

We thank the reviewer for the additional comments. We have fixed most of them according to the reviewer's suggestions. In a few instances, we have kept our original formulation. See our detailed response to the reviewer's comments in bold below.

P01, L25: delete "so-" **FIXED**

P03, L14: The CPR - **FIXED**

P05, L09: length or volume. Are you talking about the time series? **FIXED. Replaced by 'time series'**

P6, L19: it assimilates radiance data from a number of satellites **FIXED**

P6, L20: The ERA-Interim. **We believe the way we have it is correct grammatically.**

P8, L16: the height of surface bin **We believe the way we have it is correct grammatically.**

Figures 3 and 5: there are no panels. Please write figures on the left or right. **FIXED**

P10, L03: It can be seen that **FIXED**

P10, L04: as far as the complex topography is concerned? **We believe the way we have it is correct**

P10, L14: "blind zone"; measurements are not possible or measurements cannot be used?

FIXED. We have clarified this

P12, L01: "hereafter" **FIXED**

P12, L06-08: Just write that "Our findings are consistent with that of Palerme et al. (2019)." No need of justification regarding the discussion paper. **WE believe this is important information, so we prefer to keep this. It will allow the reader to understand that their approach and ours are developed independently.**

P13, L05: 0.3% is affected. **We believe the way we have it is correct grammatically.**

P13, L17: more correction? "an additional correction" would be a better choice **FIXED**

P13, L21: "from which it was derived" and "stem" **FIXED. WE have rewritten this sentence to clarify what we mean.**

P13, L22: "correction not to produce viable results"? What was the purpose correction here?

We believe the sentence is clear. We do not expect the correction to produce viable results outside the region it was developed for.

P14, L16: "onset" of mie-scattering? **We believe this to be the correct use of the word onset.**

Figure 9, Caption: "... visual reference to show the difference ..." **FIXED**

P15, L08: extending this analysis **It is not clear to us what the reviewer means.**

P17, L04: "derived" **FIXED**

P18, L09: I did not understand the sentence. Please rephrase it. **FIXED**

P18, L19: "not surprising as CloudSat provides " **FIXED**

P18, L29: I would consider your original word choice here; "effects" not impacts **FIXED**

Figure 13: It would be good to give a name for the x-axis : "Year" **FIXED**

P20, L10, 20: delete "so-" **FIXED**

P22, L10: the uncertainty of CloudSat retrievals? **FIXED**

P27, L06: "significantly underrepresented", to avoid one of the two "potentially" from the sentence. **FIXED. We got rid of one of the potentiallys**