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Global Temperature Report: April 2018

Global climate trend since Nov. 16, 1978: +0.13 C per decade

April temperatures (preliminary)

Global composite temp.: +0.21 C (about 0.38 degrees Fahrenheit) above 30-year average for April.

Northern Hemisphere: +0.31 C (about 0.56 degrees Fahrenheit) above 30-year average for April.

Southern Hemisphere: +0.10 C (about 0.18 degrees Fahrenheit) above 30-year average for April.

Tropics: — 0.13 C (about 0.23 degrees Fahrenheit) below 30-year average for April.

March temperatures (revised):

Global Composite: +0.24 C above 30-year average

Northern Hemisphere: +0.39 C above 30-year average

Southern Hemisphere: +0.10 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 May 1, 2018:

Globally, average temperatures through the first third of 2018 have been steady (and maybe a little bit boring), according to Dr. John Christy, director of the Earth System Science Center at The University of Alabama in Huntsville. "Global average temperatures from January through April were within 0.06 C of each other: 0.26, 0.20, 0.24 and 0.21 C warmer than seasonal norms."

While global average temperatures have been steady, that hasn't been the case for local regions. In the conterminous U.S., for instance, there was very cool air in the middle of the country balanced by warmer air in the west.

The cooler than normal temperatures reported in the tropics in April are "the coolest the tropics have experienced since June 2012, as the delayed effects of the 2017-2018 La Niña Pacific Ocean cooling event show up in the troposphere," Christy said.

Compared to seasonal norms, the coldest spot on the globe in April was over Moosonee in Ontario, Canada. Temperatures there were 3.36 C (about 6.05 degrees Fahrenheit) cooler than seasonal norms.

Compared to seasonal norms, the warmest place on Earth in April was over the Arctic Ocean northeast of Russia's Lyakhovsky Islands. Tropospheric temperatures there averaged 5.36 C (about 9.65 degrees Fahrenheit) warmer than seasonal norms.

As part of an ongoing joint project between UAH, 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 are collected and processed, they are placed in a "public" computer file for immediate access by atmospheric scientists in the U.S. and abroad.

The complete version 6 lower troposphere dataset is available here:

http://www.nsstc.uah.edu/data/msu/v6.0/tlt/uahncdc_lt_6.0.txt

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

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

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