

Interactive comment on “Winter- and summertime continental influences on tropospheric O₃ and CO observed by TES over the western North Atlantic Ocean” by J. Hegarty et al.

S. Kulawik

Susan.S.Kulawik@jpl.nasa.gov

Received and published: 6 November 2009

One minor suggestion: the validity of swapping to a different prior was validated with TES data in the following paper:

Kulawik, S. S., K. W. Bowman, M. Luo et al.: Impact of nonlinearity on changing the a priori of trace gas profile estimates from the Tropospheric Emission Spectrometer (TES), *Atmospheric Chemistry and Physics* 8(12), 3081-3092, 2008.

I would add this citation on page 23216:

Because the geographically variable a priori adds artificial structure which can poten-

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tially obscure some of the real spatial variability, (Zhang et al., 2006) we removed this artifact by reprocessing the TES O₃ and CO profiles with a universal a priori using a procedure described in Zhang et al. (2006) and Hegarty et al. (2009) and validated in Kulawik et al. (2008).

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 23211, 2009.