



Inconsistencies between long-term trends in storminess derived from the 20CR reanalysis and observations

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Using a dynamical reconstruction of the weather (the 20th Century Reanalysis dataset 20CR) of the past 120 years, which assimilates various observational data into a state of the art climate model, trends indicating persistent upward trends of storminess have been derived.

In this article, we compare long time series of storminess derived from observations and the 20CR-ensemble with each other. We make use of extreme percentiles of geostrophic wind speeds to describe past storm activity.

Our results point to a marked inconsistency between long-term trends of storminess in the reanalysis dataset and observations.

We conclude that the 20CR data suffer from massive inhomogeneities, which likely make them unsuitable for deriving century-long trends, at least in terms of storminess.