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Interactive comment on "A low-cost acoustic permeameter" *by* S. A. Drake et al.

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Response to general comments:

This note is a response to Dr. Kinar's comments dated 27 December 2016. Dr. Kinar requested that we include field-based measurements of snow permeability derived from the acoustic permeameter. We do acknowledge that a new set of field experiments and analysis would add another dimension to the manuscript. In its current form, the manuscript is presented as a proof of concept for generalized permeable media measurements over a permeability range consistent with seasonal snow, but snow measurement is not the focus. If readers of this comment are interested, the device used in Moore & Attenborough (1992) has parallels with our improved design, and presents measurements of snow permeability. We excluded targeted snow measurements from the manuscript to make it more general with the intention of revisiting the targeted snow permeability applications in a separate experiment. We are confident

that Dr Kinar is aware that a complete validation experiment is not a trivial endeavor. Many interdependent parameters must be categorized such as snow layering, snow microphysical characteristics, meteorological conditions etc. with an appropriate sample size, validating technique, among others.

That said, we appreciate and share Dr. Kinar's interest in improving the manuscript and concur with his assertion that a selection of field-based snow measurements would add value to the manuscript. Our conundrum is that on one hand, validated snow permeability measurements over the full parameter space of snow type and condition are beyond the scope of this paper and on the other hand additional measurements would improve the manuscript. We therefore seek guidance from Dr. Kinar as to the appropriate compromise in scope of the proposed additional measurements such that they are feasible (can be done with no financial support/travel budget) and timely (must be done before seasonal snow melts) yet add value to the current effort.

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