



## **A new improved history and insights into North Atlantic/European atmospheric surface pressure variability, storminess and related climatic change since 1850: PRELIMINARY results.**

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Preliminary results of a new pan-European and international ISOMETABAR (Insights into Storminess from Observations and Models of European and Trans-Atlantic BARometric pressure variability) project will be presented.

Long-running high quality Danish, Faroe, Greenland, Iceland and UK meteorological stations, some from as far back as the 1830s are essential in the project. The procurement of especially the Danish series of pressure data will be presented as the first step

In the second step, we analyse results of a new daily pressure variability index,  $dp(abs)$ , derived from the long-running series. We show that  $dp(abs)$  is significantly related to changes in wind-speed and is therefore a good measure of Atlantic and Northwest European storminess and climatic variations.

Our results so far show periods of relatively high  $dp(abs)$  and enhanced storminess around 1900 and 1990, and a relatively quiescent period around 1960, in keeping with

earlier studies.

Our present results mark the first step of a project intending to improve on earlier work by linking in barometric pressure data from a wide network of stations, some newly digitised, with new gridded pressure, reanalysis datasets and the north atlantic oscillation index, to yield a much better spatial and temporal coverage of changes in European and Atlantic storminess.