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The Cryosphere Discussions

Interactive comment on "A combined approach of remote sensing and airborne electromagnetics to determine the volume of polynya sea ice in the Laptev Sea" *by* L. Rabenstein et al.

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In the following we answer to all comments, referring to content. Corrections of single words and typos are all considered in the revised manuscript and are not mentioned here again:

Reviewer: Is it distinct when the backscatter of new ice can be low and high? I am not sure if new ice can only be recognized by its backscatter. The person that interprets the image uses also the information of the location of the new ice (polynyas occur in the same regions) and the shape of Polynyas.

Authors: We see the point the reviewer made and modified the text: On the SAR

images used in this study, newly formed sea ice was distinct, since it produced either a low backscatter image or, when frost flowers occurred, a very-high backscatter image (nghiem97), relative to the surrounding old ice. The known location of the fastice edge and visible drift on two subsequent images was of additional help to identify new-ice areas.

Interactive comment on The Cryosphere Discuss., 7, 441, 2013.