

Sept. 8, 2015

Vol. 25, No. 5

For Additional Information:

Dr. John Christy, (256) 961-7763

john.christy@nsstc.uah.edu

Dr. Roy Spencer, (256) 961-7960

roy.spencer@nsstc.uah.edu

Global Temperature Report: August 2015

In the tropics, warmest August in the satellite temperature record

Global climate trend since Nov. 16, 1978: +0.11 C per decade

August temperatures (preliminary)

Global composite temp.: +0.28 C (about 0.50 degrees Fahrenheit) above 30-year average for August.

Northern Hemisphere: +0.25 C (about 0.45 degrees Fahrenheit) above 30-year average for August.

Southern Hemisphere: +0.31 C (about 0.56 degrees Fahrenheit) above 30-year average for August.

Tropics: +0.52 C (about 0.94 degrees Fahrenheit) above 30-year average for August.

July temperatures (revised):

Global Composite: +0.18 C above 30-year average

Northern Hemisphere: +0.33 C above 30-year average

Southern Hemisphere: +0.03 C below 30-year average

Tropics: +0.48 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. 8, 2015:

Driven by a growing El Niño Pacific Ocean warming event, temperatures around the globe continued to rise through August, setting a new August record in the tropics for the satellite record, said Dr. John Christy, director of the Earth System Science Center at The University of Alabama in Huntsville. Temperatures in the tropics averaged 0.52 C (about 0.94° F) warmer than seasonal norms in August, surpassing the previous record of +0.46 C set in August 1998.

Globally it was the third warmest August in the satellite record, trailing only August 1998 and 2010. It was also the third warmest August in the Southern Hemisphere, behind August 1998 and August 2002.

Compared to global temperature anomalies from all months, August 2015 tied as the 32nd warmest month since the satellite record began in December 1978. It was tied with

five other months, all since October 2005. In the tropics, August 2015 tied with September 2009 as the 17th warmest month, when compared to seasonal norms for all months.

Compared to seasonal norms, the warmest average temperature anomaly on Earth in August was in eastern Russia, near the town of Aldan. The August temperature there averaged 3.01 C (about 5.42 degrees F) warmer than seasonal norms. Compared to seasonal norms, the coolest average temperature on Earth in August was in East Antarctica Concordia Station, where the average August 2015 temperature was 3.35 C (about 6.03 degrees F) cooler than normal.

The complete version 6 beta lower troposphere dataset is available here:

http://vortex.nsstc.uah.edu/data/msu/v6.0beta/tlt/uahncdc_lt_6.0beta3

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.

-- 30 --