Atmos. Chem. Phys. Discuss., 13, C3027–C3028, 2013
www.atmos-chem-phys-discuss.net/13/C3027/2013/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Simulated radiative forcing from contrails and contrail cirrus" *by* C.-C. Chen and A. Gettelman

Anonymous Referee #1

Received and published: 3 June 2013

I feel I have to excuse myself for coming up with an annex to my review already posted here, but it is only now that I have hit on what seems to me an inconsistency for the global mean radiative forcings of contrail cirrus ("integrated ...") in Table 1. I think the net (RESTOM) ought to be the sum of the SWCF and LWCF, but it is not. While I understand that the contrail cirrus RF values contain some statistical noise as a result of having been calculated from separate simulation ensembles, even so the means should still be fully consistent (except for rounding errors). Sometimes, the differences between (SWCF + LWCF) and RESTOM appear to be as large as the statistical uncertainty. I think it is important to explain the reason, as such formal inconsistency might undermine the authors' arguments with respect to a decreasing 24-hour mean RESTOM when shifting from daily/monthly to hourly aircraft movements, when the ab-

solute value of SWCF should increase while the absolute value of LWCF should remain constant (as on page 10947, line 7, for linear contrails).

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 10939, 2013.