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8, S12224-S12225, 2009

Interactive Comment

Interactive comment on "Ship emitted NO₂ in the Indian Ocean: comparison of model results with satellite data" by K. Franke et al.

K. Franke et al.

Received and published: 19 May 2009

We would like to thank the editor for his comments and for accepting a much delayed submission of our replies and the revised version of the manuscript.

In the following we list our answers to his comments:

Page 2 line 40 Where exactly in the North Atlantic does the 56 ppbv ozone occur? Do Eyring et al. give an estimate of the amount of ozone that is produced from ship

This was a typo - it should read 5-6 ppbv and is corrected in the revised paper.

Please define the unit: ton miles

The unit *tonne mile* as a measurement of trade volume is defined as the product of the distance that freight is transported, measured in miles, and the weight of the cargo

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being shipped, measured in tons. This information has been added to the revised manuscript.

In the revised paper, we have taken up most of the suggestions made by the reviewers as explained in detail in the replies to the reviewer's comments. In particular, we have

- Added a second model run with lower ship emissions to enable direct comparison including all non-linearities
- Added a more detailed error discussion for the satellite data
- · Added OMI data to the discussion of time of day effects

We hope that the improved paper will be acceptable for publication in ACP.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 15997, 2008.

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