

Interactive comment on “On the optimal method for evaluating cloud products from passive satellite imagery using CALIPSO-CALIOP data: example investigating the CM SAF CLARA-A1 dataset” by K.-G. Karlsson and E. Johansson

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Just some clarifications to two of the discussion points:

2. We apologize for mixing up some numbers here. We discussed in our reply the impact of setting the threshold to 0.5 % and 0.2 % but the Referee rightfully reminded us about that he/she actually wanted us to test the impact of setting the threshold to 2 % and 0.5 %.

The effects of using the two thresholds are the following:

C300

- For threshold = 0.5: Cloud optical thickness limit = 0.5
- For threshold = 2.0: Cloud optical thickness limit = 0.25

So, there is certainly some sensitivity to the choice of threshold.

However, the expression "close enough to where the real action is" is pointing at the region where the rate of change is still high and as well rapidly changing. This is not the case for values e.g. beyond cloud optical thickness of 0.4. In this sense we think that the result 0.35 is a reasonable value resulting from the use of a threshold of 1 %. We will try to reason and motivate this definition of the cloud optical thickness limit in a better way.

4. We will make it more clear that Step 2 also leads to that we remove some clouds from the 5 km dataset (i.e., when $CFC' < 50\%$ in 1 km FOVs). So the suggestion to express it in 2a and 2b options is good. Thanks.

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