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SCIENCE AND SOCIETY

# Stolen E-mails Turn Up Heat on Climate Change Rhetoric

The theft and unauthorized release last month of 1000 private e-mail messages from the servers of the Climatic Research Unit (CRU) at the University of East Anglia in the United Kingdom has provided a glimpse into the fractious world of climate science. The public airing of frank conversations among powerful scientists about sensitive topics such as possible holes in their data and the use of contrarian papers in major reports comes at a pivotal time for climate science, just days before a meeting of world leaders in Copenhagen.

The messages—whether hacked or released by a disgruntled insider—have raised thorny questions about the proper behavior of researchers who feel under siege for their science. How willing should they be to share their raw data with their staunchest critics? “It’s very difficult to admit that your data are not as strong as you wish it were, especially if you know that will be used against you,” says Nicholas Steneck, an expert on research integrity at the University of Michigan, Ann Arbor. And yet the “circle the wagons” mentality conveyed in numerous messages could inflict lasting “damage to the public credibility of climate research,” warns climate scientist Judith Curry of the Georgia Institute of Technology in Atlanta.



**In limbo.** CRU’s Jones has stepped down as director while a review is under way.

But openness just leads to twisted interpretations, says NASA climate researcher Gavin Schmidt. “You can’t have a spelling mistake in a paper without it being evidence on the floor of the Senate that the system is corrupt,” says Schmidt.

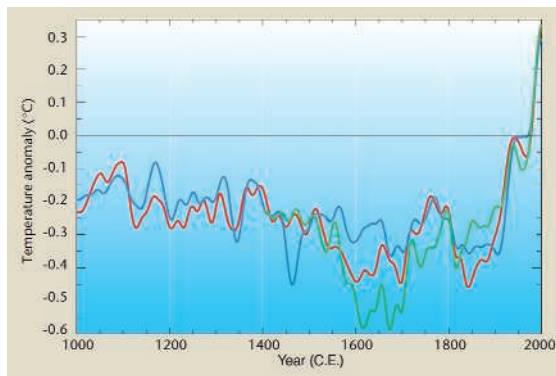
Four e-mail exchanges have received most of the media attention. The first regards a research finding considered by most scientists as a canonical fact: that the globe warmed by roughly 0.7°C in the 20th century. That fact derives in large part from global temperature

data recorded by stations on land and sea, as analyzed independently by groups at East Anglia, NASA, and the U.S. National Oceanic and Atmospheric Administration.

Referring to requests for climate data from critics, CRU Director Phil Jones wrote in 2005 that “I think I’ll delete the file rather than send to anyone.” In May 2009, Jones told Michael Mann of Pennsylvania State University, University Park, to “delete any emails” to a colleague about their work on the Intergovernmental Panel on Climate Change (IPCC) report and to ask a third colleague to do the same. (Mann says he conveyed the message but deleted no messages himself.) Through a spokesperson, Jones declined an interview request. But in a statement he said that “no record” has been deleted amid a bombardment of “Freedom of Information requests.” CRU acknowledged in August that it deleted old data on digital tapes to make space for a move.

A second message relates to a chapter in the 2007 IPCC report that Jones edited. In 2004, he suggested that two recent papers on temperature trends didn’t deserve to be published in a peer-reviewed journal. “I can’t see either of these papers being in the next IPCC report,” he wrote Mann. “Kevin [Trenberth] and I will keep them out somehow - even if we have to redefine what the peer-review literature is.” But Trenberth, of the National Center for Atmospheric Research in Boulder, Colorado, says the papers were indeed considered. Thomas Karl, director of the National Climatic Data Center in Asheville, North Carolina, an official reviewer for the chapter, says the IPCC’s peer-review procedures “were sacrosanct.” Both papers wound up being cited.

A third message is viewed by critics as an acknowledgement that global warming has ceased. “The fact is that we can’t account for the lack of warming at the moment and it is a travesty that we can’t,” wrote Trenberth in October. Contrarians have noted the lack of record new highs in global temperature since 1998 (*Science*, 2 October, p. 28). But Trenberth



**Ever upward?** One pilfered e-mail described how climate scientists decided to graft measured temperatures after 1960 onto earlier data from proxies to “hide” a decline in the proxy data.

was actually bemoaning something else. “The observing system we have is inadequate for tracking energy flow through the climate system,” he observed, affecting the forecasting of year-to-year climate changes.

A fourth message, about assembling a diagram for a 1999 World Meteorological Organization report, has been misinterpreted, says Trenberth (see graphic). Scientists believe proxy data such as tree rings are valuable for reconstructing past climates, but certain tree-ring data became unreliable midway through the century. So scientists used proxy data for all but the final 40 years of the millennium before switching to instrumental data in 1961. “Reasonable people,” writes Stephen McIntyre, a retired industry consultant and prominent blogger, might conclude that the decision not to show the divergence of the two data sets was “simply a trick” to avoid giving fuel to skeptics.

Whatever their meaning, the messages have emboldened opponents. Some are calling for congressional hearings and, possibly, lawsuits. Penn State says that it is “looking into” the matter, and the University of East Anglia has announced an investigation into the theft and contents of the e-mails.

Scientists know they will need every bit of credibility to defend their findings from future attacks. But Curry suggests that it would be better to bring the skeptics into the fold than to keep them out. That way, she says, the critics will “quickly run out of steam and become irrelevant.”

—ELI KINTISCH

SOURCE: UNIVERSITY OF EAST ANGLIA