

Impact Of Global Warming On Weather Patterns Underestimated

September 22 2005

The impact of global warming on European weather patterns has been underestimated, according to a new report published in *Nature* this week.

Dr Gillett, of the University of East Anglia's Climatic Research Unit, compared Northern Hemisphere air pressure changes at sea level over the past 50 years with predicted changes from nine state-of-the-art climate models.

The Northern Hemisphere Circulation study found that present climate change models – computer representations of the atmosphere, ocean and land surface - have underestimated the changes in air pressure, leading to an underestimate of the impact of global warming on weather patterns.

While observations reveal that air pressure has dropped 4 millibars over Iceland in the past 50 years and risen by up to 3 millibars in the sub tropics, climate model trends were less than 1 millibar.

Previous research has shown that over the past thirty years air pressure trends have contributed about 1°C to warming over the UK in winter and up to 3°C in Siberia, as well as 60% of the rainfall increase seen in Scotland.

Over Southern England, the air pressure trends have likely made the winters milder and windier. Dr Gillett's findings indicate that these changes are not well-captured by climate models.

Dr Gillett, said: "Climate models are very good at simulating temperature changes, but this study shows that their simulations of pressure trends in the northern Hemisphere are not realistic. If we could understand and correct this bias, predictions of future regional climate change would be improved."

Copyright 2005 by Space Daily, Distributed United Press International

Citation: Impact Of Global Warming On Weather Patterns Underestimated (2005, September 22) retrieved 27 April 2024 from <https://phys.org/news/2005-09-impact-global-weather-patterns-underestimated.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.