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The Emails from the University of East Anglia’s Climatic Research Unit

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On or about November 19, 2009, as yet unknown persons hacked into an email server at the University of East Anglia’s Climatic Research Unit (CRU) in Norwich, U.K. The CRU is an academic department specializing in climate research and is particularly known for reconstructing past global surface temperatures on the decade to millennium time scales. The CRU is one of four organizations worldwide that have independently compiled thermometer measurements of local temperatures from around the world to reconstruct the history of average global surface temperature for the past 130 - 150 years. The other groups are in the United States (NOAA’s National Climatic Data Center¹ and the NASA Goddard Institute for Space Studies²) and Japan (Japan Meteorological Agency³). From a much larger number of emails, the hackers selected and posted more than 1000 on a publicly accessible file server in Russia. The vast majority of the 1000+ emails are routine and unsuspicious. Perhaps one or two dozen of the email exchanges give the appearance of controversy, though no unethical behavior has yet been documented. Professor Phil Jones, director of the CRU, was involved in most of these email exchanges. He has temporarily stepped down as the CRU director pending the outcome of an independent investigation instigated by the university.

Although a small percentage of the emails are impolite and some express animosity toward opponents, when placed into proper context they do not appear to reveal fraud or other scientific misconduct by Dr. Jones or his correspondents. The most common accusations of misconduct center around two general themes:

1. **Purported mishandling and/or suppression of data:**
   - In an email dated Nov. 12, 1999, Prof. Phil Jones stated that he had used a “trick” to “hide the decline.” The email does not say what decline he was talking about, so it has been widely misreported that he was hiding a decline in temperatures. Those reports are not correct, nor is it accurate to say that he was actually hiding data, even though he chose the word. The word “trick” was used as it is in common parlance to mean a clever solution to a problem (e.g., “I know a trick to get that stain off your shirt.”). The decline he said he was hiding referred to one series of high-latitude tree ring data from 1960 to 1994 that did not follow measured temperatures at the same locations, even though they had followed measured temperatures for about a century before 1960. That set of tree ring data incorrectly implied a downward temperature trend after 1960. It cannot be said that Jones was literally hiding this fact because two years before he wrote this email he was a co-author on the first paper to document this “divergence” issue. That paper, published in *Nature* in February of 1998, concluded publicly that these post-1960 tree ring data produce inaccurate temperature data.

¹ NCDC Global Surface Temperature Anomalies; 

² GISS Surface Temperature Analysis, [http://data.giss.nasa.gov/gistemp/](http://data.giss.nasa.gov/gistemp/)

³ JMA Global Average Surface Temperature Anomalies, 
estimates. Hence, “hiding” this decline simply meant following the advice that Jones and colleagues had already aired in the peer-reviewed literature two years earlier. Many more papers have since been published on the same topic.

- The CRU is barred by non-publication agreements with some countries’ meteorological services from releasing to the public a small amount (less than 5%) of the weather station data the CRU uses to estimate land-surface temperature trends. The university has confirmed that the CRU is legally barred from releasing these data. A few commentators have used this situation as a basis for accusing the CRU of suppressing data.

- Another data handling accusation involves the admitted deletion of “less than 5%” of weather station data from the CRU surface temperature database in the 1980s. This deletion was not from the original data logs for individual weather stations. Instead, it was only from the database that CRU staff collated for their use in estimating global surface temperatures. The data were deleted because a documented quality control process found them to be of insufficient quality. After the data were rejected, they no longer had scientific value. It is important to note that anyone could still retrieve the original data from the original weather station logs. It is also important to note that this took place in the 1980s, when climate change was purely an academic topic accompanied by none of today’s heated political debate. At the time, the scientists did not foresee the need to archive every bit of data regardless of its scientific value.

2. Purported muzzling of scientists skeptical of human-induced global warming:

- In several emails the authors complain about certain scientific papers and refer to them as “garbage” or other derogatory descriptions. All scientists complain about papers they judge to be inferior and it is commonplace for individual scientists to insult the work of others in private conversation. While disrespectful, this behavior is not suppression, it is not unethical, and it is by no means limited to papers authored by skeptics of human-induced climate change.

- There is an email exchange in which the participants contemplate boycotting a particular science journal and refusing to cite two specific papers they regarded as fatally flawed. It is crucial to understand that the authors of the emails were not contemplating the suppression of a dissenting point of view. Rather, they were reacting to what they considered to be scientific misconduct by the authors of the papers and/or by editors who circumvented the peer review process so as to publish inferior papers that support their own political agendas. One case discussed in the emails, and later documented in news reports and open letters from individuals involved in the events, was so egregious that half the journal’s editorial board resigned in protest when the publisher refused to allow the chief editor to revise the peer review process to make individual board members more accountable. The publisher

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