Results from CrIS/ATMS Obtained Using an "AIRS Version-6 Like" Retrieval Algorithm A21C-0151

**Background**

The AIRS Science Team Version 6 retrieval algorithm is currently producing very high quality level 3 Climate Data Records (CDR) products, which are planned to be critical for understanding climate processes. CDRLs are gridded level-3 products which include all cases passing AIRS Climate Quality Control (QC). AIRS V6 is predicted to last through at least 2020. AIRS/AMSU products will remain critical for understanding climate processes. AIRS is predicted to last through at least 2020. AIRS/AMSU products will remain critical for understanding climate processes.

**Summary**

ARIS and CrIS data have been previously shown to match CERES Edition-2 very closely in time and space. CrIS/AMSU matches CERES even better for this month than AIRS.

**Single Day Global Comparisons**

Results passing Climate QC are shown for the single day, December 4, 2013. EOS Aqua and NPP/OMPS orbit overlapped on this day. This is important for comparison purposes to minimize time-of-day sampling differences. This day also occurred near the major upgrade in ATMS calibration procedures.

**Comparison of AIRS Version-6.22 and CrIS Version-6.22 yields and accuracies**

Percent of all 1 km layer mean water vapor product and 1 km layer mean water vapor in the tropics. We are investigating the causes of the relatively small differences between AIRS and CrIS results.

**Comparison of AIRS Version-6.22 and CrIS Version-6.22**

AIRS and CrIS total precipitable water vapor products also match well with each other though AIRS has somewhat more total precipitable water than CrIS in the tropics. We are investigating the causes of the relatively small differences between the AIRS and CrIS results.