

Interactive comment on “Study of second-order wind statistics in the mesosphere and lower thermosphere region from multistatic specular meteor radar observations during the SIMONE 2018 campaign” by Harikrishnan Charuvil Asokan et al.

Harikrishnan Charuvil Asokan

hari@iap-kborn.de

Received and published: 23 November 2020

Since the reviewer (#1) did not further comment on the first and second issues that we addressed in our first reply (SC1), we assume that we have satisfactorily addressed those concerns.

Regarding the vertical velocity estimates, we would like to re-emphasize that vertical velocity estimates we are showing are not of a significant geophysical result in our

Printer-friendly version

Discussion paper



study. As we mentioned in SC1, we are merely reporting on the vertical velocity estimates that we obtained in our analysis. Our intention for this reporting is to open a discussion in this matter between our scientific community to focus on the vertical velocity estimates in future studies with meteor radar systems. We were also careful in describing the vertical velocity estimates in our manuscript, and a reader can see that we have vouched for an in-depth investigation in the future. We are also working on a separate manuscript to address this issue specifically. At this point we are evaluating either (a) removed the vertical velocity estimates and associated discussion, or (b) rename those estimates as “apparent vertical velocity estimates” (or similar), so we document what the intriguing results we are encountering. We prefer the former, since in this way we share our experience and concerns, and avoid risking geophysical interpretation of estimates that need further study. We will decide how to proceed once we get the other reviews.

We are also interested in the histogram of vertical velocity provided by the reviewer. It is not clear what do these values represent? is a histogram of hourly-values? Or daily values? The histogram that we provided in SC1 is from the data that we uploaded along with the manuscript. In order for us to consider these results, it would be nice to know some reference to these data and how it was analyzed. It appears to us that the reviewer claims that estimating vertical velocities with meteor radars is a well-known and accepted procedure.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2020-974>, 2020.

[Printer-friendly version](#)[Discussion paper](#)