The University Of Sheffield.

News Release

22 December 2008
Immediate release

Study shows Northwest European windstorm patterns unaffected by global warming

An international team of researchers, led by Dr Edward Hanna from the University of Sheffield's Department of Geography, has discovered that the intensity of windstorms around the British Isles has not increased due to global warming.

The research findings, published in the December 15, 2008 American Meteorological Society's *Journal of Climate,* contradict some climate model predictions by showing little sign of overall increased storminess since the mid-to-late nineteenth century.

The study, which is based on an analysis of newly-available barometer records, analysed the daily change in atmospheric pressure to give an estimate of wind and storminess changes across North West Europe since 1830. The research revealed distinct natural variations in storminess since 1830, with spells of enhanced storminess around 1900 and the early-mid 1990s and a relatively quiet period from about 1930 to the early 1960s. So, large natural variability could be masking out any global warming-related trend in storminess.

Dr Hanna's research team included scientists from several international meteorological institutes including the UK Met Office Hadley Centre, the Danish Meteorological Institute, the Icelandic Meteorological Office, Jersey Meteorological Department and the National University of Ireland Galway. The team statistically analysed output based on a daily pressure variability index applied to carefully checked barometer data from long-running meteorological stations in Denmark, the Faroe Islands, Greenland, Iceland, Britain and Ireland.

Dr Hanna said: "Our analysis of storm patterns has built on previous studies of historical storminess. These studies are typically more restricted in space and time and too often uncoordinated, which has made it difficult to draw reliable conclusions. This new analysis will aid further work to more reliably predict the future consequences of global warming."

"Storminess is an important aspect of the climate and global warming. In addition to the immediate sociological impact, it also has an economical impact on everyday lives, being one of the most costly categories of insurance claims. The European windstorms record for the past 200 years is clearly highly complex, and despite much natural variation, there is no clear observational fingerprint of storm activity that can be attributed to global warming."

Notes for editors:

The findings of this study are being published in the 15 December 2008 issue of the American Meteorological Society's *Journal of Climate*. See www.ametsoc.org for more information.

For further information please contact: Lauren Anderson, Media Relations Assistant, on 0114 2221046 or email l.h.anderson@sheffield.ac.uk

NR*/ends**