

Response to Associate Editor Comments

July 18, 2025

We thank the associate editor for the constructive and detailed feedback. Below, we address each point in turn:

1. **Terminology.** *It is more appropriate to use “vertical velocity” or “vertical velocity component” rather than “vertical wind speed.”*

We revised the terminology throughout the manuscript accordingly.

2. **PSD in Fig. 23.** *The PSD appears excessively noisy. Consider using Welch’s method with overlapping segments.*

We re-computed the PSD using Welch’s method with three segments and 50% overlap. The result is now significantly less noisy and the $-5/3$ slope region is more visible.

3. **Figure 23 – Units.** *The vertical axis is missing the unit “Hz”. Use “ m^2/s^2 per Hz” or “ $\text{m}^2 \text{s}^{-2} \text{Hz}^{-1}$.”*

We corrected the label to “ $\text{m}^2 \text{s}^{-2} \text{Hz}^{-1}$ ”.

4. **Figure font size and readability.** *Check that all fonts are legible in two-column format.*

We revised all figures to ensure consistent and legible font sizes in the final two-column layout.

5. **Figures 8 and 24 – Panel references.** *Move sub-panel references (e.g., (a), (b)) into the figure captions.*

We updated the captions to include the sub-panel references.

6. **Figure captions – Completeness.** *Some captions are too brief (e.g., Fig. 7). Consider including date and time.*

We expanded several captions to improve clarity and added relevant contextual information to Fig. 7.

7. **Figure 13 – Axis label.** *Consider adding “ C_d ” or “Drag coefficient” to the y-axis label.*

We added “ C_d ” to the y-axis label of the middle panel in Fig. 13.

8. **Units – Formatting.** *Ensure correct spacing in “ m s^{-1} ” to avoid confusion with milliseconds.*

We corrected all unit formatting to include the space: “ m s^{-1} ”.

9. **Table C1 – Unit column.** *Add a column for units, consistent with Tables B2–B5.*

We added a “Unit” column to Table C1 for consistency.

10. **References – Fagiano et al.** *Consider citing only the 2014 paper.*

We removed the 2013 conference paper and retained only the 2014 journal publication.

11. **Figure 3.** *Optional: Indicate the GPS+IMU units, Pitot tube, and wind vanes with arrows.*

We added visual indicators (circles) in the image, and clarified them in the caption.

We trust these changes address all points satisfactorily and further improve the manuscript’s clarity and consistency. We appreciate the associate editor’s valuable feedback.