



Climategate: The Context and the Cover-up

Ross McKittrick and Stephen McIntyre

Congressional Briefing
Capitol Hill, Washington DC

June 17, 2010

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Why anyone cares about CRU emails

- Aren't they just scientists working away on research, making private comments among themselves?
- No. Those emails aren't at issue
- CRU (Jones & Briffa), Mann, Trenberth, etc. are dominant players in the IPCC
- Our interest is in the IPCC process and the way information is manipulated before being presented to policymakers



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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



Climate Change 2007: The Physical Science Basis

Summary for Policymakers

Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change



Outline

- McKittrick: The emails in context
 - “Keep MM out of the AR4”
 - “MM after the data for years”
 - Warming is unequivocal
 - Squeaky clean process
 - Mike’s Nature trick
- McIntyre: The investigations so far
 - UK House of Commons
 - Oxburgh
 - Russell
 - Penn State



Example 1: “Keep MM out of the AR4!”

- July 2004 Email from Jones to Mann
- MM = McKittrick and Michaels

The other paper by MM is just garbage - as you knew. De Freitas again. Pielke is also losing all credibility as well by replying to the mad Finn as well - frequently as I see it. I can't see either of these papers being in the next IPCC report. Kevin and I will keep them out somehow - even if we have to redefine what the peer-review literature is!

Cheers
Phil



Conflict of interest

- Much of IPCC work depends on quality of temperature data
- Key data set produced at CRU by Phil Jones
- Jones was CLA of the chapter that reviewed quality of his own work

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Observations: Surface and Atmospheric Climate Change

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2004-2006: studies critical of CRU products

- McKittrick and Michaels 2004
- De Laat and Maurellis 2004, 2006
- All pointed to warm bias in surface data due to socioeconomic development over land

Vol. 26: 159–173, 2004	CLIMATE RESEARCH Clim Res	Published May 25
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A test of corrections for extraneous signals in gridded surface temperature data*

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ABSTRACT: Monthly surface temperature records from 1979 to 2000 were obtained from 218 individual stations in 93 countries and a linear trend coefficient determined for each site. This vector of trends was regressed on measures of local climate, as well as indicators of local economic activity (income, gross domestic product [GDP] growth rates, coal use) and data quality. The spatial pattern of trends is shown to be significantly correlated with non-climatic factors, including economic activity and sociopolitical characteristics of the region. The analysis is then repeated on the corresponding Intergovernmental Panel on Climate Change (IPCC) gridded data, and very similar correlations appear, despite previous attempts to remove non-climatic effects. The socioeconomic effects in the data are shown to add up to a net warming bias, although more precise estimation of its magnitude will require further research.

KEY WORDS: Global warming · Temperature measurement · Data quality

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Jones' subsequent action

- Kept it out of 1st draft
 - Reviewers demanded the evidence be addressed
- Kept it out of the 2nd draft
 - Reviewers demanded the evidence be addressed



Final IPCC text: Page 244

- Inserted after close of peer review
 - McKittrick and Michaels (2004) and De Laat and Maurellis (2006) attempted to demonstrate that geographical patterns of warming trends over land are strongly correlated with geographical patterns of industrial and socioeconomic development, implying that urbanisation and related land surface changes have caused much of the observed warming. However, **the locations of greatest socioeconomic development are also those that have been most warmed by atmospheric circulation changes** (Sections 3.2.2.7 and 3.6.4), which exhibit large-scale coherence. Hence, **the correlation of warming with industrial and socioeconomic development ceases to be statistically significant**. In addition, observed warming has been, and transient greenhouse-induced warming is expected to be, greater over land than over the oceans (Chapter 10), owing to the smaller thermal capacity of the land.
- First highlighted phrase is false
- Second highlighted phrase is a fabrication



Summarizing:

- 2 independent teams, published evidence of problems with CRU data in 3 different peer-reviewed journals
- Jones boasted that he would block this info from going into the IPCC report
- Kept it out of drafts shown to reviewers
- In published version he inserted false and fabricated evidence to cover up the problem.



Post-script

- I submitted this accusation to the EPA review on its endangerment finding
- EPA cites Schmidt (IJC, 2009) to defend Jones' claim
- Climategate files include review of Schmidt's paper for IJC.
- Reviewer is...



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- Reviewer is... *Jones*

Example 2: “The two MMs have been after the CRU station data for years.”

- One defense of CRU behaviour is that they snapped after 100's of FOIA requests and endless pestering from bloggers.
- Reality: Jones' policy to withhold data long preceded the requests.
- Jones to Mann:
 - The two MMs have been after the CRU station data for years. If they ever hear there is a Freedom of Information Act now in the UK, I think I'll delete the file rather than send to anyone.



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Context: Who was “after” the data?

- Reality: “MM” had never asked Jones for his station data.
- McIntyre, 2002, requested list of stations
 - Jones’ reply at the time:
 - Once the paper comes out in the Journal of Climate, I will be putting the station temperature and all the gridded databases onto our web site.
 - No data subsequently appeared.
- W. Hughes, July 2004, requested station data:
 - Jones reply: contact the WMO



Context: Who was “after” the data?

- Rest of Jones’ 2005 email to Mann:

- **Just sent loads of station data to Scott.** Make sure he documents everything better this time ! And don't leave stuff lying around on ftp sites – you never know who is trawling them. The two MMs have been after the CRU station data for years. If they ever hear there is a Freedom of Information Act now in the UK, I think I'll delete the file rather than send to anyone.



Context: Who was “after” the data?

- “MM” were not after his data, Mann’s colleague asked for it and Jones handed it over cheerfully
- Even if we were, Jones evidently had no difficulty disseminating it
- Jones’ claim that he would delete data rather than share it, was made *before* he had received data requests.

W. Hughes follow-up

- Feb 18 2005
 - Hughes wrote to Jones saying the WMO contact never replied. Could Jones give him another contact person?
- Jones replied that he was traveling and would reply soon. Before doing so, on February 21, Jones wrote to Mann, Bradley and (Malcolm) Hughes
 - I'm getting hassled by a couple of people to release the CRU station temperature data. Don't any of you three tell anybody that the UK has a Freedom of Information Act !
- Feb 23 2005, Jones to Hughes
 - Even if WMO agrees, I will still not pass on the data. 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.





Next step: FOIA requests for stations

- Still no data released
- Sept 28 2006, Keenan and Eschenbach filed FOIA request for list of stations
- Feb 2007: request rejected by UEA on grounds that 98% of the data were published at GHCN
- Eschenbach appealed on grounds that without station list, it is impossible to identify which data CRU uses



Next step: FOIA requests for stations

- April 27 2007, UEA again refused: *"We do not have a list."*
 - We cannot produce a simple list with this format and with the information you described in your note of 14 April. Firstly, we do not have a list consisting solely of the sites we currently use. Our list is larger, as it includes data not used due to incomplete reference periods, for example. Additionally, even if we were able to create such a list we would not be able to link the sites with sources of data. The station database has evolved over time and the Climate Research Unit was not able to keep multiple versions of it as stations were added, amended and deleted. This was a consequence of a lack of data storage in the 1980s and early 1990s compared to what we have at our disposal currently. It is also likely that quite a few stations consist of a mixture of sources.



Next step: FOIA requests for stations

- Sept 2007: CRU posted list of stations
 - with disclaimer that the list was not necessarily accurate and did not identify which stations were used in which years
- Next inquiry: not until 2009



Requesting confidentiality agreements

- May 2009, McIntyre notes comment on Hadley Ctr website
 - *To obtain the archive of raw land surface temperature observations used to create CRUTEM3, you will need to contact Phil Jones at the Climate Research Unit at the University of East Anglia. Recently archived station reports used to update CRUTEM3 and HadCRUT3 are available from the CRUTEM3 data download page.*



Requesting confidentiality agreements

- McIntyre wrote to Hadley asking for data Jones supplied them
- Hadley refused it, saying Jones claims confidentiality agreements
- McIntyre filed FOIA, Hadley responded saying they don't have the raw data



Requesting confidentiality agreements

- Summer 2009: Peter Webster tells Steve he asked for station data from Jones and received it.
- McIntyre requests file they had sent to Webster
 - -
 -
- CA readers request text of agreements by country in order to inspect the non-academic clause
- *That* was the deluge: ~50 identical requests
- Responses were boilerplate:
 - None contain non-academic clause
 - Very few such agreements actually exist



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 - Declined because of confidentiality agreements
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Example 3: Warming is unequivocal

- False trend detection due to “persistence” and nonstationarity in temperature data
- Large literature showing this is a big component of climate data sets



IPCC first draft

- Simplistic trend calculations with old-fashioned methods that are known to exaggerate significance of trends
- Several review comments called for better methods and discussion of problem
- Most elementary of the modern methods is called ARMA(1,1)
- Every mainstream statistical package can do it



Parker to Jones, Nov 2005: *we don't have the software*

From Parker, David (Met Office)
Subject Re: [Fwd: [Wg1-ar4-clas] New Zealand meeting]

Phil

Thanks. I am working through 3.2 slowly and have taken about 5 hours already and am about 1/4 way through though this includes looking at the comments on the chapter in general. It includes putting responses into the file and altering with tracker a copy of the FOD version of the text. So it will take a lot more than 5 hours.

Maybe the biggest problem is Ross McKittrick and David Stephenson's remarks on trends; we used only an AR-1 and they may be correct in advocating a more complex model. Our software for restricted maximum likelihood does not cope with ARMA (1,1) and I may have to get John Kennedy to investigate new software using the cited references. This may be a big job but could be done after the LA3 meeting if we agree there what to do. Alternatively - as we have considered already- we could consider not citing linear trends, just overall changes of level from the smooth curves. This would save some space.

Other comments may be easier. I have rejected the McKittrick and Michaels 2004 with appropriate reasons!

Regards

David



The world's “leading experts”

- Used out-of-date, unreliable methods
- Didn't have the basic software to correct their results
- Worried it would be a big job to get new software
- Didn't ask for help from statisticians or econometricians at UEA or elsewhere
- Instead they made up a new method



Review process

- Inserted into 2nd draft in response to reviewer demands:
 - Determining the statistical significance of a trend line in geophysical data is difficult, and many oversimplified techniques will tend to overstate the significance. Zheng and Basher (1999), Cohn and Lins (2005) and others have used time series methods to show that failure to properly treat the pervasive forms of long-term persistence and autocorrelation in trend residuals can make erroneous detection of trends a typical outcome in climatic data analysis.
- After the review process closed...



Review process

- Inserted into 2nd draft in response to reviewer demands:



-deleted-

- After the review process closed.



Example 4: Squeaky clean process

- May 2006, comments send from Neil Reynolds to LA Jonathan Overpeck on Ch. 6
- Overpeck's response:
 - Hi Neil - Thanks for your interest in providing feedback on the draft chap 6 Second Order Draft. Since **the IPCC has very strict rules about all this**, I'm going to ask them (the IPCC) to send you an official invitation to review, along with the process - formal, but highly efficient - to follow. If you could send your comments in that way it would be a great help. **We've been asked to keep everything squeaky clean, and not to get comments informally.**

Thanks! Peck



The problem: Briffa violated “strict” IPCC rules

- IPCC had procedures for resolving disputes
- Briffa contravened them by enlisting Mann supporter Eugene Wahl in Aug 2006, after the close of peer review, to rewrite hockey stick section
- 2nd draft:
 - M&M criticisms “may have some foundation” but impact is unclear
- Wahl changed the text to say that criticisms didn’t matter
 - Wahl was neither an author nor a reviewer
 - Text never shown to reviewers
- Wahl’s text then cited as IPCC finding by people like Julia Slingo in Parliamentary testimony

The cover up



- May 2008: Faced with FOIA request that would show Wahl and Briffa had violated IPCC rules, Jones requested Mann, Briffa, Wahl and Ammann to delete all their IPCC-related emails
 - Can you delete any emails you may have had with Keith re AR4? Keith will do likewise... Can you also email Gene and get him to do the same?
- Jones told FOI Officer Palmer that Briffa “could say” he didn’t “get any additional comments in the drafts other than those supplied by the IPCC.”



Example 5: Mike's Nature trick

- Jones 1999

- 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 from 1961 for Keith's to hide the decline.

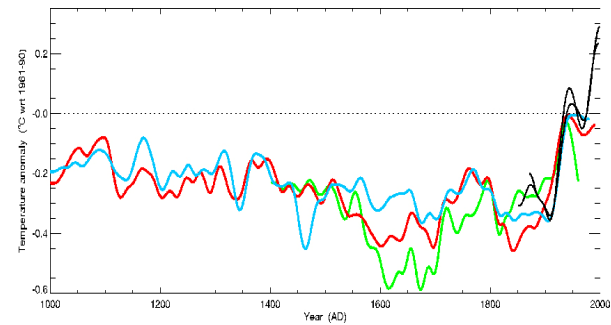


Neither one is Mann's "Nature" trick

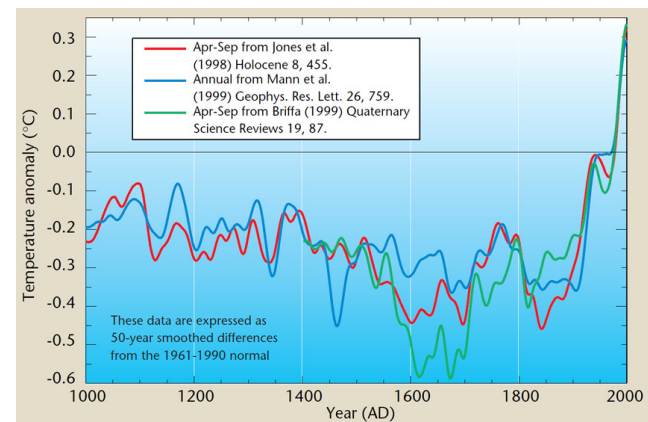
- Jones' trick:
 - replace the data and smooth over the splice to hide the decline
- Mann's IPCC trick:
 - delete the decline

Jones' trick: hide the decline

○ Change this

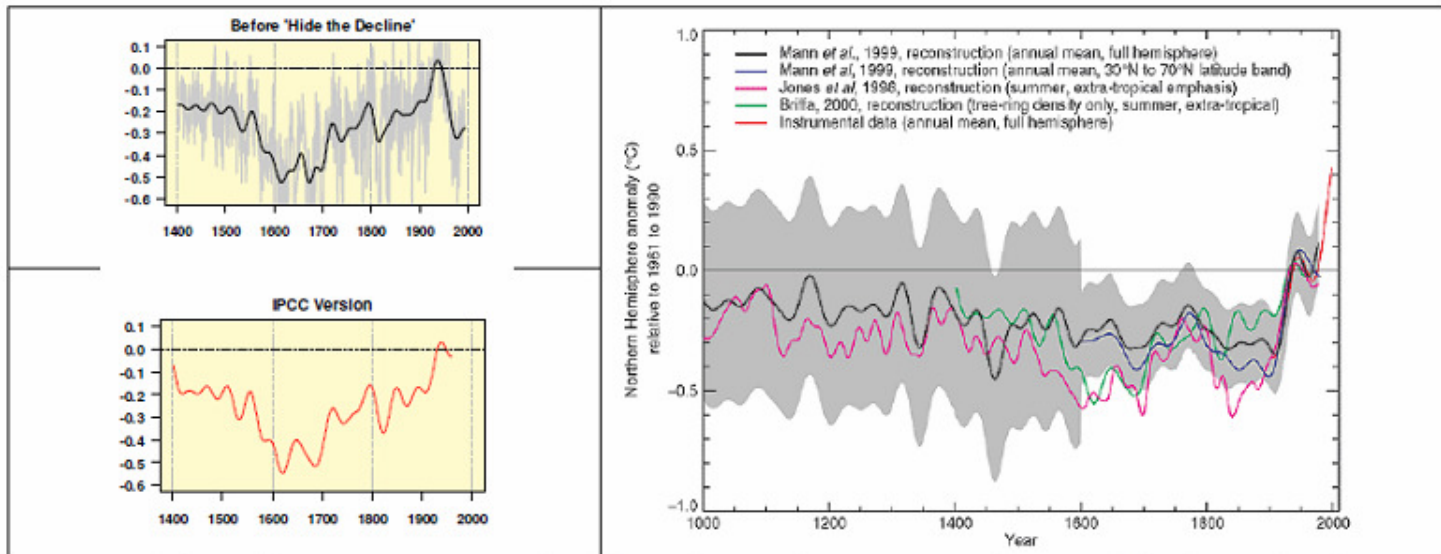


○ To this



Mann's trick: delete the decline

- (Later used by Briffa too)



Top left – Briffa reconstruction re-plotted from data in Climategate email; bottom left – digitized Briffa reconstruction in IPCC 2001 (where it is the green reconstruction.). Right – IPCC Figure 2-21.



Mann's trick

- Mann to IPCC colleagues, Sept 22, 1999
 - Keith's series... differs in large part in exactly the opposite direction that Phil's does from ours. This is the problem we all picked up on (everyone in the room at IPCC was in agreement that this was a problem and a potential distraction/detraction from the reasonably consensus viewpoint we'd like to show w/ the Jones et al and Mann et al series.



Climategate: Context

- The emails reveal manipulation of evidence, violations of proper procedure, conflicts of interest and a culture of bias
- Nothing about the context renders any of these things innocuous or takes away from the seriousness of the problems

The Inquiries

- Cosy relationships with climate science community
 - UK House of Commons
 - Oxburgh
 - Muir Russell
 - Penn State



UK House Commons

- Inquiry cut short due to election
- Solicited submissions, but left most of them unaddressed
- Hearings:
 - Only scientists were CRU & Hadley people
 - 2 critics invited, neither of them experts
- Report sharply critical of “culture of secrecy”
- Refusal to share data “unacceptable”
- Said “the trick” was just a way of dealing with “erroneous data”
- Punted science issues to Oxburgh



Lord Oxburgh



House of Lords
Lord Oxburgh of Liverpool

- Member, UK House of Lords

Lord Oxburgh



House of Lords

Lord Oxburgh of Liverpool
E-mail Lisa.Williams@uea.ac.uk

- Member, UK House of Lords
 - (c/o University of East Anglia)



Lord Oxburgh, c/o UEA

- Letter recruiting panelists emphasized stress CRU staff were under due to “aggressive blogs”



Lord Oxburgh, c/o UEA

- Conflict of interest:
 - Chairman of Falck Renewables (major UK wind utility)
 - On board of Globe International (climate change advocacy group)
- “Verbal” terms of reference
- No minutes of proceedings
- Took no submissions
- Only interviewed CRU staff, no interviews with critics
- No transcripts of interviews or list of questions
- No panelist admits to having any notes,
 - one panelist has already destroyed his notes



Lord Oxburgh, c/o UEA

- Confined attention to 11 CRU papers
 - Falsely claimed they were “selected on advice of Royal Society”
 - In fact were selected by the UEA, which falsely claimed to Oxburgh panel that the papers were “representative”
 - These papers were in fact unrelated to the controversies



Lord Oxburgh, c/o UEA

- Report issued 21 days after panel announced
- 5 pages long
- Called the trick “regrettable” but pinned blame on IPCC, who they said “neglected” to show the data
 - Did not mention that the IPCC authors were CRU staff



Lord Oxburgh, c/o UEA

- What did they learn from Briffa and Jones?
 - We have learned from sources connected to the panel that Jones told interviewers that “it was probably impossible to do these [paleoclimate] reconstructions with any accuracy”
 - No mention of this in Oxburgh report
 - Interview notes have either been withheld or destroyed
 - Requests for copies have been refused

Sir Muir Russell

- Promised a panel
 - With no connections to university
 - With no connections to climate debate
 - Could thoroughly investigate issues

- Philip Campbell
 - *Nature* Editor who published hockey stick
 - Outed within 6 hours that he had recently given radio interview in China declaring CRU scientists had done nothing wrong
 - Resigned from panel



Sir Muir Russell

- David Eyton

- VP, Research and Development, British Petroleum
- Previously VP Gulf of Mexico Deepwater
- Funds and is on Board of Governance of Steven Chu's BP-Berkeley Institute
- 2009: Tony Hayward (BP CEO) received honorary doctorate from UE and was made Fellow of RSE which receives funding from BP
- Eyton's presence also protested, long before Gulf blowout





Sir Muir Russell

- Sir Geoffrey Boulton

- Turns out was on faculty at University of East Anglia for 18 years
 - Not reported in Inquiry website bio
- Frequently describes his main area of research as climate change
 - Discovered to have made dozens of talks urging immediate action on climate change
- General Secretary, Royal Society of Edinburgh and formerly led Global Change Dept at University of Edinburgh
- Over 40 submissions protested Boulton's presence on panel



Penn State

- Research integrity inquiry that followed none of the Office of Research Integrity procedures
 - Preliminary Inquiry is supposed to determine if there are prima facie grounds for investigation
 - They are not supposed to issue findings of fact unless misconduct is admitted
- Didn't interview critics
- Didn't take submissions of evidence
- Issued findings of fact:
 - Dismissed 3 of four allegations without calling for investigation



Penn State and the Trick

- “The so-called ‘trick’ 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.”



Where things stand

- The emails reveal genuine wrongdoing
- The public was rightly offended
- So far the “inquiries” have been cosy with the scientists under investigation
- Proper inquiry procedures have not been followed
- Consequently, the issues still await proper investigation