

Sept. 10, 2013

Vol. 23, No. 5

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Global Temperature Report: August 2013

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

August temperatures (preliminary)

Global composite temp.: +0.16 C (about 0.29 degrees Fahrenheit) above 30-year average for August.

Northern Hemisphere: +0.11 C (about 0.20 degrees Fahrenheit) above 30-year average for August.

Southern Hemisphere: +0.21 C (about 0.39 degrees Fahrenheit) above 30-year average for August.

Tropics: +0.01 C (about 0.02 degrees Fahrenheit) above 30-year average for August.

July temperatures (revised):

Global Composite: +0.17 C above 30-year average

Northern Hemisphere: +0.13 C above 30-year average

Southern Hemisphere: +0.21 C above 30-year average

Tropics: +0.07 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 Sept. 10, 2013:

Compared to seasonal norms, in August the coolest area on the globe was southern Greenland, where temperatures in the troposphere were about 1.97 C (about 3.55 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 south of New Zealand in the South Pacific, where tropospheric temperatures were 2.82 C (about 5.1 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 UAHuntsville, 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.