

This review addresses the manuscript *Winter Atmospheric Boundary Layer Observations over Sea Ice in the Coastal Zone of the Bothnian Bay (Baltic Sea)* by Wenta et. al. The authors introduce a dataset of the atmospheric boundary layer of sea ice in Bothnian Bay that was obtained from aerial observations. The description of the dataset is well done, I have very few comments/corrections, and I recommend this manuscript to be accepted pending minor revision. Below my comments, I include general comments first, followed by correction recommendations by line number:

General

Justify the study area a little more. On line 38, you mention this study site was also the location of ISOBAR, so this area must have some significance for study in a broader context. I would be good to explain that in your manuscript. Is it just a good place to test this method out on? If there are other factors making this area a good study location, it would be good to articulate for other people hoping to replicate your methods.

Figure 1: In the scaled-up map of Finland, it would be good to make the location of Marjaniemi harbor easier to identify. Perhaps a large colored symbol that can catch the eye better. I had to look at the figure for a little while before figuring out where it is.

Line-byline

Lines 1-12: The Abstract could use a line or two summarizing the importance of this data and its possible uses, especially in relation to your selected study area. The introduction does this fairly well, and I think even copy/pasting a few sentences from that section into the abstract would work fine.

Line 23: Perhaps give an example or two of physical processes studying ABL properties helps us to understand. Could even be in parenthesis (e.g. property A, property B).

Line 180: Could you provide a little more information on the orthomosaic maps for this section? map extent, resolution, etc, to match the detail you gave to the other datasets described in this section.