

Sept. 5, 2017

Vol. 27, No. 5

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Global Temperature Report: August 2017

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

August temperatures (preliminary)

Global composite temp.: +0.41 C (about 0.74 degrees Fahrenheit) above 30-year average for August.

Northern Hemisphere: +0.40 C (about 0.72 degrees Fahrenheit) above 30-year average for August.

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

Tropics: +0.46 C (about 0.83 degrees Fahrenheit) above 30-year average for August.

July temperatures (revised):

Global Composite: +0.29 C above 30-year average

Northern Hemisphere: +0.30 C above 30-year average

Southern Hemisphere: +0.27 C above 30-year average

Tropics: +0.51 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. 5, 2017:

In a typical Northern Hemisphere summer pattern, the globe showed no strong warm or cold regions in August, according to Dr. John Christy, director of the Earth System Science Center at The University of Alabama in Huntsville. "There were some cool places, such as Antarctica and the northern continental U.S., but other places were modestly warm.

"In a pattern that began in June, 2016, following the demise of a major El Niño, global average temperatures have been in a small range of variation, from +0.21 to +0.46 C, or from about +0.38 to +0.83 Fahrenheit."

Compared to seasonal norms, the coldest spot on the globe in August was in the Western Antarctic, near the UK's Halley station. Temperatures there were a chilly 2.64 C (about 4.75° F) cooler than normal for the Antarctic winter.

Compared to seasonal norms, the warmest place on Earth in August was southwest of the town of Seymchan in western Russia. Temperatures there averaged 3.70 C (about 6.67 degrees Fahrenheit) warmer than seasonal norms.

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 are collected and processed, they are placed in a "public" computer file for immediate access by atmospheric scientists in the U.S. and abroad.. Temperatures in the tropics are essentially "normal" relative to the 30-year average.

The complete version 6 lower troposphere dataset is available here:

http://www.nsstc.uah.edu/data/msu/v6.0/tlt/uahncdc_lt_6.0.txt

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

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

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.