

'Aha Huliko'a Workshop „Extreme events“, 23-26 January 2007, Honolulu
30 min's lecture

The story of storminess in NW Europe.

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Storms, and their getting-worse, play a prominent role in the public perception and debate of ongoing and future climate change. In NW Europe, a tendency towards more frequent and heavier storms culminated in the early 1990s, which went along with wide-spread public concern about man-made climate change.

In this talk, the methodical problems of determining changes in strong windiness is discussed; proxies for the last two centuries of storminess in N Europe are presented; the sometimes voiced hypothesis that increased temperatures, via elevated levels water vapour in the atmosphere, would favour the formation of storms, is falsified in the framework of a millennial GCM simulation; finally scenarios for changes in storminess in NW Europe presented and compared to ongoing changes.

It turns out that storminess has changed very little even though at the same time temperatures have risen significantly, and probably related to human emissions, in the past century; that a relatively small intensification of about 10% of strong wind cases may be expected over parts of the North Sea at the end of the century so that indeed no detectable signal should be present at this time.

While the case for storminess in this part of the world has been clarified to a reasonable extent, the situation with hurricanes is under debate, with a situation quite similar to the debate in Europe some 10 years ago, with public suggestions or even claims, based on shaky methodological basis, of anthropogenic signals.