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Global Temperature Report: January 2014

Upper Michigan was 'coldest' spot on the globe in January

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

January temperatures (preliminary)

Global composite temp.: +0.29 C (about 0.52 degrees Fahrenheit) above 30-year average for January.

Northern Hemisphere: +0.39 C (about 0.70 degrees Fahrenheit) above 30-year average for January.

Southern Hemisphere: +0.20 C (about 0.36 degrees Fahrenheit) above 30-year average for January.

Tropics: -0.03 C (about 0.05 degrees Fahrenheit) below 30-

year average for January.

December temperatures (revised):

Global Composite: +0.27 C above 30-year average

Northern Hemisphere: +0.27 C above 30-year average

Southern Hemisphere: +0.26 C above 30-year average

Tropics: +0.06 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 Feb. 6, 2014:

Compared to seasonal norms, the coldest place on Earth in January was the upper peninsula of Michigan near Iron River, where temperatures were as much as 3.86 C (about 6.95 degrees Fahrenheit) cooler than seasonal norms, according to Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center at the University of Alabama in Huntsville. This was part of a large area of cooler than normal temperatures that covered most of the eastern U.S. and Canada in January, stretching from just south of Hudson Bay through the Gulf of Mexico.

Generally, however, Earth's atmosphere was warmer than normal in January, with the warmest spot over northeastern Greenland by the Arctic Ocean. Atmospheric temperatures there averaged 6.24 C (just over 11.2 degrees Fahrenheit) warmer than seasonal norms for January.

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

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

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.

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