

Atmos. Meas. Tech. Discuss., referee comment RC3 https://doi.org/10.5194/amt-2021-363-RC3, 2022 © Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.

## Comment on amt-2021-363

Anonymous Referee #2

Referee comment on "Evaluating convective planetary boundary layer height estimations resolved by both active and passive remote sensing instruments during the CHEESEHEAD19 field campaign" by James B. Duncan Jr. et al., Atmos. Meas. Tech. Discuss., https://doi.org/10.5194/amt-2021-363-RC3, 2022

The manuscript "Evaluating daytime planetary boundary-layer height estimations resolved by both active and passive remote sensing instruments during the CHEESEHEAD19 field campaign" by James B. Duncan Jr. et al. efficiently analyzes the daytime evolution of the planetary boundary-layer, by using multiple active and passive remote sensing instruments, as well as radiosonde observations. It is well organized, meets scientific quality and provides valuable information within the scope of the Atmospheric Measurement Techniques community. Moreover, the figures gather important information that is featured clearly.

Specific comments:

Since parcel method is better suited in convective boundary layer conditions, please comment the fact that it is employed to derive PBLH at 6 local time, when convection is not accomplished.

Figure 4: Please add a label for "Prentice" and "28 September 2019", like in figures 3,5,7,8. It is really helpful to see this information pointed out, considering the amount of data and case-studies.

Figure 2: A more detailed caption, including the error bar and outlier information would be supportive for the reader.