

The authors would like to thank the associate editor for his time and valuable remarks, and we invite him to review the new version of the article, hoping that the modifications are more satisfying this time as we tried to address all points.

AE.Q1: when you describe the annual cycle of the AIRS cloud fraction (Fig 6), you should at least mention if the MODIS cloud fraction has a similar annual cycle at the three sites.

AA.1: Ok, at Thule MODIS CF annual cycle is described as it has a similar annual cycle as AIRS CF, unlike both other stations, this is added in the introduction of chapter 4.

AE.Q2: thanks for incorporating Table 4! I would certainly keep it. But a figure says sometimes much more than a Table. Therefore, I would also include the MODIS cloud fractions (and the correlations) in Figs. 7, 8, 10. These are the core figures of the paper: with those, you show the reader visually that the cloud fractions might impact the biases. So, please include the MODIS cloud fraction as well, to show what the impact of the selected cloud fraction dataset is on the cloud fraction - GNSS-satellite bias correlations!

AA.2: Ok, figures 7, 8, and 10 were modified to include MODIS CF as well, and biases at Sodankyla are added also to figures 7 and 8 to clarify the differences between sites.

Additionally, figure 7 is modified to include only summer time series as the comparison in only one season might present better the differences of different stations.

AE.Q3: Fig 9 is not so clear: here you do not see any correlation at all, I would say, and you apparently also have problems to interpret it, because you hardly refer to it in the text. So, you can drop it if you want, but anyway, thanks for constructing the figure.

AA.3: Figure 9 is deleted.

AE.Q4: For the description in Section 4: it is good to start with the obvious findings (most significant correlations in the same months/seasons for both the cloud cover datasets) and then refine to "more or less" common features in both cloud cover datasets and ending by the clear differences. Now, it is a mixture of different elements and it is clearly guided by your first results (with AIRS cloud cover only), which you try to align/strengthen with the MODIS cloud cover correlations. If you have strong scientific arguments to rely more on the AIRS cloud cover dataset in your discussion, you should mention/explain this in the beginning of the section.

AA.4: Section 4 is modified as requested, Please find also additional arguments and references in its introduction.

AE.Q5: An obvious question to answer in the conclusions too might be if the GNSS-AIRS biases are stronger correlated to the AIRS cloud covers than to the MODIS cloud covers (and same question for the GNSS-MODIS biases).

AA.5: This question is addressed in clearer sentences added to the conclusion.