

## ***Interactive comment on “Large Asian dust layers continuously reached North America in April 2010” by I. Uno et al.***

**Anonymous Referee #1**

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This paper reports about the trans-pacific transport of Asian dust to North America with the help of satellite-based lidar and radar data. It is demonstrated in detail how the dust is emitted into the troposphere and transported over the Pacific ocean. The presentation of the results is clear. I recommend the paper to be published in ACP. There are only minor corrections as given next:

- 1) Section 2: S1 of 35 sr was applied where the authors refer to the work of Shimizu et al. (2004). In that work I found an applied value of 50 sr. S1 is important to derive the extinction coefficient from backscattering coefficient. Why not using the latter value?
- 2) Last paragraph of section 2: Figure 1 is mentioned. But it is not stated how well the model and the observations fit together quantitatively.

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- 3) Last paragraph of section 3.1: 'reveal' is used too often.
- 4) Page 12257, Line 6: Remove comma after '2010'.
- 5) Page 12259, Line 11: Remove 'plot'?
- 6) Page 12260, Line 3: Write 'America at at least'?

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Interactive comment on Atmos. Chem. Phys. Discuss., 11, 12251, 2011.

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