Airborne Lidar and machine Learning Reveal Decreased Snow Depth in Burned Forests
Koshkin and Marshall
Review of egusphere-2025-4081
#2

I am overall satisfied by the modifications brought by the authors following my comments.
I believe it should be accepted for publication after the small improvements suggested here.

I would only insist on the readability of the maps (Figure 1, Figure 4 and S4). I think that they do not match the quality usually found in The Cryosphere, for instance in recently published article (among many others) : Fig. 1 in Alexopoulos et al. (2026) or Fig. 1 in Davis et al. (2026). I acknowledge that the study site here is not the easiest to map in a compact way but there must be a way. At the moment, north arrow, scales, lat-lon or UTM grids are missing. And above all, a large majortiy of the figure is white, which means without information. It prevents the reader to investigate by itself the results and do not highlight the high level of details provided by this method (50 m resolution). Maybe zoom on each basin individually in subplots or select a few basins or a single year and let the complete figure in supplement. Tilting more the north direction would also allow more compaction and reduced space between the maps. Check what is the maximal size of figure allowed by The Cryosphere to make most of it.

Alexopoulos et al. (2026) https://tc.copernicus.org/articles/20/2209/2026/
Davis et al. (2026) https://tc.copernicus.org/articles/20/2735/2026/

Minor comments

Abstract :

- « 44% of accumulation-season acquisitions and 83 % » These numbers should be in the results section as well.

- Besides, I had the impression that post-fire snow depth is increased during accumulation (L233 « 3.2 Post-fire snow depth changes increase during accumulation and decrease during melt » ; L237 « Across all 115 acquisitions, 68 % of accumulation acquisitions had a higher basin-wide average predicted snow depth in burned than unburned conditions, compared to 31% during melt. »). This is not well conveyed in this sentence.

- I would also mention the gradual increase in relative impact (Fig. 3a).

L128 « 114 ASO flights » 115 in the abstract and results. I see that it was corrected in the tracked-changes version. Ensure consistency in the final submitted article.

Figure 1 What are the grey lines ? Having background layer would help, even a flat single color for ocean and land. Please also add an inset showing where the study site is in the World or at least in North America.

Figure 2 Boxplot and median color are not contrasted. It is hard to see. Use white lines for median or light boxplots color.

Figure 5 The horizontal grid line got lost in the review process.