

Jan. 4, 2012

Vol. 21, No. 8

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

2011 was the 9th warmest year in the 33-year satellite record

Global Temperature Report: December 2011

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

December temperatures (preliminary)

Global composite temp.: +0.13 C (about 0.23 degrees Fahrenheit) above 30-year average for December.

Northern Hemisphere: +0.20 C (about 0.36 degrees Fahrenheit) above 30-year average for December.

Southern Hemisphere: +0.06 C (about 0.11 degrees Fahrenheit) above 30-year average for December.

Tropics: +0.04 C (about 0.07 degrees Fahrenheit) above 30-year average for December.

November temperatures (revised):

Global Composite: +0.12 C above 30-year average

Northern Hemisphere: +0.08 C above 30-year average

Southern Hemisphere: +0.17 C above 30-year average

Tropics: +0.02 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 Jan. 4, 2012:

2011 was the ninth warmest year (globally averaged) in the 33-year global satellite record despite La Niña Pacific Ocean cooling events at the start and finish of the year, according to John Christy, a professor of atmospheric science and director of the Earth System Science Center (ESSC) at The University of Alabama in Huntsville. Globally averaged, Earth's atmosphere was 0.15 C (0.27 degree Fahrenheit) warmer than the 30-year average in 2011; That was less than half of the warming anomaly seen in 2010.

*Average annual global
temperature anomalies,
warmest to coolest*

1979 – 2011

1998	0.424	1981	-0.04
2010	0.411	2008	-0.041
2005	0.251	1997	-0.044
2002	0.22	1999	-0.051
2009	0.187	1983	-0.056
2003	0.185	2000	-0.056
2006	0.175	1996	-0.071
2007	0.168	1994	-0.104
2011	0.15	1979	-0.165
2001	0.112	1989	-0.202
2004	0.104	1986	-0.239
1991	0.025	1993	-0.24
1987	0.018	1982	-0.245
1995	0.018	1992	-0.284
1988	0.017	1985	-0.304
1980	-0.003	1984	-0.348
1990	-0.017		

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, 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 --