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Interactive comment on "Utilisation of CryoSat-2 SAR altimeter in operational ice charting" *by* E. Rinne and M. Similä

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We thank the reviewer 2 for his/her positive comments on the manuscript. The detailed response to them is below. Text in italic is reviewers comments, immediately followed by our response.

This paper describes the usage of near real time CryoSat-2 for operational ice charting. The technique is quite novel and interesting, and overall the methodology seems sound. The potential for expansion to the Antarctic is also interesting and would be an useful follow up study. The manuscript is well written and I thus have only a few minor comments listed below. I recommend publication of the manuscript for the journal.

This is quite uplifting to read. Just as a short comment, we are presently working on a

related study for the Antarctic seas and have submitted an abstract to the ESA Living Planet Symposium 2016 in Prague.

Minor comments

There are a few grammatical errors present throughout the text.

We shall do our damnedest to catch and correct them in the revised version.

Figures 1 and 2: Latitude and longitude labels would be much better for the maps.

This is actually something we have to disagree on. We chose the easting and northing labels to keep the reader aware of the distances over the area, and this would be much harder with lat/lon labels especially in the high latitudes.

Eqn 1 and throughout: Note that the new Basline C CryoSat-2 data has 256 bins in the waveform rather than 128. I am not sure whether the near real time data has changed in this manner, but something along these lines should be noted in the manuscript in this case.

This was also mentioned by the other reviewer. We used the Baseline B product with 128 bins in this study, and we'll mention this in the revised manuscript.

P 4124, L4-5: The SSD is essentially the standard deviation of power values formed from the set of Doppler waveforms over different incidence angles. A reference to the definition in Wingham et al., 2006 would be appropriate here.

Yes it would be and the reference will be added in the revision.

P 4124, L 20-23: This is a vague sentence, it would be useful to state specifically what the other waveform characteristic is.

True. The other characteristic is the Kf1 defined in equation 4 and it would had been good to mention this in here. Will be revised according to reviewer's suggestion.

P 4125 L 13: During which time of year was the training data set initialized?

Always 15 days before the start of the 5 day test period. That is, in this study either in November or in March, depending on the test period.

Interactive comment on The Cryosphere Discuss., 9, 4117, 2015.