

AMERICAN METEOROLOGICAL SOCIETY

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The Honorable Lamar Smith, chairman House Committee on Science, Space, and Technology 2321 Rayburn House Office Building Washington, DC 20515

Dear Chairman Smith:

The American Meteorological Society (AMS) recognizes that the House Committee on Science, Space, and Technology has oversight responsibilities with respect to NOAA and other federal agencies with a science mission. AMS also recognizes that given the concerns raised publicly by John Bates concerning what you have referred to as "the Karl study," the Committee may feel obligated to pursue further investigation. Despite that, AMS continues to have concerns that seeking the full range of deliberative discussions among the NOAA scientists involved in this research could have a chilling effect that would negatively impact the science conducted throughout government agencies.

Science often depends on robust discussions among colleagues that include frank criticisms, frequently offered using shorthand language that is well-understood within the community but that may be easily misinterpreted by others if taken out of context. If scientists within an agency feel they cannot have those sorts of candid discussions through written correspondence without fear of possible misinterpretation, they may choose to avoid these deliberative discussions altogether, with the science suffering as a result. Again, with sensitivity toward the legitimate oversight responsibilities of the House Committee, AMS hopes the Committee and NOAA can find ways to investigate concerns that do not put undue burden on NOAA scientists and that preserve the ability of NOAA and other agency scientists to have internal deliberative discussions without fear of repercussions.

Perhaps more importantly, AMS would like to use this opportunity to point out that with respect to the Karl et al. study, there is every indication that the scientific process has worked exactly as it should. In addition to publication of the paper in *Science* following what appears to have been a lengthy and rigorous peer review, the data and methodologies used for the work were made fully available to the community. Given the impact of the results, other scientific groups have carried out independent analyses and published their own results, some that questioned the conclusions of the Karl et al. paper and others that have independently reached similar conclusions. As noted in a 2013 statement of the AMS¹:

Science is always based on observations and experimentation. Scientists insist on disclosure of hypotheses, observations, methods, and interpretation of the results through a process known as peer review, which provides other scientists an opportunity to evaluate their methods and the logic that led to their conclusions. A published result may not be fully accepted until other scientists further investigate the ideas through reanalysis

of the original observations, taking new observations, repeating their experiments, or running a numerical model—whatever it takes to test the idea. Because of the skeptical nature of scientists, new ideas are accepted very slowly and only after a great deal of scrutiny. In fact, what authority science achieves is based on the openness by which scientific results are presented for review, evaluation, and additional testing.

The Karl et al. paper and subsequent peer-reviewed publications represent this self-correcting scientific process working precisely as it should to lead toward a fuller understanding of the Earth's climate system. As we stated in our 4 November 2015 letter to the Committee:

We encourage you and the Committee to help promote scientific advancement and to welcome the self-correcting nature of the peer-review process within the international scientific community. That is best accomplished by applauding the open access to data and methodologies that NOAA consistently achieves and supporting the vetting of NOAA research through the peer-reviewed literature.

We would welcome opportunities to expand on this discussion with you or your staff.

Sincerely,

Dr. Keith L. Seitter Executive Director

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CC: Benjamin Friedman, Acting Administrator, NOAA

¹ https://www.ametsoc.org/ams/index.cfm/about-ams/ams-statements/statements-of-the-ams-in-force/climate-science-is-core-to-science-education/