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Global Temperature Report: January 2011

La Nina Pacific Ocean cooling  
pulls global temps below norms

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

January temperatures (preliminary)

Global composite temp.: -0.01 C (about 0.02 degrees Fahrenheit) below  
30-year average for January.

Northern Hemisphere: -0.06 C (about 0.11 degrees Fahrenheit) below 30-year  
average for January.

Southern Hemisphere: +0.04 C (about 0.07 degrees Fahrenheit) above 30-year  
average for January.

Tropics: -0.37 C (about 0.67 degrees Fahrenheit) below 30-year average for  
January.

December temperatures (revised):

Global Composite: +0.18 C above 30-year average

Northern Hemisphere: +0.22 C above 30-year average

Southern Hemisphere: +0.15 C above 30-year average

Tropics: -0.22 C below 30-year average

(All temperature anomalies are based on a 30-year average (1981-2010) for the month reported.)

Notes on data released Feb. 3, 2011:

The La Nina Pacific Ocean cooling event continues to pull down temperatures, with the global average temperature falling below seasonal norms for the first time in 18 months and only the second time in almost two and a half years, according to Dr. John Christy, professor of atmospheric science and director of the Earth System Science Center at The University of Alabama in Huntsville.

Technical Note:

The baseline period used to determine seasonal norms has been changed from the 20-year (1979 to 1998) period at the beginning of the satellite record to a new 30-year (1981 to 2010) reference average. This was done to match the climatological period normally used with climate data by the U.N.'s World Meteorological Organization.

Color maps of local temperature anomalies may soon be available on-line on the new site 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.