

Interactive comment on “Technical Note: 30 years of HIRS data of upper tropospheric humidity” by K. Gierens et al.

Anonymous Referee #1

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General This well written paper offers interesting results and should be published after minor revision, but the comments with respect to the change in IGFOV from HIRS/2 to HIRS/4 must be addressed.

Specific Page 2 line 2: Add sentence to introduction on why focus is on UTH with respect to ice Page 2 line 4: Identify the wavelengths of channels 6 and 12 Page 3 line 8: you should also comment on the change in IGFOV from ~ 20 km to ~ 10 km Page 3 line 21: A short sentence or two should be included on how the difference in channel 6 (CO₂) and 12 (H₂O) absorption lends itself to UTH determination Page 6 line 20: explain cloud cleared – are cloudy measurements corrected for the cloud contamination or are only clear measurements selected? Page 6 line 22: Give a nominal change in BT from nadir to 30 degrees for a nominal tropospheric moisture amount Page 8 line

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24: Can the increasing T12 variances in the 2000s have anything to do with the halving of the IGFOV in HIRS/4? Please comment.

Technical No comments

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 5871, 2014.