Atmos. Chem. Phys. Discuss., 7, S4791–S4792, 2007
www.atmos-chem-phys-discuss.net/7/S4791/2007/

Atmospheric Chemistry and Physics Discussions

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

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Received and published: 7 September 2007

Both referees recognize the potential value of the unique dataset presented in this manuscript. Vertical profiles of urban trace pollutants, especially of VOCs, are relatively rare and fewer still are available for a developing world megacity. However, both referees also question the wisdom of presenting VOC profiles averaged over 28 days of measurements distributed ovet more than four years (2000-2004). Given the complex and variable meteorology the characterizes the Mexico City metropolitan area (described in the de Foy et al. paper referenced in the manuscript) the referees' suggestions that the data be segregated into days with similar meteorology or that representative individual days be analyzed in detail deserve serious consideration.

In addition, referee #1's comment that presenting interesting data is not sufficient

should be heeded. It is also the authors' task to identify key features in the data that impact ongoing efforts to understand, and eventually manage, Mexico City's photochemical pollution. The fact that referee #1 did not recognize that the trace gas data presented were all from profiles obtained well before the 2006 MILAGRO campaign, and therefore cannot be directly correlated with MILAGRO ground site and aircraft data, does not invalidate his/her insistence that the data presented in this manuscript be better placed in the context of other Mexico City measurements. Now that much of the data from the MCMA 2002/2003 campaigns have been analyzed and published, the authors should work hard to present how their data impact findings presented in relevant papers dealing with data that was taken within the time frame of their measurements. To the extent possible they should also comment on how their data should influence the analysis and presentation of relevant MILAGRO 2006 data.

Both referees also raise a number of specific issues that need to be addressed in a revised manuscript.

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