

Climategate and the Inquiries

Introduction

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A large archive of emails and files from the Climate Research Unit (CRU) of the University of East Anglia in the United Kingdom was released on the internet in November 2009.

The CRU prepares a global temperature index and provides paleo-climate analysis from proxy data. Scientists at the CRU make a major contribution to writing the United Nations Intergovernmental Panel on Climate Change (IPCC) assessment reports on climate change.

The climategate emails revealed what many independent scientists had long suspected. The emails show that a group of climate scientists centred on the CRU:

- Manipulated, hid or misrepresented data and evidence in official reports.
- Blocked the publication of scientific results that contradicted the IPCC theory.
- Expressed greater doubt in the emails about the science than they wrote in official reports.
- Manipulated the peer-review process to get friends to review their papers.
- Blocked access to data and methodologies to prevent other scientists from evaluating their work.
- Pressured scientific journals to reject papers showing evidence contrary to their theory.
- Intimidated or discredited scientific journals that publish evidence contrary to their theory.
- Conspired to destroy data and emails subject to Freedom of Information Act (FOIA) laws.

A second set of CRU emails were released on November 22, 2011, just before the COP-17 Durban conference. These emails provided further context on the above issues.

For background information, we review three issues from the CRU paleo-climate work, then discuss the five inquiries that were commissioned in response to climategate.

Hide the Decline

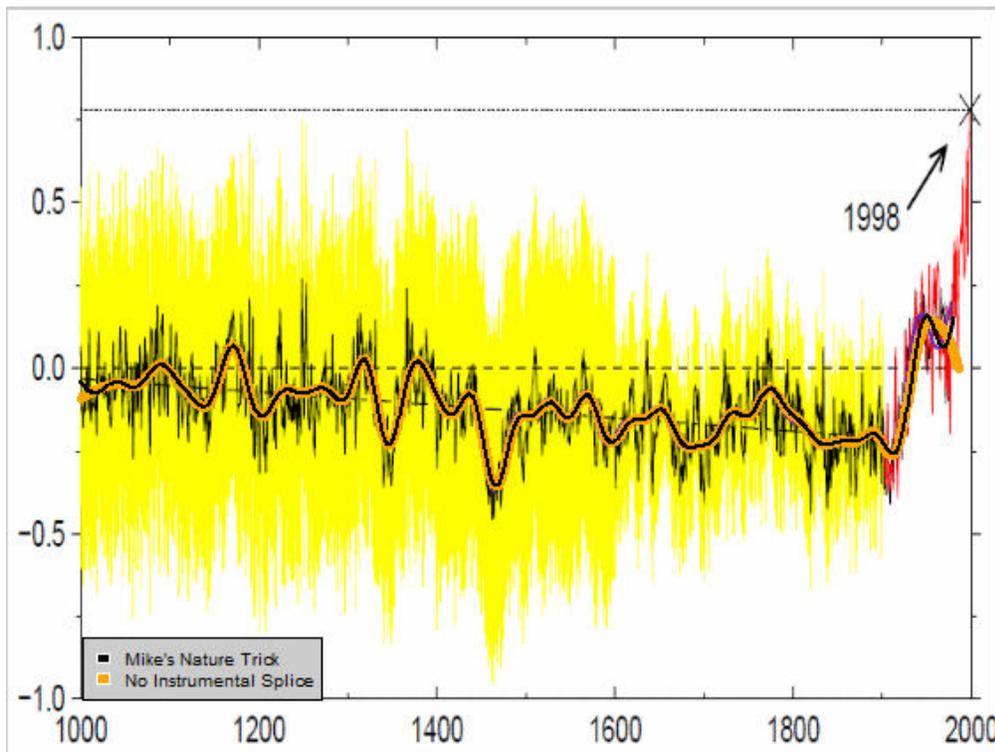
An iconic quote of Climategate by Dr. Phil Jones, Director of the Climate Research Unit at the University of East Anglia, UK is, **“I’ve just completed Mike’s Nature trick of adding in the real temps to each series for the last 20 years (ie from 1981 onwards) and [sic] from 1961 for Keith’s to hide the decline.”**

This refers to just one incident among many, but a brief review of the issues concerning this quote will demonstrate the level of deception that the scientists employed to satisfy the IPCC requirement to present an alarming picture of human-induced climate change.

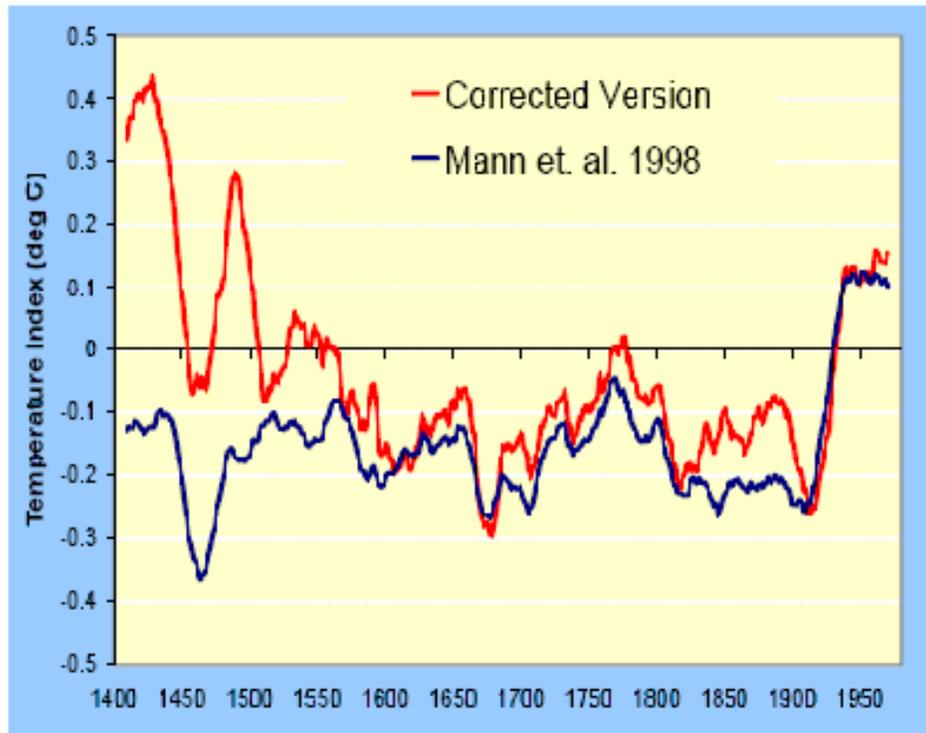
Tree growth is affected by many factors including precipitation, shade, insects and temperature. It is alleged that the tree ring thickness and the wood density are indicators of temperature, but changes in moisture might have a much larger impact on growth than temperature. Accurate temperature measurements by thermometer instruments have only been available near the northern forest for a hundred years or so, which provides a very small window of time to test if tree rings are responding to temperature. If the tree rings do not correspond to temperature during recent history, the tree ring-based temperature reconstruction would likely not respond to temperatures before the use of thermometers, so the reconstruction would be invalid.

“Mike’s Nature trick” refers to a manipulation of tree ring data, a proxy for temperature, employed in Michael Mann’s paper published in the journal Nature in 1999.

The end of Mann’s tree ring series shows a temperature decline. The trick consists of splicing instrument data to the tree ring proxy data up to 1980, smoothing the data with a 50 year filter, then deleting the smoothed data at the end of the proxy data. This has the effect of changing the declining tree ring data to increasing to 1980, thereby making it falsely appear that the tree ring data follow the temperature data. The data with and without the trick is shown in the graph below. The trick as used here was a minor transgression.

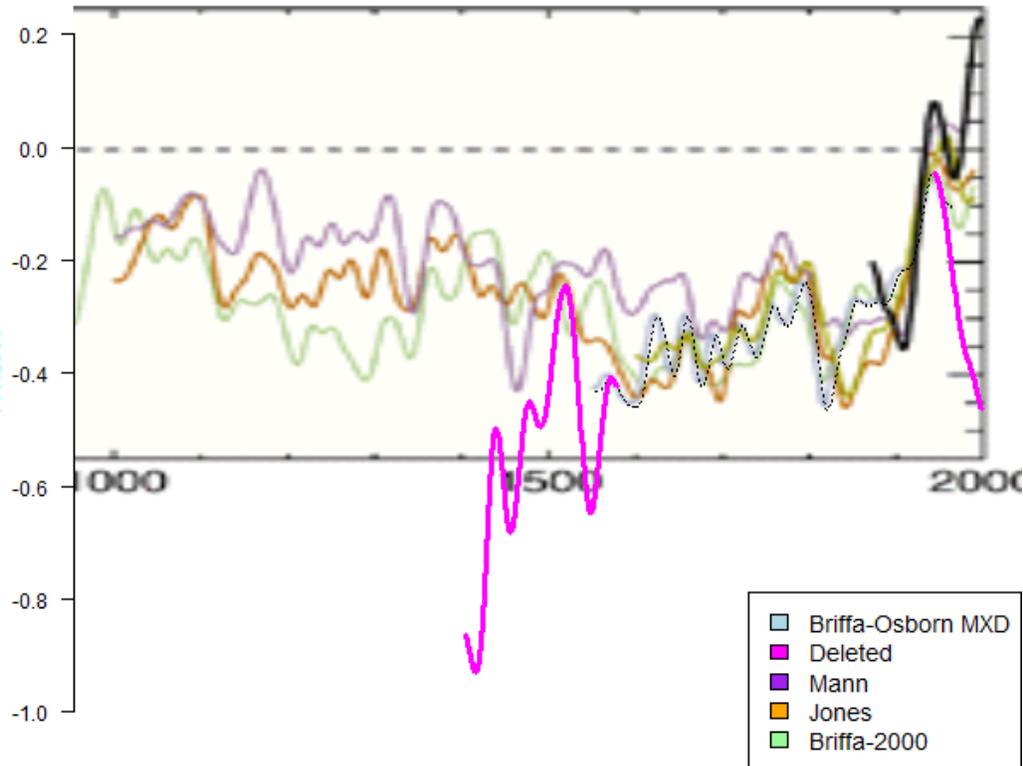


The above graph is the infamous hockey stick graph used in the Third Assessment Report (TAR). The graph was found to be invalid due to incorrect statistical (principal component) analysis and many data errors, which had the effect of eliminating the Medieval Warm Period and the Little Ice Age. The Mann et al 1998 version of the hockey stick and a corrected version with data errors fixed and correct statistical analysis are shown below.



The rise of the blade of the hockey stick in the 20th century is greatly influenced by the use of Bristlecone Pine trees which are greatly affected by carbon dioxide fertilization. This tree type should not be used in temperature reconstructions.

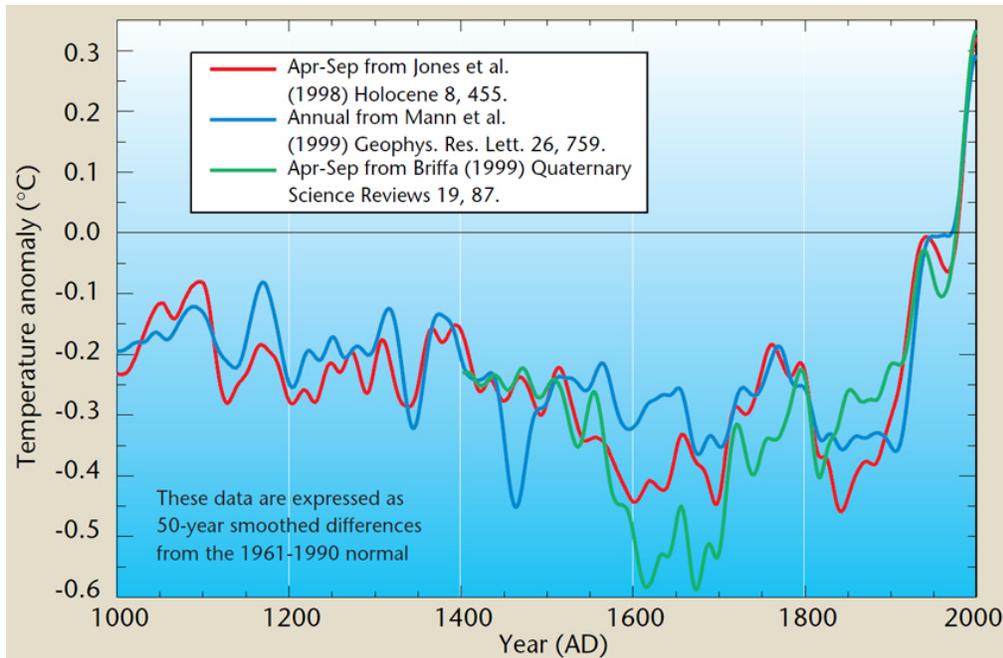
The “Keith” in the quote refers to Keith Briffa. “Keith’s Science trick” was first used in the Briffa and Osborn paper published in the journal *Science* in 1999. The trick was just deleting the inconvenient, declining tree ring data after 1960 as shown by the pink curve in the graph below.



The Briffa-Osborn data use the maximum latewood density (MXD) rather than tree ring width as a proxy for temperature. Note that they also deleted data before 1590 which did not agree with the other proxies. The trick used here is a major transgression. Most people viewing all the data would conclude the Briffa-Osborn MSX data bears no resemblance to temperature.

Dr. Phil Jones' trick of the above quote is a combination of "Keith's Science trick" and "Mike's Nature trick". He was preparing a graph for the World Meteorological Organization (WMO). Steve McIntyre of Climate Audit writes, "Values of the Briffa reconstruction were deleted after 1960 (Keith's Science Trick) and spliced with instrumental data prior to smoothing (Mike's Nature Trick). But, unlike Mann, Jones didn't peel the smooth back to the end date of the proxy data." See Climate Audit article [here](#).

The tricks led to this WMO graph:



There is no indication that the graph is a merger of proxy and measured temperature, and no way to judge how well the proxies correspond to the measured temperature record.

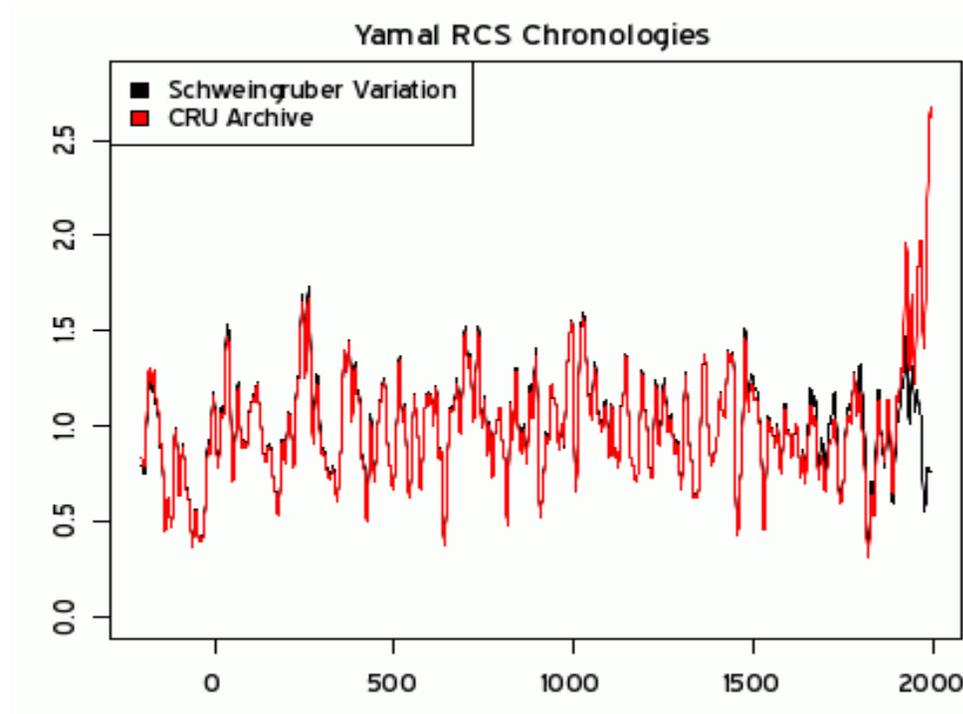
Yamal Implosion

The Climategate emails started and ended with the Yamal controversy. Yamal is an area in northern Siberia where Keith Briffa used tree ring widths (not density used in the Hide the Decline reconstruction) to get a hockey stick shaped graph. The Yamal data was collected by two Russian scientists. Their results, which they published in 2002, did not show much of a 20th century increase. But Briffa's version of the data shows a sharp rise at the end of the 20th century.

Steve McIntyre asked for the data in 2006 to determine why Briffa's version of the data was so different from that published by the Russians. The Briffa and the climate journal "Science" refused to provide the data. The data finally was made available in September 2009 after a protracted exchange. The data showed that Briffa used only half the number of cores covering the Medieval Warm Period that the Russian scientists reported.

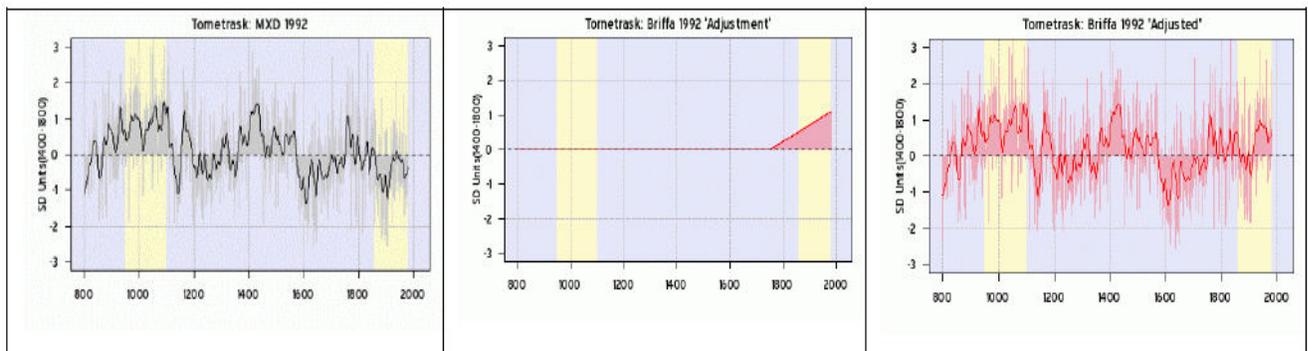
A typical chronology of tree ring cores uses 50 to 100 cores. The Briffa Yamal series used only 12 cores from 1988, a ludicrously small number. The core count dropped to 10 in 1990, 5 cores in 1995. The red curve of the graph below shows the Briffa Yamal series. McIntyre discovered that a Swiss scientist Schweingruber collected a series of 34 cores called Khadyta River close by to Yamal. The black line shows a sensitivity of replacing the 12 cores Briffa used with the 34 cores in the same area that Briffa did not use, but had available. The 12 cores were selected from a

larger set of cores giving the red hockey stick shape. The revised chronology was simply staggering. The sharp uptick in the series at the end of the twentieth century had vanished, leaving a twentieth century apparently without a significant trend. The hockey stick shape was gone. The CRU archive version is used in 10 climate reconstructions. See Bishop Hill article [here](#).



Briffa Bodge

Tree-ring widths or densities show declining values at many sites which has caused difficulty for CRU scientists trying to show warming trends. Keith Briffa produced a tree-ring density series in the Tornetrask site, but the series went down in the 20th century, as shown in the first panel below.



Briffa added a linear increasing adjustment, known as the Briffa Bodge shown in the middle panel, to create the adjusted series shown in the right panel, thereby reducing the difference between the medieval and recent warm periods. There was no scientific basis for such an arbitrary adjustment.

The Five Inquiries

Dr. Ross McKittrick, Professor of Environmental Economics from the University of Guelph, Ontario, wrote a 51-page paper “Understanding the Climategate Inquiries” [here](#). The following is a brief summary of the climategate inquiries based largely on Dr. McKittrick’s paper.

The review shows that the inquiries sidestepped or ignored most of the issues but confirmed many criticisms of the climategate conspirators. The inquiries were inadequate as they failed to interview critics, cross-examine evidence, and investigate the key issues. The primary reason the inquiries were inadequate is that they were stacked by global warming activists, many of whom benefit financially from the global warming scare.

There were five inquiries. The inquiry name, the investigators and a comment on the investigation is given in the table below:

Inquiry	Investigators	Work Done
The UK House of Commons Science and Technology Committee	14 Members of Parliament	Reviewed honesty of hide the decline, transparency, blocking opposing views, compliance with the FOIA and the CRUTEM dataset
The Oxburgh Panel	Lord Ronald Oxburgh and 6 others	Reviewed 11 papers selected by UEA, none of which were controversial. Failed to investigate science issues.
The Independent Climate Change Emails Review	Sir Muir Russell and 4 others	Review emails for evidence of manipulation and suppression of data, response to FOIA requests. Found that “hide the decline” was misleading.
Penn State University Inquiry Investigation	2 Tenured Professors 5 Tenured Professors	Interviewed Michael Mann, no critics. Dismissed allegations without any investigation.
InterAcademy Council	12 members	Investigate IPCC procedures. Made numerous recommendations to improve procedures and transparency.

The UK House of Commons Science and Technology Committee

The committee was announced on 22 January 2010. All committee members are committed to policies to restrict carbon dioxide emissions and subsidize renewable energy. The inquiry received 58 submissions. The Inquiry held only one session for receiving oral evidence, on 1 March 2010. Only two critics were interviewed, neither were experts in the issues under examination.

None of the many erroneous statements made by CRU supporters were subject to cross examination.

The committee found the:

- CRU failed to abide by best scientific practice by refusing to share its raw data and detailed methods.
- CRU has deliberately misrepresented the data, in order to produce results that fit its preconceived views.

CRU selects some 2000 record out of 8000 from the Global Historical Climate Network archive for use in their temperature index. They do not disclose the list of record used and their methods or justification for selecting and adjusting the data.

CRU claims some data can't be released due to confidentiality agreements, but they can't produce those agreements, likely because they don't exist.

The director of the CRU deleted paleo-climate tree-ring data which showed declining temperatures in the 20th century, with instrument data to "hide the decline" in IPCC and WMO reports for policy makers. The committee said the deleted data was known to be erroneous, but there was no evidence that the data was erroneous. The paleo-temperatures decline after 1960, corresponding to a large decline in the raw unadjusted instrument data, but the adjusted temperature data declines only slightly to 1975 then increases. The large divergence between the adjusted temperature data the paleo-climate tree-ring data indicates that the tree rings do not respond closely to temperatures.

The committee concluded it was OK to produce a misleading graph for policy makers as long as the flaw was disclosed in a scientific journal.

The committee reviews the email from Phil Jones which states, "Kevin and I will keep them out [of the IPCC report] somehow - even if we have to redefine what the peer-review literature is!" This refers to a paper by McKittrick and Michaels which shows that the CRU temperature index is contaminated by the effects of urban development.

The papers were omitted from the IPCC drafts shown to reviewers, and then false information was published in the IPCC report concerning the findings.

The Report also asked Muir Russell to settle the question of whether Jones had deleted emails that were subject to a FOIA request. The report states, “There is prima facie evidence that CRU has breached the Freedom of Information Act 2000”, but failed to investigate.

The committee’s report was published in March 2010, [here](#). A follow-up report is [here](#).

Oxburgh Inquiry

The University of East Anglia (UEA) announce on 22 March 2010 that Lord Ron Oxburgh would lead an inquiry into the science of the CRU. Contrary to UEA announcements, Lord Oxburgh never reviewed any science issues. Oxburgh wrote, “We were assessing people and their motivations. We were not assessing the wisdom of their judgments or the validity of their conclusions. ... The science was not the subject of our study.”

Lord Oxburgh is CEO of the Carbon Capture and Storage Association and Chairman of Falck Renewable Resources, both companies with strong vested interests in promoting climate policy. He is also UK Vice-Chair of GLOBE International, an industry-NGO-government consortium that lobbies for global warming policy. A more biased and conflict-of-interest chairperson could not be found.

Two other panelists were Kerry Emanuel, a coauthor with Phil Jones and Michael Mann, and Lisa Graumlich, a coauthor with climategate conspirator Malcolm Hughes.

The UEA prepared a list of 11 papers, vetted by Phil Jones, for the Oxburgh inquiry to examine. There was no independence between the UEA and the Oxburgh inquiry. The Oxburgh inquiry claimed that the papers were selected “on the advice of the Royal Society.” The list was determined by the UEA and rubber stamped by two members of the Royal Society, both of whom stated they had no expertise in the matter.

None of the papers examined were controversial. They did not include the papers discussed in the climategate emails, and did not include papers concerned with the Yamal series, the “hide the decline” or the “hockey stick” papers.

The inquiry did not call for submissions, did not hold any public hearings and did not interview any CRU critics. No notes were taken of interviews of CRU staff. None of the statements made by CRU staff were subject to cross examination.

The inquiry found that the CRU failed to use the best statistical methods, failed to properly document their methods and archive data. The CRU scientists, as lead authors of the IPCC reports, failed to disclose important uncertainty, especially the divergence problem, which would invalidate the tree ring base proxy temperature reconstructions. The Oxburgh Inquiry excused the scientists for producing misleading IPCC document where they disclosed the problems in scientific journals.

The failure to solicit counter-arguments from critics invalidates the Oxbough 5-page report, see [here](#).

Independent Climate Change Email Review

The review chaired by Sir Muir Russell was announced on 11 February 2010. The Inquiry claimed that none of its members had any links to the CRU, but one member, Dr. Geoffery Boulton was employed by the UEA in the School of Environmental Sciences from 1968 until 1986 and is a climate change activist.

The inquiry called for submissions from the public. No public hearings were held. The review team interviewed CRU and UEA staff but made no transcripts of the interviews. No critics were interviewed. There was no cross-examination of CRU scientist statements.

The inquiry made a hesitant effort to examine the CRU backup email server, but the UEA dissuaded them and the issue was dropped.

The review set out a set of 8 allegations against the CRU to investigate. The review ignored several of the allegations but instead investigated irrelevant or non-existent questions.

It was alleged that the CRU withheld the lists of surface stations used in the CRUTEM index, did not adequately explain their methods for adjusting the data and whether the adjustments were adequate for removing non-climate effects. The review team downloaded the GHCN data and constructed their own global average temperature, a completely irrelevant exercise. By noting that their own temperature construction agreed with the CRUTEM, they ignored the relevant allegations. The fact that the review team did not make adjustments to remove the urban heat island (UHI) effect, but matched the CRUTEM product suggests the CRUTEM also does not adequately remove UHI effects from the data.

The report concluded that the CRU should have provided a detailed list of stations used in the CRUTEM index. The report never addressed whether the data adjustments were adequate or the failure to explain their methods of adjusting the data.

Concerning the “hide the decline” issue of deleting the post 1960 declining tree-ring data in the IPCC reports, the review concluded the deception was acceptable because it was mentioned in the text of the Fourth Assessment Report. They ignored the fact that the deception was not mentioned in the text of the Third Assessment Report where the controversial graph first appeared.

The submitted evidence shows that small variations in selected proxies make a large difference to the results. The review dismissed this evidence because it was not published in peer-

reviewed journal. They conveniently ignored that fact the evidence could not be published because the CRU refused to release the data for so long.

Keith Briffa's Yamal tree-ring series shows a large increase, (the blade of the hockey stick shape) when the core count collapsed. He ignored many nearby cores that did not show the hockey stick shape. The review dismissed concerns about the Yamal series based on it being used in only 5 or the 8 tree-ring reconstructions published by the IPCC. But the fact the Yamal series was so widely used means that the Yamal deception is very important.

Concerning uncertainty in the presentation of the paleo data, the review report falsely stated "The variation within and between lines, as well as the depiction of uncertainty is quite apparent to any reader". The most important variation is the Briffa's post 1960 data that was deleted, so it could not be apparent to any reader.

The report concludes that "the figure supplied for the WMO Report was misleading in not describing that one of the series was truncated post 1960 for the figure, and in not being clear on the fact that proxy and instrumental data were spliced together." Having concluded that Phil Jones actions were misleading, the report falsely dismisses claims against his integrity.

Phil Jones was alleged to have inserted fabricated evidence in the IPCC report to discredit a paper by McKittrick and Michaels (M&M2004) that showed that the CRUT temperature index was contaminated by the effects of urban development. The report failed to note the glaring conflict of interest that Dr. Jones as lead author was reviewing evidence that his own work is flawed. The IPCC report says that a result of the M&M2004 paper was statistically insignificant, but failed to provide statistical evidence to support the claim. The review also failed to find any evidence to support the IPCC claim.

Regarding the controversy about Michael Mann's hockey stick graph, the review just accepted Briffa's response that McKittrick and McIntyre did not exactly replicate Mann's graph. The review failed to recognize that the issue is that Mann refused to disclose his data or methodology, and that the hockey stick graph was flawed as described above.

The review finds fault in the CRU for being unhelpful in their responses to FOIA requests. The climategate emails show the Phil Jones requested his colleagues to delete emails related to the IPCC process and subject to the FOIA after the initiation of the FOIA process to obtain these emails. Deletion of these emails would be illegal. The review failed to even ask Phil Jones if he actually deleted any emails.

The review made the false claim "There seems clear incitement to delete emails, although we have seen no evidence of any attempt to delete information in respect of a request already made." The report is [here](#).

Penn State Inquiry

Penn State University initiated an inquiry into the conduct of Dr. Michael Mann in response to a large number of accusations of research misconduct. The purpose of an inquiry is to determine if a formal investigation is warranted.

University regulations stipulate that the committee must be comprised of “at least five tenured University faculty members”, but the inquiry consisted of only two tenured professors.

The inquiry did not call for submissions, did not hold any public hearings and did not interview any critics. Most of the emails concerning Michael Mann refer also to Steve McIntyre or Ross McKittrick, yet the committee did not contact them.

The committee interviewed Dr. Mann on January 12, 2010. They also interviewed two other scientists who were not involved in the climategate emails.

The committee found, “The so-called “trick” [to hide the decline] was nothing more than a statistical method used 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.”

McKittrick's response was, “It is obviously ludicrous to claim that deleting data and making an undisclosed splice of different data in order to conceal an inconvenient [declining] pattern in the original data set is legitimate and widely accepted. Such a claim was not supported by any evidence disclosed by the committee.”

An email from Phil Jones to Michael Mann requests, “Can you delete any emails you may have had with Keith [Briffa] re AR4? Keith will do likewise. ... Can you also email Gene [Eugene Wahl] and get him to do the same? ... We will be getting Caspar [Ammann] to do likewise.” [AR4 means the IPCC's Fourth Assessment Report]

Mann's response was, “I'll contact Gene about this ASAP.” Mann told Eli Kintisch of Science that he forwarded Jones' delete all emails request to Eugene Wahl. See [here](#).

Eugene Wahl confirmed to the Inspector General of the Department of Commerce that “he deleted the referenced emails at the time”. This is certainly *prima facie* evidence warranting an investigation. See [here](#).

But the Penn State inquiry concluded, “there exists no credible evidence that Dr. Mann had ever engaged in, or participated in, directly or indirectly, any actions with intent to delete, conceal or otherwise destroy emails, information and/or data related to AR4, as suggested by Dr. Phil Jones.” This conclusion is false as it contradicts the fact that Mann forwarded the request to delete AR4 related emails to Wahl.

Critical emails and attachments to the deleted emails that are in controversy remain outside the public domain. Wahl-Briffa email attachments contained Wahl's surreptitious changes to the AR4 Report from the language sent to reviewers to language much more favorable to Mann and Wahl.

The inquiry could not decide if Mann had improperly refused to disclose his data and methodology, so the issue was referred to an investigation committee consisting of five members. This committee ignored evidence from Steve McIntyre, but accepted testimony only from Mann without doing any investigation.

Mann falsely said that all data needed to replicate his work was made available on his FTP site. In fact Mann's FTP site did not contain all the required data so he referred McIntyre to Mann's colleague Scott Rutherford who provided access to a text file. The file turned out to not include the complete data used by Mann.

The investigation dismissed all other allegations based on his publication record and his ability to obtain research grants. The committee states, "This level of success in proposing research, and obtaining funding to conduct it, clearly places Dr. Mann among the most respected scientists in his field."

McKitrick writes, "In short, the case for the prosecution is never heard. Mann is asked if the allegations (well, one of them) are true, and says no. His record is swooned over. Verdict: case dismissed." The final report is [here](#).

Inter-Academy Council

The Inter-Academy Council (IAC) was created to produce advisory reports for governments, on critical issues like climate change, on behalf of the world's science academies. The IAC was commissioned by the IPCC to investigate IPCC procedures for preparing assessment reports in response to climategate and a number of serious errors found in the 4AR.

McKitrick writes, as "the IAC had previously published an alarmist report on global warming coauthored by IPCC chair Rajendra Pachauri and two other IPCC Lead Authors, they hardly qualify as an independent organization for the purpose of reviewing the IPCC."

The committee had 12 members, one of which was an IPCC lead author.

In May 2010, hundreds of people involved with the IPCC were sent an email questionnaire requesting comments on review questions. The committee conducted public meetings in Montreal, Canada and Amsterdam, The Netherlands to hear from invited experts. Neither McKitrick nor McIntyre were invited to testify, but the committee chair conducted a telephone interview with McIntyre.

The IAC report is the most independent and critical report of five climategate reports.

The report links the IPCC practice of consensus building to the dangers of group think.

It is critical about the uncertainty ratings on subjective issues. The report states, “[It] is unclear exactly whose judgments are reflected in the [uncertainty] ratings that appear in the Fourth Assessment Report or how the judgments were determined.” The report notes that authors assign high confidence to statements for which there is little or no scientific evidence.

The report makes a strong recommendation that Review Editors be given much more authority for ensuring that alternative views receive appropriate consideration. It suggests that Review Editors be selected by agencies outside of the IPCC. Currently, Lead Authors present their own views and excludes criticisms of their papers and alternative views.

The report recommends a transparent and well defined Lead Author selection process. The IPCC should set formal qualifications and set out roles and responsibilities for the Bureau members and the IPCC chairperson. Lead Authors should explicitly document that a range of scientific viewpoints has been considered.

It recommends implementation of conflict of interest guidelines that would prevent the current practice of Lead Authors reviewing their own work.

The report notes that many conclusions are based on unpublished or non-peer-reviewed literature and recommends tightening and enforcing its procedures for their use.

The report notes that the Summary For Policy makers does not convey the uncertainty of the main report and that it emphasizes negative aspects of climate change more than the main report.

The report is [here](#).

See of FoS Climategate page [here](#) for further commentary.

September 7, 2012