

Interactive comment on “An improved algorithm for cloud base detection by ceilometer over the ice sheets” by K. Van Tricht et al.

Anonymous Referee #2

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This is a very interesting work, aiming at a feasibility study of using a simple ceilometer to detect bottom height of lowermost optically-thin humid layers occurring in the polar regions. It is based on a development of an algorithm optimized for this purpose, which is successfully applied to measurements taken by two types of Vaisala ceilometers. A statistical study of the thin polar cloud layers is also performed and it shows significant differences in terms of their occurrence and optical depths at two stations in Arctic and Antarctic. I reckon this paper is worth publishing in the AMT, although it needs a minor revision beforehand. The possible improvements are suggested in the supplement.

Please also note the supplement to this comment:

C4136

<http://www.atmos-meas-tech-discuss.net/6/C4136/2014/amtd-6-C4136-2014-supplement.pdf>

Interactive comment on Atmos. Meas. Tech. Discuss., 6, 9819, 2013.