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Interactive comment on "Volcanic ash from Iceland over Munich: mass concentration retrieved from ground-based remote sensing measurements" by J. Gasteiger et al.

J. Gasteiger et al.

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We are grateful for the helpful comments of the referee. In the following, comments by the referee are in italic font, answers by the authors in normal font.

In my opinion, a discussion from the practical point of view on flight safety should be added.

In the "summary and conclusions", we reformulate the last paragraph in this direction.

The limitation of the methods in sensitivity to large particles should be written in abstract and summary and conclusions, though it is discussed in the text.

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This is added in the final manuscript.

The mass/extinction factor at a distance closer to the volcano can be much larger, and that can cause a serious problem if the extinction coefficient is used as an alarm. What is actually important is to understand the size distribution at emission and the change during the transport. A discussion aiming at this direction would be useful.

We agree. The size distribution is the most important parameter for the conversion of extinction to mass concentration. Following suggestions of Dr. Gobbi (see Interactive Discussion of our paper) we add a figure to demostrate this. A discussion of the importance of the changes of size distribution during transport is added to the summary and conclusions section.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 26705, 2010.