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Global Temperature Report: May 2018

Global climate trend since Dec. 1 1978: +0.13 C per decade

May Temperatures (preliminary)

Global composite temp.: +0.18 C (+0.32 °F) above seasonal average

Northern Hemisphere.: +0.40 C (+0.72 °F) above seasonal average

Southern Hemisphere.: -0.05 C (-0.09 °F) below seasonal average

Tropics.: +0.03 C (+0.05 °F) above seasonal average

April Temperatures (revised)

Global composite temp.: +0.21 C (+0.38 °F) above seasonal average

Northern Hemisphere.: +0.31 C (+0.56 °F) above seasonal average

Southern Hemisphere.: +0.10 C +0.18 °F) above seasonal average

Tropics.: -0.13 C (-0.23 °F) below seasonal average

Notes on data released June 1, 2018

The global temperature anomaly for May 2018 changed only slightly from April, with the Southern Hemisphere dropping to its coolest measurement in five years. However, we do see some regional hints of changes to come. The tropical tropospheric temperature moved slightly into positive territory indicating, as NOAA has announced (http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/lanina/enso_evolution-

status-fcsts-web.pdf), that the cool tropical Pacific condition known as La Niña is over and that we may see-saw back to the warm pattern of El Niño this coming winter. Stay tuned.

The largest local departures from average were not exceedingly far from each other; the coldest near Greenland's capital Nuuk at -4.1 C (-7.3 °F) and the warmest near Ostersund Sweden at +4.9 C (+8.8 °F). Very clearly seen in the map of May's temperatures is the extremely warm area over the conterminous U.S. averaging +1.93 C (+3.47 °F) above the 1981-2010 average. This is the highest U.S. value in the 40 months of May we have now observed from space since late 1978.

Every month since May 1991 we, in the Earth System Science Center of UAH, have provided you with timely information and stories based on the UAH satellite-derived global temperature measurements. The person responsible for assembling these reports from the beginning was Phil Gentry, our ESSC Director of Communications. Phil kept up his routine to produce this report and managed many other media activities of the State Climatologist, as well as numerous stories generated by the researchers, faculty and students in the Earth System Science Center and the Department and Atmospheric Science even as he dealt with cancer these past four years. We are deeply saddened to report that Phil passed away from complications of the cancer on May 15th. As a writer, photographer and self-taught graphics artist, Phil was able to assemble all of the necessary pieces of a story and build a bridge to carry the sometimes egg-headed pontifications of scientists into the realm of useful information for the broad readership we serve today. Phil leaves a huge gap for us to fill as we continue to provide you as best we can the kind of information you request.

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/

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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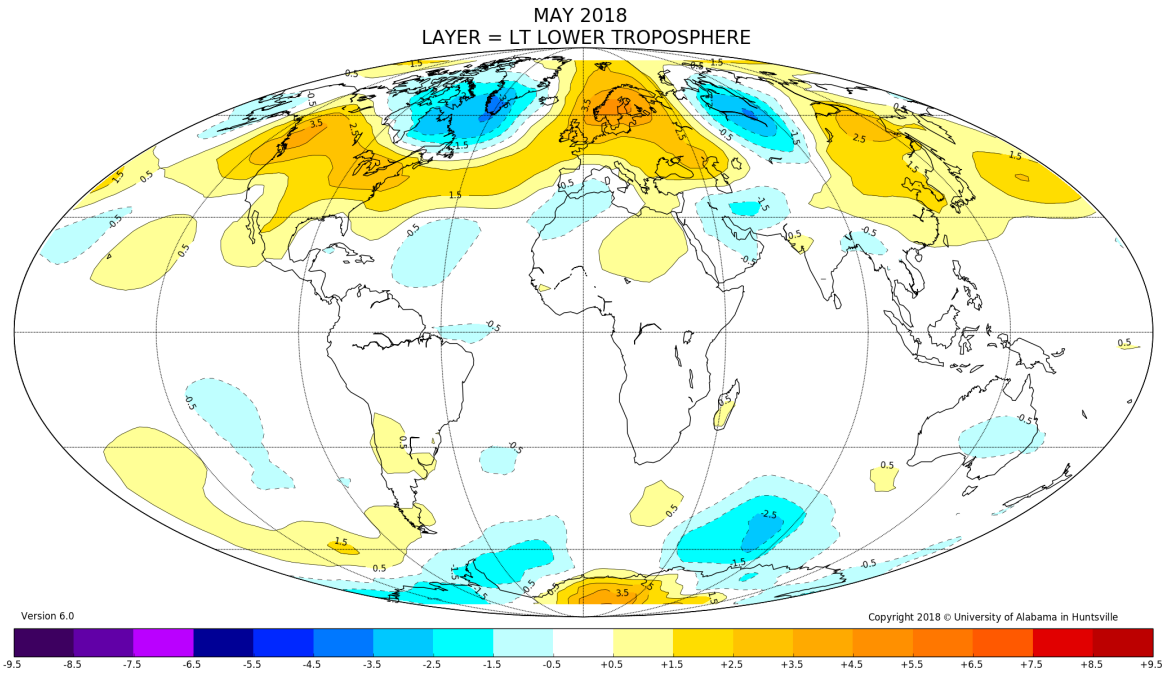

Broken lines outline areas that were cooler than seasonal norms; solid lines outline areas that were warmer than seasonal norms. Each contour represents one degree Celsius, starting at -0.5 and +0.5 degrees C.