

Tuning Group

AIRS Science Team Meeting

L. Strow, C. Barnet, J. Susskind, D. Tobin, S.Y. Lee, Who else?

May 5, 2005

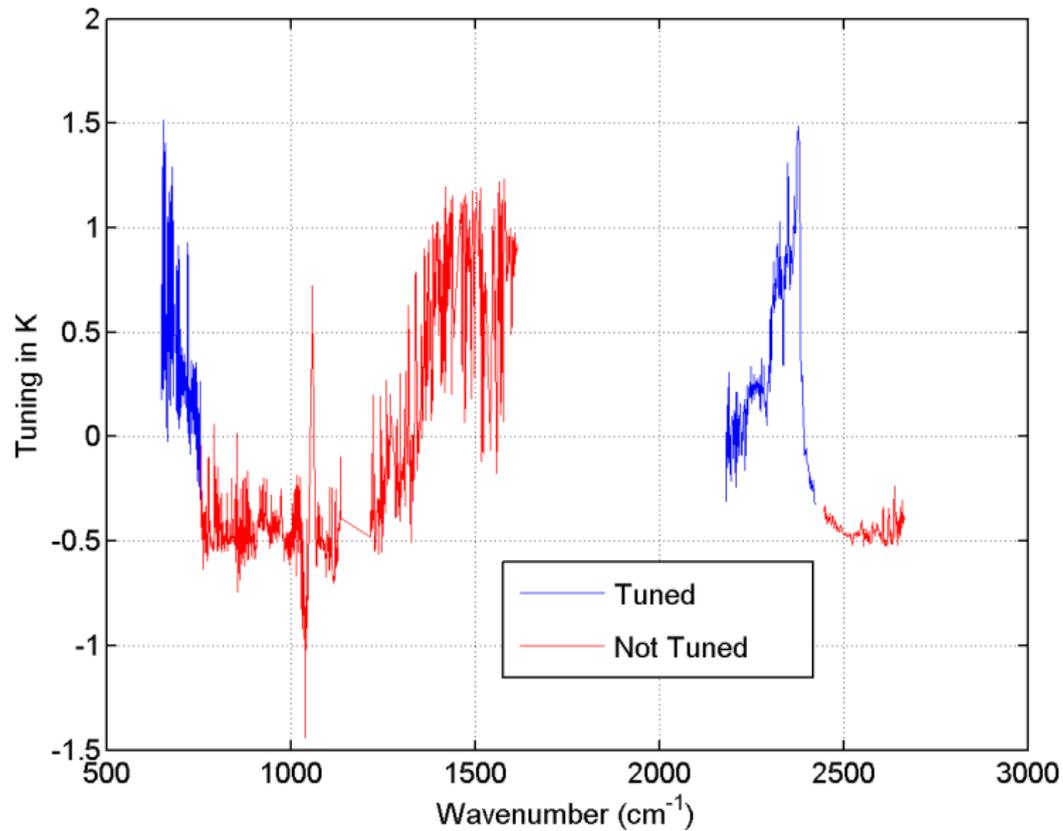
Tuning Group

- ▶ IR
 - ▶ Pick our truth.
 - ▶ Use common data set. Clear only? How large? How variable?
 - ▶ Modify radiances or RTA?
 - ▶ What is the sensitivity of the retrieval to RTA errors? Quantify?
- ▶ Microwave

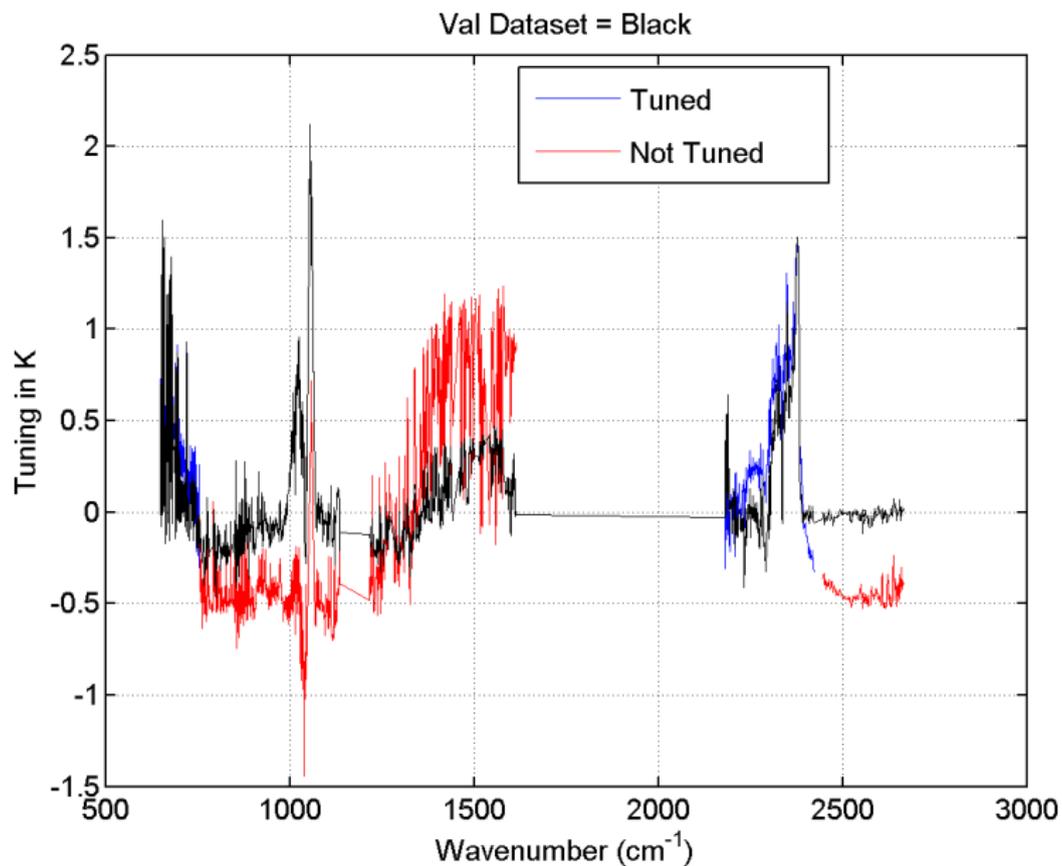
Organization of Process

- ▶ Do we need simulations? For example, if upper trop RTA was off by 1 to 1.5K what does that do to the retrievals?
- ▶ How carefully do we need to insert “corrections” to our data sets, esp. CO₂?
- ▶ How large a data set do we need? Can we use the AIRS clear ocean validation data set as our standard ~70 profiles?
- ▶ Exchange data sets, retrieval results
 - ▶ Truth data sets; Ocean val dataset. NOAA global sonde set?
 - ▶ Retrieval results with radiance residuals

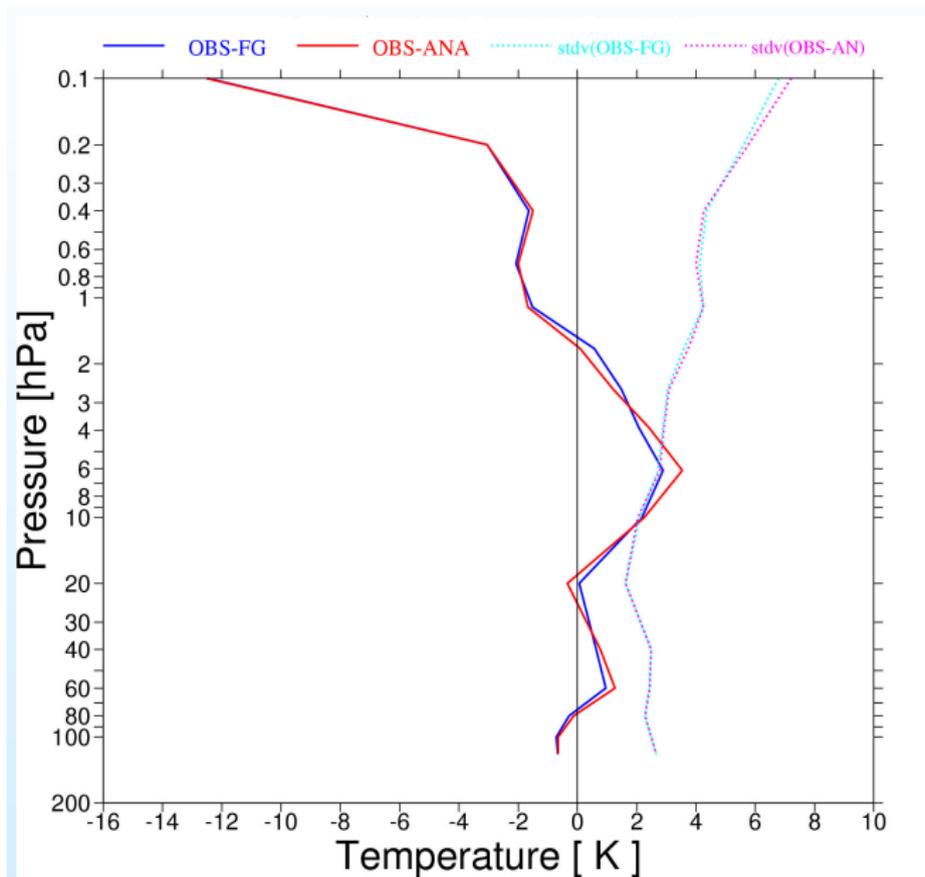
Tuning vs Validation Biases



Tuning vs Validation Biases

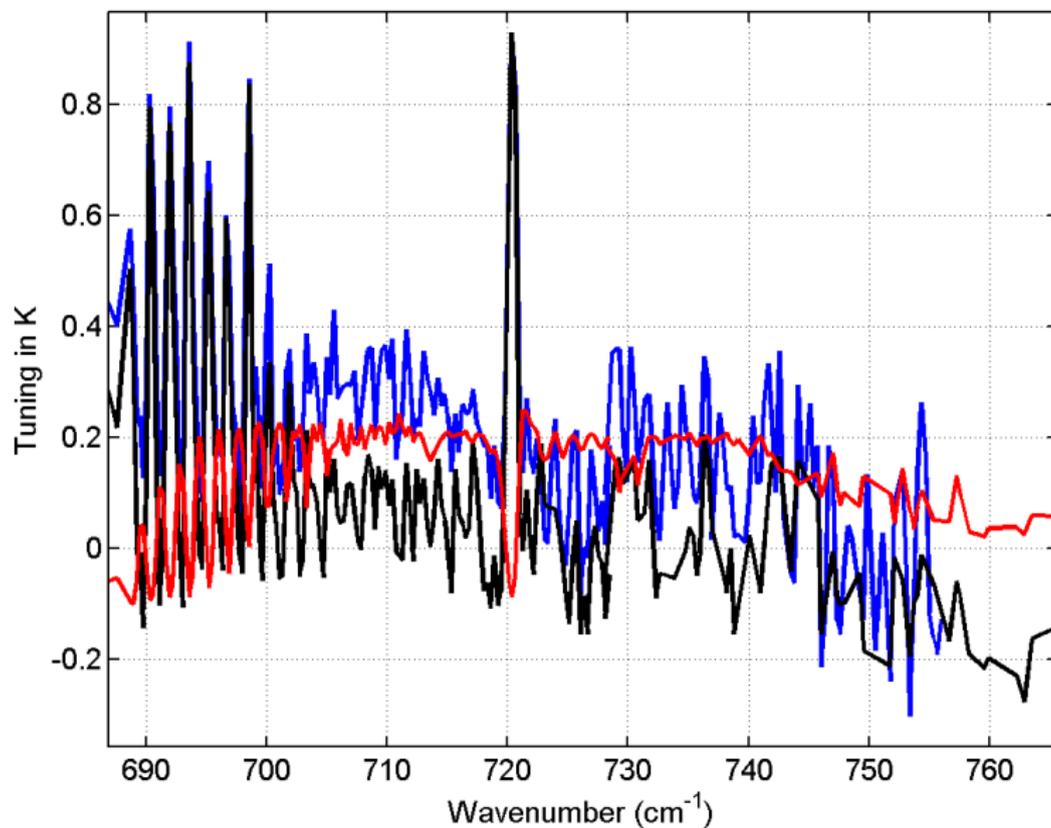


Tuning vs Validation Biases

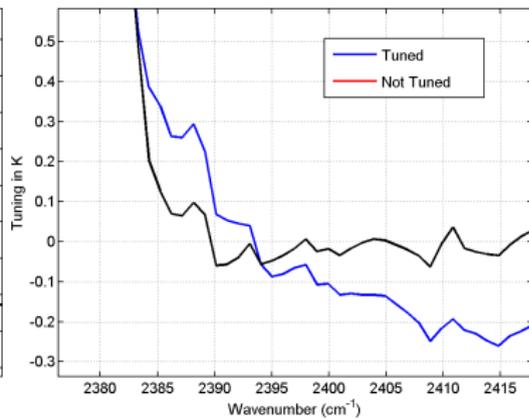
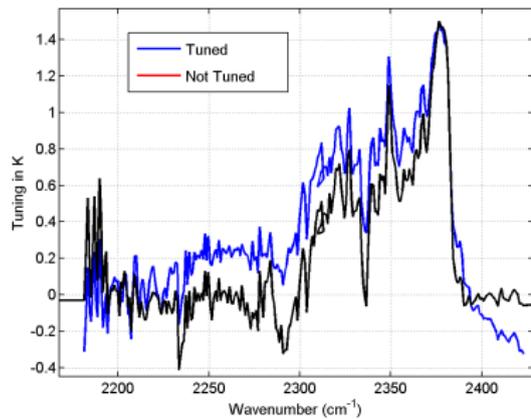


Tuning vs Validation Biases

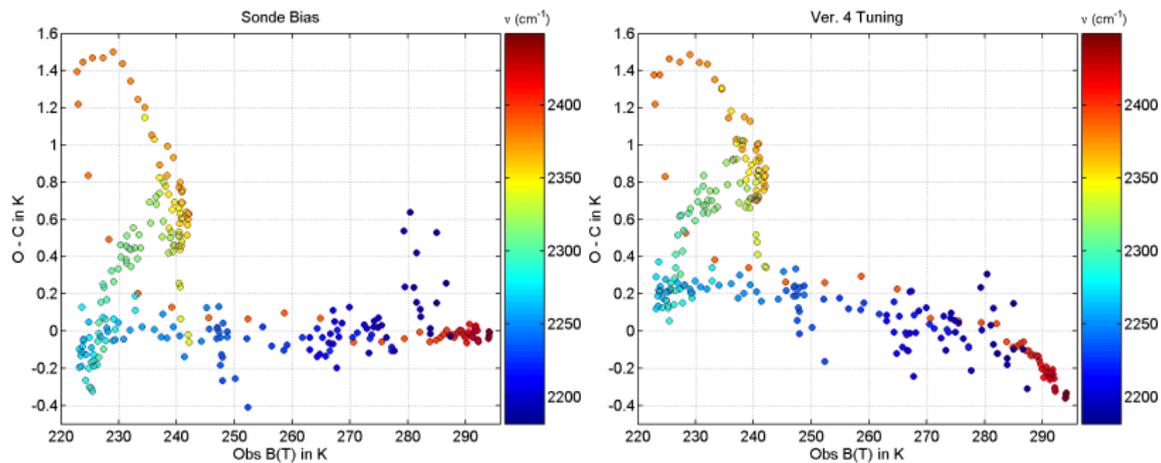
Blue = Tuning, Black = Val Bias, Red = ΔCO_2 Est.



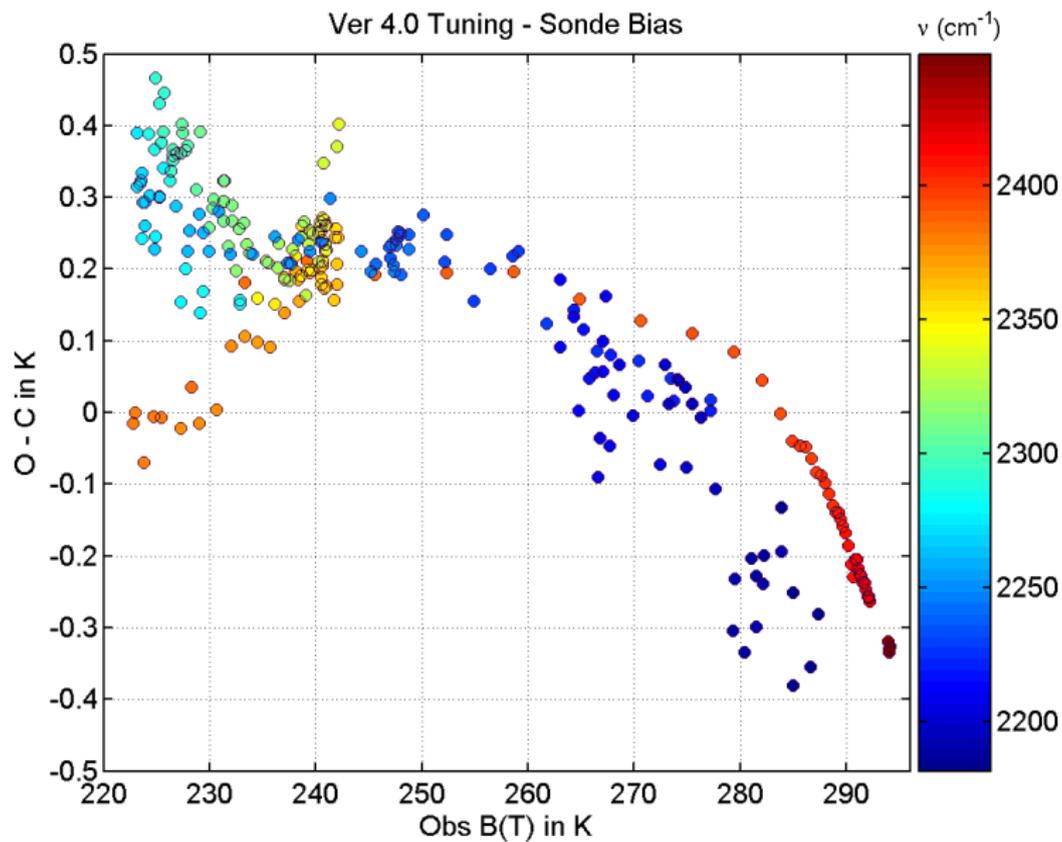
Tuning vs Validation Biases



Tuning

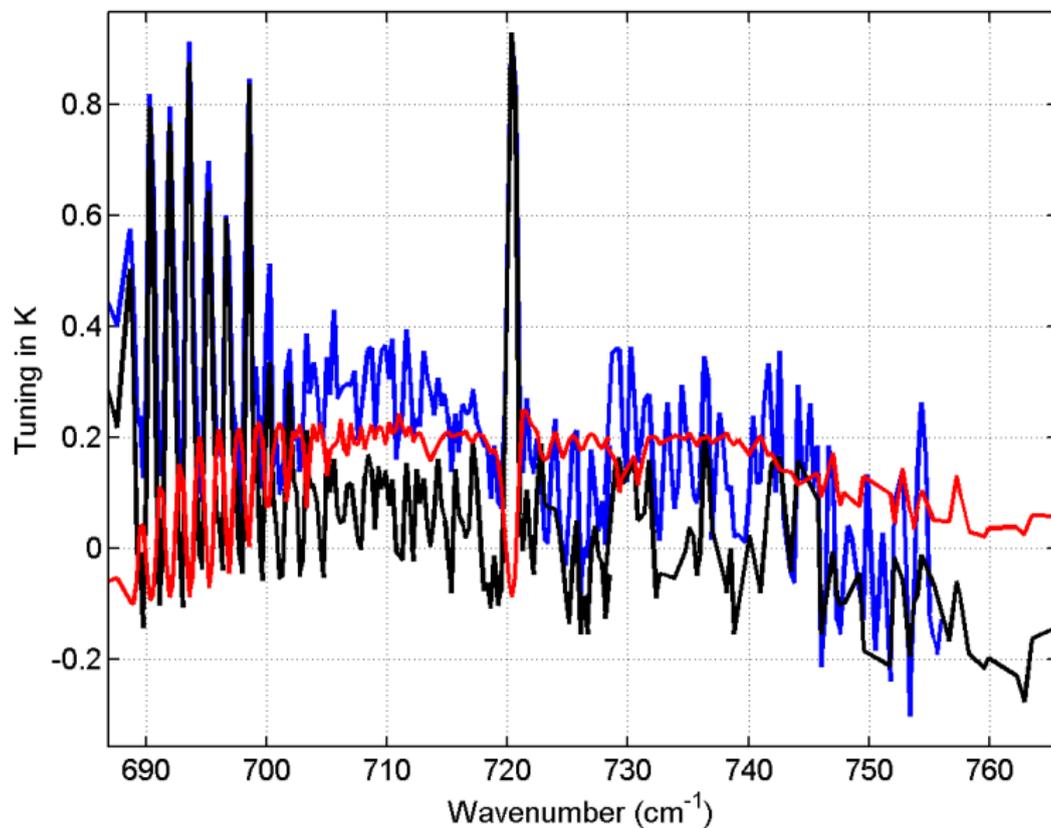


Tuning



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Tuning vs Validation Biases

