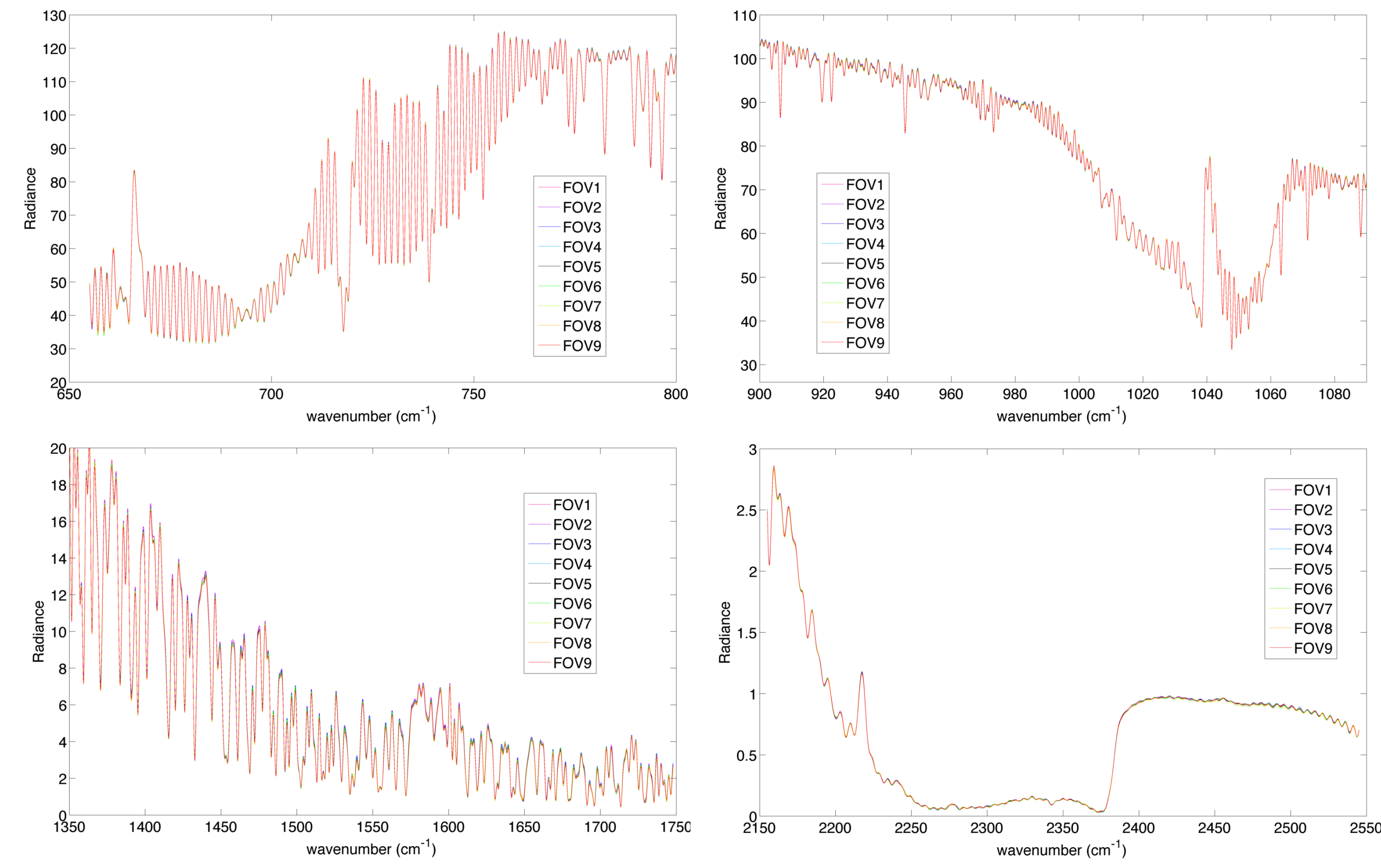


Jan 21/23/25 900 cm⁻¹ BT descending composite



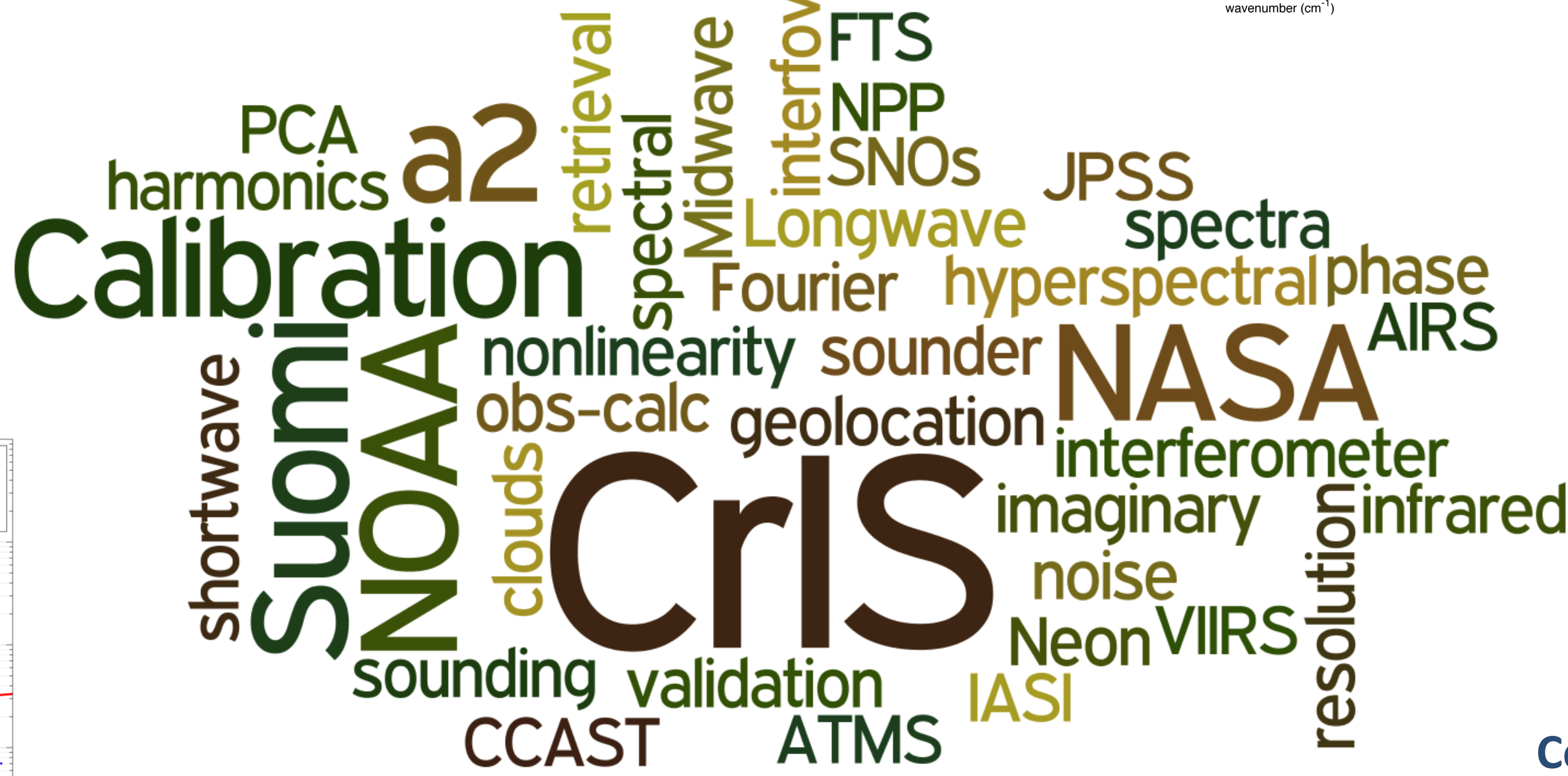
HIRS
 TOVS
 cross-track
 CrIS
 ITSC-18

Sample spectra for a uniform 3x3 FOR on 20 Jan



UW Early Checkout Efforts

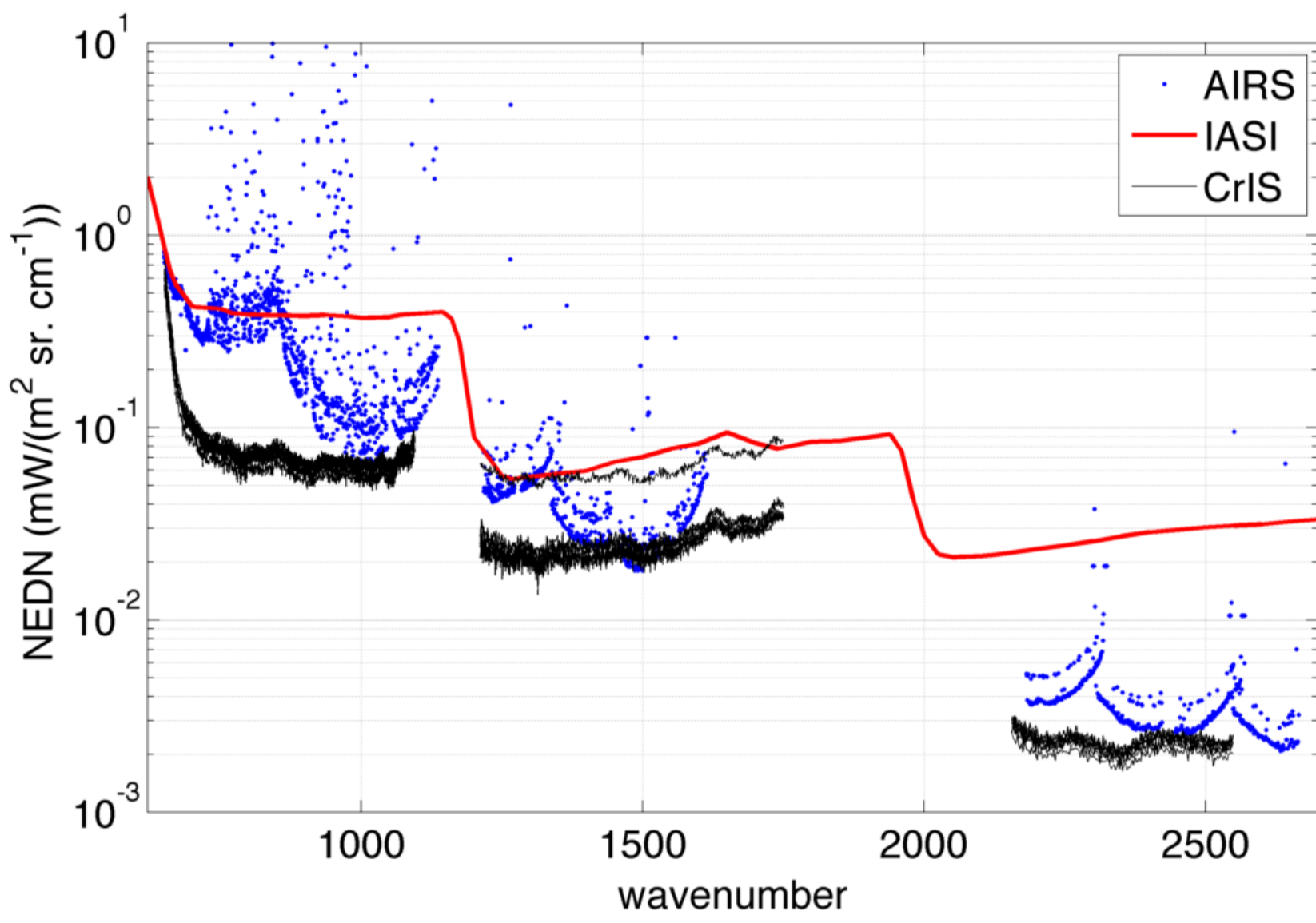
- Radiometric calibration
- Nonlinearity correction
- Spectral consistency
- Independent SDR processing
- Comparisons with IASI, AIRS, VIIRS, Geos, ...
- Noise, PCA



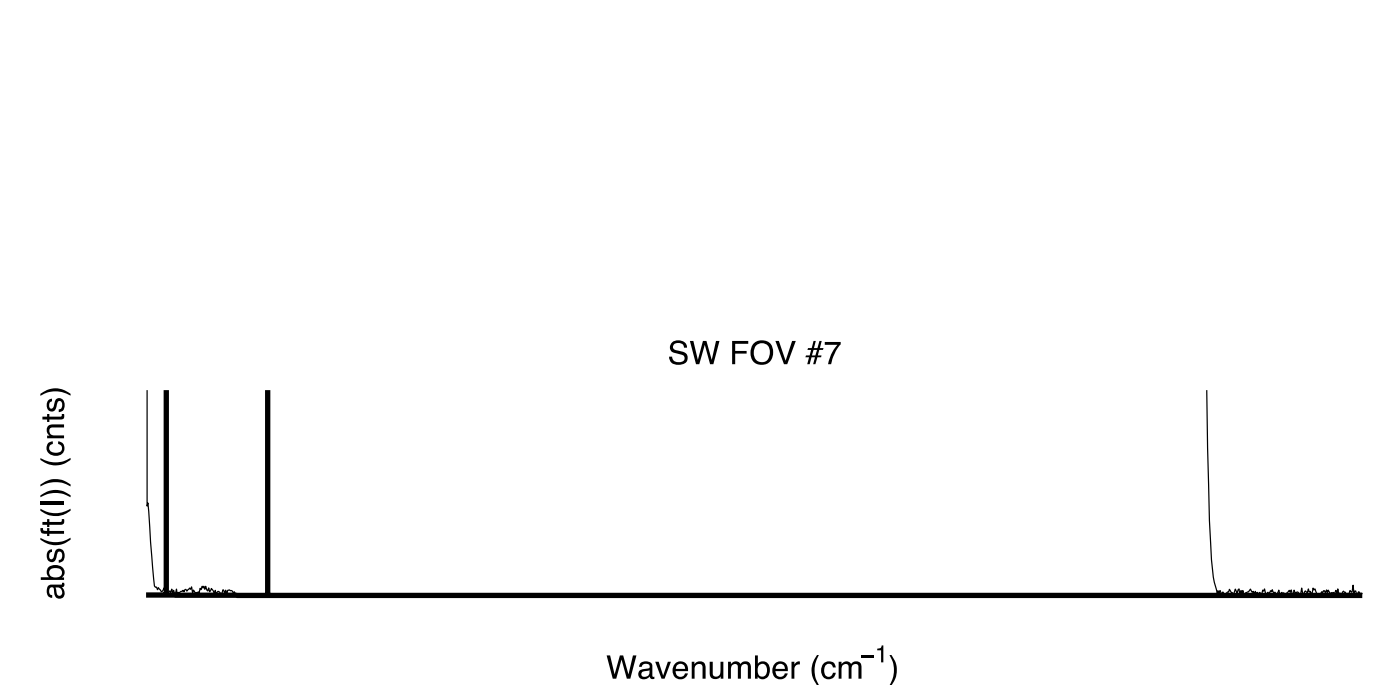
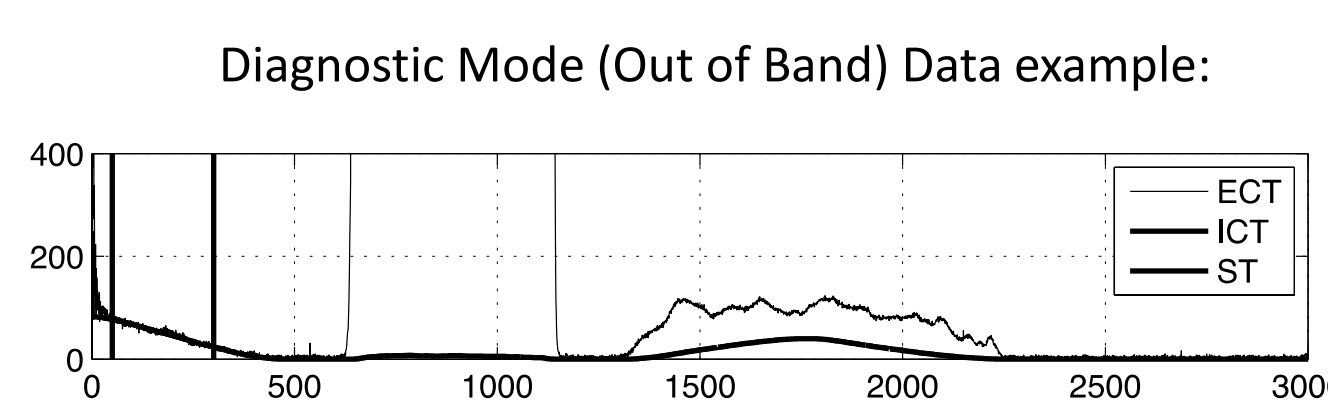
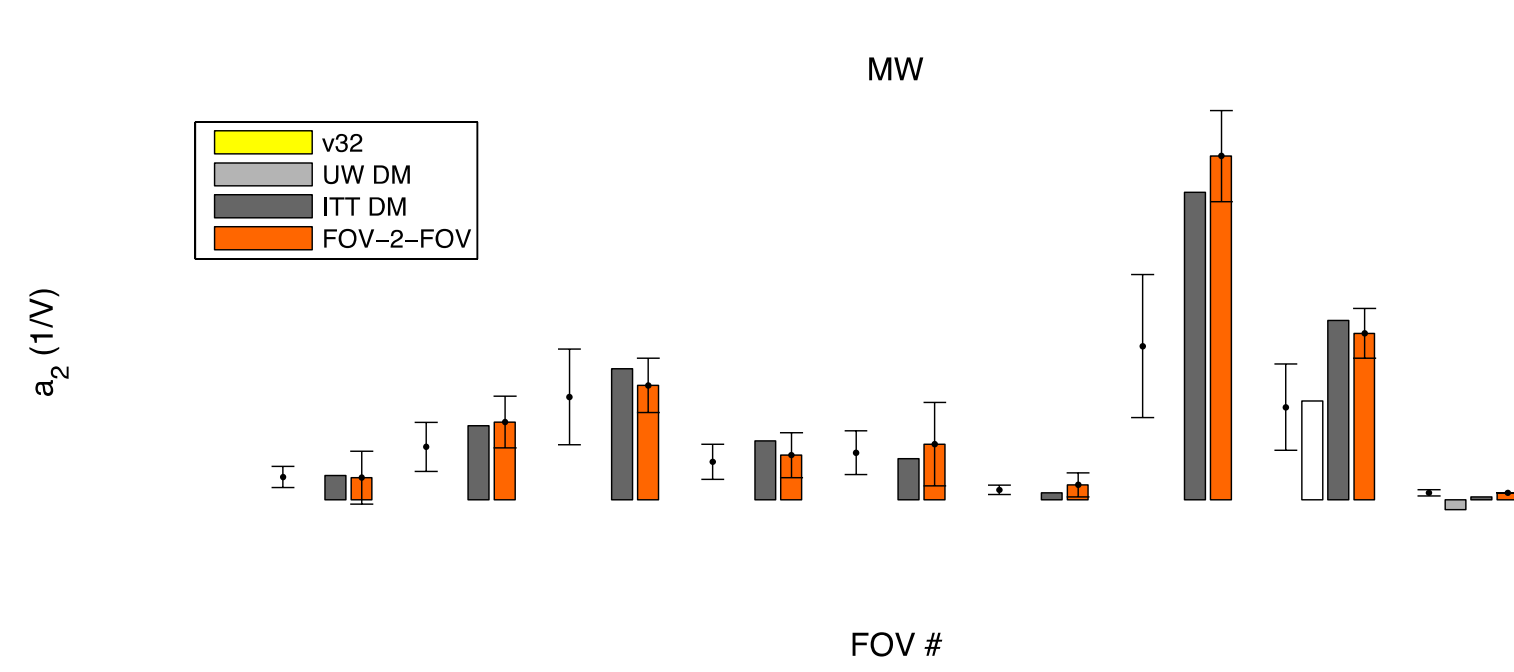
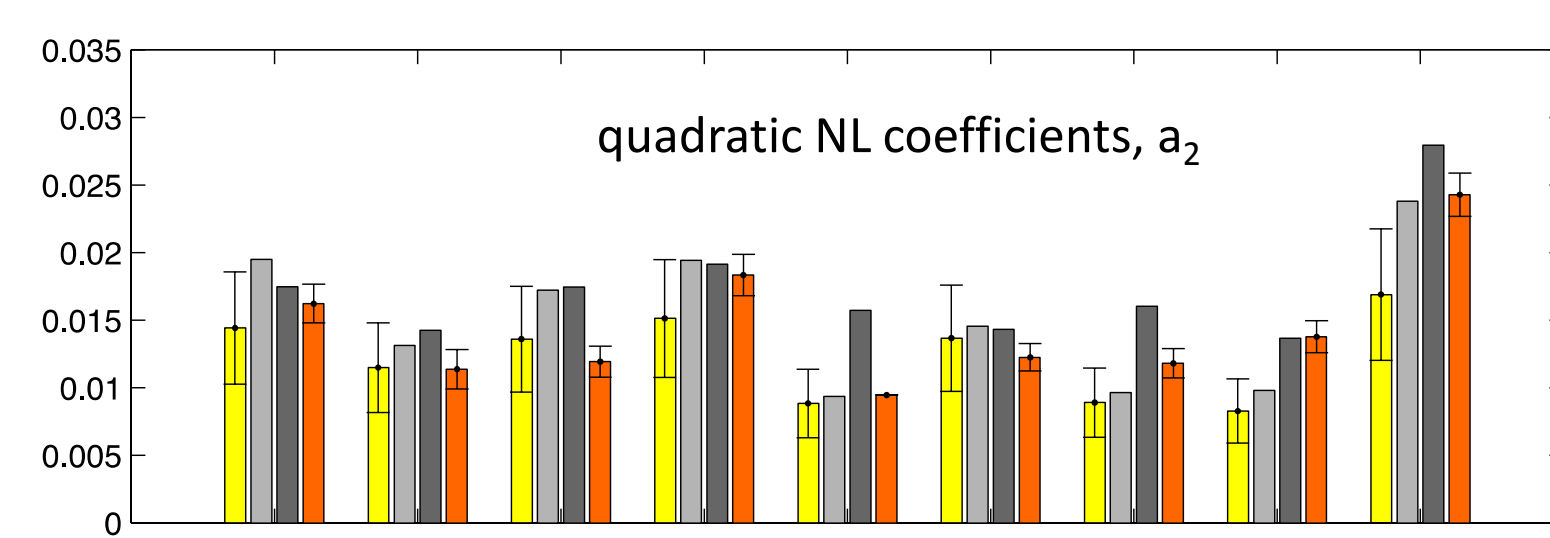
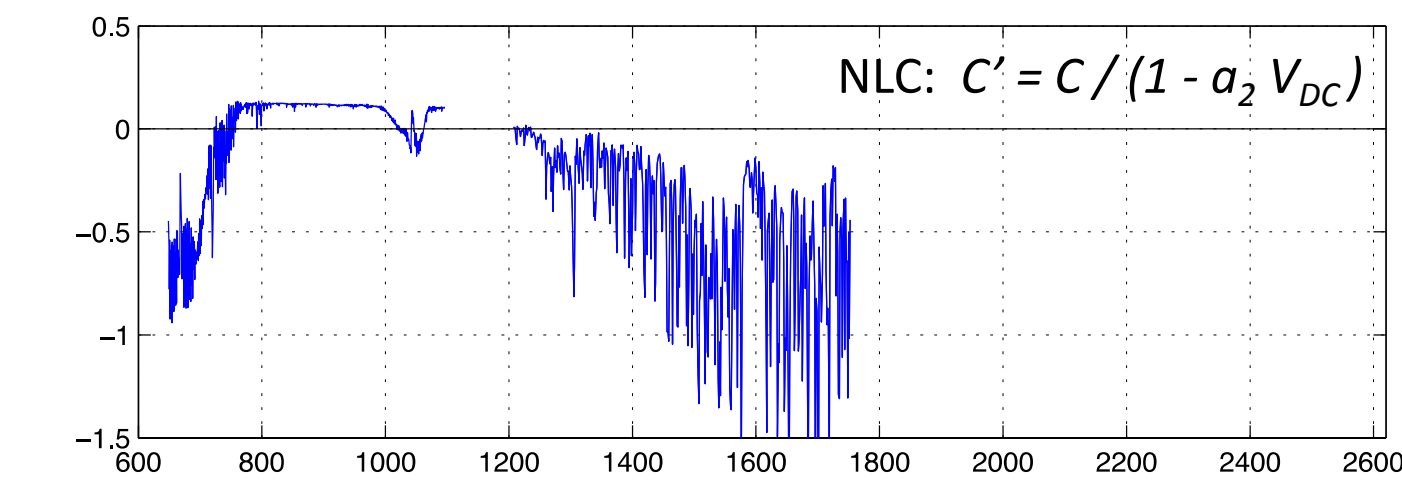
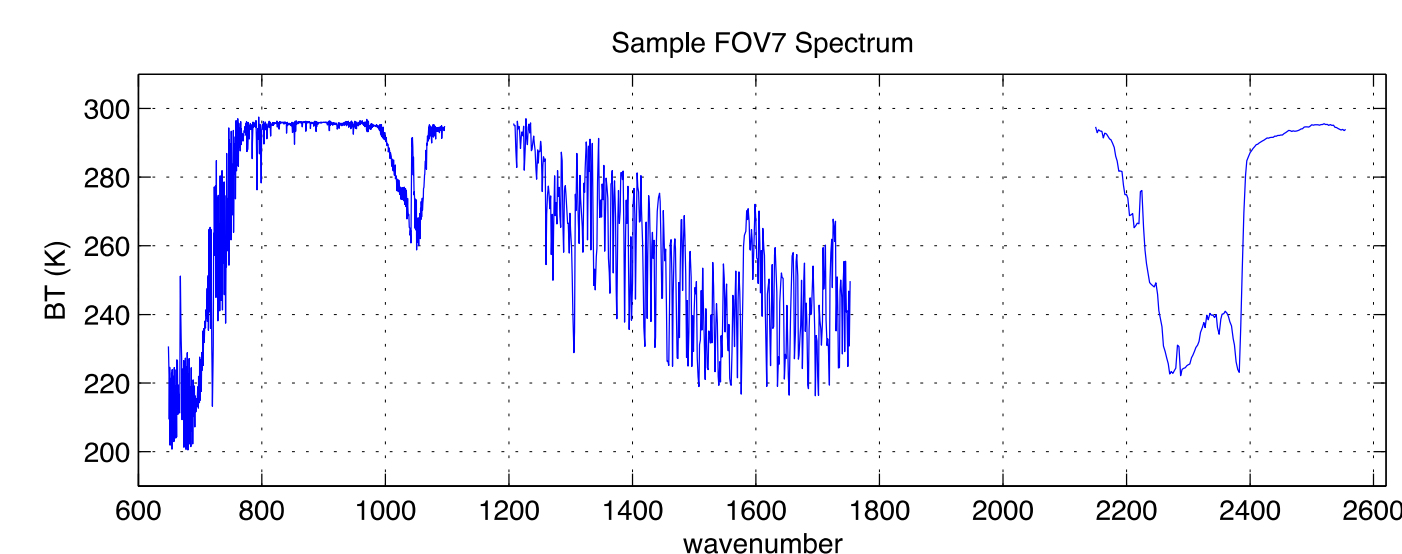
Schedule

- 28 Oct: Suomi NPP launched
- 20 Jan: CrIS electronics activated and begin Early Checkout phase
- 19 Mar: go to France!
- 30 Mar: v33 cal. coeffs. decision
- 04 Apr: SDRs declared "beta" +6mo.: Extended Cal/Val phase and v34 cal. coeffs.

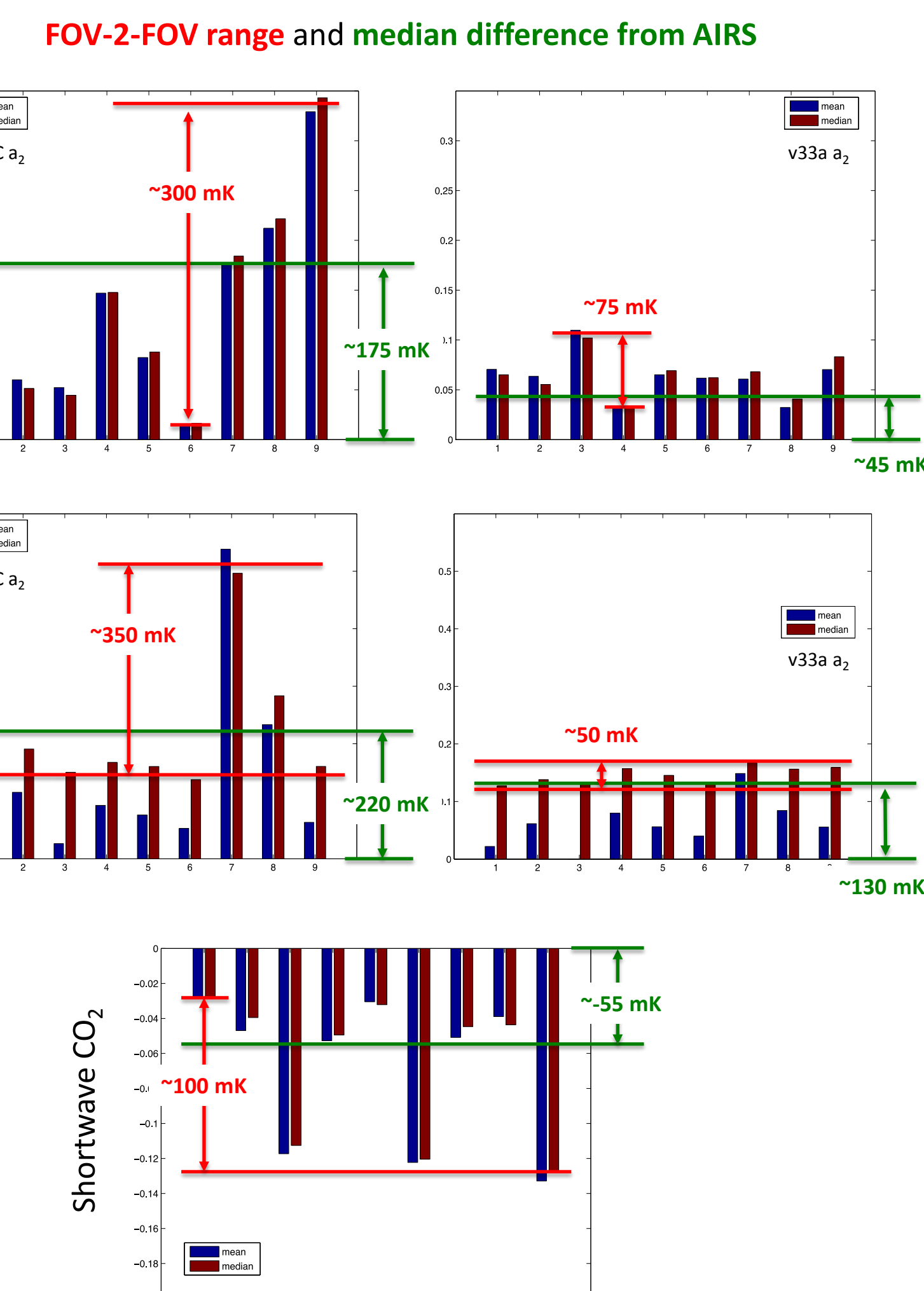
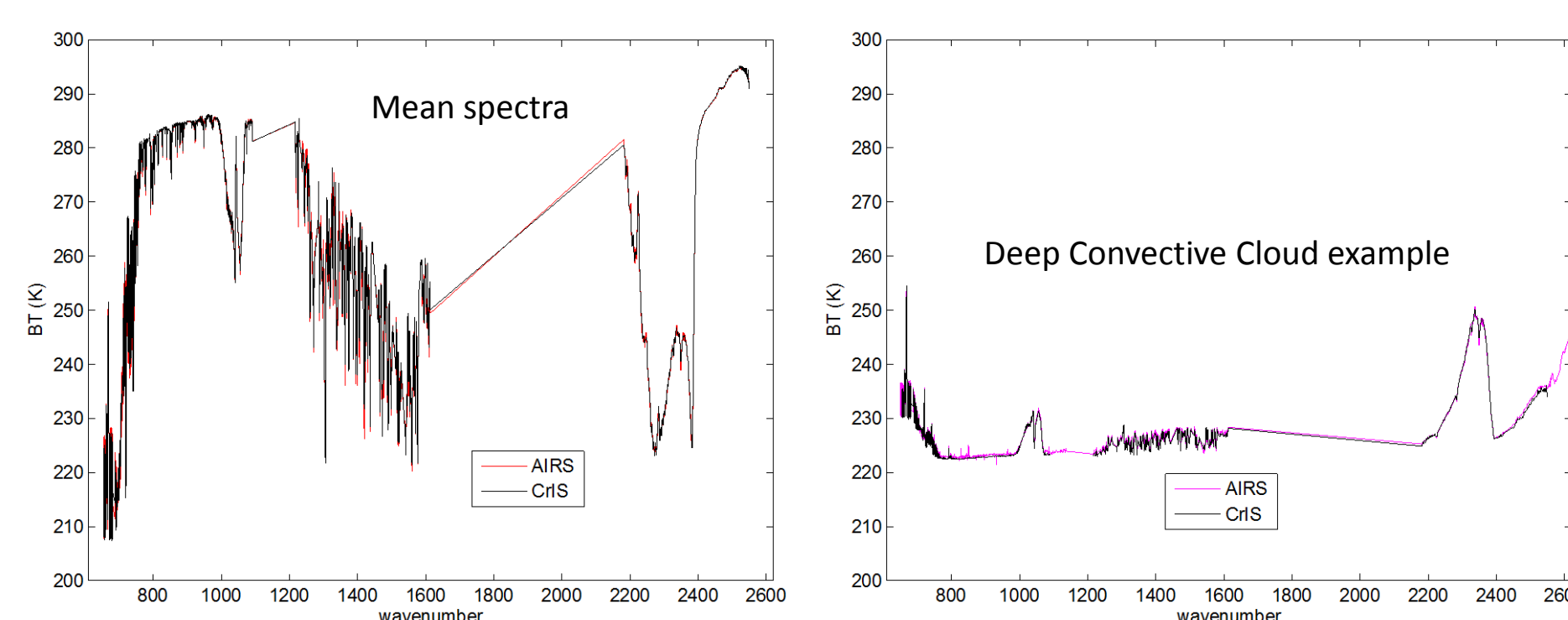
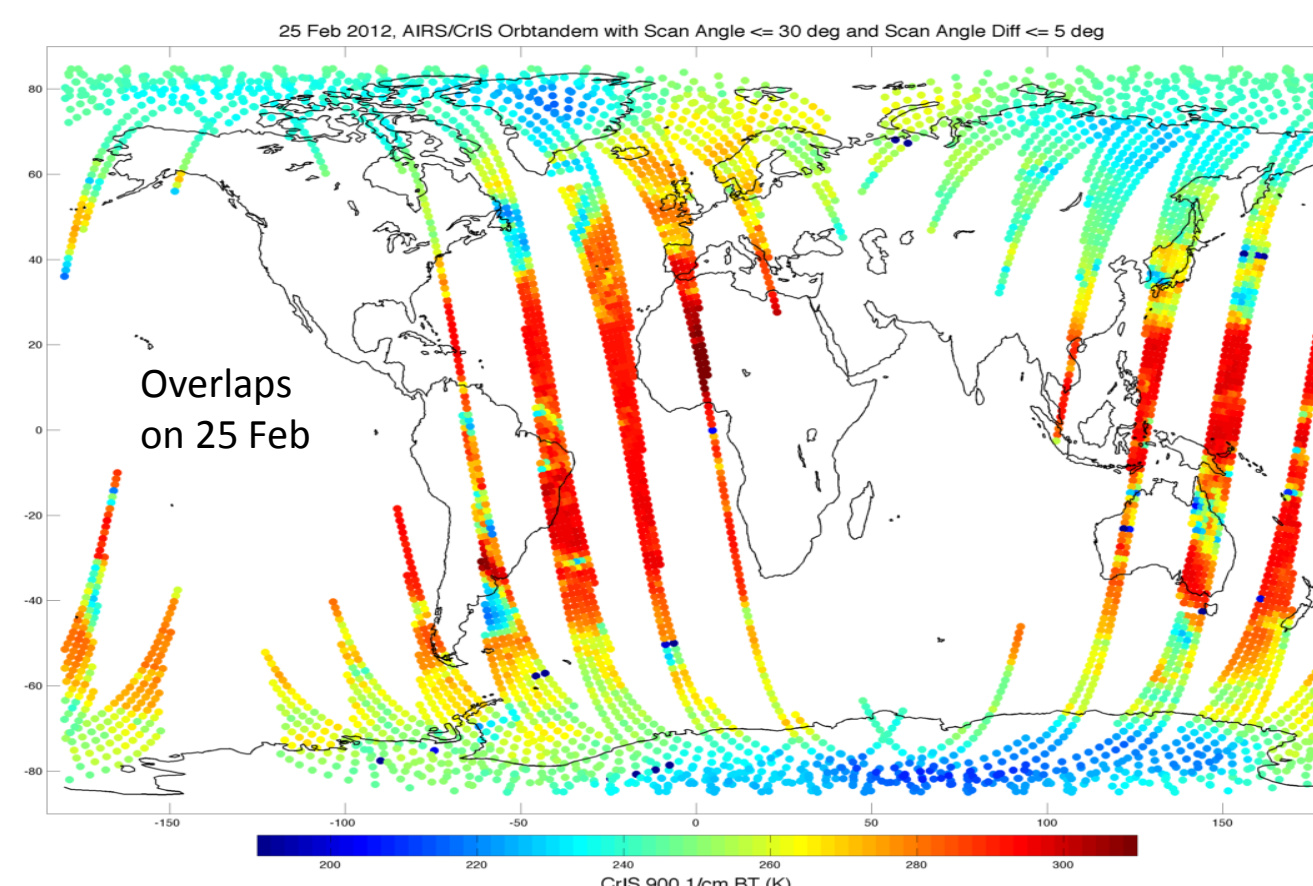
Noise Performance



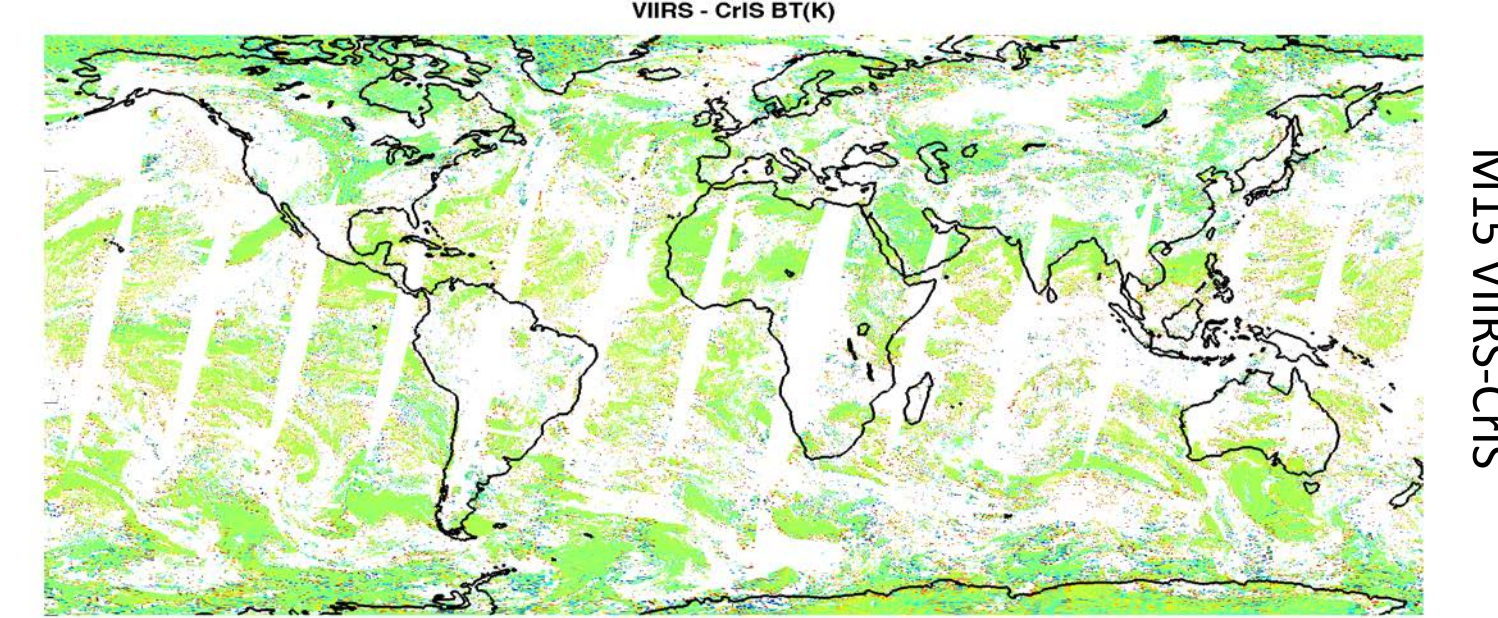
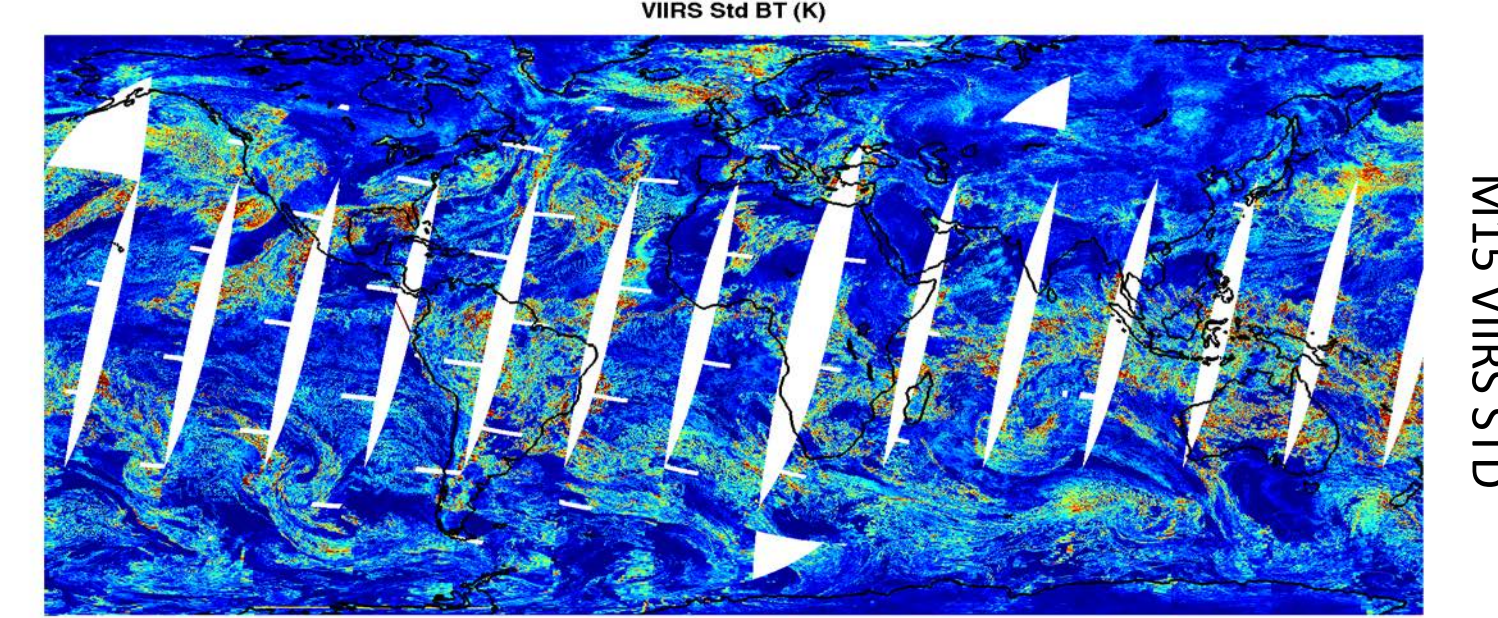
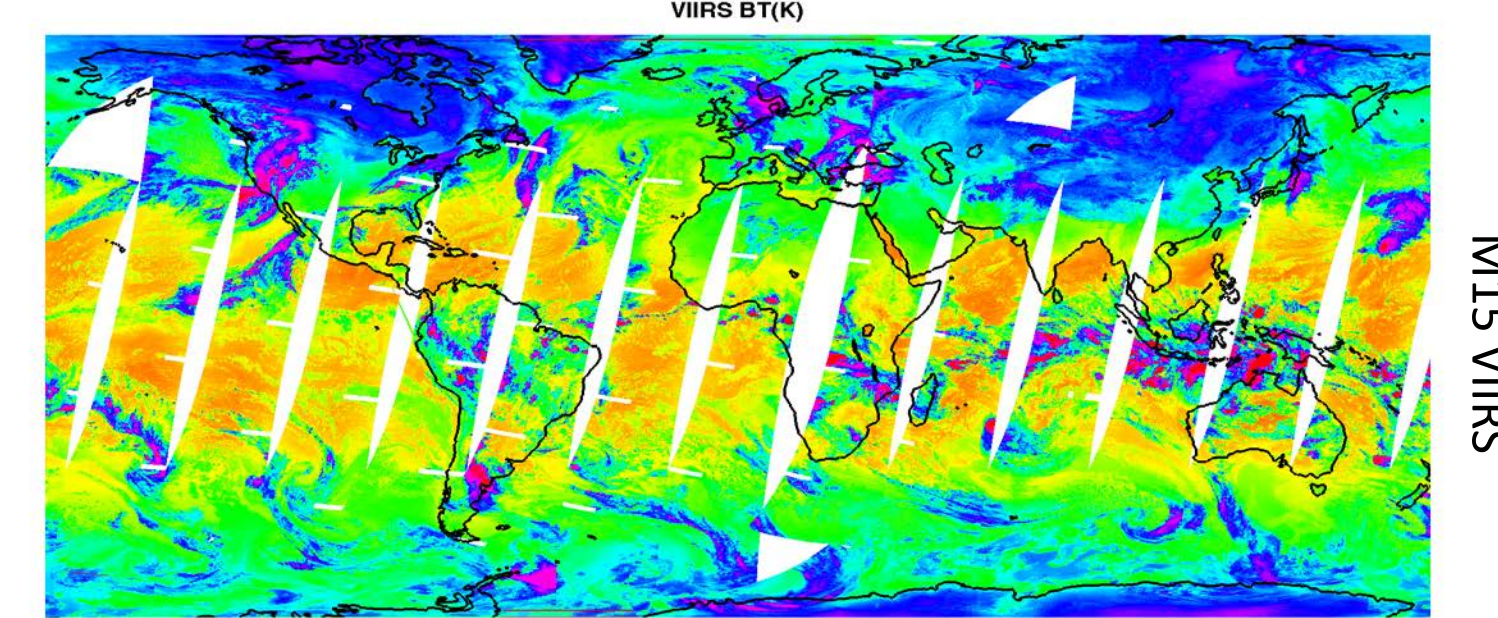
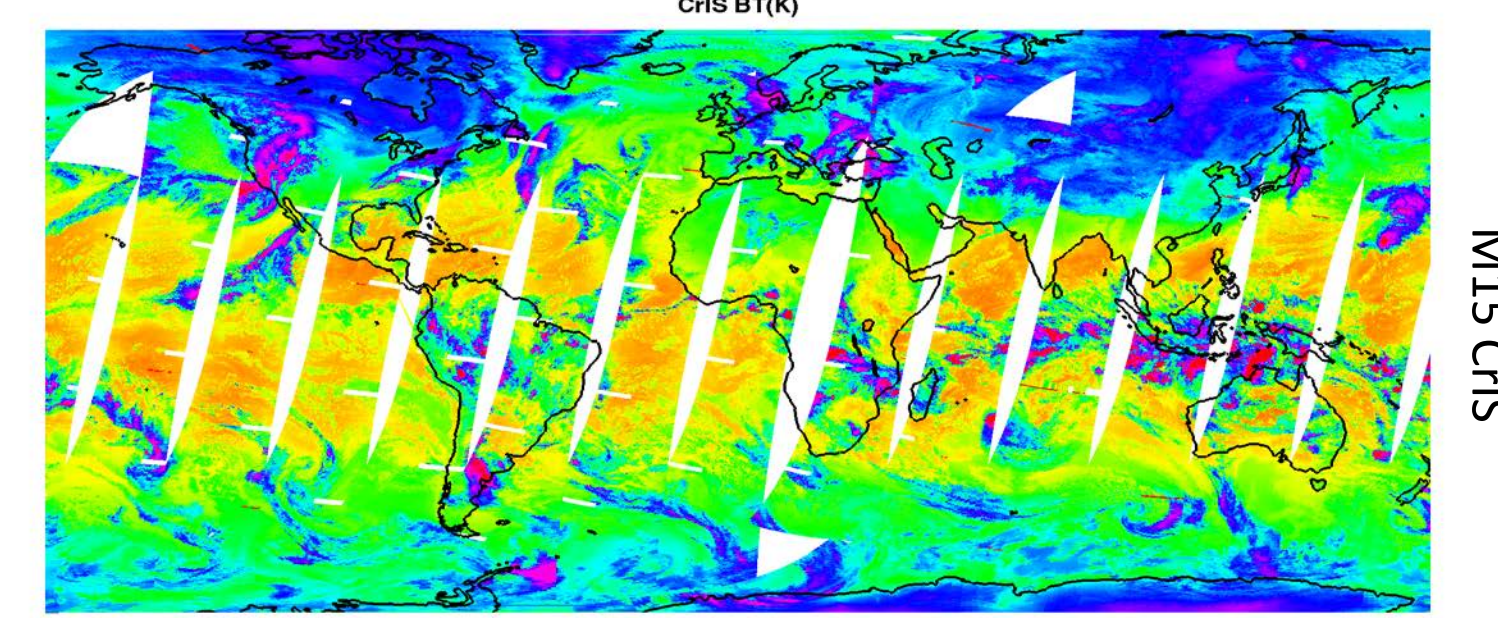
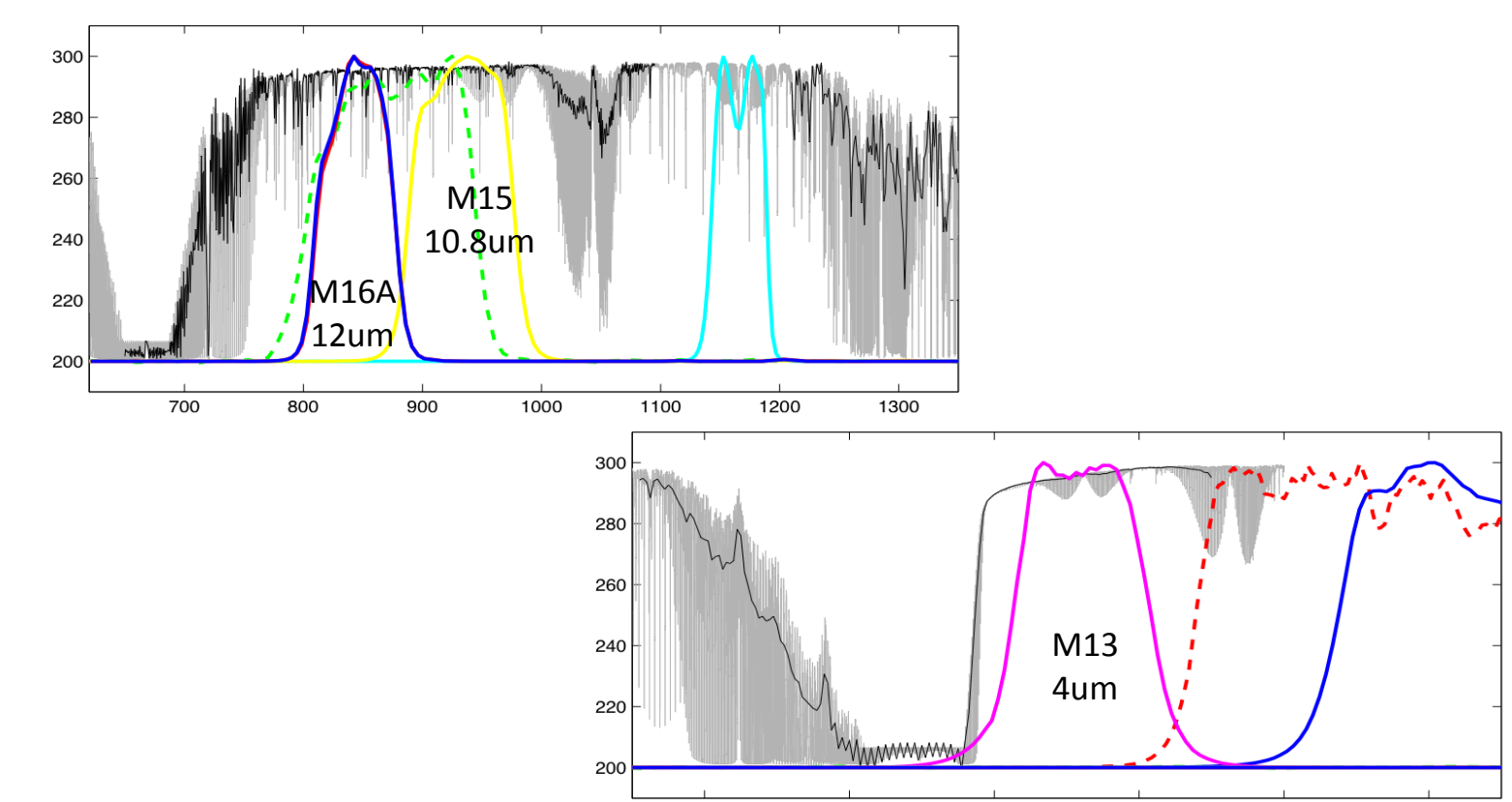
Radiometric Nonlinearity



Comparisons with AIRS



Comparisons with VIIRS



Inter-FOV Spectral Calibration Assessment (shift in ppm from FOV5)

