Comment on essd-2021-175
Anonymous Referee #2

Referee comment on "Measurements from the University of Colorado RAAVEN Uncrewed Aircraft System during ATOMIC" by Gijs de Boer et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-175-RC2, 2021

The report and corresponding dataset provide a unique and interesting set of observations in support of the ATOMIC campaign. The authors do a good job of describing their systems and quality control process, and provide intercomparison results which provide confidence in the quality of the data available. The report itself is well written and mostly complete. However, I do have some small comments that should be addressed before publication:

- epsilon is usually provided as the greek symbol and not spelled out. If the authors do not wish to use greek symbols, for the limited use of 'epsilon', it would seem to me that using the phrase "turbulent kinetic energy dissipation rate" would be sufficiently descriptive.

- in equation (3) \( p_0 \) is not defined. Presumably it is the dynamic pressure measured by the central hole of the MHP?

- When referring to the optimization of the wind estimates from the MHP, the authors state the 'small adjustments are made to the individual parameters'. Which parameters are adjusted, and is there a rationale behind the adjustment? Or is this a multivariate optimization process?

- The authors provide nice detail about the sensors and which data is provided from the sensors. However, it would be convenient for those accessing the data if there were a summary table listing the variables provided in the dataset, the units provided, and possibly the sensor(s) used to produce that variable.