

**The elimination of spurious trends in marine wind data by calibration  
with individual pressure differences**

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Marine wind observations, such as collected in COADS, show considerable trends during the last century. That these trends reflect actually a real climate signal cannot be taken for granted since the observing practices on board merchant ships changed during the times which may well have introduced spurious trends into the data.

In the presented work pressure differences are used as an independent measure to identify and remove such superposed artificial wind trends. The crucial parameter in this context is the mean scalar wind speed rather than the vector mean wind speed, so that individual pressure differences have to be considered instead of gradients in the mean pressure field. The wind correction procedure is applied to COADS wind observation in the North Atlantic and a homogenised time series of the wind speed is presented.