

## ***Interactive comment on “Skill in forecasting extreme ozone pollution episodes with a global atmospheric chemistry model” by J. L. Schnell et al.***

### **Anonymous Referee #1**

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Simulating surface ozone in polluted regions has long been a challenge in global chemistry models. This paper provides a clever and rigorous method for doing so. While I am reluctant to support interpolation of data sets into regions without observations, this paper presents a technique for producing gridded ozone fields and statistics of pollution episodes from air quality networks in the U.S. and Europe that seems quite sound. These new gridded statistics are evaluated with independent observations and used to evaluate a global CTM, showing them to be accurate.

The paper is extremely well written. The mathematics and statistics used are clearly explained. The figures in the paper and the supplement provide excellent illustration of

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the key points. The comparisons to one CTM show how the procedure will be an excellent tool for evaluation of air quality in other models for hindcast and future scenario simulations.

I recommend publication.

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Interactive comment on Atmos. Chem. Phys. Discuss., 14, 6261, 2014.