

March 4, 2015

Vol. 24, No. 11

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Global Temperature Report: February 2015

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

February temperatures (preliminary)

Global composite temp.: +0.30 C (about 0.54 degrees Fahrenheit) above 30-year average for February.

Northern Hemisphere: +0.43 C (about 0.77 degrees Fahrenheit) above 30-year average for February.

Southern Hemisphere: +0.16 C (about 0.29 degrees Fahrenheit) above 30-year average for February.

Tropics: +0.02 C (about 0.04 degrees Fahrenheit) above 30-year average for February.

January temperatures (revised):

Global Composite: +0.35 C above 30-year average

Northern Hemisphere: +0.55 C above 30-year average

Southern Hemisphere: +0.15 C above 30-year average

Tropics: +0.13 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 March 4, 2015:

February's global temperatures were highlighted by the contrast in the continental U.S., with cold in the east and warmth in the west, a pattern that persisted from January, according to Dr. John Christy, director of the Earth System Science Center at The University of Alabama in Huntsville. For the second month in a row, Earth's warmest and coldest temperature anomalies in February were both in North America.

Compared to seasonal norms, the warmest average temperature anomaly on Earth in February was near Lookout Junction, California, where the February temperature was 4.98 C (about 8.96 degrees F) warmer than seasonal norms. Compared to seasonal norms, the coolest average temperature on Earth in February was just south of Nemiscau, Quebec, where the average February 2015 temperature was 5.36 C (about 9.65 degrees F) cooler than normal. This was part of a large area of cooler than normal temperatures that covered most of the eastern half of the continent, from the Gulf Coast to the Arctic, in February.

Archived color maps of local temperature anomalies are available on-line at:

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

Anyone accessing the satellite temperature anomaly dataset through the website should be aware that a problem in the code creating the USA49 column of numbers has been identified and corrected, changing the values reported for that column alone.

As part of an ongoing joint project between UAHuntsville, NOAA and NASA, Christy and Dr. Roy Spencer, an ESSC principal scientist, 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 Spencer 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.