Atmos. Chem. Phys. Discuss., 10, C12503–C12504, 2011
www.atmos-chem-phys-discuss.net/10/C12503/2011/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Characterizing summertime chemical boundary conditions for airmasses entering the US West Coast" *by* G. G. Pfister et al.

Anonymous Referee #1

Received and published: 18 January 2011

Pfister at al. present a characterisation of airmasses entering the United States of America from the west, with a specific focus on June 22, 2008, when measurements from the ARCTAS campaign are available. These, and other available measurements are compared with global CTM simulations, and the model is found not to reproduce the amplitude of the observed variability of pollution in inflowing airmasses. The global CTM output nevertheless leads to reasonably large differences in surface ozone simulated in a regional air quality model when used as lateral boundary conditions, compared with time-constant boundary conditions.

I do not find the results particularly remarkable, but the manuscript does make a con-

tribution to the literature; it reinforces the importance of adequately representing the inflowing airmasses in regional air quality simulations in general, and specifically helps to characterise the US West Coast in particular. The manuscript is clearly written, and could be published as-is in ACP.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 28909, 2010.