June 26th, 2017  
  
Prof. Ross Chapman  
Editor, IEEE *J. Oceanic Engineering*  
  
Dear Prof. Chapman:  
  
We are pleased to submit a new manuscript entitled “Performance of a passive acoustic linear array in a tidal channel” by Matthew Auvinen and David Barclay for consideration by the *Journal of Oceanic Engineering*.  
  
The research includes an analysis of passive acoustic data from the Minas Passage in the Bay of Fundy, Canada, in October 2016. We exploit the spectral components and uncorrelated nature of flow noise to identify ambient and flow noise frequency bands within a signal and establish a relationship between low-frequency spectral slopes and current speed. We also effectively suppress flow noise by coherently averaging data across a four-element linear hydrophone array.  
  
We provide a practical method for flow noise suppression that will improve passive acoustic monitoring in tidal channels and other high-flow settings. This is an important issue in the tidal turbine industry and could benefit industry environmental impact assessments. The performance of the linear array suggests that further flow noise suppression could be accomplished by adding more hydrophones to the array or by using a longer instrument.   
  
Sincerely,   
  
Matthew Auvinen  
Department of Oceanography  
Dalhousie University