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### **July 2011 was 3rd warmest July in 33-year temperature record**

#### **Global Temperature Report: July 2011**

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

July temperatures (preliminary)

Global composite temp.: +0.37 C (about 0.67 degrees Fahrenheit) above 30-year average for July.

Northern Hemisphere: +0.34 C (about 0.61 degrees Fahrenheit) above 30-year average for July.

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

Tropics: +0.20 C (about 0.36 degrees Fahrenheit) above 30-year average for July.

June temperatures (revised):

Global Composite: +0.32 C above 30-year average

Northern Hemisphere: +0.38 C above 30-year average

Southern Hemisphere: +0.25 C above 30-year average

Tropics: +0.23 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 August 1, 2011:

July 2011 was the third warmest July in the 33-year satellite-based global temperature record, which is consistent with the long-term warming trend seen in the satellite data, 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.

A few regions with warmer than normal temperatures were scattered across the North Hemisphere, including the eastern two-thirds of North America. July's two "warmest" anomalies were in West Antarctica, more or less due south of ... Marin County, California. Winter Antarctic temperatures were as much as 5.57 C (about 10.03 degrees F) warmer than seasonal norms there.

July Averaged Global Temperature Anomalies  
July 1979-2011, Warmest to Coolest (in degrees Celsius)

1. 1998 +0.441	12. 2001 +0.061	23. 1996 -0.086
2. 2010 +0.419	13. 1983 +0.048	24. 2000 -0.087
*3. 2011 +0.372	14. 1987 +0.044	25. 1993 -0.115
4. 2009 +0.359	15. 1995 +0.025	26. 1979 -0.122
5. 2005 +0.272	16. 1997 +0.015	27. 1989 -0.172
6. 2002 +0.219	17. 1980 -0.002	28. 2004 -0.189
7. 2007 +0.181	18. 2008 -0.009	29. 1986 -0.259
8. 2006 +0.147	19. 1990 -0.028	30. 1982 -0.328
9. 1991 +0.118	20. 1981 -0.031	31. 1984 -0.336
10. 1988 +0.117	21. 1994 -0.032	32. 1992 -0.405
11. 2003 +0.109	22. 1999 -0.075	33. 1985 -0.447

Color maps of local temperature anomalies may soon be 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](http://vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt)

As part of an ongoing joint project between UAHuntsville, NOAA and NASA, Christy and Dr. Roy Spencer, a principal research scientist in the ESSC, 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.