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Comment

***Interactive comment on “Aerosol optical properties in a rural environment near the mega-city Guangzhou, China: implications for regional air pollution and radiative forcing” by R. M. Garland et al.***

**Anonymous Referee #3**

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This paper reports carefully measured aerosol scattering and absorption coefficients in July 2006 at a rural site in the Pearl River delta in southern China. The authors analyzed the data in terms of overall statistics, diurnal variation, relation to wind and air trajectories, Angstrom curvature, as well as correlation between light absorbing carbon with CO. The high-quality measurements and the careful examination of the dataset are the highlights of the paper. However, the scientific values of this work have not been well demonstrated, and thus the paper does not seem to yield significant new results. Some specific comments are given below. (1) There have been a large num-

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ber of studies on ozone, VOC and aerosols in the PRD, including many in the Hong Kong area. The authors should give a more complete review of those studies that are relevant to this present work and identify the key knowledge gaps/issues. This way the author may be able to better demonstrate the scientific values of their measurements/results. (2) The measurements were conducted in July. It is well known that in this time of the year the PRD region is under the impact of the summer monsoons which contribute to the best average air quality in a year, except during rarely occurred episodes as shown in this present study. What is the rationale for selecting the summer season? To study the radiative forcing in maritime air masses? (3) The authors made careful analysis of the data from this single site, but the regional representation or uniqueness of the findings is not demonstrated. The authors should discuss their results in the context of the previous studies, in particular the results from the 2004 autumn campaign. Some results from coastal areas (e.g. Hong Kong) may be worth comparing to show the difference/similarity between this inland site and other parts of the PRD.

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Interactive comment on Atmos. Chem. Phys. Discuss., 8, 6845, 2008.

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