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5, C512-C513, 2012

Interactive Comment

Interactive comment on "Observing ice clouds in the submillimeter spectral range: the Cloudlce Mission proposal for ESA's earth explorer 8" by S. A. Buehler et al.

S. A. Buehler et al.

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We thank the reviewer for the constructive comments. Below, reviewer comments are in italics and marked by '**R**:', our response is in normal font and marked by '**A**:'.

R: This reviewer almost satisfied the reply of the author against with each this reviewer's comments, however the reviewer wants to read a new subsection 2.4 before the publish.

A: In the revised draft, the following new subsection was added:

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Summary of mission objectives

Cloudlce, or a similar mission, would deliver urgently needed global data on ice clouds, particularly on the so far poorly characterized 'essential climate variable' ice water path (IWP) and on the characteristic cloud ice particle size.

It would deliver data with near global spatial coverage every 24 hours, and on a spatial scale consistent with future global climate models, to both evaluate and improve the models.

It would also demonstrate the benefit of submillimeter observations for precipitation retrieval, an important step towards a possible future deployment of submillimeter radiometers in a geostationary precipitation mission.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 1101, 2012.

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