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Atmospheric Measurement Techniques Discussions

Interactive comment on "Fine-scale turbulence soundings in the stratosphere with the new balloon-borne instrument LITOS" *by* A. Theuerkauf et al.

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Reply to referee M. Friedrich

We would like to thank the referee for the encouraging comments.

Since this is to be a contribution to a journal on measurement techniques I miss a few sentences whether this instrument was designed and built from scratch by, or for the authors, or whether it is a commercial instrument modified and calibrated for the

environment during a balloon launch.
According to the referee comment, we included the following sentence: "We developed a new balloon paylaod LITOS (Leibniz-Institute Turbulence Observations in the Stratosphere) which consists of a commercial CTA system plus a specially designed A/D converter, telemetry, tracking hardware and housekeeping electronics."

Did the early measurements by Barat et al., which did not have the present resolution, also make use of a hot wire anemometer or some other device?
Instead of a hot wire anemometer Barat et al. performed their measurements with an ionic anemometer. Their measurement principle is based on the corona discharge of a straight wire, or more precisely on the current difference between collectors around a ionizing wire. We have mentioned their method in the revised manuscript.

Comments concerning language have been taken into account and all typos have been corrected.

AMTD

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