

Interactive comment on “Technical Note: Adjoint formulation of the TOMCAT atmospheric transport scheme in the Eulerian backtracking framework (RETRO-TOM)” by P. E. Haines et al.

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Reply to Referee 1

We thank the referee for their positive review. The answers to the two questions posed are as follows:

1. The flux limiter implemented in TOMCAT is that described in section 4 of Prather (1986). A comment has been added at the beginning of section 4.5 to highlight this point.

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2. We have not attempted a test case with increased vertical resolution, as the vertical resolution is significantly more difficult to change in TOMCAT. However, we do not see any reason why increasing the vertical resolution would cause any loss of accuracy of our algorithm. The column-matrix formulation of the parametrizations means that no essential change to the adjoint formulation is necessary when vertical resolution is increased.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 1481, 2014.