

## ***Interactive comment on “Calibration of a 35-GHz Airborne Cloud Radar: Lessons Learned and Intercomparisons with 94-GHz Cloud Radars” by Florian Ewald et al.***

### **Anonymous Referee #2**

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Review of "Calibration of a 35-GHz Airborne Cloud Radar: Lessons Learned and Intercomparisons with 94-GHz Cloud Radars" by Ewald et al.

This paper describes efforts to improve the calibration of a 35-GHz cloud radar, with subsequent comparisons to reference measurements to verify the calibration. The paper is very well written, and all improvements and validation experiments are described with great detail. The quality of English is good, although occasional grammatic corrections are needed.

As it is written now, the paper falls a little short on the "lessons learned" part. These can be gleaned with careful reading from the main text, but regardless, the main im-

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provement I suggest for this paper is to better summarize the most important results. These should be given by expanding the Conclusions section and the abstract, both of which are currently rather minimal. This would make the paper more accessible for a reader who wants an overview of the results rather than the full technical details. These should better answer at least the following questions:

1. What were the major improvements to the calibration (e.g. the improved estimates of waveguide and radome losses)?
2. What techniques were used that are new developments, and can thus improve the state of the art and be useful for other researchers?
3. What are the main "lessons learned", i.e. what should other researchers/groups trying a similar calibration learn from this study?

I also have a few minor comments, which I have given in the attached annotated PDF.

Please also note the supplement to this comment:

<https://www.atmos-meas-tech-discuss.net/amt-2018-269/amt-2018-269-RC1-supplement.pdf>

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