

## **Global Temperature Report: June 2015**

### **In the tropics, 2nd warmest month since 2010**

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

June temperatures (preliminary)

Global composite temp.: +0.33 C (about 0.59 degrees Fahrenheit) above 30-year average for June.

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

Southern Hemisphere: +0.26 C (about 0.47 degrees Fahrenheit) above 30-year average for June.

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

May temperatures (revised):

Global Composite: +0.27 C above 30-year average

Northern Hemisphere: +0.33 C above 30-year average

Southern Hemisphere: +0.21 C below 30-year average

Tropics: +0.27 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 July 7, 2015:**

With the tropical atmosphere responding to the El Niño Pacific Ocean warming event during the past few months, temperatures in the tropics rose to their second warmest anomaly for any month since the El Niño of 2010, said Dr. John Christy, director of the Earth System Science Center at The University of Alabama in Huntsville.

### **The tropics, anomalies since 2010:**

- #1 2014 June +0.48 C
- #2 **2015 June** +0.46 C\*
- #3 2013 Jan. +0.44 C
- #4 2014 July +0.42 C
- #5 2012 Nov. +0.27 C
- #6 2015 May +0.27 C
- #7 2013 Feb. +0.25 C
- #8 2014 Dec. +0.24 C
- #9 2012 Dec. +0.22 C
- #10 2013 Mar. +0.22 C

### **Warmest Junes in the tropics** (Since June 1979)

- #1 1998 +0.63 C
- #2 2014 +0.48 C
- #3 2010 +0.47 C
- #4 **2015** +0.46 C\*
- #5 1987 +0.40 C
- #6 1995 +0.36 C
- #7 1991 +0.34 C
- #8 2005 +0.31 C
- #9 2002 +0.22 C

#10 2007 +0.16 C

\*Preliminary data

Compared to seasonal norms, the warmest average temperature anomaly on Earth in June was just north of Green Acres, Oregon. The June temperature there averaged 3.77 C (about 6.79 degrees F) warmer than seasonal norms. Compared to seasonal norms, the coolest average temperature on Earth in June was in West Antarctica along the Antarctic Peninsula near the Larsen Ice Shelf, where the average June 2015 temperature was 3.51 C (about 6.32 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\\_6.0beta2](http://vortex.nsstc.uah.edu/data/msu/v6.0beta/tlt/uahncdc_lt_6.0beta2)

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.