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ACPD

7, S7792–S7793, 2007

Interactive Comment

## *Interactive comment on* "Vertical distribution of ozone and VOCs in the low boundary layer of Mexico City" by E. Velasco et al.

## E. Velasco et al.

Received and published: 19 December 2007

The authors thank the comments and suggestions made by the reviewer. All comments were considered for the improvement of this manuscript. We have addressed the reviewer's comments and have revised the manuscript accordingly. In the following paragraphs we provide general response to those comments. More detailed responses are provided in the document submitted together with the corrected manuscript.

The reviewer suggested to provide a better context for our observations using the most recent published results on the formation of secondary pollutants in Mexico City. The revised manuscript includes references to those results from field measurements and modeling exercises. Most of them were obtained during the MCMA-2003 field campaign. The revised manuscript includes also references to results from the IMADA-AVER experiment in 1997, which included diverse meteorological measurements to

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Interactive Discussion

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characterize the boundary layer of the Valley of Mexico.

Although the profiles were measured on different days, seasons and years, the observed consistency allowed an easy and clear interpretation of the evolution of the low boundary layer of Mexico City plotting all the profiles in the same figures. Both reviewers suggested to segregate the profiles in individual days or different types of days. To address this suggestion we used the meteorological classification for the Valley of Mexico proposed by de Foy et al. (2005) for the measurements made during the MCMA-2003 field campaign. The revised manuscript includes a new section discussing the observed differences and the conclusion that the evolution of the convective boundary layer and vertical distribution of trace gases in Mexico City do not change significantly from one type of meteorological event to another.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 12751, 2007.

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