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Global Temperature Report: September 2013

Global climate trend since Nov. 16, 1978:
+0.14 C per decade

September temperatures (preliminary)

Global composite temp.: +0.37 C (about 0.67 degrees Fahrenheit) above 30-year average for September.

Northern Hemisphere: +0.34 C (about 0.61 degrees Fahrenheit) above 30-year average for September.

Southern Hemisphere: +0.39 C (about 0.70 degrees Fahrenheit) above 30-year average for September.

Tropics: +0.19 C (about 0.34 degrees Fahrenheit) above 30-year average for September.

August temperatures (revised):

Global Composite: +0.16 C above 30-year average

Northern Hemisphere: +0.11 C above 30-year average

Southern Hemisphere: +0.21 C above 30-year average

Tropics: +0.01 C above 30-year average

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

reported.)

Notes on data released Oct. 3, 2013:

Compared to seasonal norms, in September the coolest area on the globe was south of South Africa in the southern ocean, where temperatures in the troposphere were about 2.49 C (about 4.48 degrees F) cooler than normal, said Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center (ESSC) at The University of Alabama in Huntsville. The warmest area was in the Wilkes Land area of the east Antarctic, where tropospheric temperatures were 5.20 C (about 9.4 degrees F) warmer than seasonal norms.

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

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

As part of an ongoing joint project between UAH, NOAA and NASA, Christy 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.