

Atmos. Chem. Phys. Discuss., author comment AC2 https://doi.org/10.5194/acp-2021-93-AC2, 2021 © Author(s) 2021. This work is distributed under the Creative Commons Attribution 4.0 License.

## Reply on RC2

Piotr Sekuła et al.

Author comment on "Measurement report: Effect of wind shear on  $PM_{10}$  concentration vertical structure in the urban boundary layer in a complex terrain" by Piotr Sekuła et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2021-93-AC2, 2021

The authors would like to thank very much Reviewer 2 for all the suggestions. Vertical profile categorization has been modified, and also the statistical analysis of a potential influence of atmospheric phenomena (wind shear and convection layer height) on vertical profile of PM10 concentration has been added. Figures 5-7 have been modified to maket them easier for readers to understand. The text has been modified, with particular attention to sentences wind direction change and wind shear. Figure 7 has been modified to better represent meteorological conditions on selected day, and a paragraph describing the characteristics of all days when profile type 3 was observed was added. Figure 1 has been divided into two figures in order to facilitate the analysis of the region studied and the location of measurement points. The Figure presenting the frequency of flights and the maximum flight altitude has been added to the Appendix. Information concerning unfavorable meteorological conditions has been added to the paragraph. References have been modified according to the Reviewer's suggestions.