

***Interactive comment on “Effect of land cover on atmospheric processes and air quality over the continental United States – a NASA unified WRF (NU-WRF) model study” by Z. Tao et al.***

**Anonymous Referee #1**

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This paper uses a new WRF-based modeling system to examine the effects of different land cover data sets on air quality in the U.S. It is an interesting study that is worthwhile of publication. However, there is minor English editing that needs to be done, and either additional references or discussion are needed in the description of the model and of the observation datasets. Specific comments: Page 5434 (sentence starting on line 26) to 5435 (end of that sentence): insert “the” before all of the items being described. Also either add a reference or further discuss the “new Grell cumulus scheme”. Page 5441, line 1: replace “of” with “for” Page 5452: lines 10-11: replace “human” with “humans” Page 5455, line 28: insert “the” before “conceptual” Page 5456: I would have liked to see a recommendation on which dataset is best.

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Interactive comment on Atmos. Chem. Phys. Discuss., 13, 5429, 2013.

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