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## **Global Temperature Report: April 2012**

Global climate trend since Nov. 16, 1978: +0.13 C per decade

April temperatures (preliminary)

Global composite temp.: +0.30 C (about 0.54 degrees Fahrenheit) above 30-year average for April.

Northern Hemisphere: +0.41 C (about 0.74 degrees Fahrenheit) above 30-year average for April.

Southern Hemisphere: +0.18 C (about 0.32 degrees Fahrenheit) above 30-year average for April.

Tropics: -0.12 C (about 0.22 degrees Fahrenheit) below 30-year average for April.

March temperatures (revised):

Global Composite: +0.11 C above 30-year average

Northern Hemisphere: +0.13 C below 30-year average

Southern Hemisphere: +0.09 C below 30-year average

Tropics: -0.11 C below 30-year average

(All temperature anomalies are based on a 30-year average (1981-2010) for the month reported.)

Notes on data released May 10, 2012:

Spring brought somewhat more seasonal temperatures to the continental U.S., although it was still warmer than seasonal norms in April, according to Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center at The University of Alabama in Huntsville. Temperatures over the contiguous 48 states averaged 1.49 C (about 2.7 degrees Fahrenheit) warmer than seasonal norms in April, making it the fifth warmest April in the 33-year satellite climate record. That was cooler than the record-setting 2.82 C (almost 5.1 degrees Fahrenheit) anomaly in March.

April 2012 was the fourth warmest April in the temperature record both globally and in the Northern Hemisphere. It was the warmest April in 33 years for the Northern Extra Tropics — everything from 20 degrees North all the way to the North Pole. Average temperatures there for the month were 0.73 C (1.3 degrees F) warmer than seasonal norms.

The warmest and coolest spots on the globe show up as adjacent spots on the global map: Air over the Norwegian Sea was as much as 3.1 C (5.6 F) cooler than seasonal norms, while a large region of warmer than normal air over Europe peaked over Kazakhstan with temperatures as much

as 5.92 C (10.66 F) warmer than seasonal norms.

Archived color maps of local temperature anomalies are available on-line at:

<http://nsstc.uah.edu/climate/>

The processed temperature data is available on-line at:

[vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt](http://vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt)

As part of an ongoing joint project between UAHuntsville, NOAA and NASA, John Christy, a professor of atmospheric science and director of the Earth System Science Center (ESSC) at The University of Alabama in Huntsville, and Dr. Roy Spencer, an ESSC principal scientist, use data gathered by advanced microwave sounding units on NOAA and NASA satellites to get accurate temperature readings for almost all regions of the Earth. This includes remote desert, ocean and rain forest areas where reliable climate data are not otherwise available.

The satellite-based instruments measure the temperature of the atmosphere from the surface up to an altitude of about eight kilometers above sea level. Once the monthly temperature data is collected and processed, it is placed in a "public" computer file for immediate access by atmospheric scientists in the U.S. and abroad.

Neither Christy nor Spencer receives any research support or funding from oil, coal or industrial companies or organizations, or from any private or special interest groups. All of their climate research funding comes from federal and state grants or contracts.