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Atmospheric Chemistry and Physics Discussions

Interactive comment on "The global tropospheric ammonia distribution as seen in the 13 year AIRS measurement record" *by* J. X. Warner et al.

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We appreciate very much the comments from Dr. Yurganov.

These are the issues that are taken into account in our algorithm, as summarized below: 1. Jacobian calculation is based on a fixed percentage of ppbv on each level. 2. SARTA layers have fixed pressure at the top (Ptop) and the bottom (Pbot), so in each layer Pbot is always larger than Ptop. Thus, it is not possible that dP equals to 0. 3. In any case on a particular level, if the mixing ratio is near 0, the calculation will be set to a minimum perturbation mixing ratio, instead of using a number near zero.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 35823, 2015.