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Temperatures fall as La Niña sets up

Global Temperature Report: October 2011

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

October temperatures (preliminary)

Global composite temp.: +0.11 C (about 0.20 degrees Fahrenheit) above 30-year average for October.

Northern Hemisphere: +0.17 C (about 0.31 degrees Fahrenheit) above 30-year average for October.

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

Tropics: -0.06 C (about 0.11 degrees Fahrenheit) below 30-year average for October.

September temperatures (revised):

Global Composite: +0.29 C above 30-year average

Northern Hemisphere: +0.30 C above 30-year average

Southern Hemisphere: +0.27 C above 30-year average

Tropics: +0.18 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 Nov. 4, 2011:

Temperatures in both hemispheres and the tropics dropped through October as a new La Niña Pacific Ocean cooling event strengthened in the ocean west of Ecuador, Peru and Colombia, 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.

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, 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.

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