

Earth Syst. Sci. Data Discuss., author comment AC1
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Reply on RC1

Bjorn Stevens et al.

Author comment on "EUREC⁴A" by Bjorn Stevens et al., Earth Syst. Sci. Data Discuss.,
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We thank the reviewer for their encouraging comments, and suggestions for improvement. We have addressed all the rcomments as suggested. On the more substantial points:

- We have analyzed the diurnal cycle over the BCO at the surface and at 400 me and compared these to near surface measurements from the Meteor. A diurnal cycle is evident in both locations, and is similar but substantially more pronounced (1.27 K vs 0.53 K) at the BCO. This is now discussed in the manuscript.
- We analyzed the 3hr changes in Ragged Point CCN measurements. These are usually less than 10%, and 80% of the time less than 30%. Given the much larger changes over periods of day and that an analysis period roughly corresponds to the 3hr period of the ATR, Twin-Otter and HALO circling, this is encouraging for the utility of the data for exploring aerosol-cloud interactions

The other minor comments were addressed by discussing the adequacy of the measurements for measuring the diel cycle and addressing the data availability question -- most data is already available. Technical comments were addressed as suggested.