

***Interactive comment on* “Global contrail radiative forcing and the impact of diurnal variations of air traffic” by N. Stuber and P. Forster**

Anonymous Referee #1

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I have several comments that will clarify what is said in the paper:

1. page 4, please describe what you mean by a "global 1% "homogeneous" contrail cover".
2. Page 6: Please reference your choice of a standard contrail width of 2 km and lifetime of 2 hours. What are typical ranges?
3. Next line: change "result" to "results"
4. What is meant by "the "structure" of the vertical profile is fixed? Do you assume the diurnal flights in Dec. are the same as the diurnal profiles in June?
5. You state that you "calibrated" the data to match satellite. Do you mean you "scaled"

the percent cloud cover to match satellite?

6. You state that you interpolate the data onto a coarse grid. How do you interpolate 2 km width contrails to these large grids?

7. Page 7, last 3 lines: wording is awkward.

8. Page 9, 2nd line: detailed features "from" emerging.

9. page 12, replace "wether" with "whether"

10. page 13, please provide a reference for an optical depth of 0.1 for contrails.

11. last line, 1st para: suggest: "still too uncertain to provide for anything"

12. Please provide a reference for statement that typical optical depths are lower than 0.3.

13. Can you estimate the impact of higher resolution for your model? Since may not be overlapped the SW would be more negative.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 9123, 2006.

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Interactive Discussion

Discussion Paper