

# **SUBMISSION TO THE CLIMATE CHANGE E-MAIL REVIEW**

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**Climate Audit**

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## **Introduction**

I share the view held by many others that it is important for climate science to get to a position where the Climategate controversy can be put behind it. But in order to do so, there needs to be an untainted and comprehensive investigation and review, as hoped for by Philip Campbell when he announced his resignation from the Team:

I support the need for a full review of the facts behind the leaked e-mails. There must be nothing that calls into question the ability of the independent Review to complete this task...<sup>1</sup>

Unfortunately, the Work Plan announced in the Issues Paper, the composition of the “Team” and aspects of the conduct of the Team since the announcement of the Inquiry have each called into question the ability of the present Team to carry out this task.

I therefore limit my remarks in this submission to matters that fit Campbell’s standard of delivering an untainted and comprehensive investigation and review, one which cannot be “called into question”. I have my submission to the Parliamentary Inquiry attached as an Appendix; it raises technical issues pertaining to the manipulation and/or withholding of data, primarily in connection with paleoclimate reconstructions (rather than recent station data, which is an entirely different issue).

Given my somewhat unique perspective on the events, it is impossible for me to even begin to provide a comprehensive list of issues in the limited time window that the Team has seen fit to offer (a window in which I have had unrelated personal commitments). Many issues not mentioned in this submission have been discussed in posts at [www.climateaudit.org](http://www.climateaudit.org), which represents a fuller view of my perspective on the relevant issues. This submission should not be construed in any way as representing a comprehensive list of questions and issues or as representing a complete itemization of issues and disputes.

## **1. Work Plan Announced in the Issues Paper**

The first item of the Team’s remit was to:

Examine the hacked e-mail exchanges, other relevant e-mail exchanges and any other information held at CRU to determine whether there is any evidence of the manipulation or suppression of data which is at odds with acceptable scientific practice...

The Issues Paper did not announce procedures and staff that enabled it to complete this task. Instead, the Team announced a “Work Plan” that substantially departed from its original remit in several important respects:

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<sup>1</sup> <http://www.cce-review.org/News.php>

- The Work Plan as announced provided for a much less complete examination of emails and other documents than contemplated in the remit;
- The Work Plan purported to “distill” the many questions and criticisms into “broad” questions as though the Inquiry was preparing an academic term paper or civil service briefing paper, rather than carrying out discovery on all relevant incidents and exchanges in order to provide an inquiry record as a professional inquiry under a judge would do.

Astonishingly, the Team website says that they have not read **all** the email exchanges in the Climategate dossier.

We have read a substantial number of the hacked emails, but not yet all.

Many blog readers have read all the email exchanges in the dossier; the failure of Team members and staff to do so is dispiriting, to say the least. A fortiori, since the Team has not even read the complete email dossier, they have obviously not scratched the surface of the balance of their remit – to examine “other relevant email exchanges and any other information held at CRU”.

The Team’s lack of familiarity with the content of the emails is evident in the incompleteness of the questions in the Issues Paper, as well as their frequent and almost embarrassing tendency to miss the point. It was further evident in Dr Boulton’s interjection at the Inquiry press conference where he was completely confused on the difference between the email containing the notorious request to delete the emails concerning AR4 and the equally well known email threatening to keep certain publications out of AR4. Given that hundreds, if not thousands, of blog readers know the distinction, it is, to say the least, embarrassing that the primary author of the Issues Paper was confused on the matter.

The failure of the Team to examine all the documents prior to issuing an Issues Paper is exacerbated by their failure to interview critics or targets of CRU (such as Ross McKittrick or myself). The Team stated that it supplemented its incomplete reading of the documents as follows:

Using its own enquiries and experience, it has added questions about the handling and dissemination of data, including the response to FOI requests.

It is my understanding that these “enquiries” were limited to interviewing one or more CRU scientists. Surely it must be almost unprecedented for an inquiry to purport to prepare a list of questions purporting to be comprehensive without the slightest attempt to interview any targets or critics – an omission that is especially objectionable because the Team hasn’t even read all the emails in the dossier, let alone non-public emails and documents at CRU.

Even worse, the Work Plan made no commitment to even complete the examination of all the unread emails in the Climategate dossier, let alone other relevant e-mail exchanges and documents held at CRU or elsewhere. Instead, the Team appears to be leaving it up to the general public – who lack access to the other relevant email exchanges and CRU documents – to point the Inquiry onto the “trail”, stating:

If the submissions received point to reasonable wider concerns, we will follow the trail where it leads.

This is totally unsatisfactory. While public input is important and relevant, the public lacks access to all the emails and documents that are within the remit of the Inquiry. It is the Inquiry's job to examine all the documents and to inquire about each relevant incident. The completion of a comprehensive examination should not depend on whether the general public happens to point the Inquiry back onto the "trail".

Exacerbating the above problems, the Team, without any justification, curtailed the scope of the Inquiry by purporting to "distill" the questions and criticism into "broad questions":

The Team's approach is to distill the questions and criticisms into the broad questions set out below.

In a normal inquiry carried out by a professional judge, each relevant incident would be examined individually, with CRU scientists asked to explain each such incident. There would be no attempt to "distill" questions and criticisms into "broad questions". The exercise outlined in the Issues Paper seems remarkably amateurish – the sort of thing that would lead to an academic thesis or a position paper by a Royal Society. A counsel to a professional inquiry would develop a list of specific questions that would be asked of the witnesses in order to develop a proper inquiry record that would have the potential to end the various controversies. (Perhaps none of the Team members, despite their distinguished *curricula vitae*, have previous inquiry experience – none is mentioned in any Inquiry bio.)

## **2. Panel Composition**

A second issue that *calls into question* the ability of the Inquiry to provide a full and independent review is the composition of the Team. In the press conference announcing the Inquiry, Sir Muir Russell made the following undertaking:

Given the nature of the allegations it is right that someone who has no links to either the University or the Climate Science community looks at the evidence and makes recommendations based on what they find.<sup>2</sup>

I agree wholeheartedly with these criteria if the Inquiry is to meet Dr Campbell's standard that no one should be able to call the Inquiry into question. I also suggest a third obvious criterion: given past controversies over the role of energy companies (especially ExxonMobil) in attempting to influence climate policy, it seems to me that members of the Team should also have no links to energy producers.

Unfortunately, some Team members do not meet these reasonable and hardly onerous criteria.

### **2.1 Links to the University**

Team member David Eyton is an employee of British Petroleum, which is a contributor<sup>3</sup> to the Climatic Research Unit of the University of East Anglia and a contributor<sup>4</sup> to the research of

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<sup>2</sup> <http://www.uea.ac.uk/mac/comm/media/press/2009/dec/CRUreview>

CRU member and Climategate correspondent, Mick Kelly. There are thousands of companies in the world that do not contribute funds to the University of East Anglia, let alone the Climatic Research Unit, any one of which could have supplied an equally qualified Team member.

Another Team member, Geoffrey Boulton, was employed at the University for 18 years from 1968 to 1986 in the School of Environmental Sciences. Aside from not meeting Muir Russell's undertaking, given the relationship between the School of Environmental Sciences and the Climatic Research Unit, it seems inconceivable that he is unacquainted with CRU employees in the Climategate dossier – Phil Jones, Tom Wigley, Ben Santer, Tim Osborn, Keith Briffa, Trevor Davies, Jean Palutikof, Clare Goodess and perhaps others. Contact with Jean Palutikof and Clare Goodess is confirmed by a contribution by Boulton to a 1989 workshop held by the Climatic Research Unit in Norwich<sup>5</sup>, the proceedings of which were edited by CRU employees Goodess and Palutikof. Boulton has conspicuously failed to state that he is unacquainted with CRU employees or even that he is unacquainted with the CRU scientists most involved in the Inquiry (Jones, Wigley, Santer, Briffa).

## **2.2 Links to the Climate Science Community**

Team member Eyton has publicly reported links to the Climate Science community. For example, a local press report<sup>6</sup> in New Jersey disclosed that Eyton was responsible for announcing the extension of a research partnership between BP and Princeton University's Carbon Mitigation Initiative (CMI), a partnership the aim of which is "to find solutions to the world's climate-change problems." Presumably this is not the only such initiative within Eyton's responsibilities as BP's Research and Technology Group vice president. Praiseworthy as such initiatives may be, they obviously constitute links to the climate science community, contrary to Muir Russell's original undertaking.

Team member Boulton's links to the Climate Science community are very extensive. Over the past few years, Boulton has been a frequent and articulate climate policy advocate, both in his personal capacity and through the Royal Society of Edinburgh of which he is General Secretary.

- As a senior official at the University of Edinburgh and former head of the University's Global Change Research group, Boulton almost certainly had personal links to two prominent Climategate correspondents – Tom Crowley and Gabi Hegerl, the latter a prominent IPCC organizer whose office is reportedly<sup>7</sup> only three doors from Boulton's.

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<sup>3</sup> <http://www.cru.uea.ac.uk/cru/about/history/>

<sup>4</sup> <http://www.uea.ac.uk/~f030/career.htm>

<sup>5</sup> Boulton, G.S. 1991. Modelling the geological effects of glaciation in response to climatic change. In Goodess, C.M. and Palutikof, J.P. Future climate change and radioactive waste disposal. Proceedings of the International Workshop on Future Climate Change and Radioactive Waste Disposal, Climatic Research Unit, University of East Anglia, Norwich, November, 1989.

[http://openlibrary.org/b/OL1288815M/Future\\_climate\\_change\\_and\\_radioactive\\_waste\\_disposal](http://openlibrary.org/b/OL1288815M/Future_climate_change_and_radioactive_waste_disposal)

<sup>6</sup> <http://www.dailyprincetonian.com/2008/10/17/21842/>

<sup>7</sup> <http://bishophill.squarespace.com/blog/2010/2/12/everybody-needs-good-neighbours.html>

- On Jan. 29, 2008, Boulton gave a lecture at a Glasgow Centre for Population Health seminar<sup>8</sup>, expressing the urgency of climate change, drawing particular attention to the forecast disappearance of most Himalayan glaciers by 2050;
- On Feb 12, 2008, Boulton, in his Peter Wilson lecture<sup>9</sup> sponsored by the Edinburgh Consortium for Rural Research, stated that the “most profound issue” facing society was climate.
- On Feb 28, 2008, Boulton made a presentation<sup>10</sup> in Dubai stating that “global temperatures are at risk of rising between 1.8 and 4 degrees Celsius due to global warming, which could see ice caps to melt and coastal areas submerged.”
- In April 2008, Boulton, in his capacity as General Secretary of the Royal Society of Edinburgh, supervised a submission<sup>11</sup> entitled “Proposals for a Scottish Climate Change Bill”.
- On Oct 12, 2008, Boulton gave a pessimistic picture of climate impact<sup>12</sup> to the Herald (Scotland) saying that by 2050 “polar ice caps melted much faster than expected, causing the potential demise of the Netherlands, Bangladesh and Kuwait, flooding of large areas of the US Gulf of Mexico, Florida and east coasts, of Myanmar, Thailand and northeast China”.
- On Oct 14, 2008 at the David Hume Institute, Boulton stated<sup>13</sup> that “in 2050, flooding of large areas of coastal lowland and of river valleys has become a reality, and together with other impacts of climate change, has had a massive impact; politically, economically and socially”
- In February 2009, Boulton, in his capacity as General Secretary of the Royal Society of Edinburgh, supervised a submission responding to the Climate Change (Scotland) bill;
- In June 2009, Boulton, in his capacity as General Secretary of the Royal Society of Edinburgh, supervised submissions responding to Scotland’s Climate Change Adaption Framework and providing supplementary advice in respect of the Climate Change (Scotland) bill;
- On October 7, 2009, Boulton opened a new Coca Cola Hellenic plant, where he is captioned as “UK Govt’s Chief Advisor on Climate Change”<sup>14</sup>. His remarks express concern about climate change.
- On October 19, 2009, Boulton, in his capacity as General Secretary of the Royal Society of Edinburgh, supervised the convening of a Royal Society of Edinburgh inquiry entitled “Facing Up to Climate Change”<sup>15</sup>. The Royal Society of Edinburgh was partly funded by British Petroleum. One of its members was Andrew Dlugolecki, described as a Visiting Research Fellow, Climatic Research Unit, University of East Anglia in multiple sources.<sup>16</sup>

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<sup>8</sup> [http://www.gcph.co.uk/component/option,com\\_docman/task,doc\\_download/gid,385/](http://www.gcph.co.uk/component/option,com_docman/task,doc_download/gid,385/)

<sup>9</sup> <http://www.ma.hw.ac.uk/RSE/events/reports/2007-2008/ecrr.pdf>

<sup>10</sup> <http://www.arabianbusiness.com/512184>

<sup>11</sup> [http://www.rse.org.uk/govt\\_responses/2008/Response\\_Climate\\_Change.pdf](http://www.rse.org.uk/govt_responses/2008/Response_Climate_Change.pdf)

<sup>12</sup> <http://www.heraldscotland.com/visions-of-scotland-2050-1.826657>

<sup>13</sup> <http://www.jmt.org/assets/john%20muir%20award/downloads/hop%2079%20reducing%20carbon%20emissions%20-%20the%20view%20from%202050.pdf>

<sup>14</sup> <http://www.coca-colahellenic.com/sustainability/flagshipprogrammes/Reductionofcarbonemi/>; see also <http://climateaudit.org/2010/02/20/uk-govts-chief-adviser-on-climate-change/>

<sup>15</sup> [http://www.rse.org.uk/rse\\_press/2009/climate\\_change\\_launch.pdf](http://www.rse.org.uk/rse_press/2009/climate_change_launch.pdf)

<sup>16</sup> [http://sciencepolicy.colorado.edu/sparc/research/projects/extreme\\_events/munich\\_workshop/dlugolecki.pdf](http://sciencepolicy.colorado.edu/sparc/research/projects/extreme_events/munich_workshop/dlugolecki.pdf) ;

<http://www.canadianunderwriter.ca/issues/story.aspx?aid=1000326633>; [http://www.hm-treasury.gov.uk/d/climatechange\\_anglia.pdf](http://www.hm-treasury.gov.uk/d/climatechange_anglia.pdf)

- On October 29, 2009, Boulton appeared<sup>17</sup> at a seminar with Andrew Dlugolecki, described in 2009 a Visiting Research Fellow, Climatic Research Unit and John Mitchell, the IPCC Review Editor responsible for acquiescing to Briffa's failure to show the "decline" in AR4 (2007). At the seminar, Boulton stated: "We have the evidence, we have a consensus on scientific interpretation, we have the investment, we know (Stern) that mitigation now rather than later is cheaper. But, we have not sorted out the politics and started to adapt behaviour to minimize risks. We cannot do this without public support. If we fail, we will be risking the consequences of catastrophic climate changes. The problem is that these consequences will not be felt at first in polluting countries, such as Scotland. The objectives of the RSE inquiry are to map out the ground between where we are now and where we need to get to in order to achieve the targeted Greenhouse Gas (GHG) reductions; and understand how to engage the public so as to enable politicians to make the right choices."
- On Nov 10, 2009, Boulton made a presentation<sup>18</sup> at the Institute for Environmental Security, describing the impact of climate change on the Himalayas;
- In December 2009, Boulton, in his capacity as General Secretary of the Royal Society of Edinburgh, supervised a policy paper<sup>19</sup> that presented a Hockey Stick diagram by his University of Edinburgh associate and IPCC organizer Gabi Hegerl. The paper incorrectly stated that the Hegerl Hockey Stick was "independent" of paleoclimate reconstructions in controversy. It included Mann's controversial PC1 (using a different and incorrect identification for the series) and CRU tree ring chronologies from Yamal, Tornetrask and Taymir.
- On December 11, 2009, in the wake of the Climategate controversy, John Hirst of the UK Met Office (formerly of WWF-UK) organized a petition<sup>20</sup> "to defend our profession against this unprecedented attack to discredit us and the science of climate change". The petition stated that the climate science "research has been subject to peer review and publication, providing traceability of the evidence and support for the scientific method." At the time of his signature, Boulton told<sup>21</sup> The Scotsman that "he was worried the scandal might have damaged progress on thrashing out a deal to tackle global warming at the summit in Copenhagen."

Boulton's numerous links to the Climate Science community are clearly contrary to Muir Russell's undertaking that the Inquiry would be undertaken by someone who had "no links" to the Climate Science community. When Boulton's links were reported at various blogs, Muir Russell and the Inquiry purported to excuse the violation of the original undertaking claiming<sup>22</sup>:

it would be impossible to find somebody with the qualifications and experience we need who has not formed an opinion on climate change

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<sup>17</sup> <http://www.foundation.org.uk/>

<sup>18</sup> <http://www.envirosecurity.org/news/single.php?id=296>

<sup>19</sup> [http://www.rse.org.uk/govt\\_responses/2009/b09\\_05.pdf](http://www.rse.org.uk/govt_responses/2009/b09_05.pdf)

<sup>20</sup> <http://www.metoffice.gov.uk/climatechange/news/latest/uk-science-statement.html>

<sup>21</sup> <http://74.125.77.132/search?q=cache:8H-S9GI67N0J:www.bakewelltoday.co.uk/7168/Copenhagen-Summit-Scientists-unite-to.5903406.jp>

<sup>22</sup> <http://www.cce-review.org/News.php>

This is manifestly not the case. There are hundreds of qualified people who, unlike Boulton, do not have links to the Climate Science community. Team members Clarke and Norton (and Muir Russell himself) prove the point. It is unclear why Boulton (or, for the matter, Eyton) were appointed to the Team in the first place.

### **2.3 Links to Energy Producers**

Team member Eyton is obviously linked to British Petroleum. Eyton's Inquiry bio<sup>23</sup> states:

David Eyton was appointed BP's Group Head of Research and Technology (R&T) in April, 2008. He is accountable for technology strategy and its implementation across BP and conducting research and development in areas of corporate renewal. In this role, David also oversees the technological capability of the company.

In addition to this direct link to British Petroleum (which, as noted above, is a contributor to the Climatic Research Unit itself), British Petroleum is a contributor to the Royal Society of Edinburgh (of which Team member Boulton is General Secretary) and, in particular, is one of the sponsors<sup>24</sup> of the Royal Society's inquiry into climate change.

Attempts to distort the debate on climate policy by energy producers have been a frequent cause of complaint and controversy in the climate debate. Regardless of which side of the debate BP is perceived to be on, the presence of Team members who are employees or partly funded by BP – especially when they are the Team members that are visibly linked to the Climate Science community – clearly prevents Campbell's standard of scrupulousness from being achieved, because it enables the Inquiry to be called into question.

### **3. Conduct of the Team**

A third category involves puzzling conduct and misrepresentations by the Team since its announcement only three weeks ago on Feb 11, 2010, mostly involving Team member Boulton.

First, the Team website misrepresented Boulton's extensive recent involvement in climate change presentations and advocacy as follows:

Professor Geoffrey Boulton has expertise in fields related to climate change and is therefore aware of the scientific approach, though not in the climate change field itself.

As noted above, during the past few years, Boulton has made one presentation after another on climate change – behaviour that is clearly inconsistent with the description at the Team website.

Second, the Inquiry bio for Boulton omitted any mention of his prior association with the University. At the Inquiry press conference of Feb 11, 2010, in a comment unreported at the time, Boulton stated that the Inquiry bio failed to say that he had been employed at the university until **1980**. (The date admitted at the press conference was incorrect – the correct date was

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<sup>23</sup> <http://www.cce-review.org/Biogs.php>

<sup>24</sup> [http://www.royalsoced.org.uk/rse\\_publications/rse\\_newsletter/current.pdf](http://www.royalsoced.org.uk/rse_publications/rse_newsletter/current.pdf)

actually 1986.) After publicity on the internet, the Inquiry added an (incorrect) statement that Boulton had informed the press conference that he had been employed at the university until **1986** (presumably attempting to cooperate with Boulton's inaccurate statement at the press conference). The Inquiry bio remains uncorrected.

In his most recent statement, Boulton said that he had “had no professional contact with the University of East Anglia or the Climatic Research Unit” since 1986. While Boulton did not define “professional contact”, participation in workshops organized by or involving Climatic Research Unit scientists would be included in any reasonable definition of “professional contact”. Boulton's claim appears to be contradicted by at least the following:

- his participation in a 1989 workshop conducted by the Climatic Research Unit (published in 1991) – see footnote 5.
- His participation in a October 29, 2009 workshop with a Climatic Research Unit Visiting Fellow;
- The participation of a Climatic Research Unit Visiting Fellow in the Royal Society of Edinburgh's inquiry, Facing Up to Climate Change.

Finally, both Boulton and the Team have recently made misleading or untrue statements about Curriculum Vitae for Boulton distributed by the University of Edinburgh. In 2007, the University of Edinburgh distributed Curriculum Vitae for Boulton to various Chinese institutions which stated that Boulton had been a “contributor to G8 Preparatory Groups and Intergovernmental Panels on climate change”. (Boulton later said that he met “governmental and NGO representatives around global climate change”<sup>25</sup> during his visit to China.) The claim about Boulton having been a contributor to “G8 Intergovernmental Panel on climate change” is also made in the October 2008 eulogy for the presentation of an honorary doctorate to Boulton by the University of Heidelberg.

When this issue was raised on blogs, instead of acknowledging that the Curriculum Vitae had in fact been circulated by the University of Edinburgh (as it should have), the Team falsely described them as “purported Curriculum Vitae”,<sup>26</sup> even though they had been clearly distributed by the University of Edinburgh and relied on in the Heidelberg eulogy. The Curriculum Vitae may have been *incorrect* or *inflated*, but they were not *purported*.

When asked by Channel Four about the 2007 Curriculum Vitae controversy, Boulton failed to acknowledge that the University of Edinburgh had distributed the CVs in question, instead darkly insinuating that the inflated claims had been inserted by sceptics to discredit him, as reported by Channel Four as follows<sup>27</sup>:

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<sup>25</sup> [http://www.gcph.co.uk/component/option,com\\_docman/task,doc\\_download/gid,385/](http://www.gcph.co.uk/component/option,com_docman/task,doc_download/gid,385/)

<sup>26</sup> <http://www.cce-review.org/FAQs.php>

<sup>27</sup> [http://www.channel4.com/news/articles/science\\_technology/sceptics+seek+second+climategate+panel+casualty/3564682](http://www.channel4.com/news/articles/science_technology/sceptics+seek+second+climategate+panel+casualty/3564682)

Asked whether he was implying dirty tricks we received another email: “Professor Boulton has no CV with that line on it, because there is no reason for it”, adding: “people are free to draw their own conclusions as to why it seems to have appeared now”.

Instead of seeking to blame others for the inflated claims, Boulton should have admitted that the CVs had in fact been distributed by the University of Edinburgh and had been cited in his Heidelberg eulogy.

## **Conclusion**

In order for climate science to get past the present Climategate controversy, it is vitally important that no one be able to “call into question” any aspect of the conduct of the Inquiry. Unfortunately, the Inquiry has thus far not lived up to this essential objective. The Issues Paper has been prepared without even completing the examination of all emails in the Climategate dossier, let alone the examination of other relevant emails and documents not accessible to the public. And instead of resolving itself to finish this vital aspect of its remit, the Team has only committed to examine such other documents if placed on the “trail” by the general public, even though the public has no access to emails and documents at CRU other than those in the Climategate dossier. The inadequate preparation is exacerbated by failing to interview key critics and targets of the Climategate Letters – resulting in a very odd inquiry preparation in which only one side is interviewed. The Issues Paper itself is an incomplete and amateurish document, redolent more of preparation for an academic thesis than a professional inquiry.

The composition of the Team is inappropriate for an Inquiry that seeks not to be “called into question” due to the inclusion of Team members that, contrary to Muir Russell’s sensible undertaking at the original announcement, have links both to the University and to the Climate Science community, as well as having links to a prominent energy producer.

Finally, the conduct of the Team since its announcement has raised one question after another, mostly involving Team member Boulton, ranging from misrepresentations or misleading statements about his links to the University of East Anglia, his links to the Climate Science community and, most recently and bizarrely, his attempts to insinuate that skeptics were responsible for inflated claims in his 2007 Curriculum Vitae distributed by the University of Edinburgh to Chinese universities and cited in his 2008 Heidelberg eulogy.

In order for the Inquiry to fulfill its undertakings to the University and to the broader community interested in the events, I recommend that Team members Boulton and Eyton resign and that the Inquiry retain competent counsel with past inquiry experience.

## **APPENDIX – SCIENCE AND TECHNOLOGY COMMITTEE SUBMISSION**

### **THE DISCLOSURE OF CLIMATE DATA FROM THE CLIMATIC RESEARCH UNIT AT THE UNIVERSITY OF EAST ANGLIA**

**Stephen McIntyre  
Climate Audit  
Feb. 10, 2010**

#### **Summary**

1. Reconstructions of temperature over the past 1000 years have been a highly visible part of IPCC presentations to the public. CRU has been extremely influential in IPCC reconstructions through: coauthorship, the use of CRU chronologies, peer review and IPCC participation. To my knowledge, there are no 1000-year reconstructions which are truly “independent” of CRU influence. In my opinion, CRU has manipulated and/or withheld data with an effect on the research record. The manipulation includes (but is not limited to) arbitrary adjustment (“bodging”), cherry picking and deletion of adverse data. The problem is deeply rooted in the sense that some forms of data manipulation and withholding are so embedded that the practitioners and peer reviewers in the specialty seem either to no longer notice or are unoffended by the practices. Specialists have fiercely resisted efforts by outside statisticians questioning these practices – the resistance being evident in the Climategate letters. These letters are rich in detail of individual incidents. My submission today will not comment on these individual incidents (some of which I’ve commented on already at Climate Audit), but to try to place the incidents into context and show why they matter to the research record. I will not comment in this submission on CRUTEM issues only for space reasons.

#### **Introduction**

2. Together with Ross McKittrick, I have published several peer-reviewed articles on 1000-year reconstructions and reconstructions, made invited presentations to a panel of the U.S. National Academy of Sciences, to a subcommittee of the U.S. House Energy and Commerce Committee and a Union Session of the American Geophysical Union and have in-depth personal knowledge of CRU proxy reconstructions. I was a reviewer of the IPCC 2007 Assessment Report. I am the “editor” of a prominent climate blog, [www.climateaudit.org](http://www.climateaudit.org), which analyzes proxy reconstructions. I am discussed in many Climategate Letters.

#### **Temperature Reconstructions**

3. Keith Briffa was Lead Author of the IPCC 2007 section on “recent” paleoclimatology, the Climategate Letters showing that he worked closely with Mann associate, Eugene Wahl (not a listed IPCC expert reviewer). Mann was Lead Author of the corresponding IPCC 2001 section, with the Climategate Letters showing that he worked closely with Briffa and Jones.

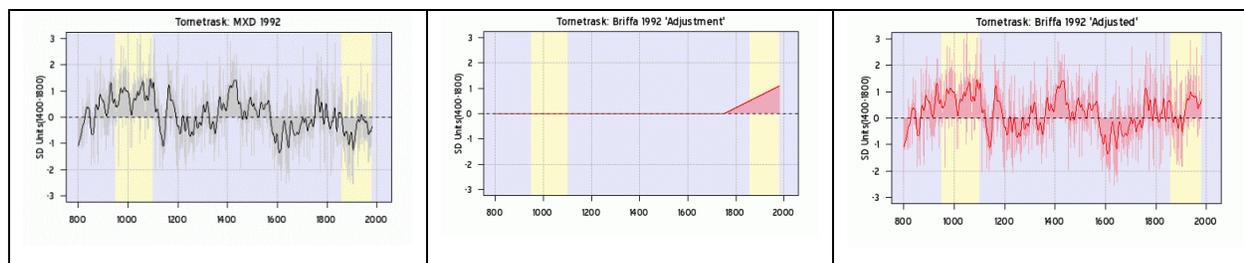
4. Jones, Briffa and Osborn were on the editorial boards of multiple climate journals and participated actively both in peer review and the assignment of peer reviewers.

5. CRU scientists (and Climategate correspondent Michael Mann) were coauthors of all three reconstructions in the IPCC 2001 report and coauthors of six (of ten) multiproxy reconstructions in the IPCC 2007 report.

6. CRU tree ring proxies (in particular, Tornetrask, Yamal/Polar Urals, Taymir) were used in all ten IPCC 2007 multiproxy reconstructions.

## “Bodging”

7. One of the underlying problems in trying to use tree ring width/density chronologies for temperature reconstructions is a decline in 20th century values at many sites – Briffa’s 1992 density (MXD) chronology for the influential Tornetrask site is shown at left below. The MXD chronology had a very high correlation to temperature, but went down in the 20th century relative to what it was “expected” to do and relative to the ring width (RW) chronology (which had a lower correlation to temperature.) So Briffa “adjusted” the MXD chronology, by a linear increase to the latter values (middle), thereby reducing the medieval-modern differential. This adjustment was described in private as the “Briffa bodge” (Melvin and Briffa 2008).



**Figure 1. Tornetrask from Briffa (1992). Left – MXD chronology. Middle – “Briffa bodge”; right – Briffa 1992 “adjusted”.**

8. Although there was no scientific basis for such an arbitrary adjustment, peer reviewers of Briffa et al (1992) did not object. “Bodging” then seems to have entered into the CRU toolkit to get reconstructions to “look” right, as evidenced by the Climategate documents containing annotations that the method contains “fudge factors” or “very artificial corrections for decline” (e.g. [http://di2.nu/foia/harris-tree/briffa\\_sep98\\_e.pro](http://di2.nu/foia/harris-tree/briffa_sep98_e.pro))

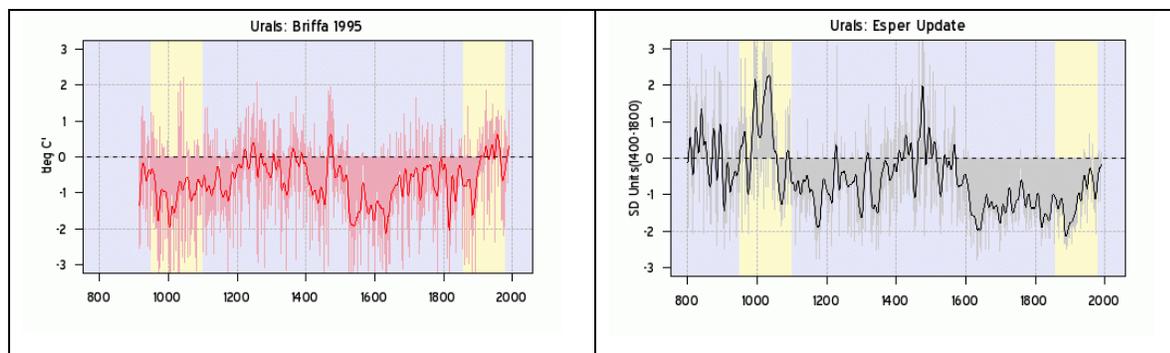
```
;***** APPLIES A VERY ARTIFICIAL CORRECTION FOR DECLINE*****  
valadj=[0.,0.,0.,0.,0.,-0.1,-0.25,-0.3,0.,-0.1,0.3,0.8,1.2,1.7,2.5,2.6,2.6,$  
2.6,2.6,2.6]*0.75 ; fudge factor
```

9. Although the bodge was reported in the original article, the bodge was not reported in the numerous multiproxy studies relying on the Tornetrask reconstruction nor in the IPCC reports nor was it considered in calculation of confidence intervals.

## Withholding Adverse Data

10. There are many incidents in the Climategate Letters of withholding data. I’ll review one incident which, in my opinion, has a direct impact on the research record.

11. Briffa et al. (1995) produced an influential chronology from the Polar Urals site (Figure 2- left), which combated the idea of a widespread Medieval Warm Period, supposedly showing a very cold 11th century in Siberia, with 1032 supposedly being the coldest year of the millennium. Further measurements (Figure 2- right) yielded a chronology in which the 11th century was warmer than the 20th century. Neither CRU nor any other climate scientist ever published this update. The data at right has never been publicly archived and was obtained only through quasi-litigation at *Science*. (One of the Climategate Letters expresses regret that the data was made available.)



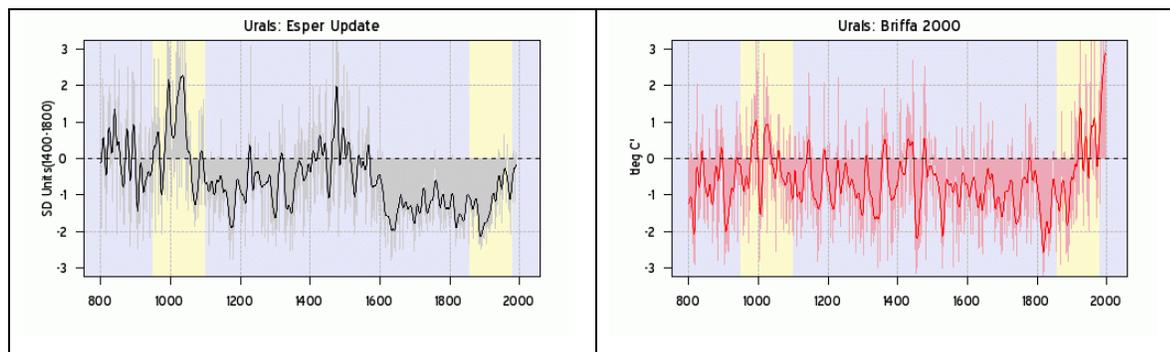
**Figure 2. Urals tree ring chronologies. Left – Briffa (1995). Right – updated Polar Urals version used in Esper et al (2002).**

12. The failure to publish this data set has two important adverse results. The inconsistency between different tree ring chronologies is disguised. In addition, the data set was unavailable for third parties interested in producing multiproxy reconstructions.

### “Cherry-picking”

13. There has been considerable suspicion that CRU cherry-picked the Yamal chronology over the updated Polar Urals chronology or a still unavailable combined chronology attested in Climategate Letter 1146252894.txt.

14. Instead of showing the updated Polar Urals chronology (figure 3-left), Briffa (2000) replaced it without discussion with a chronology from nearby Yamal, one with an extremely pronounced hockey stick shape. This chronology became a mainstay of subsequent multiproxy reconstructions, while the unpublished Polar Urals chronology was ignored. Measurement data for the three Briffa (2000) chronologies - Yamal, Taymir and Tornetrask - was not archived at the international tree ring measurement archive. Briffa resisted requests to archive the measurement data, which was not archived until September 2009 (and then only after Phil Trans B was asked to require its archiving.)



**Figure 3. Urals tree ring chronologies. Left – updated Polar Urals version used in Esper et al (2002); right – Yamal from Briffa (2000).**

15. Replacement of the Yamal chronology with the Polar Urals chronology alters the ranking of the medieval and modern periods in, for example, the Briffa (2000) composite reconstruction, impacting IPCC assertions in respect to the confidence of their belief in unprecedented modern warmth. As an IPCC reviewer, I requested that this be disclosed. In his capacity as IPCC Lead Author, Briffa refused. In the absence of any explanation of the substitution, there is reason to be concerned about the reasons for using one series rather than the other.

16. The Yamal chronology was very much in the news just before Climategate broke, with questions being asked at Climate Audit about replication and homogeneity, neither of which had been previously addressed in peer reviewed literature.

17. The Climategate Letters (e.g. 878654527.txt) also show evidence that Briffa's concern over non-linear recent growth – a concern that was not disclosed in Briffa (2000).

18. A similar cherry-picking issue arises with the preferential use in multiproxy studies of the Briffa (2000) Tornetrask version in preference to the Grudd (2006) version, which has a medieval period that is relatively “warmer” than the modern period.

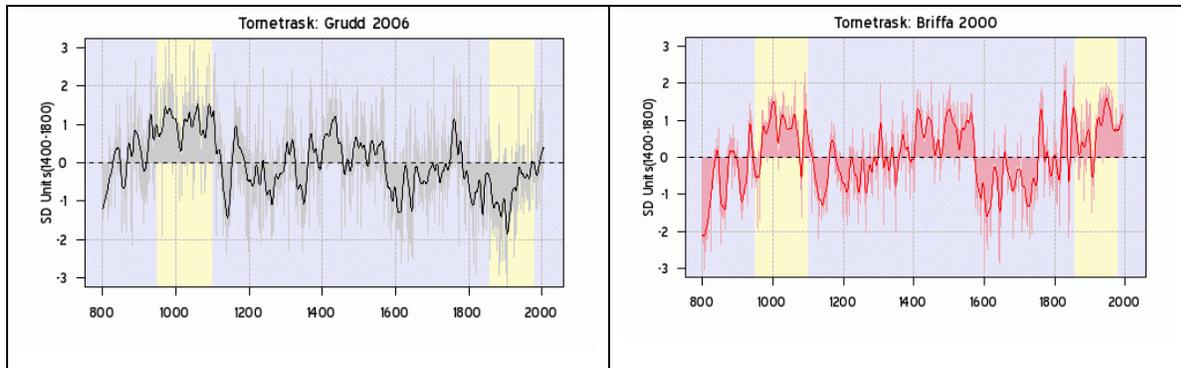


Figure 1. Tornetrask reconstructions. Left – Grudd 2006, 2008; right – Briffa 2000.

## Impact on Reconstructions

19. The above examples show influential CRU site chronologies. However, the number of proxies in a typical IPCC multiproxy reconstruction is sufficiently small that the choice between two versions of a single site chronology can impact the overall reconstruction. For example, Figure 5 compares the published Briffa (2000) reconstruction (left) with a version derived merely by varying versions of Tornetrask and west Siberia tree ring chronologies (right). The medieval-modern differential changes with one seemingly inconsequential change of version.

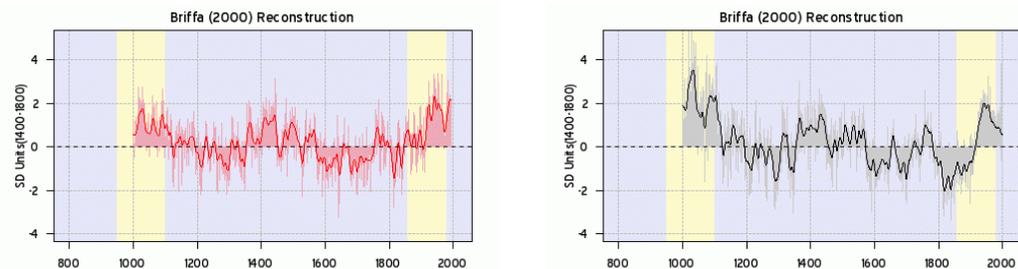


Figure 5. Briffa (2000) Reconstruction (before fitting to temperature). Left – version from Briffa (2000); right – varying the Tornetrask and Urals versions to newer versions.

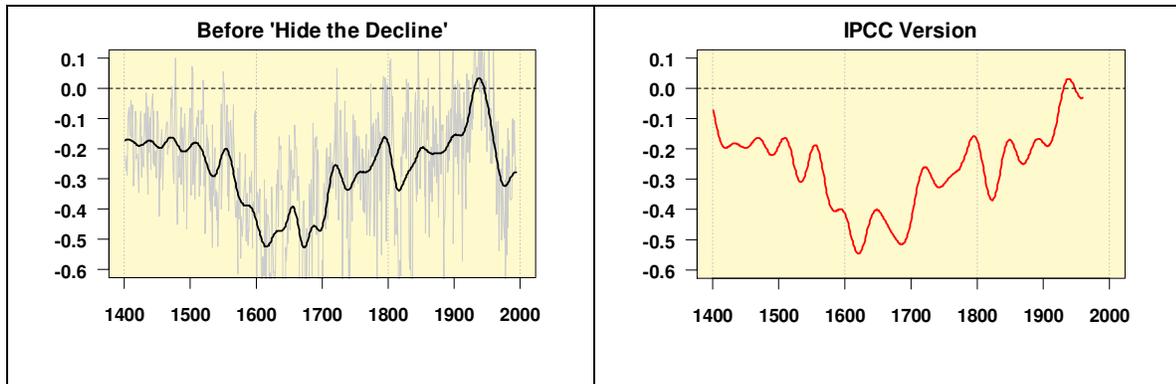
## The “Trick ... to Hide the Decline”

20. Climate scientists have argued that the term “trick” can denote a clever way “to bring two or more different kinds of data sets together in a legitimate fashion by a technique that has been reviewed by

a broad array of peers in the field.” (Penn State Inquiry). This is incorrect as applied to representations of the Briffa MXD reconstruction.

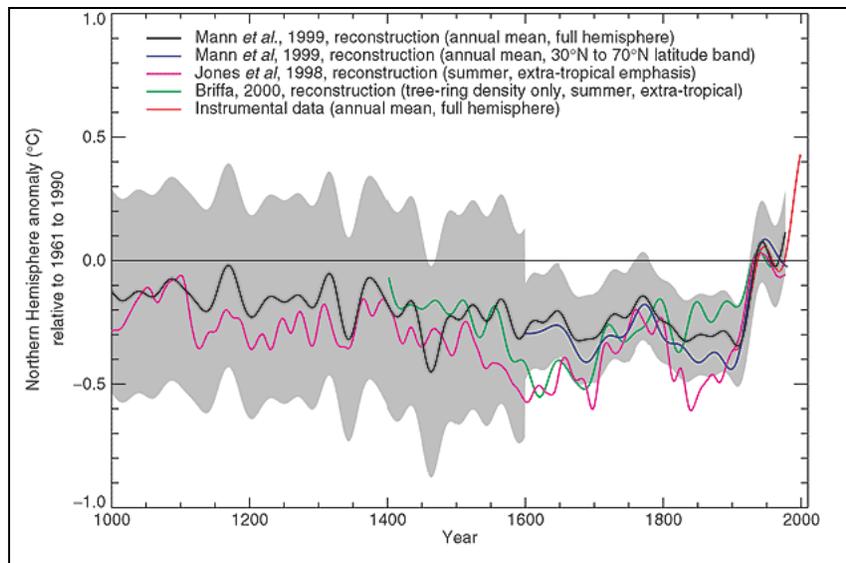
21. The “trick” arose in the context of pressure on IPCC 2001 authors to present a “nice tidy story” and to avoid a situation where the Briffa reconstruction “diluted the message” (see <http://climateaudit.org/2009/12/10/ipcc-and-the-trick/>) . Two different variants of the “trick” appear in contemporary graphics.

22. Figure 6 (left) shows the actual Briffa MXD reconstruction (data available for the first time in the Climategate Letters) and (right) the version in IPCC 2001 Fig 2-21 (digitized on right. The IPCC “trick” was not a “clever” mathematical method – it was merely the deletion of inconvenient data after 1960. Post-1960 values were even deleted in the reconstruction archived version at NOAA<sup>28</sup>.



**Figure 6. Left – Briffa MXD reconstruction re-scaled to IPCC scale with 40-point Hamming filter smooth. Right – Digitized from IPCC 2001 graphic.**

23. The deletion of post-1960 values of the Briffa MXD reconstruction gave the IPCC (2001) temperature reconstructions a rhetorical appearance of consistency that did not exist in the underlying data (as shown below)



**Figure 7. IPCC 2001 Figure 2-21. The Briffa MXD reconstruction (green) terminates in 1960.**

<sup>28</sup> [ftp://ftp.ncdc.noaa.gov/pub/data/paleo/treering/reconstructions/n\\_hem\\_temp/briffa2001jgr3.txt](ftp://ftp.ncdc.noaa.gov/pub/data/paleo/treering/reconstructions/n_hem_temp/briffa2001jgr3.txt)

24. A somewhat different “trick” was used in the World Meteorological Organization 1999 report (shown in Figure 8 below). Jones substituted instrumental temperatures for MXD reconstruction values after 1960, resulting in an entirely false rhetorical impression of the efficacy of tree ring reconstructions. Far from this technique being “legitimate”, Mann himself at realclimate<sup>29</sup> had stated precisely the opposite about the splicing of temperatures and reconstructions into a single graft:

No researchers in this field have ever, to our knowledge, “grafted the thermometer record onto” any reconstruction. It is somewhat disappointing to find this specious claim (which we usually find originating from industry-funded climate disinformation websites) appearing in this forum.

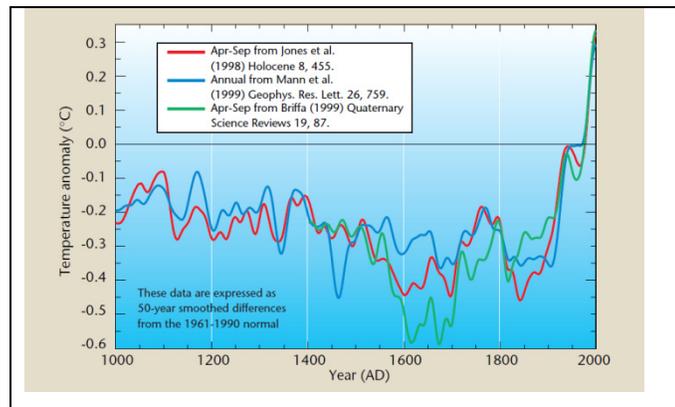


Figure 8. WMO 1999, with the spliced Briffa reconstruction (green).

## Conduct

25. The Climategate Letters obviously contain many dispiriting examples of poor conduct, including the following.

26. Withholding of data from potential critics:

Jones: We have 25 or so years invested in the work. Why should I make the data available to you, when your aim is to try and find something wrong with it.<sup>30</sup>

Osborn to Science: I don't have any core measurement data and therefore have none to give out!<sup>31</sup> [Climategate Letters and documents show that CRU had the requested measurement data<sup>32</sup>]

Mann to Osborn: I'm providing these [MBH residuals] for your own personal use, since you're a trusted colleague. So please don't pass this along to others without checking w/ me first. This is the sort of "dirty laundry" one doesn't want to fall into the hands of those who might potentially try to distort things.<sup>33</sup>

27. Use of the peer review process to suppress or delay adverse publications:

<sup>29</sup> Myth vs. Fact Regarding the “Hockey Stick

<sup>30</sup> <http://climateaudit.org/2005/10/15/we-have-25-years-invested-in-this-work/>

<sup>31</sup> <http://climateaudit.org/2010/01/04/difference-in-yamal-versions-not-insignificant/> ; March 31, 2006:

<http://www.eastangliaemails.com/emails.php?eid=680>

<sup>32</sup> <http://www.climate-gate.org/cru/documents/yamal/> and <http://climateaudit.org/2010/01/04/what-happened-to-polar-urals/>; Apr 28, 2006 <http://www.eastangliaemails.com/emails.php?eid=684>

<sup>33</sup> <http://www.eastangliaemails.com/emails.php?eid=345&filename=1059664704.txt>

If published as is, this paper could really do some damage. It is also an ugly paper to review because it is rather mathematical, with a lot of Box-Jenkins stuff in it. It won't be easy to dismiss out of hand as the math appears to be correct theoretically<sup>34</sup>

Recently rejected two papers (one for JGR and for GRL) from people saying CRU has it wrong over Siberia. Went to town in both reviews, hopefully successfully. If either appears I will be very surprised<sup>35</sup>

I am really sorry but I have to nag about that review – Confidentially I now need a hard and if required extensive case for rejecting<sup>36</sup>

I can't see either of these papers being in the next IPCC report. Kevin [Trenberth] and I will keep them out somehow – even if we have to redefine what the peer-review literature is !<sup>37</sup>

28. Soft reviews of submissions by close associates. The Climategate documents provide multiple examples of soft reviews of submissions by colleagues Mann<sup>38</sup>, Schmidt<sup>39</sup>, Santer<sup>40</sup> and Wahl and Ammann<sup>41</sup>. Presumably there are many others. The review of articles in which a reviewer has a personal relationship is a recognized conflict of interest in medical journals. For example, the World Association of Medical Editors statement<sup>42</sup> says:

a reviewer may have difficulty providing an unbiased review of articles by investigators who have been working colleagues. Similarly, he or she may find it difficult to be unbiased when reviewing the work of competitors

29. The Climategate Letters are replete with examples of unprofessional language, which on occasion rises to defamation:

The important thing is to deny that this has any intellectual credibility whatsoever and, if contacted by any media, to dismiss this for the stunt that it is.<sup>43</sup>

If \*others\* want to say that their actions represent scientific fraud, intellectual dishonesty, etc. (as I think we all suspect they do), lets let \*them\* make these charges for us!<sup>44</sup>

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<sup>34</sup> [http://climateaudit.org/2009/12/16/climategatekeeping/;](http://climateaudit.org/2009/12/16/climategatekeeping/)

<http://www.eastangliaemails.com/emails.php?eid=321&filename=1054756929.txt>

<sup>35</sup> [http://climateaudit.org/2009/12/16/climategatekeeping/;](http://climateaudit.org/2009/12/16/climategatekeeping/)

<http://www.eastangliaemails.com/emails.php?eid=407&filename=1080742144.txt>

<sup>36</sup> [http://climateaudit.org/2009/12/16/climategatekeeping/;](http://climateaudit.org/2009/12/16/climategatekeeping/) [1054748574](http://www.eastangliaemails.com/emails.php?eid=1054748574)

<sup>37</sup> Jones successfully kept McKittrick and Michaels (2004) out of the AR4 First and Second Drafts. After Review Comments, Jones reluctantly included a reference together with a dismissive editorial comment that was not based on any eligible peer reviewed literature, [http://climateaudit.org/2009/12/17/climategatekeeping-2/;](http://climateaudit.org/2009/12/17/climategatekeeping-2/)

<http://www.eastangliaemails.com/emails.php?eid=419&filename=1089318616.txt>

<sup>38</sup> <http://climateaudit.org/2009/12/23/climategatekeeping-jones-reviews-mann/>

<sup>39</sup> [http://climateaudit.org/2009/12/22/climategatekeeping-schmidt-2009/;](http://climateaudit.org/2009/12/22/climategatekeeping-schmidt-2009/) [http://www.climate-gate.org/cru/documents/review\\_schmidt.doc](http://www.climate-gate.org/cru/documents/review_schmidt.doc)

<sup>40</sup> <http://www.climate-gate.org/cru/documents/Review-Santer-et-al-2008.doc>

<sup>41</sup> <http://www.climate-gate.org/cru/documents/Review%20of%20Wahl&Amman.doc>

<sup>42</sup> <http://www.wame.org/conflict-of-interest-in-peer-reviewed-medical-journals>

<sup>43</sup> [http://climateaudit.org/2010/01/04/back-to-2003/;](http://climateaudit.org/2010/01/04/back-to-2003/)

<http://www.eastangliaemails.com/emails.php?eid=376&filename=1067194064.txt>

some cool statement can be made saying we believe the “prats have really fucked up someway” – and that the premature publication of their paper is reprehensible.<sup>45</sup>

I'm saddened to hear that this bozo is bothering you too, in addition to NCAR, NSF, NAS, IPCC and everyone else. Rest assured that I won't ever respond to McIntyre should he ever contact me, but I will forward you any email he sends related to this. I assume Scott feels the same way..

personally, I don't see why you should make any concessions for this moron.<sup>46</sup>

Mr. Fraudit never goes away does he? How often has he been told that we don't have permission? Ho hum. Oh, I heard that fraudit's Santer et al comment got rejected. That'll brighten your day at least a teensy bit?<sup>47</sup>

I noticed that ClimateFraudit had renewed their interest in you. I was thinking about sending an email of sympathy, but I was busy preparing for a quick trip to Hawaii<sup>48</sup>:

I would immediately delete anything you receive from this fraud.<sup>49</sup>

Hi Andy, The McIntyre and McKitrick paper is pure scientific fraud.<sup>50</sup>

I've seen this junk already. Look at the co-authors! DeFrietas, Bob Carter: a couple of frauds.<sup>51</sup>

30. One of the most dispiriting aspects of the Climategate Letters is the evidence of CRU's contribution to the poisoned atmosphere of present climate science. In 2003, CRU criticized us for supposedly not attempting to reconcile differences between our methodology and Mann's methodology. In October 2003, Osborn observed:

The single worst thing about the whole M&M saga is not that they did their study, not that they did things wrong (deliberately or by accident), but that neither they nor the journal took the necessary step of investigating whether the difference between their results and yours could be explained simply by some error or set of errors in their use of the data or in their implementation of your method.<sup>52</sup>

31. Osborn proposed a draft statement, which, had it been accepted by CRU, would probably have prevented much, if not most, of the following controversy:

... we are withholding further comments until we can - by collaboration with M&M if possible - be certain of exactly what changes to data and method were made by M&M, whether these changes can really explain the differences in the results, and eventually which (if any) of these changes can

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<sup>44</sup> <http://climateaudit.org/2010/01/07/team-responses-to-mm2003/>;

<http://www.eastangliaemails.com/emails.php?eid=381&filename=1067596623.txt>

<sup>45</sup> <http://climateaudit.org/2010/01/07/team-responses-to-mm2003/>;

<http://www.eastangliaemails.com/emails.php?eid=380>

<sup>46</sup> <http://www.eastangliaemails.com/emails.php?eid=686&filename=1147435800.txt>

<sup>47</sup> <http://www.eastangliaemails.com/emails.php?eid=973&filename=1242132884.txt>

<sup>48</sup> <http://www.eastangliaemails.com/emails.php?eid=991&filename=1248902393.txt>

<sup>49</sup> <http://www.eastangliaemails.com/emails.php?eid=458&filename=1104855751.txt>

<sup>50</sup> <http://www.eastangliaemails.com/emails.php?eid=492&filename=1107899057.txt>

<sup>51</sup> <http://www.eastangliaemails.com/emails.php?eid=773&filename=1169050678.txt>

<sup>52</sup> <http://www.eastangliaemails.com/emails.php?eid=381&filename=1067596623.txt>

be justified as equally valid (given the various uncertainties that exist) and which are simply errors that invalidate their results.<sup>53</sup>

32. In November 2003, I entered into negotiations with CRU, agreeing to their review of our pending follow-up to our 2003 article, on the condition that CRU agreed to issue a short statement if their review confirmed that we had raised valid concerns:

If you identify any flaws in our document, we will rectify them, and you are at liberty to hold us to public account if we fail to do so....

If you find our document raises valid and meritorious concerns, you will give us a short statement to that effect which we are entitled to publish.

33. In a follow-up email, I re-assured CRU that I did not have the faintest interest in publishing results that were at cross-purposes.

We have entered into discussions about a possible review by UEA/CRU in complete good faith. We do not have the slightest interest in presenting incorrect or defective results or to create debate which is merely at cross-purposes.

34. CRU then refused to carry out the review, choosing to attempt to frustrate us in secret behind the scenes. Jones, as a member of the editorial board of *Climatic Change*, actively lobbied so that Mann would not be required to disclose source code and supporting data that would have enabled us to reconcile results. Despite his adverse interest, Jones appears (according to a Climategate Letter) to have acted as a reviewer of our 2004 submission to *Nature*, intervening not to ensure the reconciliation of results proposed by Osborn, but to frustrate any criticism of the Mann reconstruction.

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<sup>53</sup> <http://www.eastangliaemails.com/emails.php?eid=381&filename=1067596623.txt>

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