

We would like to thank the anonymous reviewer for agreeing to review this manuscript again. We were pleased to hear that they found the results and text to be clearer. Below, we include in-line responses to each of the reviewer's comments.

1. *The revised introduction is now much clear in that the characteristics of the SWE retrievals used within the OSSE are hypothetical. But I think one additional point should still be made – missions in development (both past missions like CoReH20 and current missions like TSMM) have SWE retrieval requirements ranging from approximately 20-30%. So in that sense the uncertainty you apply in this study is realistic and appropriate. But it is still to be seen if these missions could actually deliver retrievals that meet this requirement ... so using line 94 (from the tracked changes version) as an example, what do you think about revising the text to read: "... what is the added utility of spaceborne active remote sensing SWE information (assuming retrievals meet currently defined mission requirements) across the western U.S. and Canada?" This would just make it explicitly clear that reproducing these OSSE results using 'real' retrievals requires the algorithm development teams to achieve the stated mission requirements.*

Thanks for the suggestion. We agree that we should reiterate that since these retrievals are hypothetical, the results are subject to an instrument and mission that meet the requirements laid out in the text. We liked your suggestion about adding a parenthetical to the framing questions at the end of the introduction. This can be found in line 87.

2. *Line 113: change 'snowy' to 'snow covered'*

This was changed in the updated text (line 103).

3. *Line 211: I would not say that Ku-band measurements have a hard sensitivity limit of 200 mm of SWE, rather that uncertainty is expected to be higher in deep snow conditions.*

Great point! We revised this sentence to make it clearer that measurements are not capped at 200 mm SWE, but instead increase in uncertainty as snow gets deeper (lines 190 – 192). We felt that "deep snow" was subjective, so we still included " $\geq 200$  mm" in a parenthetical for reference.