



THE HOTTEST YEAR

The release of climate-science e-mails last November ripped apart Phil Jones's life. He's now trying to patch it back together.

BY DAVID ADAM

“I like to think the worst is over, but it's coming up to the first anniversary and it's something I'll always remember at this time of year, when the nights close in. This is the time it happened.”

Twelve months ago, Phil Jones was a productive, if not particularly outspoken, climate scientist. That was the way he liked it. Head of the Climatic Research Unit (CRU) at the University of East Anglia (UEA), UK, Jones worked with the Met Office to compile data from weather stations around the world into a monthly series showing global average temperature. He had much on his mind — not least

a puzzling drop in North Atlantic sea surface temperatures during the mid-twentieth century that he had recently helped to discover. It was a curious finding, but Jones would soon have bigger things to ponder.

On 19 November 2009, someone released roughly 1,000 e-mail messages and documents stolen from a server at the CRU. Many of them contained Jones's private correspondence, which sometimes showed him in an unflattering light.

He gloated about the death of a prominent

climate sceptic, and suggested to colleagues they should delete e-mails to keep sceptics from gaining access to information. Most famously, he boasted that he had used a “trick” to “hide the decline” in a temperature chart.

Very soon, members of the sceptic community had pounced on these messages as evidence that Jones and others had concealed flaws in their temperature data and abused the peer-review system to gag critics of climate researchers. Jones faced a storm of accusations that ranged from scientific misconduct to plans to install an autocratic world government through the spread of false hysteria about

global warming. He received some 200 abusive or threatening e-mails, the most troubling of which targeted him and his family. “Someone, somewhere, will hunt you down,” read one. “You are now blacklisted,” read another. “Expect us at your door to say hello.”

The e-mails also triggered several official investigations, including one by the UK Parliament, which ultimately determined that Jones had not committed any serious offences. Case closed.

Not for Jones, who still faces attacks from critics and is trying to cope with unwanted memories as the anniversary approaches (see a ‘Career by degrees’). Never comfortable with the media, Jones has given few interviews since the controversy began. But as part of an attempt to put the past year behind him, he agreed to show *Nature* around the CRU earlier this month and to talk at length about his experience. He proved largely unrepentant.

Aged 58, Jones looks far better than during the darkest days of last winter, when he was spiralling downhill and even contemplated suicide. Colleagues were stunned by his decline.

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Jones was never an extrovert, but he withdrew further and his mental collapse was mirrored by a rapid loss of weight.

In March, when a frail and hesitant Jones answered questions before an investigating parliamentary committee, his appearance reminded many of the distressing 2003 case of David Kelly. Kelly was the UK weapons inspector outed as the source of a media story about government exaggeration of Iraqi weapons of mass destruction. He was also questioned by a parliamentary committee — and subsequently killed himself. “I made the connection,” Jones says about the Kelly case. “But I didn’t talk about it.”

Jones has regained much of the lost weight, and he no longer takes the medications that kept him calm during the day and asleep at night. He is back in charge of the CRU (he stood aside for some eight months while enquiries were pending). So, how have events of the past 12 months changed him?

“I’m a little more guarded about what I say in e-mails now,” he says. “One thing in particular I’m doing is not responding so quickly. I might have got an e-mail in the past and responded with an instant thought in the next 10 to 15 minutes, whereas now I might leave it a day.”

Jones admitted in the parliamentary inquiry to sending some “awful e-mails”, but defends the right of scientists to express themselves in what they consider personal communications. “People would be saying much the same things at scientific meetings and discussed [them] over dinner. But in an e-mail, it is recorded. People have probably forgotten what you said after a night out.”

Although other scientists were quick to defend the reality of man-made global warming, public support for Jones was harder to find. Officially, senior figures in the UK science establishment say this was because they did not want to prejudice ongoing enquiries. Privately, they say that the e-mails looked bad, and should the CRU scientists have been found guilty of misconduct, they did not want to get dragged down with them.

“I was getting lots of messages of support from my fellow scientists,” Jones says. “And I did wonder why they didn’t go to the media and say the same things they were saying to me.”

The CRU server that held the stolen information was seized long ago as evidence from the cluttered desk where it sat in one of the unit’s cramped offices. The unit itself is housed in a curious four-storey cylindrical tower at the heart of the busy UEA campus, and it brings to mind a Norman keep within a medieval castle. An appropriate analogy, considering that its occupants have weathered an extended siege that left visible scars on the tower’s exterior. Its

doorbell was removed to shield the scientists inside from the incessant ringing of journalists and film crews.

Outsiders are often surprised at how small the unit is, with just three full-time staff scientists. Jones’s office is on the top floor, where the computer on which he typed many of the e-mails sits amid a carpet of scientific reports and papers. Keith Briffa, a tree-ring specialist, has an office across the landing. Climate researcher Tim Osborn is next door, struggling with a familiar problem. “My inbox is full and I need to delete some e-mails.” Then, with a thin smile: “But I’m not allowed to now, am I?”

Temperature data analysed by these researchers serve as the foundation for countless studies, which have steadily identified and analysed the signal of global warming caused by human activities. The growing importance of this work made Jones and other CRU scientists a target for Internet bloggers sceptical of their methods and the conclusions drawn from them. Long before the e-mail scandal, Jones and his team found themselves fielding enquiries about their research from outside the conventional scientific community.

An independent inquiry headed by former senior civil servant Alastair Muir Russell examined many aspects of the work done at the CRU, looking specifically to see if the centre had committed fraud or some other type of scientific misbehaviour. The investigation found no reason to doubt the honesty and integrity of the CRU scientists, but it did criticize the way those scientists

responded to information requests, or in some cases, failed to respond. The report said there had been a “consistent pattern of failing to display the proper degree of openness”.

Some scientists echo these conclusions. Mike Hulme, a climate researcher at the UEA who worked at the CRU from 1988 to 2000, said that certain aspects of the culture in the research unit were “unwise and unhealthy”. He notes in particular that the CRU was slow and inconsistent in responding to data requests, and says it suffered from “intense tribalism”. But Hulme says the work at the CRU “was not fraudulent, and certainly did not justify the personalization of the attacks subsequently made on them”.

In his defence, Jones says he wrestled with how open scientists should be to requests for information. “I started responding to those back in 2003 and 2004, but they just asked more and more questions and it was just a drain on resources. That’s when things probably went awry.” He claims he changed tack when he saw that the information he supplied was not used by those who demanded it. Rather, each response

simply triggered more questions. “I just realized it was taking up too much time,” he says.

By failing to answer all requests properly, Jones says he wasn’t acting any differently from other researchers. “There are some people I have sent requests to, other scientists, who have never replied. I’ve asked people for data and reprints of papers and I’ve never got a response. So I think I responded quite well and the CRU responded quite well.”

Jones complains frequently about distractions from his research. “The amount of time we get to do research just seems to be less and less, and you see things that take away that research time, or you find yourself working at weekends or in the evenings to the annoyance of your family.” Autumn is a “bad time” because his teaching load increases. He got frustrated with meetings with university officials to discuss freedom of information requests because “it takes away your research time”. And he rarely agrees to peer review scientific papers. “If you start doing lots of reviews, you find that your quality research time also goes.”

When he did review papers, the stolen e-mails revealed, he told colleagues he “went to town” to make sure that those manuscripts he did not like were not published. The Muir Russell report found there was no abuse of peer review and said such robust exchanges were typical in science. Jones says he learned long ago that he needed to be absolutely clear with editors, because in the past he had written what he thought were critical reviews only to see the papers in question get published. “I realized that to make sure an editor rejects a paper you have to go a bit stronger in the review.”

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A CAREER BY DEGREES

1976 Phil Jones joins the Climatic Research Unit (CRU) at the University of East Anglia, UK, where he will spend his entire career to date.

1982 The CRU publishes its first monthly global average temperature series based on weather-station data (below).



1990 Jones co-authors an influential *Nature* paper that shows urbanization is not responsible for increasing temperatures.

1999 Jones e-mails colleagues, saying he used a “trick” to “hide the decline” in preparing a temperature chart. The decline refers to late-twentieth century tree-ring data that suggested a cooling, in contrast to the temperature data.



2005 Britain introduces the Freedom of Information (FOI) Act, giving critics a legal route to demand data from Jones and the CRU (above).

July 2009 The CRU receives 58 FOI requests in under a week as part of a blog campaign.

November 2009 Some 1,000 e-mails and documents stolen from the CRU are released on the Internet.

February 2010 Jones tells *The Sunday Times* he considered killing himself after the e-mails were released. He subsequently receives e-mails telling him to do so.



March 2010 Jones appears before an inquiry (above) by a parliamentary committee on science and technology.

July 2010 The Muir Russell inquiry into the CRU e-mails clears scientists of serious charges, but criticizes their response to FOI enquiries.

November 2010 Jones tells *Nature* he is on the mend, but still fears more e-mails could be released in the future.

He adds: “The whole point about trying to pervert the peer-review process is that it is impossible to do it. There are so many journals and if people are persistent enough, they can get their papers published.”

Another allegation was over his use of data from weather stations in China for a 1990 paper on the impact of urbanization on temperature. The paper¹, published in *Nature*, stated that data were used from stations where there had been few, if any, changes in instrumentation, location or observation times. When critics later uncovered the fact that many of the stations had moved, they cried fraud; earlier this year, Jones said in a separate interview with *Nature*² that he was considering a correction.

He now says such a step is unnecessary and that he stands by the claims in the paper. He was on medication during the previous inter-

“I don’t know that I can offer advice. Whatever you try to do, the goalposts keep moving.”

view, he says, and felt under pressure then to publicly concede that he had made mistakes.

He says the description of weather-station movement “has been completely misinterpreted”. The set of 84 Chinese stations referred to in the paper were drawn from a larger group of 265, for which the Chinese had location histories. Jones and his colleagues did not claim that none of the selected stations had moved, only that they picked out ones that had moved the least, he says.

Such shifts do not significantly affect results, Jones says, because there was no general pattern to the station relocation: on average, ones moving to colder places were balanced by ones moving to warmer spots. But the Chinese scientist who supplied the station information has now retired and the authorities there have not released the full station-history data — making it impossible for Jones, he says, to provide the evidence to support the statement.

One issue critics continue to badger Jones about is whether he deleted e-mails that had been requested through the freedom of information process. Jones insists he never did, as that would have qualified as an offence. What about deleting e-mails that could be requested by future freedom of information requests? Britain’s Information Commissioner’s Office, which adjudicates such cases, says it is allowed. However, the Muir Russell report said that this kind of pre-emptive deletion is not consistent with the “spirit and intent” of the law, and there is evidence that CRU scientists took that questionable approach. When Jones is now asked if he deleted such messages, he says: “No, I deleted e-mails as a matter of course just to keep them under control.”

So why did he urge colleagues to delete messages in which they discussed, among other things, the preparation of a report for the

Intergovernmental Panel on Climate Change? An attempt to thwart critics, perhaps? “That was probably just bravado at the time,” he says. “We just thought if they’re going to ask for more, we might as well not have them.”

Then Muir Russell was correct? Had Jones broken the spirit of the law? “Not necessarily, if you’ve deleted them ahead of time,” he says. “You can’t second guess what’s going to be requested.” Jones goes back and forth on his motivations. Deleting e-mails would simplify his life if people requested them in the future, but that was not why he got rid of them, he says. “I deleted them based on their dates. It was to keep the e-mails under control,” he repeats.

A source close to the CRU says it is almost impossible to determine who deleted what and when — much less why. More certain is the conclusion that the hack of the server was

a sophisticated attack. Although the police and the university say only that the investigation is continuing, *Nature* understands that evidence has emerged effectively ruling out a leak from inside the CRU, as some have claimed. And other climate-research organizations are believed to have told police that their systems survived hack attempts at the same time.

Jones and others connected to the CRU fear the hackers may be sitting on more stolen e-mails, but Jones feels confident the worst is behind him. “It really is not somewhere I would like to go through again. But having been through it once, I think I am a bit hardened to it.”

Can Jones offer any advice to research scientists who wake up one morning to find themselves the centre of a worldwide scientific scandal? “I don’t know that I can. The thing to point out is that whatever you try to do, the goalposts keep moving.” As soon as he responded to one criticism, another popped up.

Jones has steadily begun to piece together his professional as well as his personal life. The discovery of the sudden Atlantic cooling was recently published in *Nature*³ and he has started to attend conferences again. He agrees to pose for photographs outside the CRU building, gazing at the blue sky. Then he shuffles back into the relative calm of his unit: one scientist who now realizes his castle walls cannot completely shield him from the outside world. ■ **SEE EDITORIAL P.345**

David Adam is an editor with *Nature* in London.

1. Jones, P. D. et al. *Nature* **347**, 169–172 (1990).
2. Heffernan, O. *Nature* doi:10.1038/news.2010.71 (2010).
3. Thompson, D. W. J., Wallace, J. M., Kennedy, J. J. & Jones, P. D. *Nature* **467**, 444–447 (2010).