

Seasonal Aspects of the Hiatus in Global Warming

Frontiers in Global Change
Seminar Series

Presented by...

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Abstract:

Factors involved in the recent pause in the rise of global mean temperatures are examined seasonally. For 1999 to 2012, the hiatus in global warming is mainly evident in the central and eastern Pacific. It is manifested as strong anomalous easterly trade-winds, distinctive sea level pressure patterns, and large rainfall anomalies in the Pacific, which resemble the Pacific Decadal Oscillation. These features are accompanied by upper tropospheric teleconnection wave patterns that extend throughout the Pacific, to polar regions, and into the Atlantic. The extratropical features are particularly strong during winter. By using an idealized heating to force a comprehensive atmospheric model, the large negative anomalous latent heating associated with the observed deficit in central tropical Pacific rainfall is shown to be mainly responsible for the global quasi-stationary waves in the upper troposphere. The wave patterns in turn created persistent regional climate anomalies, increasing the odds of cold winters in Europe. Climate models need to be able to simulate the tropical Pacific rainfall patterns with considerable integrity to get these right

More on Dr. Trenberth:

<http://www.cgd.ucar.edu/staff/trenbert/>

**Please join us for a meet and greet opportunity
with Dr. Trenberth after the seminar.
~Refreshments will be served~**

**Date: Tuesday,
April 22nd**

**Location: EMSL
Auditorium**

Time: 12:00 Noon