

Interactive comment on “Stratospheric water vapour and high climate sensitivity in a version of the HadSM3 climate model” by M. M. Joshi et al.

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Reply to reviewer 3: *reviewer's comments in italics*

please also see revised manuscript (supplemental material)

6245/7: reference to 'grey dashed line' is probably a typo

Yes it is- the typo has been removed.

6243/11: that > than

The paragraph has been reworded.

6248: There is a very recent paper by Salomon et al. (Nature, Nature Geoscience, Science?) on past changes in stratospheric water vapor and its implication for radiative C3748

forcing. This paper should probably be included as a reference. The claim of the current paper that the (water vapor) trend has actually been zero since the year 2000 (Randel et al. 2006) should be revised accordingly.

Yes, we have changed the discussion accordingly and added the reference to this paper.

Fig. 1: is of poor quality. I can't read the contour labels. A color bar would be nice. What about one panel showing the observed water vapor, or at least the control run's distribution? What season is shown in the Figure (same comment applies to all other Figures).

We have changed this plot to a contour plot, with labelled contours, and included a figure showing the STD1 climatology.

Please also note the supplement to this comment:

<http://www.atmos-chem-phys-discuss.net/10/C3748/2010/acpd-10-C3748-2010-supplement.pdf>

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 6241, 2010.