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Global Temperature Report: February 2012

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

February temperatures (preliminary)

Global composite temp.: -0.12 C (about 0.22 degrees Fahrenheit) below 30-year average for February.

Northern Hemisphere: -0.01 C (about 0.02 degrees Fahrenheit) below 30-year average for February.

Southern Hemisphere: -0.22 C (about 0.40 degrees Fahrenheit) below 30-year average for February.

Tropics: -0.14 C (about 0.25 degrees Fahrenheit) below 30-year average for February.

January temperatures (revised):

Global Composite: -0.09 C below 30-year average

Northern Hemisphere: -0.06 C below 30-year average

Southern Hemisphere: -0.12 C below 30-year average

Tropics: -0.14 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 March 5, 2012:

Large bands of cooler than normal air girdled the globe from South America across the Pacific and from South America northeast across North Africa, Europe and central Asia in February, with the "coldest" temperatures in western Asia, 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. Compared to seasonal norms, the coolest spot on the globe in February was in Tajikistan, where the average temperature was as much as 4.7 C (about 8.5 degrees Fahrenheit) cooler than normal.

By comparison, the "warmest" spot was almost directly north of Tajikistan on the shore of the Arctic Ocean in central Russia around the Gulf of Ob. Warm is a relative term in northern Russia in February, but compared to seasonal norms the temperature there averaged 6.1 C (more than 11 degrees F) warmer than normal.

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

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.