

My two main concerns in my first review were that

- 1) the impacts for ice thickness retrieval are not discussed enough
- 2) the description of the methodology section is hard to follow and incomplete

The authors have done a good job in addressing these two points. They have added a reasonable explanation in their responses and the revised manuscript of why they kept their focus on the operational ice charting and what limitation the current ice type detection currently has. Given the added explanation, I agree that these topic is indeed it own, but worthwhile, exercise.

The restructuring of section 3 has also increased the clarity of the manuscript significantly and the missing pieces of information have been added.

And since the responses to my minor comments are also to my satisfaction, it is my pleasure to recommend the revised manuscript for publication in The Cryosphere.