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Interactive comment on "Synoptic influences on springtime tropospheric O₃ and CO over the North American export region observed by TES" by J. Hegarty et al.

Anonymous Referee #1

Received and published: 14 January 2009

This is an interesting analysis of dynamical regimes and the relationship of weather patterns and chemical composition of the troposphere. This work build along a line of inquiry that has been developed from analysis of model calculations, aircraft and ground based measurements, and with this work, satellite data. Although this map classification requires human interpretation, it is a valuable technique for providing insight into the role of dynamics in pollution export.

The paper provides a thorough analysis of the weather patterns in the region of focus, and clearly articulates their characteristics. Using satellite measurements requires a sophisticated understanding of the sensitivity, influence of apriori information, and er-



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ror characteristics. The authors have demonstrated such an understanding in their utilization of TES data.

some small editorial comments:

page 19751 like 4 - missing a space after EDAS) before http

same page, .line 16 - missing period after gif

page 19756, line 17 - should have units on the slope of O3 to CO

page 19766, line 26, missing period after US, before We

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 19743, 2008.

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