

**We thank Matthew Shupe for his helpful comments. These comments helped to substantially improve the manuscript. Below we list the changes made based on the editor's comments.**

The following major remarks were adjusted:

Line 242 and throughout the document: added  $R^2$  value for presented correlations.

Line 278 and throughout the document: rephrased "correlation" to "relation(ship)" wherever not actual correlation statistics was shown.

Line 304: As proposed, a remark was added that the relationship of riming fraction and updrafts can be explained by larger particle size due to the increased in-cloud-time and supersaturations in updrafts: "Further, both ice particles as well as droplets can grow larger in updrafts due to the increased time they spend in the cloud as well as the typically higher supersaturation values affiliated with updrafts."

The following typos and editorial remarks were corrected:

Line 44-46: particles -> particle

Line 54: clarified that the velocity is increased "relative to equivalent unrimed particles"

Line 81: automate -> automated

Line 83: often times -> often

Line 133 and throughout the document: 2D-S and 2D-C -> 2DS and 2DC

Line 152: For each PHIPS particle -> for each particle observed by PHIPS

Line 185: data-set -> data-sets

Line 190: distribution -> distributions

Line 199: added sign convention for Doppler velocity

Line 237: statistic -> statistical analysis

Line 266 and throughout the document: Changed "reference A, B" to "reference A and B"

Line 302: added comma

Line 351 and 489: which -> that

Line 421: in an altitude -> at an altitude

Line 422: near the US coast -> off the US coast

Line 441: added number of needles in parentheses

Line 446: we see presence -> we see the presence

Line 499: it is unclear if epitaxial riming affects rime splintering process -> it is unclear if epitaxial riming affects THE rime splintering process