

***Interactive comment on “Regional N<sub>2</sub>O fluxes in Amazonia derived from aircraft vertical profiles” by M. T. S. D’Amelio et al.***

**Anonymous Referee #2**

Received and published: 20 October 2009

The paper explores a comprehensive upper level NO<sub>2</sub> concentration datasets and relates these vertical profiles with Atmospheric Boundary Layer development. The Amazon Atmospheric Boundary Layer has been investigated extensively in past 10 years. The use of the vertical meteorological profiles to estimates regional fluxes of heat and water was reported in the 90’s. This approach in now day has been used to estimates regional CO<sub>2</sub> fluxes over complex terrain, where the single tower measurements seems inappropriate one. Despite, the paper does not show clear and detailed the limitations of the approach applied over a large heterogeneous and non uniform area in the Amazon tropical forest, the paper presents an important and unique contribution to understand the NO<sub>2</sub> research in the Amazon region, which I do recommend its publication without minor corrections.

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C6076

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 17429, 2009.

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