

Figure Aa. May 2012 Antarctic zone AIRS v5.2 minus COSMIC (black) and AIRS v6.0 (blue) minus COSMIC bias (solid) and rms (dashed). No averaging kernel applied. Vertical sampling uses the AIRS 101 levels.

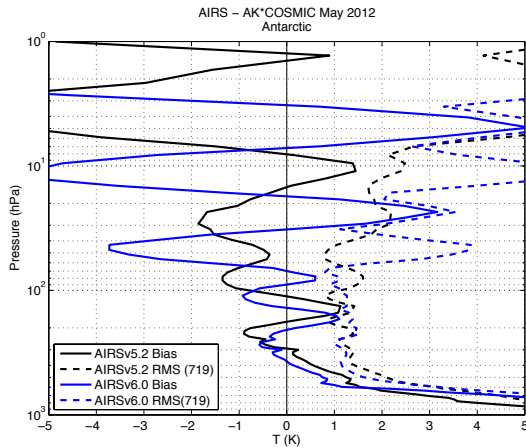


Figure Ab. Same as Figure 1a, with the COSMIC profiles being smoothed by an AIRS averaging kernel which was computed for the mean May 2012 Antarctic ERA-Interim atmospheric state. Application of the AK to COSMIC profiles has little impact on the bias and RMS.

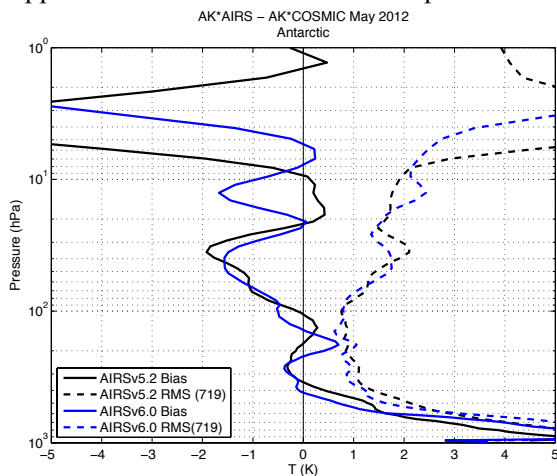


Figure Ac. Same as in Figure 1b, except with the averaging kernel applied to both the COSMIC and AIRS profiles. Application of AK to AIRS and COSMIC profiles does largely remove the vertical oscillations in the bias and RMS. This figure is qualitatively similar to the manuscript Figure 2 which uses slab layer averaging (with noted x-axis scale difference.)

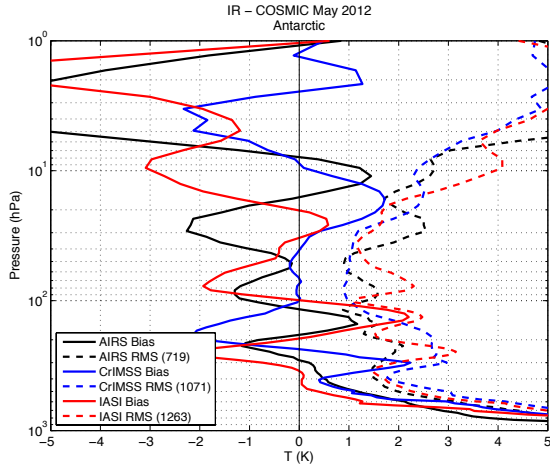


Figure Ba. May 2012 Antarctic zone AIRS v5.2 (black), CrIMSS (blue), and IASI (red) minus COSMIC bias (solid) and rms (dashed).

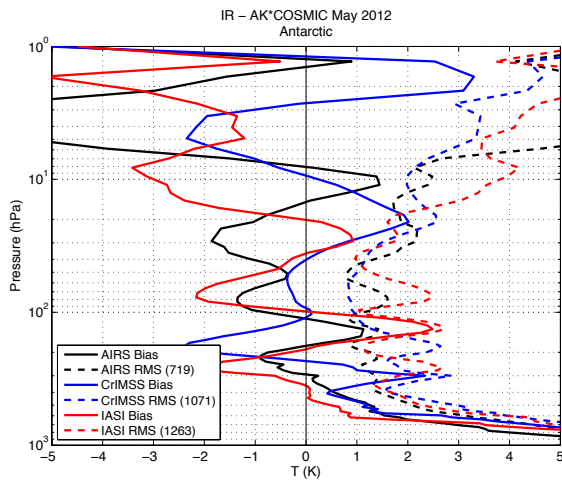


Figure Bb. Same as Figure 2a, with the COSMIC profiles being smoothed by an AIRS averaging kernel which was computed for the mean May 2012 Antarctic ERA-Interim atmospheric state.

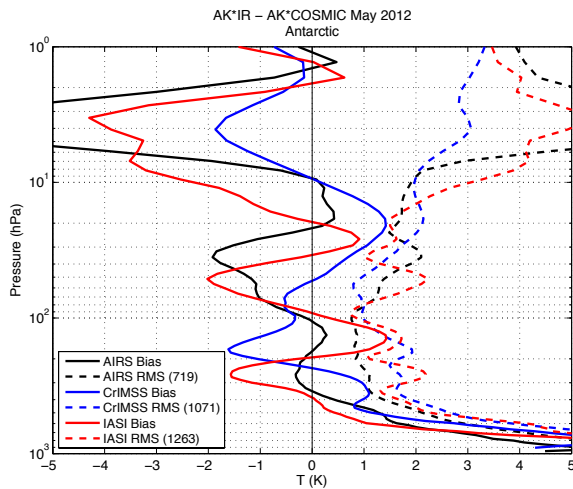


Figure Bc. Same as in Figure 2b, except with the averaging kernel applied to both the COSMIC and AIRS profiles.