

## ***Interactive comment on “Global distributions of nitric acid from IASI/MetOP measurements” by C. Wespes et al.***

**S. Kulawik**

Susan.S.Kulawik@jpl.nasa.gov

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Congratulations on developing the first nadir HNO<sub>3</sub> product! I have one error to correct and some other comments.

On page 8038, it is stated "The Tropospheric Emission Spectrometer (TES)/Aura (Beer et al., 2006) does indeed not routinely probe the nitric acid absorption spectral range around 900 cm<sup>-1</sup>" This is not accurate. TES routinely takes nadir measurements between 660 and 910 cm<sup>-1</sup> which includes all the selected IASI windows. Perhaps the confusion is regarding the limb HNO<sub>3</sub> measurements which we no longer take? Our project has done some preliminary analysis on nadir HNO<sub>3</sub> but we have not developed it into a product.

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I also wondered why only scenes with cloud cover below 25% are analyzed since the IASI HNO<sub>3</sub> sensitivity is in the stratosphere?

A comment on section 2.4: TES has had issues with retrievals over desert and found the best emissivity match is ASTER's alluvial sand. You might try alluvial sand emissivity from ASTER (go to <http://speclib.jpl.nasa.gov/search-1/soil> and search for "alluvial".)

Figure 4 is hard to see. Can it be enlarged?

Figure 6: does the grey represent error or real variability? How does this compare to the predicted error? Where is the NDACC data on these plots?

Congratulations again on your new product.

Susan Kulawik Tropospheric Emission Spectrometer L2 algorithm lead Jet Propulsion Laboratory

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