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Interactive comment on “Transport of Antarctic stratospheric strongly dehydrated air into the troposphere observed during the HALO-ESMVal campaign 2012” by C. Rolf et al.

A F Tuck

dr.adrian.tuck@sciencespectrum.co.uk

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I'm sure both the authors and the referee are aware that a tongue of dry air at 340K cannot reach the surface unmixed, its temperature would far exceed the record measurement. PV is only conserved on time scales less than about a week, even in the stratosphere: dissipation by both small scale turbulence and radiation cannot be ignored, however convenient (and popular) it may be to do so, and must be considered in the troposphere along with the entropic interconversions of water among its three phases.

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