

Interactive comment on “An Approach to Minimize Aircraft Motion Bias in Multi-Hole Probe Wind Measurements made by Small Unmanned Aerial Systems” by Loiy Al-Ghussain and Sean C. C. Bailey

Loiy Al-Ghussain and Sean C. C. Bailey

sean.bailey@uky.edu

Received and published: 1 July 2020

Thank you for your comment. Although spectral analysis is one of the metrics we used to validate the approach during development, it is not an intrinsic part of the correction. We initially did not include spectral analysis due to the need to identify and clarify the influence of large-scale flow contributions in the spectrum, spectral roll-off from turbulence, and tubing response contributions.

However, in retrospect, we realize we probably should have included at least some

Printer-friendly version

Discussion paper



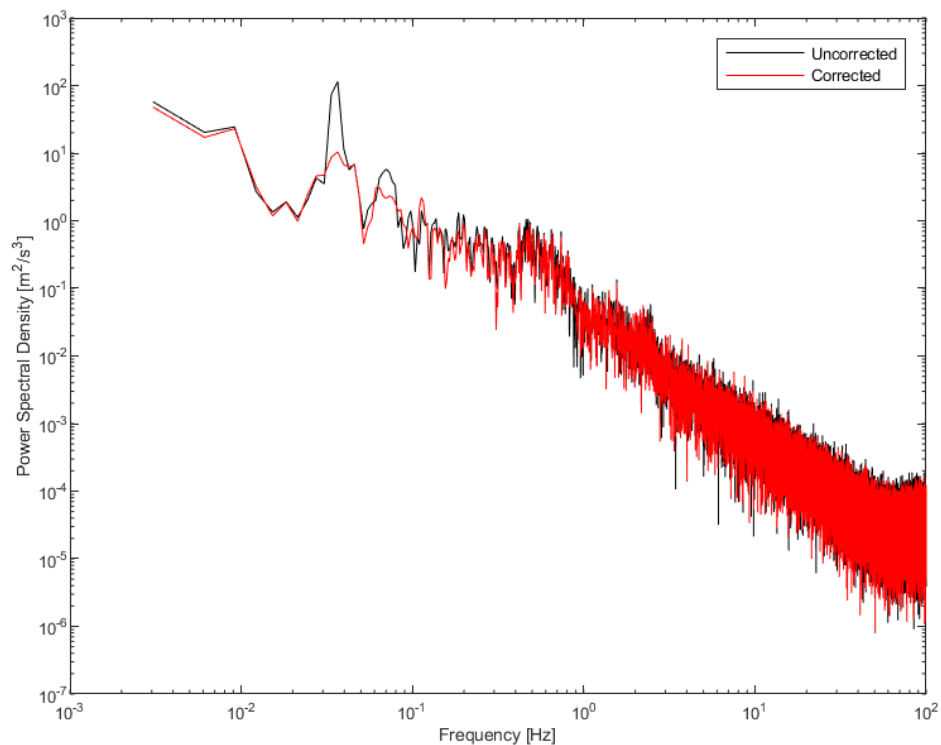
example spectral analysis. We have attached a figure to this comment that we will introduce into the paper if we are invited to submit a revision. The figure shows the power spectral density calculated from the same flight data shown in Figure 1 and 2. It shows that a spectral peak at ($1/25=0.04$ Hz: corresponding to the orbital period of the aircraft) is significantly reduced by the correction.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2020-126, 2020.

Printer-friendly version

Discussion paper



**Fig. 1.**