

*March headline:* March 2007 was the warmest March in the past 29 years in the Northern Hemisphere, and the third warmest globally.

April 5, 2007

Vol. 16, No. 11

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**Global Temperature Report: March 2007** 

Fig. 1: Global variation from seasonal norms, in Celsius; Trend since Nov. 16, 1978: +0.15 C per decade

Global composite temp.: +0.38 C (about 0.68° Fahrenheit) above 20-year average for March.

Northern Hemisphere: +0.59 C (about 1.06° Fahrenheit) above 20-year average for March.

Southern Hemisphere: +0.16 C (about 0.29° Fahrenheit) above 20-year average for March.

February temperatures (revised): Global Composite:+0.40 C above 20-year averageNorthern Hemisphere:+0.67 C above 20-year averageSouthern Hemisphere:+0.13 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 April 5, 2007:

March 2007 was the warmest March in 29 yearsthe Earth System Science Center at The Universityin the Northern Hemisphere, barely surpassing Marchof Alabama in Huntsville (UAH).1998 during the "El Niño of the Century," accordingThe Northern Hemisphere average temperatureto data released today by Dr. John Christy, director ofwas 0.59 C (1.06° Fahrenheit) warmer than season

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norms in March. The previous record was March 1998, when temperatures in the Northern Hemisphere were  $0.584 \text{ C} (1.05^{\circ} \text{ F})$  warmer than the 20-year baseline. That was during a major El Niño Pacific Ocean warming event.

Globally, temperatures in March were cooler than only two of the past 28 Marches. The record is March 1998, when global average temperatures were 0.49 C ( $0.88^{\circ}$  F) warmer than seasonal norms.

While temperatures in the Northern Hemisphere were significantly warmer than normal, effects of the recent El Niño continue to fade. Average temperatures in the tropics neared seasonal norms in March.

The long-term global climate trend went up in March, "jumping" from 0.144 to 0.15 C (0.27° F) per decade for the 29-year satellite climate record. That means Earth's climate has warmed about three-quarters of a degree Fahrenheit (0.44 C) since satellites started collecting global climate date in December 1978.

Alaska and Northern Canada were covered by a broad area of colder than normal temperatures in March, with temperatures over central and northern Alaska as much as 6.5 C (11.7° F) colder than seasonal norms.

At the same time, most of Europe and the Middle East were covered by air as much as  $5.5 \text{ C} (9.9^{\circ} \text{ F})$  warmer than normal for March.

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

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 The University of Alabama in Huntsville (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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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.