

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

**A. L. Steiner et al.**

Received and published: 30 November 2007

1. Explain why the model results are averaged over 250m of altitude while the measurements are generally ground based.

See discussion and revisions from Comment 1, Reviewer 1, above.

2. Is there any chance that the generally good agreement between the model and measurements is due to the fact that measurement data from the sites studied in this paper was used to derive the modeled VOC emission data? I would suspect that this is especially true for the Blodgett Forest site.

The reviewer makes a valid point that the agreement in the measured and modeled

Full Screen / Esc

Printer-friendly Version

Interactive Discussion

Discussion Paper

VOC data at Blodgett forest is likely due to the wide suite of measurements at this location. In fact, flux measurements from Blodgett forest are used to derive biogenic VOC emission factors used in the BEIGIS model (Scott and Benjamin, 2003). We have added a line to the text (page 16, lines 20-23) to address this point. However, this is not the case for the other measurement sites in the modeling domain (Sacramento, Fresno and Granite Bay).

3. The author repeatedly uses phrases such as, "accurately reproduces" and "fairly well represented". I am not sure what this means quantitatively except by looking at the plots. At what threshold do we consider the model to be doing a "good" versus a "bad" job and how is that threshold chosen? Are there other studies that have used similar procedures that this study could be compared to?

The phrase "well represented" was usually in reference to the number and type of measured species representing the lumped model categories. We have revised this text to clarify our intention. Other qualitative statements were typically in reference to the cumulative distribution functions, and we have revised this text to provide more quantitative information (e.g., medians) about the figures.

4. "discussed in greater detail in section below" there should be a section number or "the" between "section" and "below".

We have modified this text accordingly.

---

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

[Full Screen / Esc](#)[Printer-friendly Version](#)[Interactive Discussion](#)[Discussion Paper](#)