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Global Temperature Report: June 2012

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

June temperatures (preliminary)

Global composite temp.: +0.37 C (about 0.52 degrees Fahrenheit) above 30-year average for June.

Northern Hemisphere: +0.54 C (about 0.79 degrees Fahrenheit) above 30-year average for June.

Southern Hemisphere: +0.20 C (about 0.25 degrees Fahrenheit) above 30-year average for June.

Tropics: +0.14 C (about 0.05 degrees Fahrenheit) above 30-year average for June.

May temperatures (revised):

Global Composite: +0.29 C above 30-year average

Northern Hemisphere: +0.44 C above 30-year average

Southern Hemisphere: +0.14 C above 30-year average

Tropics: +0.03 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 6, 2012:

Compared to global seasonal norms, June 2012 was the third warmest in the 34-year satellite record, according to Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center at The University of Alabama in Huntsville. It was the second warmest June in the Northern Hemisphere, second only to June 1998, during the El Nino Pacific Ocean warming event "of the century." It was the seventh warmest June in the Southern Hemisphere and the 11th warmest in the tropics, where rising temperatures may hint at the approach of another El Nino.

Compared to seasonal norms, the "warmest" place on Earth in June was in central Russia south of the Taz River. Temperatures there averaged as much as 6.25 C (about 11.25 degrees F) warmer than seasonal norms. The coolest spot was near the South Pole, where winter temperatures for the month averaged 4.09 C (about 7.36 degrees F) cooler than June norms.

Warmest Junes:
Global Average

1998 0.51

2010 0.39
2012 0.37
2002 0.32
2011 0.32
1991 0.28
2005 0.22
2007 0.16
2006 0.12
1987 0.10

Warmest Junes:
Northern Hemisphere

1998 0.57
2012 0.54
2010 0.49
2011 0.38
2005 0.29
1991 0.25
2007 0.24
2002 0.23
1995 0.21
2006 0.20

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

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

The processed temperature data is available on-line at:

vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt

As part of an ongoing joint project between UAHuntsville, NOAA and NASA, John Christy, a professor of atmospheric science and director of the Earth System Science Center (ESSC) at The University of Alabama in Huntsville, 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.

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