Comment on essd-2022-66
Anonymous Referee #2

Referee comment on "Mesoscale observations of temperature and salinity in the Arctic Transpolar Drift: a high-resolution dataset from the MOSAiC Distributed Network" by Mario Hoppmann et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2022-66-RC2, 2022

This is a solid contribution to the field, it does have some issue with grammar and word choice throughout the text, however, it did not hinder my ability to read or understand the content, maybe the authors could run it through a grammar checking program (I use Grammarly). From the title of the manuscript I expected the focus to be primarily on analysis of the data, however the focus of the paper is really on describing the buoy system and the handling of the data. I think that this does fit within the scope of the journal, but the authors may want to change the title to better fit with the focus of the paper. I have no issues with the substance of the paper, just a few comments to improve clarity.

The description of the data handling and QC is well thought out and helpful for others who are starting out with automated buoy systems.

Line 135. I was a bit confused by the statement “polled for an additional measurement by the buoy itself” I think that you mean that the CTDs recorded data every 2 mins and then they were also collected a measurement every 10 mins that was sent via iridium. This paragraph is not very clear.

Line 404: ‘air-line distance’ do you mean the the straight line distance rather than the distance along the drift track.
Line 404: Is there a better way to visualize the MLD in Figure 7?