

Interactive comment on “Clouds, photolysis and regional tropospheric ozone budgets” by A. Voulgarakis et al.

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Received and published: 28 September 2009

We are thankful to the 2nd reviewer for their favourable response. Below we describe the changes that have been made to improve our manuscript, based on the reviewer's comments.

Definition of the “Tropics”: We wanted to look strictly at the tropical region, since it is a region with a dominance of very distinct cloud types (clouds with a large vertical extent). If we had additionally included the subtropics, deserts would have been a big part of this region. So we chose 20S–20N, as it is the closest to what one usually defines as the “tropics” (23S–23N).

Page 13890, line 17: Added “through decreases of OH in the lower troposphere”.

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Page 13890, line 21–23: Added “of the ozone budget components”.

Page 13892, line 10: We replaced “net chemical tendency” with “net chemical production” wherever it occurred, in order to avoid confusion.

Page 13891, line 18: Replaced “a difference of” with “increases of”.

Page 13891, line 19: Done.

Page 13891, line 19: Precipitation is part of the “meteorological fields” that we are mentioning in this sentence. It certainly affects the ozone budget, but since this is not the issue examined in this paper, we are not discussing it here.

Page 13893, line 22: Yes, only shortwave. We change the title to reflect this.

Page 13894, line 21–22: Added a sentence to mention this possible fate of OH.

Page 13896, line 8: Done.

Page 13900, line 21: Corrected.

Page 13901, line 17: Added one extra sentence to clarify this.

Page 13902, line 10: Corrected.

Table 2: Removed “REF” from the (REF–NOCL) parenthesis in Table 1 and Table 2, as it may have been misleading.

Added references suggested by the reviewer.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 13889, 2009.

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