

Dear TC editor,

We have now completely revised our manuscript TC-2021-185. We have already provided our response to the reviewer comments earlier. In addition to what we provided in our earlier response to the reviewer comments we have now used the baseline-D CS2 ice thickness data and recalculated all the results and redrawn the related figures. The comparisons to the reference data sets were now computed in the reference data set resolution. This had effect especially on the correlations that were now higher than in the previous manuscript version. The difference measure values in the tables have been rounded to nearest full cm. We have also rewritten many sections and tried to improve the readability by reordering the text and using more subsections.

We have also slightly updated (simplified) the algorithm because the results were in practice similar with this slightly updated algorithm as with the original algorithm version. The description of the algorithm has been updated accordingly.

If seen necessary by the editor, we can let a proofreading service to check the English language for the final version (after possible technical corrections to the current version TC-2021-185-R1). Also the references may still need editing to match the TC requirements. We will also make this update based on the feedback from TC for the final version.

Sincerely,
Authors of the manuscript TC-2021-185