Reviewer 2 comments and response

We thank the reviewer for the additional comments and suggestions. Please find our responses below.

Referee Comment 1: What's the power needed (e.g. watts) at -20 C vs. 20C? This is what I meant to convey in my original comment.

Response: The rate of energy loss due to convection from a hotplate with an area of 0.0056 m^2 under 5 m s^{-1} winds is ~13 W at an ambient temperature of 20^o C and ~20 W at an ambient temperature of -20^o C.

Changes in manuscript: The rate of energy loss due to convection from a hotplate with an area of 0.0056 m^2 under 5 m s^{-1} winds is ~ 13 W at an ambient temperature of 20^o C and ~ 20 W at an ambient temperature of -20^o C.

Referee Comment 2: While you talk about wind in the sense of blowing snow (lofted from the ground), what about the potential for size/mass sorting in falling snow juxtaposed with stronger winds? You may not know, but should at least acknowledge this could exist, and is subject of future work (specify performance in wind in final paragraph).

Response: The DEID can potentially differentiate between snow that has been lofted from the ground and free-falling snow. On a particle-by-particle basis we observe variations in the density of each snowflake while the ensemble average remains relatively constant. Intuitively, the size and mass of the snow that is available for transport will be a function of the wind speed and the associated force available for lofting and redistribution of snowflakes with differing masses and sizes. While we currently do not differentiate between freshly deposited snow and snow from wind loading, we suspect that depending on wind speed, lofted snow may have more or less variation in size and mass than what we see in free-falling snow. Distinguishing the signatures of blowing snow and free-falling snow is a topic of future work.

Changes in manuscript: Distinguishing the signatures of blowing snow and free-falling snow is a topic of future work.