

Interactive comment on “Five blind men and an elephant: can NASA Aura measurements quantify the stratosphere-troposphere exchange of ozone flux?” by Q. Tang and M. J. Prather

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The authors would like to thank reviewer #1 for the time reviewing this paper as well as helpful comments.

Response to Anonymous Reviewer #1

Yes, as noted by the reviewer, there is too little information coming from the upper troposphere (UT) with these instruments. We did try the best we could to match our CTM 3-D simulation with the observations, and were inspired to do so for a complete 2-year period because of the published successes from individual instruments showing evidence of stratosphere-troposphere folds. We did think of using the CTM hindcast
C12645

simulations as the a priori for the OMI or TES retrievals, but that task is beyond our local capability and will require significant resources at the instrument team to reprocess the observations. There is also the open-ended question of what we learn if the CTM a priori is returned.

Yes, thanks, we will clean up the plots to add notation on each frame for the UTC or sensor.

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 26897, 2011.