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Global Temperature Report: September 2010

Sept. 2010 was hottest
September in 32 years

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

September temperatures (preliminary):

Global composite temp.: +0.60 C (about 1.08 degrees Fahrenheit) above 20
year average for September.

Northern Hemisphere: +0.56 C (about 1.01 degrees Fahrenheit) above 20-year
average for September.

Southern Hemisphere: +0.65 C (about 1.17 degrees Fahrenheit) above 20-year
average for September.

Tropics: +0.28 C (about 0.50 degrees Fahrenheit) above 20-year average for
September.

August temperatures (revised):

Global composite: +0.51 C above 20-year average

Northern Hemisphere: +0.67 C above 20-year average

Southern Hemisphere: +35 C above 20-year average

Tropics: +0.36 C above 20-year average

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

Notes on data released Oct. 8, 2010:

September 2010 was the hottest September in the 32-year satellite-based temperature dataset, with a global temperature that was 0.14 C warmer than the previous record in September 1998, according to Dr. John Christy, professor of atmospheric science and director of the Earth System Science Center at The University of Alabama in Huntsville.

With September setting records, 2010 is moving closer to tying 1998 as the hottest year in the past 32. Through September, the composite global average temperature for 2010 was 0.55 C above the 20-year average. That is just 0.04 C (about 0.07 degrees Fahrenheit) cooler than the January-through-September record set in 1998.

The record September high was set despite the continued cooling of temperatures in the tropics as an El Nino Pacific Ocean warming events fades away.

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

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 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 federal and state grants or contracts.

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