

Interactive comment on “VOC reactivity in central California: comparing an air quality model to ground-based measurements” by A. L. Steiner et al.

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To address the potential impacts of dilution, we have added a discussion on the meteorological simulations, winds, and boundary layer analysis on page 5, lines 11-23. Wilczak et al. (2004) (see also website referenced in the revised manuscript) performed extensive MM5 testing and because simulations utilized were developed in the interest of air quality modeling, we believe that they represent the best mesoscale meteorology modeling efforts for the region. To balance the discussion and address this issue, we have also added a discussion of the relative impacts of dilution versus emissions on page 12-13.

As Dr. Parrish states, the use of emission ratios can be an easier way to distinguish

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these differences in emissions and dilution. While we do use absolute concentrations for the majority of the analyses, the goal of the pie charts in section 3.3 and Figure 6 was to look at the relative contributions of individual species to the total OH reactivity. In this sense, we are comparing calculated and modeled ratios (or contributions to ROH_{total}), albeit in a slightly different manner than traditional ratios in other analyses.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 13077, 2007.

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