

Reviewer #1

Dear Dr. Cho and Colleagues,

Thank you for your revisions to this manuscript. This forms a worthwhile contribution to the design of future satellite missions and recommendations on where to focus research efforts. This is suitable for publication subject to the following minor corrections:

*Answer: Thank you, Dr. Mel Sandells, for your thoughtful feedback on the manuscript. We have revised our manuscript based on your corrections.*

Line 290: 'Averaged for given areas' - is this domain averaged as in line 46 or something else - please clarify.

*Answer: Thank you for pointing out. The statement was removed. We believe that the point we want to make here was explained well in the previous sentence "Figure 5 provides a comprehensive comparison of RMSEs and percent improvement calculated by the time series of domain-averaged SWE between all DA scenarios and the OL simulation relative to the NR."*

Figure 6: Boxes added in authors' response has not been included in the paper - please replace with the new figure.

*Answer: We replace the old figure with the new one in the manuscript. Thank you.*

Figure 7: RMSD -> RMSE difference.

*Answer: Edited.*