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Interactive comment

Interactive comment on "Water Content of Greenland Ice Estimated from Ground Radar and Borehole Measurements" by Joel Brown et al.

Joel Brown et al.

joel@aesirmt.com

Received and published: 27 December 2016

Interactive comment on "Water Content of Greenland Ice Estimated from Ground Radar and Borehole Measurements" by Joel Brown et al.

Anonymous Referee 3

Received and published: 21 November 2016

Author responses are in italics.

The subject of the paper: to infer water content of temperate ice from radar *and* borehole observations. After a quick read, and a careful look at the figures, I'm not

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Discussion paper



sure that I understand (a) what was done, (b) how boreholes come into the paper, and (c) what was learned. Apparently, the conclusion is buried in one of the tables, where the <10% water content is reported based on complex index of refraction analysis. I would have expected to see a graph or other similar figure that maps out the ice column between wet and dry, and which shows the principle data supporting this displayed next to the graph. The GPR images that seem to constitute the main figures are hard to understand, and the relationship to the boreholes is hard to see (why aren't the borehole data presented?).

Borehole temperature data are presented in Figure 3c and borehole depth data are presented in the text of Section 2.1.

I sense that the paper is written well for specialists in this kind of GPR remote sensing, however as a person without this experience, I am simply lost as to what is being concluded from the presentation of the data and the analysis. I sense that the paper is overly technical, at least for my taste. I otherwise defer to people with greater expertise.

This reviewer states that he/she lacks the scientific background to understand this research. The reviewer provides no criticisms or suggestions that can be addressed, and defers to experts in the field. We have taken no action in response to this review.

Interactive comment on The Cryosphere Discuss., doi:10.5194/tc-2016-208, 2016.

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