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## **ACPD**

8, S5127-S5128, 2008

Interactive Comment

## Interactive comment on "Quantitative performance metrics for stratospheric-resolving chemistry-climate models" by D. W. Waugh and V. Eyring

D. W. Waugh and V. Eyring

Received and published: 21 July 2008

We thank the anonymous referee for the comments.

## Major/Minor Comments

1. This is a very good point, and we have modified the text in Section 3 to highlight limited HALOE coverage and fact that this model-data difference needs to be checked. Unfortunately we are not aware of any long-term measurements that give better cover in polar regions in spring. We did look at CH4 measurements from ACE, but the coverage from ACE is also limited. ACE samples southern polar regions in early September and not in October, and equivalent latitude mapping is required to get sufficient data at 80S.

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- 2. We have added discussion of the limited differences between weighted and unweighted uncertainties in Section 4.4.
- 3. Text has been added discussing this point.
- 4. For equal, non-zero weights, equation (3) reduces to the standard unbiased estimate of the variance. We don't understand why the weighted variance should reduce to the standard error and not the variance.
- 5. sigma\_obs is not necessarily the interannual variance. In some cases this is not available we use an estimate of the uncertainty in the measurements. This is discussed in Section 3. We have also made this clearer when equation (4) is defined.

6 to 9: Changed.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 10873, 2008.

## **ACPD**

8, S5127-S5128, 2008

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