

Earth System Science Center

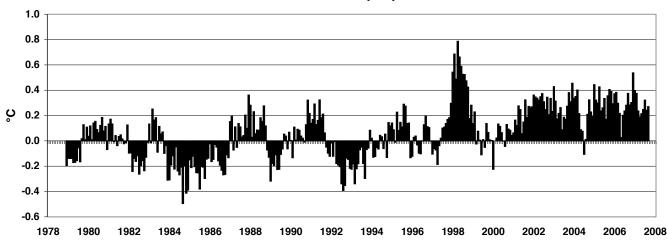
Nov. 7, 2007

Vol. 17, No. 6

For Additional Information:

Dr. John Christy, UAH, (256) 961-7763 john.christy@nsstc.uah.edu Dr. Roy Spencer, UAH, (256) 961-7960 roy.spencer@nsstc.uah.edu

Global Temperature Report: October 2007



Global Lower Troposphere

Fig. 1: Global variation from seasonal norms, in Celsius; Trend since Nov. 16, 1978: +0.14 C per decade

Global composite temp.: +0.27 C (about 0.49° Fahrenheit) above 20-year average for October.

Northern Hemisphere: +0.24 C (about 0.43° Fahrenheit) above 20-year average for October.

Southern Hemisphere: +0.30 C (about 0.54° Fahrenheit) above 20-year average for October.

September temperatures (revised): Global Composite:+0.24 C above 20-year averageNorthern Hemisphere:+0.25 C above 20-year averageSouthern Hemisphere:+0.23 C above 20-year average

(All temperature variations are based on a 20-year average (1979-1998) for the month reported.)

Notes on data released Nov. 7, 2007:

The effects of the "La Niña" Pacific Ocean cooling event are beginning to be show up in the atmosphere over the eastern tropical Pacific, according to Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center (ESSC) at The University of Alabama in Huntsville (UAH).

Color maps of local temperature anomalies may soon be available on-line at:

UAH Earth System Science Center, Huntsville, Ala. 35899 • (256) 961-7752 • http://www.atmos.uah.edu/

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http://climate.uah.edu/

The processed temperature data is available online at:

vortex.nsstc.uah.edu/data/msu/t2lt/tltglhmam_5.2

As part of an ongoing joint project between UAH and NOAA, Christy and Dr. Roy Spencer, a principal research scientist in the ESSC, use data gathered by microwave sounding units on NOAA satellites to get accurate temperature readings for almost all regions of the Earth.

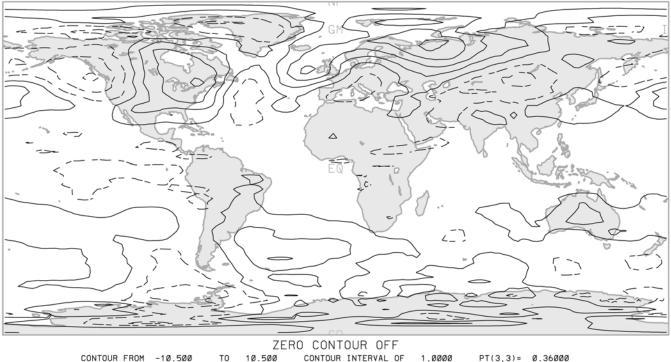
This includes remote desert, ocean and rain forest areas for which reliable climate data are not otherwise available. The satellite-based instruments measure the temperature of the atmosphere from the surface up to an altitude of about eight kilometers above sea level.

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 Spencer nor Christy 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 state and federal grants or contracts.

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OCT 2007 LAYER = LT LOWER TROPOSPHERE



Broken lines outline areas cooler than seasonal norms; solid lines outline areas warmer than seasonal norms. Each contour represents one degree Celsius, starting at -0.5 and +0.5 degrees C.