Interactive comment on “Meteorological profiling of the lower troposphere using the research UAV “M<sup>2</sup>AV Carolo”” by S. Martin et al.

Anonymous Referee #2

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This paper describes the potential of an instrumented unmanned aircraft for tropospheric profiling by comparing its boundary layer measurements with observations done at observatory of Lindenberg. The paper is well written and makes a good case (albeit based on one single event) that the aircraft can indeed make a good contribution to boundary layer research. I recommend publication. A few remarks: An overview of the pro’s and con’s of existing ground-based techniques is given. It would be fair to do the same for the UAV.

The description of systems in section 3.2 seems too detailed for this paper.

Differences between the observations from the ground and the UAV are sometimes ‘explained’ by referring to the difference in integration time. In case raw data is avail-
able, I would like to see a comparison of measurements with comparable integration time.