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Interactive Comment

Interactive comment on "Rapid meridional transport of tropical airmasses to the Arctic during the major stratospheric warming in January 2003" by A. Kleinböhl et al.

A. Kleinböhl et al.

Received and published: 3 December 2004

We would like to thank Darrel Baumgardner for his comment. However, as the main effect described in this paper takes place in the middle stratosphere we do not think that the in-situ measurements from the DC-8 would be a suitable data set for comparison.

A more suitable data set to further study this effect would be data obtained by airborne lidar. In fact there are measurements up to about 30 km altitude by the Ozone Lidar Experiment (OLEX), which was also deployed on board the Falcon research aircraft. These measurements do show enhanced ozone concentrations in the middle stratosphere on Jan. 23, 2003, with structures comparable to the structures observed by

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ASUR (H. Flentje, private communication). However, we are not planning to include additional data sets into this study.

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 7121, 2004.

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