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## Global Temperature Report: February 2008

### Global Lower Troposphere

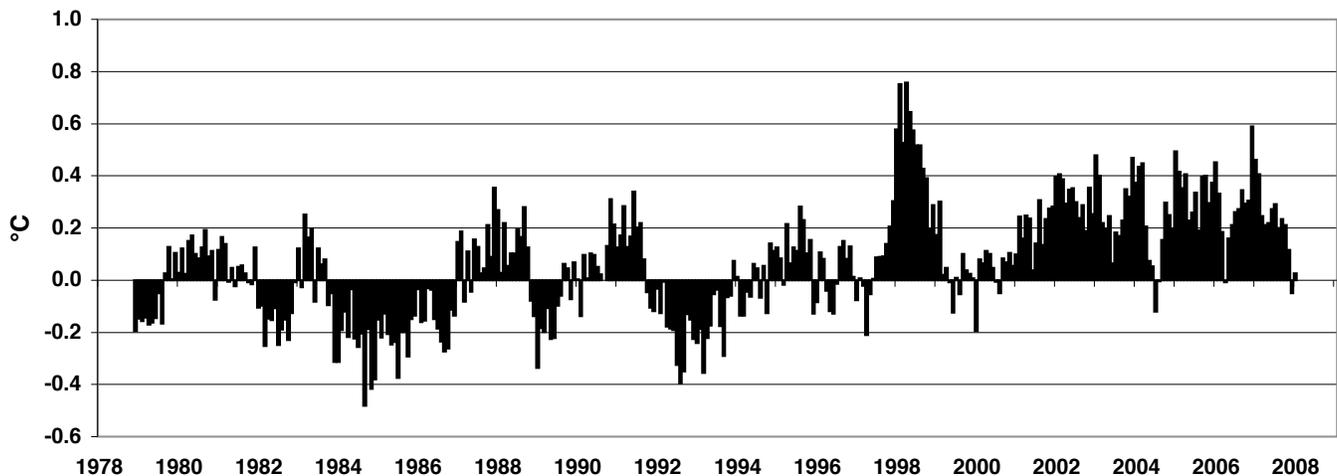


Fig. 1: Global variation from seasonal norms, in Celsius; Trend since Nov. 16, 1978: +0.14 C per decade

Global composite temp.: +0.03 C (about 0.05° Fahrenheit) above 20-year average for February.

Northern Hemisphere: +0.26 C (about 0.47° Fahrenheit) above 20-year average for February.

Southern Hemisphere: - 0.20 C (about 0.36° Fahrenheit) below 20-year average for February.

January temperatures (revised): Global Composite: - 0.05 C above 20-year average

Northern Hemisphere: - 0.12 C above 20-year average

Southern Hemisphere: +0.02 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 March 6, 2008:

How warm have the past several years been? So warm that the global average temperature in February could be both warmer than long-term seasonal norms (by +0.03 C) and still be the coolest February since 1997, 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).

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“The impact of the cool tropical Pacific Ocean water associated with the La Niña is quite evident,” Christy said. “Globally, this represents the coolest February since 1997, before the huge El Niño (Pacific warming event) that began later that year.

“In the tropics, February’s  $-0.34\text{ C}$  ( $-0.61\text{° F}$ ) departure from average is the coolest since the La Niña of 2000.”

With the exceptions of Sicily and the Greek peninsula, Europe was warmer than normal in February, while much of China and central Canada were cooler than seasonal norms.

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

<http://climate.uah.edu/>

The processed temperature data is available on-line at:

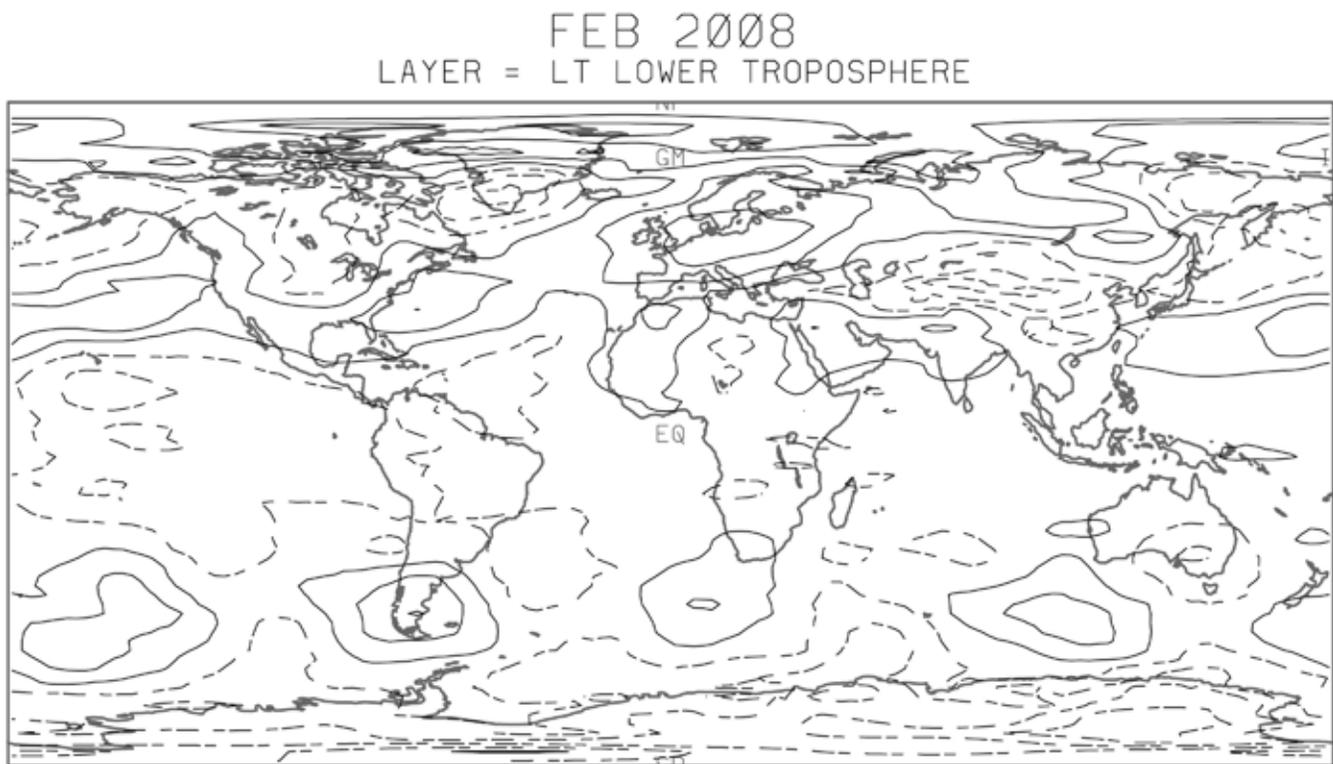
[vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt](http://vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt)

As part of an ongoing joint project between UAH,

NOAA and NASA, Christy and Dr. Roy Spencer, a principal research scientist in the ESSC, use data gathered by 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 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.*



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.