

Interactive comment on “The effects of aerosols on precipitation and dimensions of subtropical clouds; a sensitivity study using a numerical cloud model” by A. Teller and Z. Levin

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We would like to thank D. Rosenfeld for his comment and his positive view of our paper.

In his comment Rosenfeld requests that the reference to Ayers (2005) should be changed to indicate agreement between his paper from 2000 and Ayers (2005). However, this request does not match with the discussion and conclusions that appear in Ayers (2005). For example, in his conclusion on the effects of aerosols on precipitation on the ground, Ayers wrote: "In the case of rainfall suppression over Australia presented by Rosenfeld (2000) the analysis presented above identifies major doubts about the conclusions reached, indeed the conclusions in that work are invalid based

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on the evidence available."

As for the effects of aerosols on cloud drop's effective radius, Ayers (2005) showed (Fig. 7 in his paper) that model results indeed corroborate the dispersion of aerosols over long distances as was concluded by Rosenfeld (2000) (Fig 2 in that paper). However, in his paper Ayers stressed that there is a clear disagreement between his results and those of Rosenfeld regarding the dispersion of pollution in the south west corner of the figures (see circled area in Fig 5 of Ayers).

In conclusion, we feel that the reference to Ayers (2005), which disputes Rosenfeld (2000) is appropriate and should remain.

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