Hot Spots and Acceleration of Global Warming

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Our monthly update of global temperature for July, available <u>here</u>, is a bit extended, in part to address recent statements that the extreme climate this summer represents a "new normal."

First, some of the summer hot spots will be in quite different locations next year, especially at middle and high latitudes. (This caution is unnecessary for regions such as the Southwest United States and the Mediterranean/Middle East, where every summer is now hotter than the average climate of 1951-1980).

Misinterpretations caused by interannual variability can be minimized via knowledge of the regional "bell curves" illustrated in <u>Regional Climate Change and National Responsibilities</u> These bell curves, describing the likelihood of a given seasonal temperature anomaly, have continued to shift in the past few years (2015-2018) compared to 2005-2015, as discussed in the July temperature update.

Second, the "new normal" phrase may suggest that we have settled into a new not-too-bad climate. In fact, global warming is continuing – indeed, it may be accelerating! That is an assertion that Jeremy Grantham makes in a provocative white paper (<u>The Race of Our Lives Revisited</u>). Accelerated warming is consistent with the acceleration in the annual growth of greenhouse gas climate forcing that we illustrated in <u>Young people's burden: requirement of negative CO2 emissions.</u>

My next Communication will be on "Acceleration of Global Warming."

You can sign up for our monthly temperature update at http://eepurl.com/bnhnMT.