

Report #1

Thank you to the authors for their thorough consideration of my previous comments. Their revisions have fully addressed my concerns. Accordingly, I recommend that the manuscript be accepted for publication following their consideration of the following minor technical corrections:

We like to thank you for reviewing the revised manuscript and your positive response. Thanks for providing the last technical corrections for the manuscript.

L89: This would read clearer as “Because the albedo calculation is wavelength-dependent, it...”

Implemented as suggested.

L101: consider rewriting as “...and are in units of W m^{-2} .”

Implemented as suggested.

L137: It appears there is a missing word here. Either “as a reference simulation for the...” or “as the reference simulation for the ...”

Implemented as suggested.

L155: Should be rewritten as either “We evaluate whether the mean differences between... exceed the inter-annual...” or “We evaluate whether the mean difference between... exceeds the inter-annual...”

Implemented as suggested.

L169: Consider rewriting in more active voice: “The map in Fig. B1 provides an overview of the ice shelves that are classified in each category.”

Implemented as suggested.

Fig 7 Caption: I believe the text in the last sentence stating “... with the color of each line indicating the average snowfall rate for that ice shelf.” is no longer correct now that all fit lines are displayed in black.

Thanks for noticing this, we have now changed to that the linear fits are shown in black.

L372: Increase should be plural here: “...cloudiness that increases incoming longwave...”

Implemented as suggested.

Report #2

I was not one of the original reviewers and am reviewing the second iteration of this paper. I was pleased to find it easy to understand and had been much improved based on actions in response to previous review comments. Based on this I'd recommend it for publication, subject to one small recommendation which is more of a technicality but I think would improve readability.

In section 3.4 the albedo discussion was sometimes a little confusing, as the paper is often considering surface energy balance, but here the authors consider albedo changes due to cloud that will impact incoming SW radiation before it even reaches the surface, as well as surface changes that impact albedo at the surface specifically. I'd therefore recommend explicitly stating where surface albedo is being impacted vs the overall albedo rather than referring to all these just 'albedo' as the processes are different and the distinction is important.

We would like to thank you to take the time to review this revised manuscript.

Thank you for pointing out that the distinction between the effect of clouds on incoming shortwave radiation and their effect on surface albedo was not sufficiently clear. In section 3.4 all references to albedo refer to surface albedo, and the cloud-related analysis shows the difference between all-sky and clear-sky surface albedo. We have clarified this by adding the following early on in this section: “Here and throughout this section, albedo refers to surface albedo. The effect of clouds on surface albedo is assessed by comparing all-sky and clear-sky surface albedo”