

Atmos. Meas. Tech. Discuss., referee comment RC2  
<https://doi.org/10.5194/amt-2020-515-RC2>, 2021  
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## **Comment on amt-2020-515**

Anonymous Referee #2

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Referee comment on "Drone measurements of surface-based winter temperature inversions in the High Arctic at Eureka" by Alexey B. Tikhomirov et al., Atmos. Meas. Tech. Discuss., <https://doi.org/10.5194/amt-2020-515-RC2>, 2021

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Reviews of the manuscript

"Drone measurements of surface-based winter temperature inversions in the high Arctic at Eureka"

by Tikhomirov et al.

The authors present measurements of temperature profiles obtained with quadrocopters in the high Arctic in winter under challenging environmental conditions. The description of the methodology is sound and of interest to a broad range of scientists. In particular the technical challenges that were encountered can be very valuable for other drone operators.

There are a few minor comments. My only major point is the suggestion to correct the measured profiles for time lag and take this into account for the analysis of lapse rate, which might be strongly influenced by the correction.

The article is clearly structured and well written.

Detailed comments are attached.

Please also note the supplement to this comment:

<https://amt.copernicus.org/preprints/amt-2020-515/amt-2020-515-RC2-supplement.pdf>