

2025-03-31

Response to the Editor's Review

Dear Editor,

Thank you for your comments and suggestions. We have taken them into account in the manuscript. Below is our point-by-point response to your comments.

Regards,

on behalf of the authors
Andrzej Z. Kotarba

- 1) Reviewer 1: Question on "ground truth": I think, here it depends on what property you want to validate. There are some "ground truths" available e.g. in situ airborne observations if it is about physical cloud properties such as cloud particle number, size, shape.... In case of cloud classification, I see another limitation. That is the definition of the classification, which always differs depending on the type of observations you use. E.g., a human would identify DCC and cloud fraction different than a lidar. You may clarify in this section what type of quantity you refer to. A quick search showed some additional literature, which can be used here as references [*3 URLs, not shown here*].

Clarified in the text. We fully agree. Our statement only referred to cloud type classification.

- 2) Reviewer 2: L357-363. Your additional study seems to be quite relevant. Why not including the full result, the table, in the manuscript?

The table has been **included** (as 'Table 6'), as suggested.

- 3) Tables: Table 1 and 2 show frequencies in % while Table 3 and 4 show normalized frequencies (I guess). This can be misleading when just looking at the Tables. I suggest to provide frequencies consistently with % or at least add "normalized frequencies" in the tables 3 and 4 where dimensionless frequencies are shown.

Clarified in the text. Tab. 3 and Tab. 4 refer to the frequency of clouds (also known as: number of clouds, fractional cloudiness, ratio of cloudy cases to all cases, etc.). The latter parameter is usually reported as a value between 0 to 1. It can be expressed as a value from 0% to 100% as well. However, using only the first notation $<0,1>$ one can avoid an ambiguity associated with describing any relative changes in cloud frequency. Therefore, we prefer not to change the notation, thus **added an explanatory statement** in the table captions for clarity.