

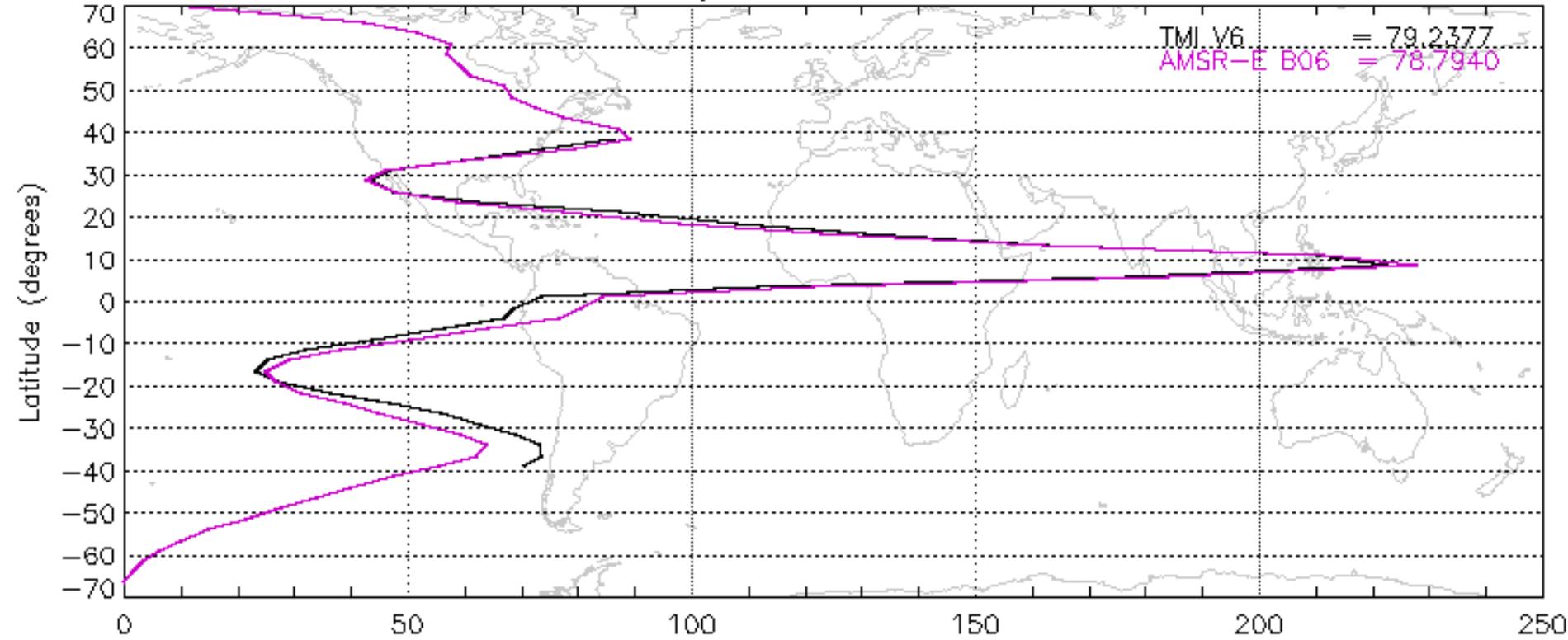
AMSRE Rainfall Algorithm

Status, Issues and Prospects

C. Kummerow & Jody Thomas-Stahle
Colorado State University

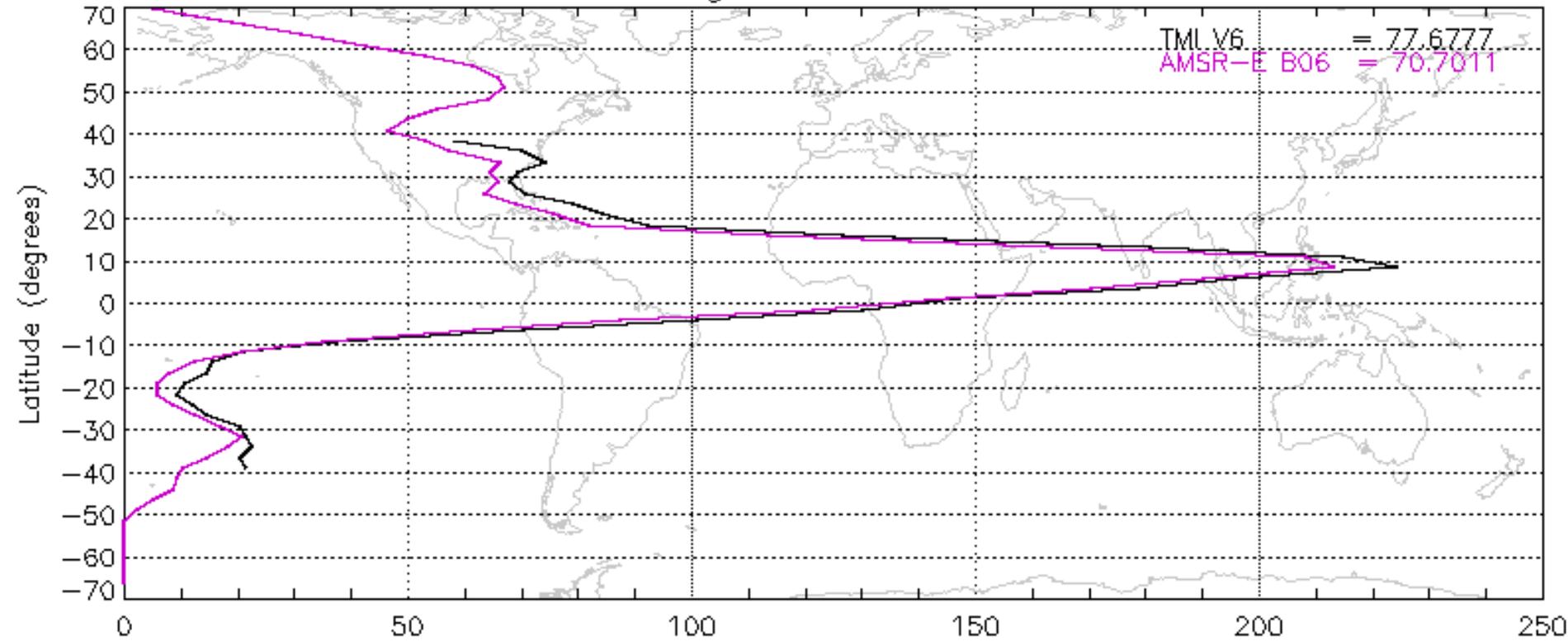


August 2003 Ocean



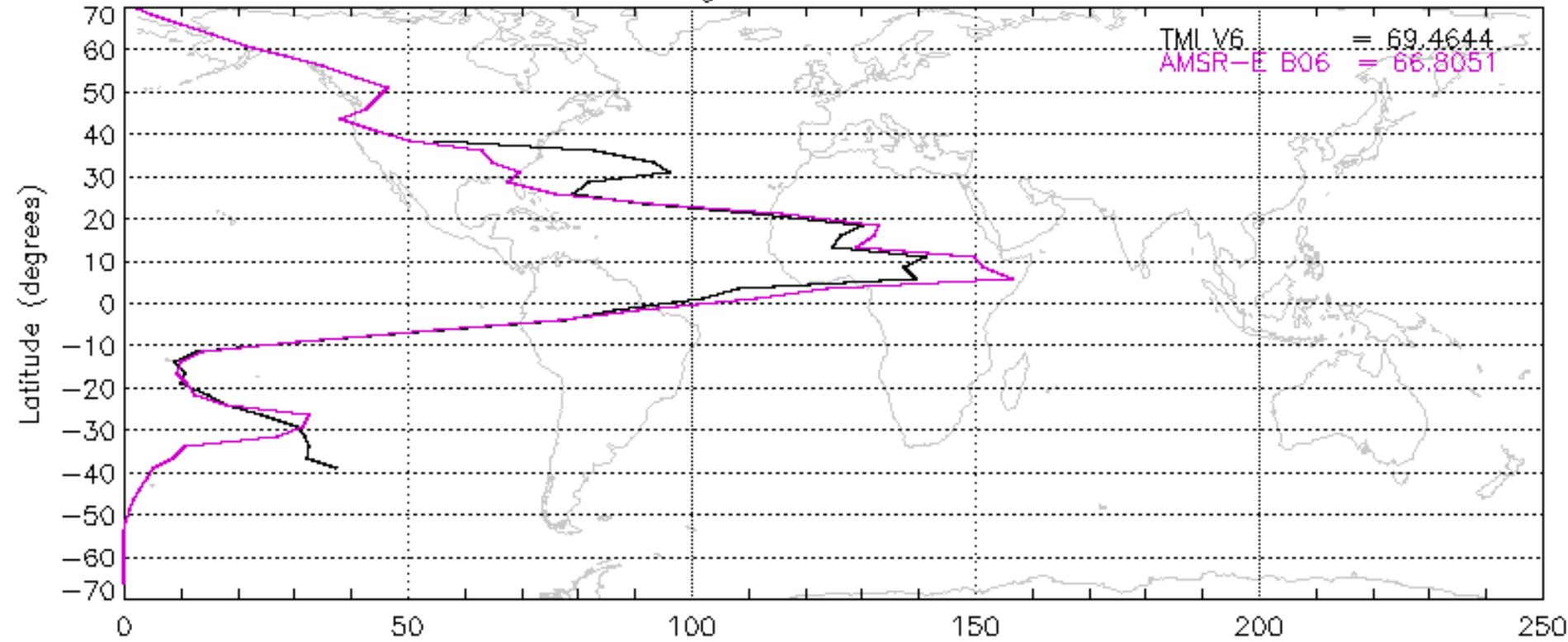


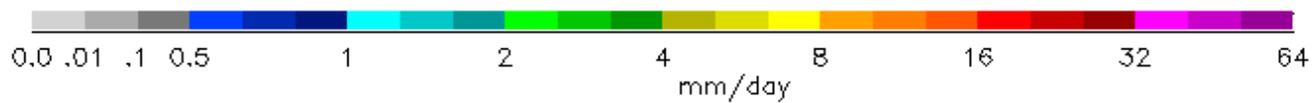
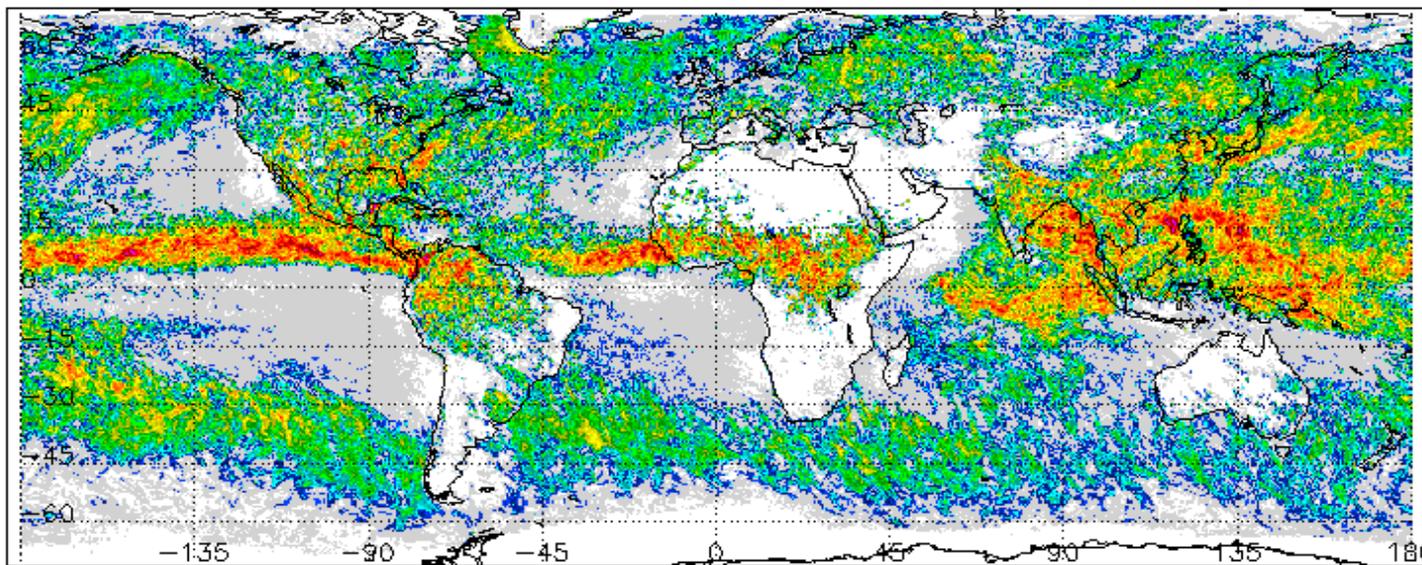
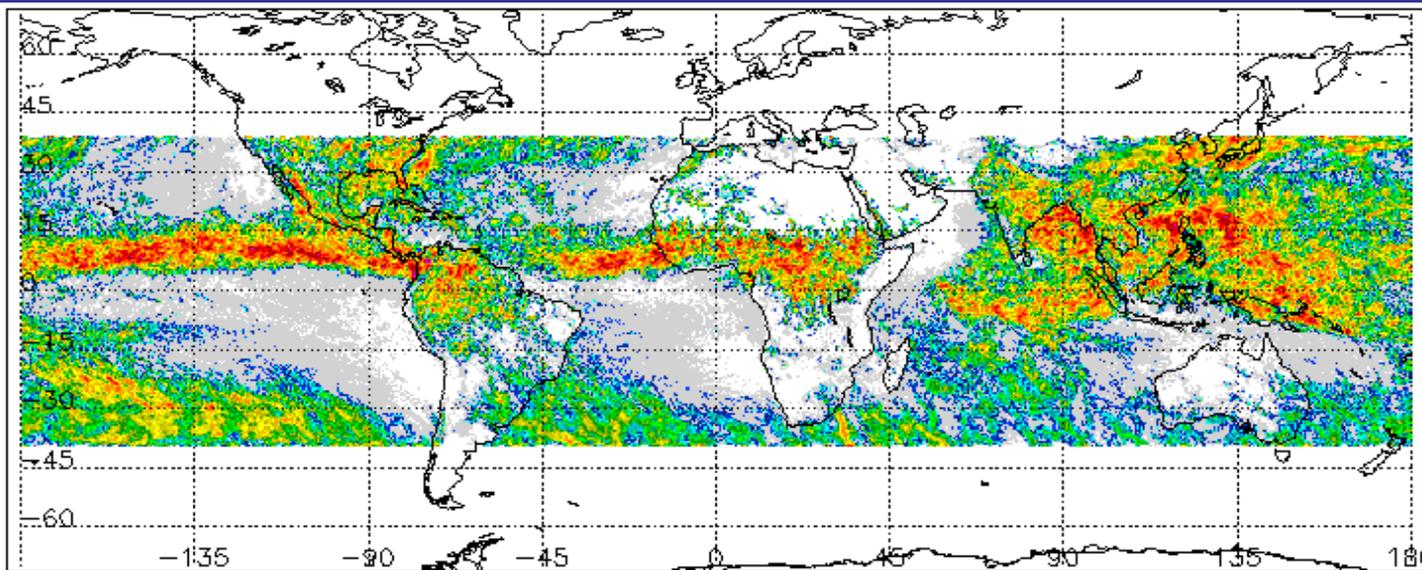
August 2003 Land





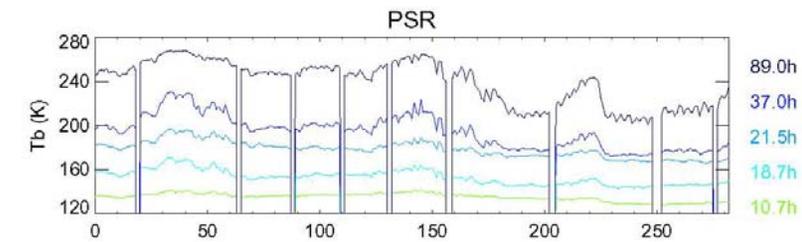
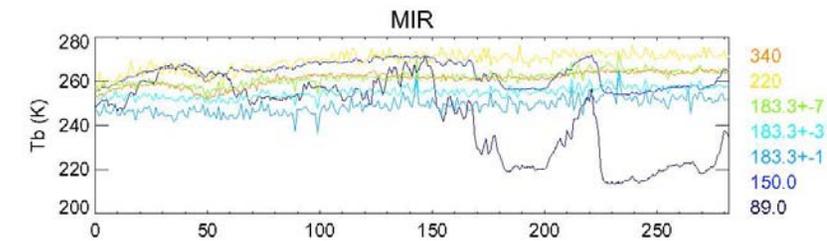
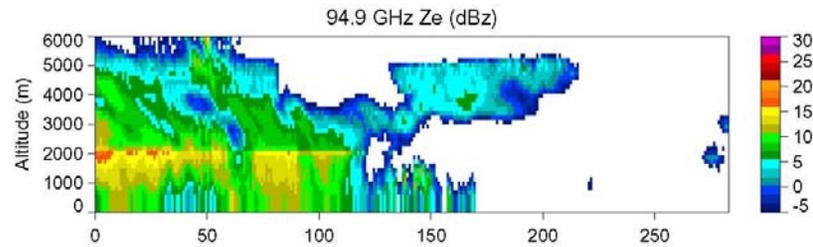
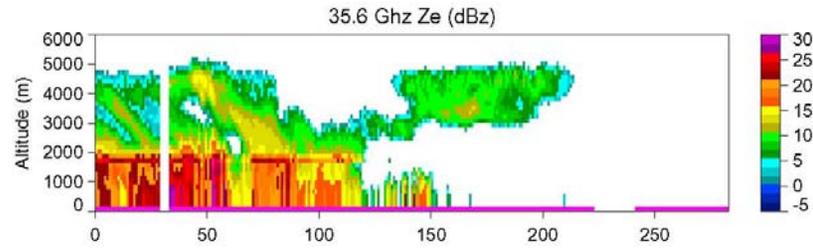
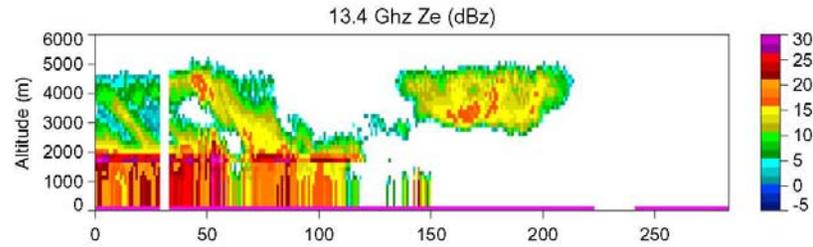
August 2003 Coast

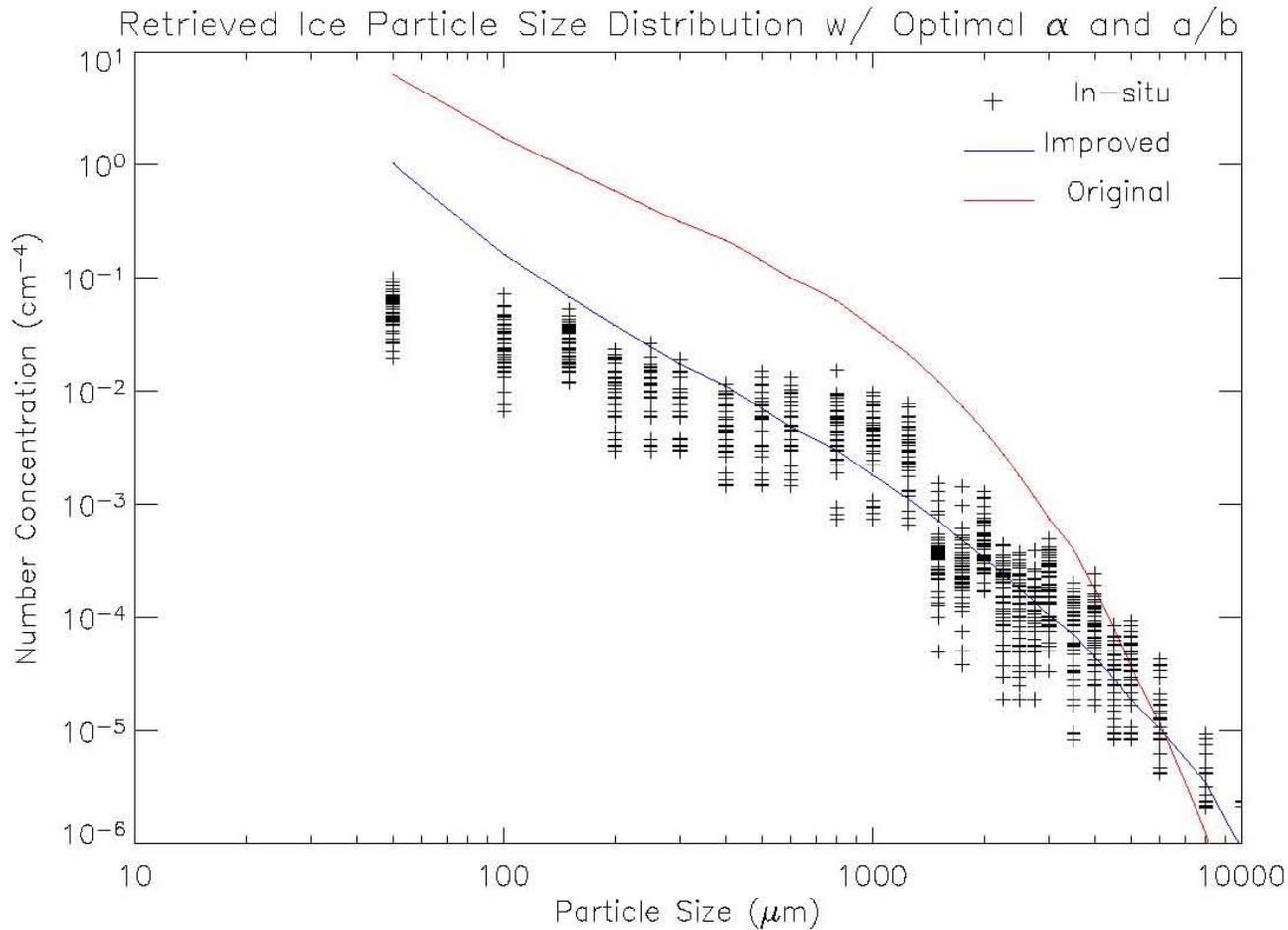




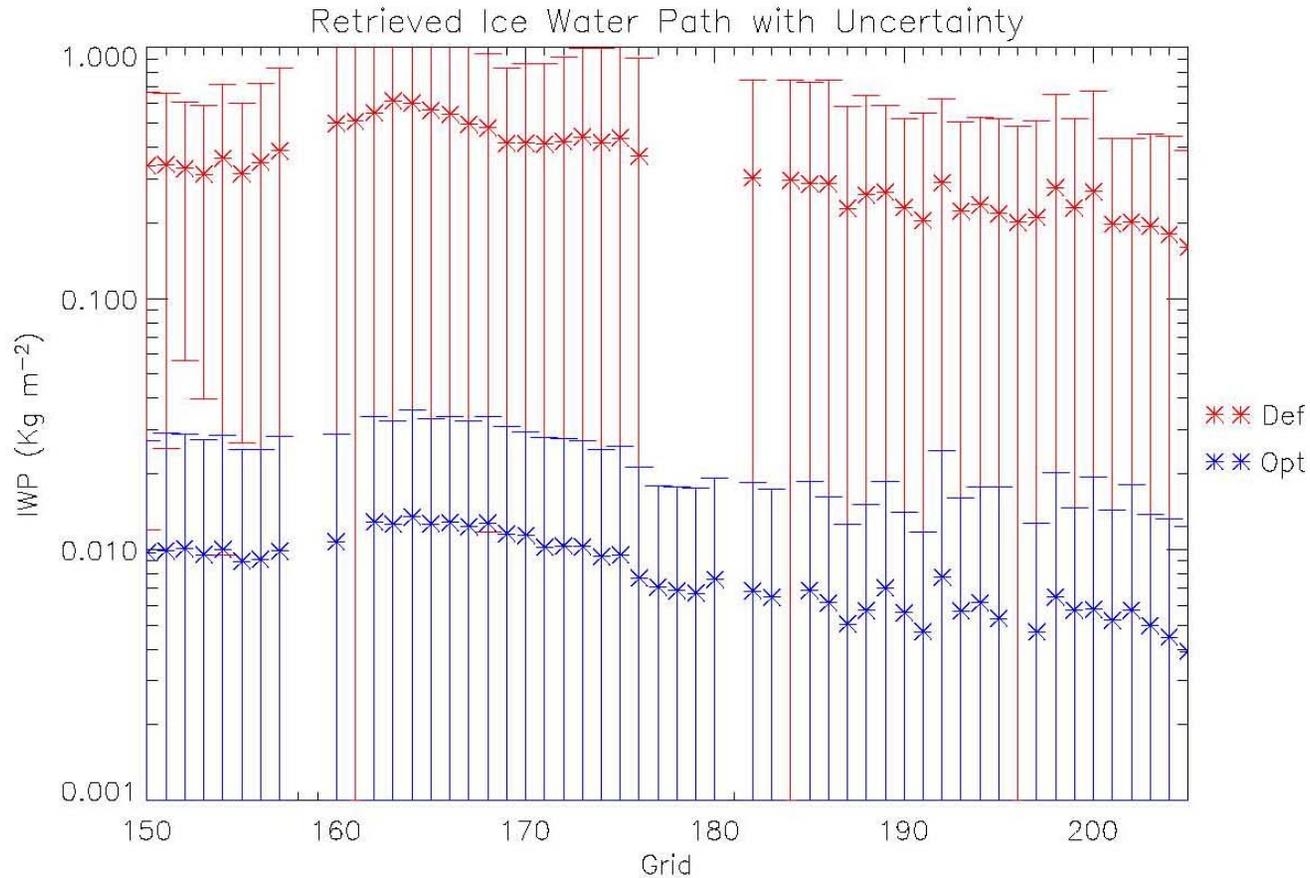
Wakasa Bay Update

- Brian Griffith defending thesis on 9/20
- Two journal publications
- PSR calibration has issues remain. Therefore work to date is on ice clouds





3 Radar retrieval (optimal estimation) do not match in-situ PSD with assumed density from literature. Use 3 radars plus in-situ observations to retrieve density and shape parameters.

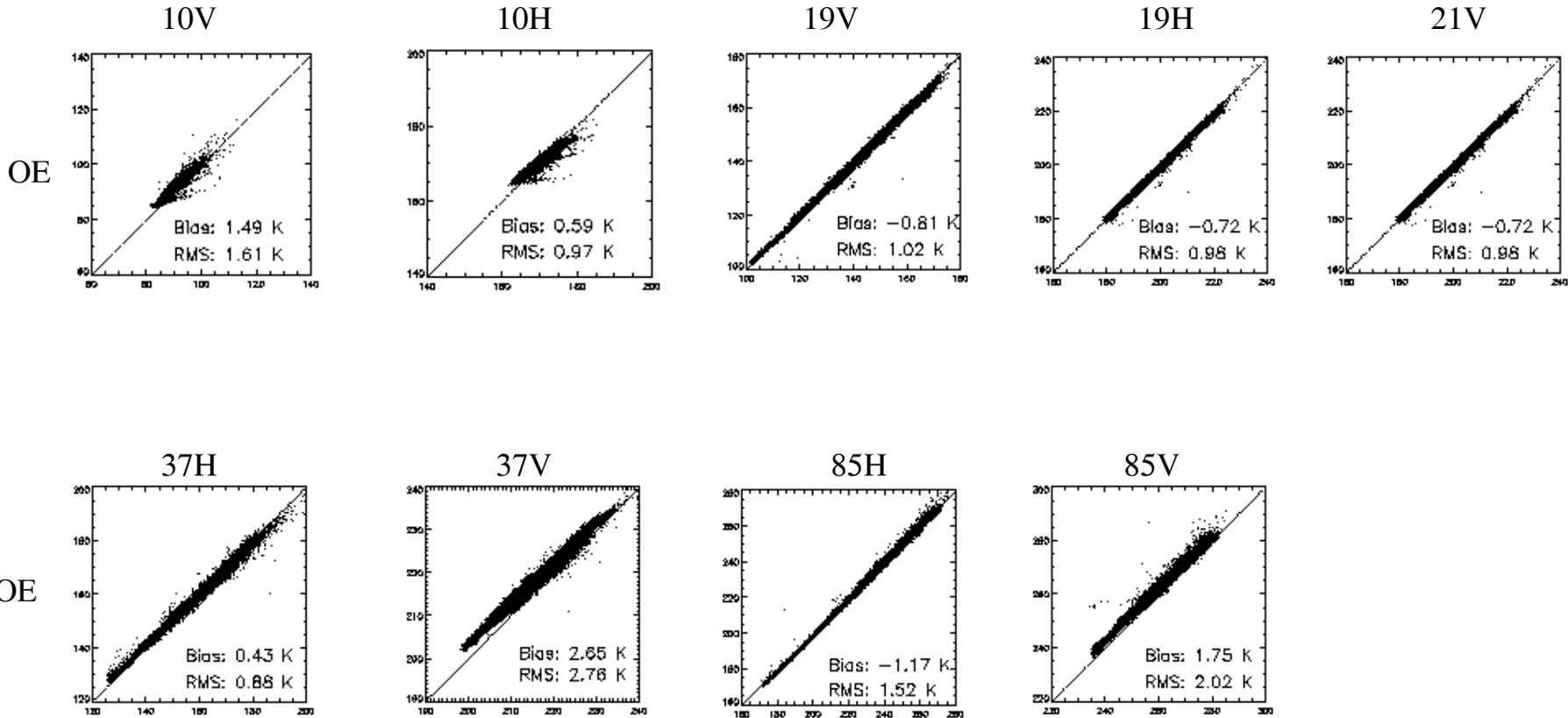


Retrieval with 3 radars, high frequency radiometer shows large reduction in uncertainty with “retrieved” density and shape. Factor of 50 difference in IWC when using retrieved mid-latitude parameters instead of Brown and Francis values that were derived for Ci.

Future Work

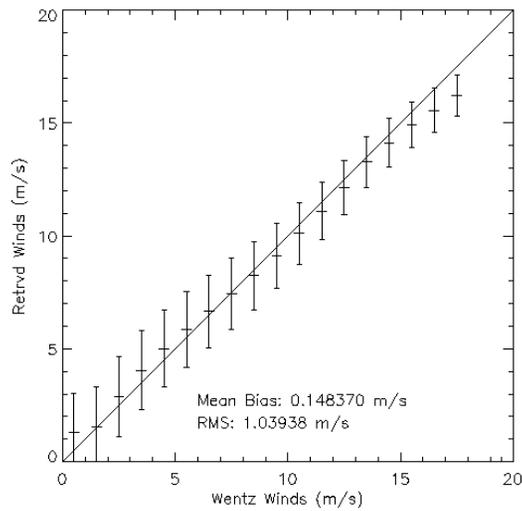
- Continue to support current versions of algorithm
- Would like to continue analysis of Wakasa Bay (w. PSR)
- Developing Gprof-2006 under PMM grant (Ramesh)
AMSR-E should benefit from this.
- Developing radiometer intercalibration **framework** as part of SEEDS effort with PPS.

Retrieved T_b [K] .vs. TRMM TMI T_b [K]

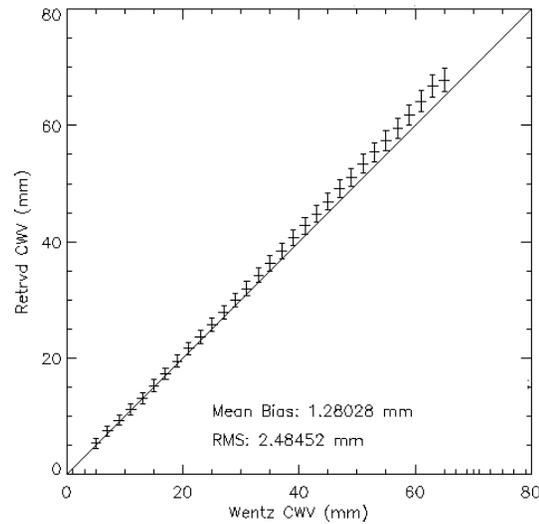


Monthly (Mar 98) Scatterplots of OE Retrievals .vs. RSS Retrievals

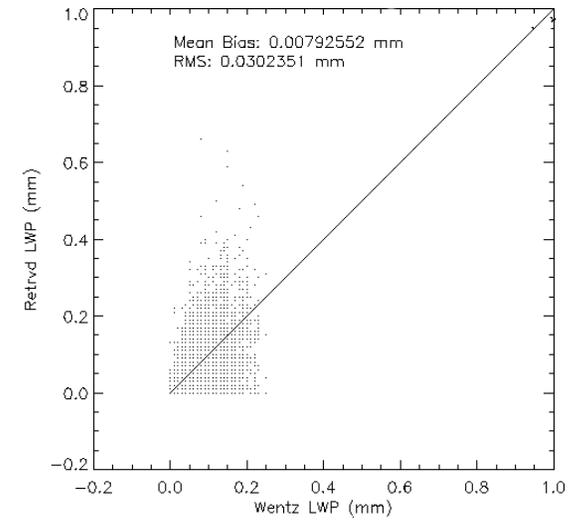
Surface Wind Retrieval



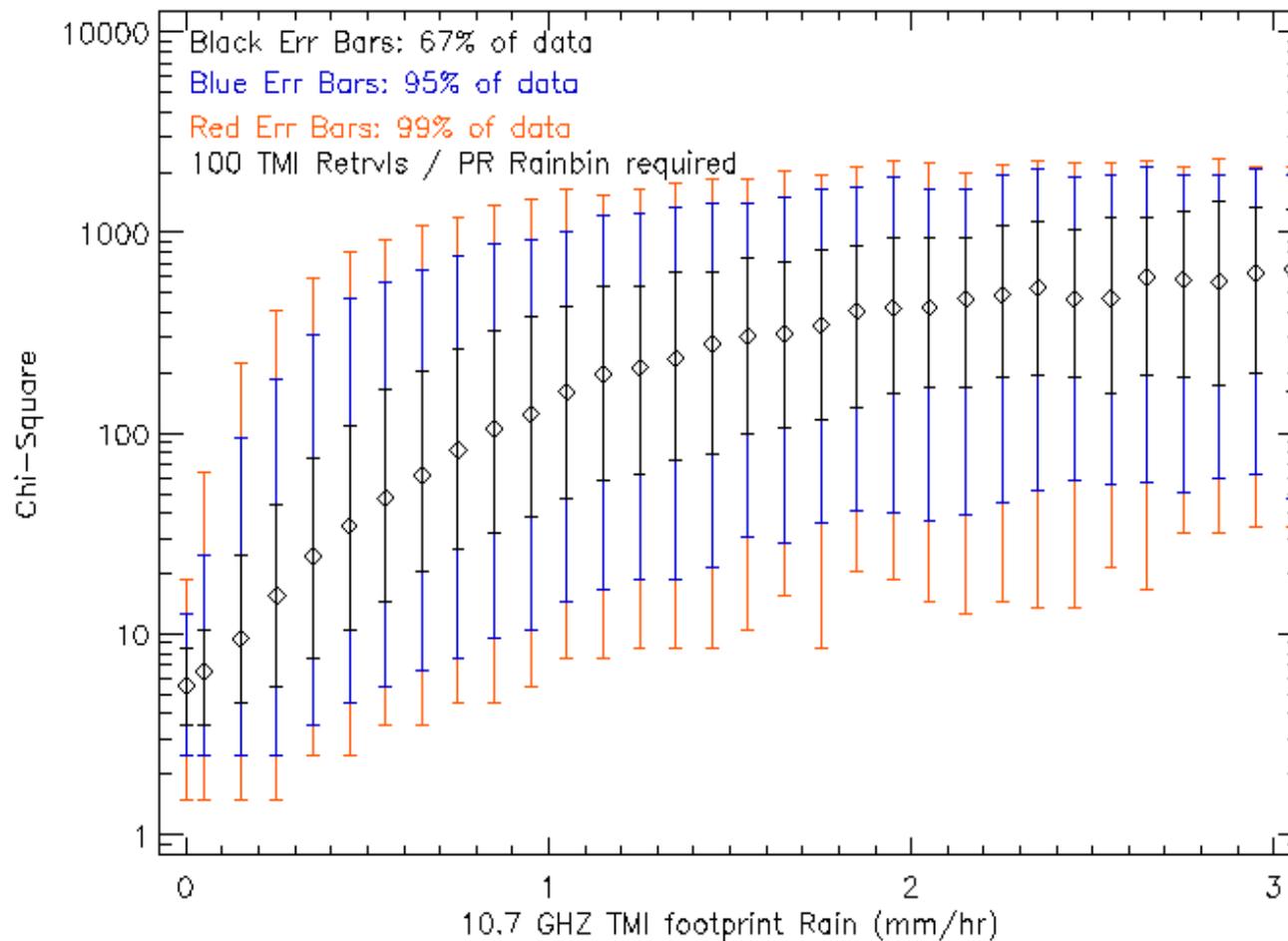
Total Precip Water Retrieval



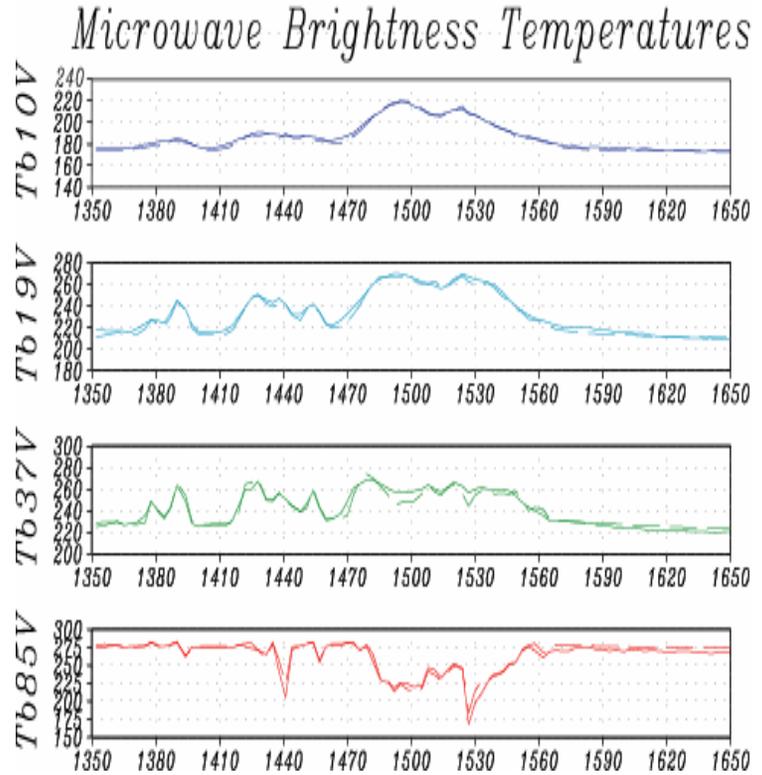
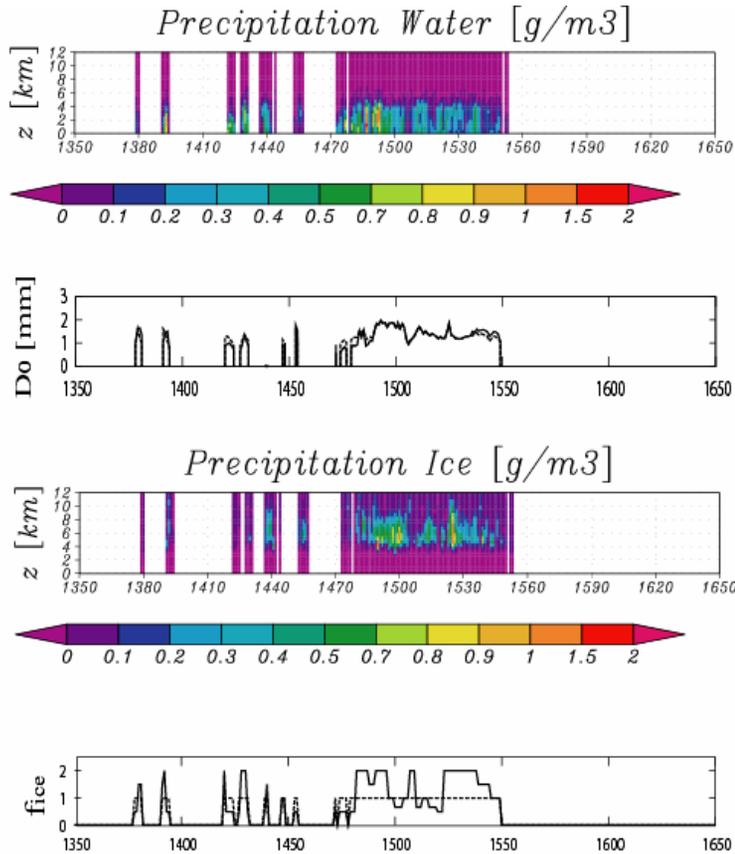
Liquid Water Path Retrieval



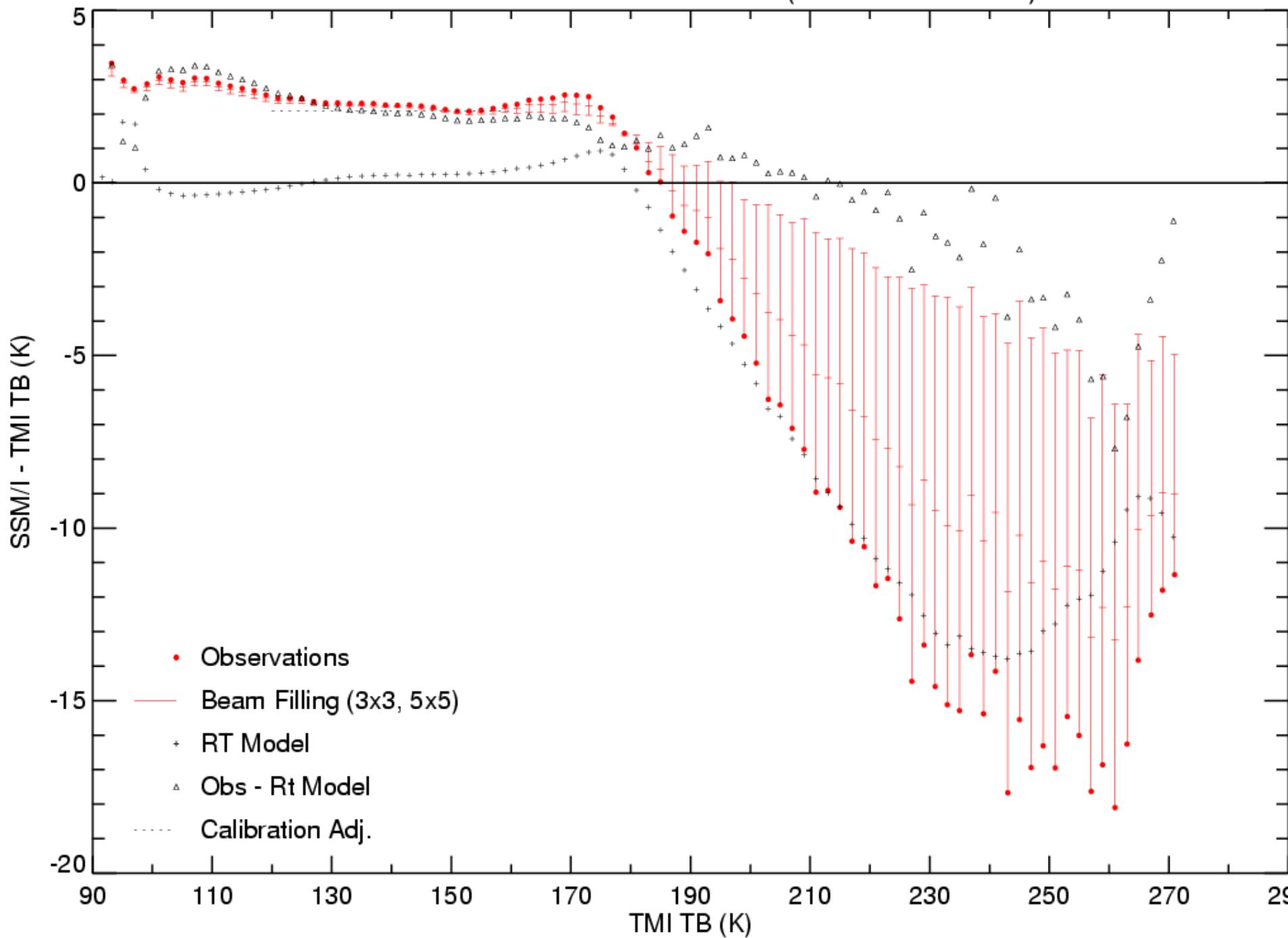
Chi-Square vs Rain (PR matched) TMI 10.7 Ghz FOVs



Can achieve good fit between model and obs



19H TB Difference over Ocean (F11 SSM/I - TMI)





August 2003

