Interactive comment on “Transport and modeling of stratospheric inorganic chlorine” by D. W. Waugh et al.

D. W. Waugh et al.

Received and published: 6 September 2007

Thank you for your comments. We have modified the manuscript following your suggestions. Specifically:

1. New title: "Sensitivity of stratospheric inorganic chlorine to differences in transport".

2. We have toned down the importance of Cly for differences in ozone reported in WMO (2007) and Eyring et al (2006,2007).

3. We have included more details of the model simulations, including the year of meteorological fields used and details of the GCM simulation.

4. Unfortunately it is not possible to extend the simulations to address the return to 1980 levels. These simulations were performed several years ago for separate studies, and it is not easy to extend / re-run the simulations. To discuss recovery issues the runs
presented will have to be extended beyond 2050, and runs for 1980 will also be needed for the LOW simulations.

5. Sub-section titles changed as suggested.

Specific Comments:
- provides changed to provide.
- statement about similarity of radiation schemes in CCMs removed.
- sentence reworded as suggested.
- sentence, with reference to Schoeberl et al (2003), included to discuss cause of differences between simulations with GCM and DAS winds.
- we have rewritten this sentence to make it clear we are using equations (2) and (3).
- sentence changed.
- becomes changed to become.