



Climategate & Penn State

The Case for an Independent Investigation

Introduction

The release of embarrassingly candid emails from the Climate Research Unit (CRU) of the University of East Anglia has intensified, if not vindicated, suspicions that scientific misconduct has played a significant role in fueling alarmism over supposed catastrophic manmade global warming.

Just days after news broke about what has been dubbed “Climategate,” Penn State University (PSU) announced that it would investigate the conduct of Michael Mann, a professor in PSU’s Department of Meteorology and a prominent figure in the Climategate emails.

While PSU is to be commended for recognizing that Climategate is a serious matter and that an investigation into Michael Mann’s conduct is warranted, the investigation constitutes a conflict of interest for the university. Mann’s climate work brings enough visibility, prestige, and revenue to PSU to legitimately call into question the university’s ability to do a thorough and unbiased investigation.

To avoid this glaring conflict of interest and ensure that the investigation of Mann is credible, the Pennsylvania General Assembly should commission an external and independent investigation into Mann’s potential scientific misconduct.

What is Climategate?

In late-November 2009, more than a thousand emails and other documents were released from the Climate Research Unit (CRU) of the University of East Anglia in the United Kingdom. The nature of the release remains a mystery. Initial news accounts reported that the emails were hacked or stolen. It is possible, however, that they were leaked by a concerned employee, or that they had been collected via the Freedom of Information Act (FOIA) and then stored on a public server where they were discovered and publicized.

The emails represent candid correspondence between scientists involved in the work of the United Nations’ Intergovernmental Panel on Climate Change (IPCC). Many of these scientists, including PSU’s Michael Mann, are prominent within the IPCC.

These emails indicate Mann might have committed a variety of acts that constitute significant and intentional scientific misconduct, including data manipulation,

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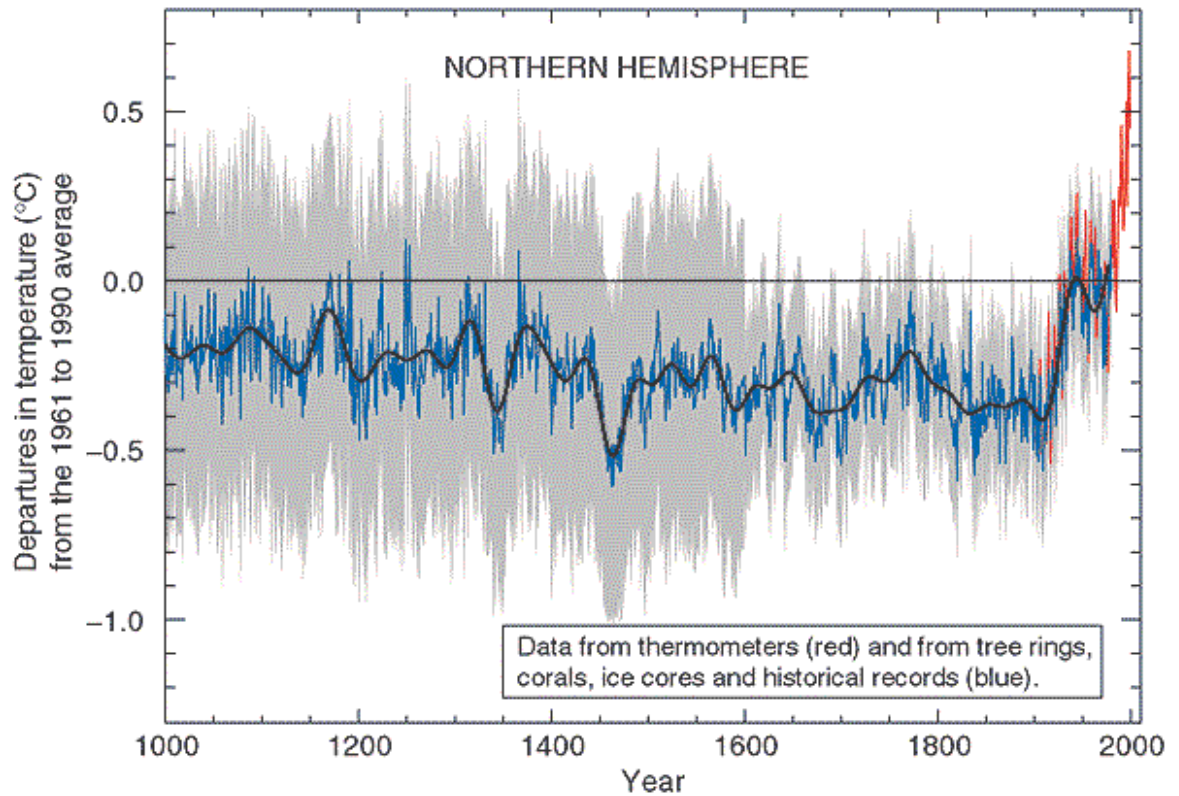
inappropriately shielding research methods and results from peers, and retaliating against those who publicly challenge his research results.

Why is Michael Mann so important?

Michael Mann rose to prominence in the global warming controversy as the developer of the so-called “hockey stick” graph (below), which purports to show the change in mean global temperature during the past millennium.

The graph claims to show roughly 900 years of fairly constant mean global temperatures and a significant warming during the 20th century impliedly caused by manmade emissions of greenhouse gases.

Mann and others might have committed a variety of acts that constitute significant and intentional scientific misconduct.



The dramatic hockey stick received a great deal of attention and was featured in the IPCC's Third Assessment Report in 2001 as evidence of the significance of human influence on the climate. The graph came to symbolize the proof that global warming was manmade. But the hockey stick and its developer, Michael Mann, soon began to draw some much-deserved scrutiny and criticism and, finally, a total discrediting.

When Canadian researcher Stephen McIntyre requested from Mann the raw data used to construct the hockey stick, Mann at first provided some information but then refused further cooperation, claiming that he didn't have time to respond to “every frivolous note” from non-scientists, according to a Wall Street Journal report. Mann also tried to block a congressional request for his data, but finally acceded to after generating a wave of manufactured, partisan criticism directed at the congressional committee.

Investigations by the National Academy of Sciences and Congress left the hockey stick in tatters, particularly with respect to its representations of mean global temperatures for the period 1000-1600. When the IPCC released its Fourth Assessment Report in 2007, the hockey stick graph was nowhere to be found.

In summary, Mann created the prominent hockey stick with dubious data and analysis, and then tried to block other scientists from reviewing his work. Mann also fueled a public relations campaign against those who had requested his data, including McIntyre and Congress.

How does Climategate involve Penn State?

Although Michael Mann developed the hockey stick while an assistant professor at the University of Massachusetts during the late 1990s, he has been a full professor at PSU since 2005. As the hockey stick is Mann's claim to fame, it is likely that his hiring and promotion to full professor at PSU were heavily influenced by the hockey stick phenomenon. Moreover, it was during Mann's tenure at PSU (since 2005) that he stonewalled efforts to obtain and review the hockey stick data and analysis, and has viciously attacked those making such inquiries.

PSU's Office of Research Protections defines "research misconduct" as:

(1) fabrication, falsification, plagiarism or other practices that seriously deviate from accepted practices within the scientific community for proposing, conducting, or reporting research or other scholarly activities; or (2) callous disregard for requirements that ensure the protection of researchers, human participants, or the public; or for ensuring the welfare of laboratory animals; or (3) failure to disclose significant financial and business interest as defined by Penn State Policy RA20, Individual Conflict of Interest; or (4) failure to comply with other applicable legal requirements governing research or other scholarly activities. It does not include disputes regarding routine, non-creative works of authorship, honest error, or honest differences in interpretations or judgments of data, and is not intended to resolve bona fide scientific disagreement or debate.

Mann's desperate efforts to thwart external review of the hockey stick, including the stonewalling of data requests and his attack on those making those requests, would seem to constitute "other practices that seriously deviate from accepted practices within the scientific community for... conducting, or reporting research...."

It is also possible that Mann's hockey stick involves the sort of "fabrication" that also constitutes research misconduct. Only further inquiry will resolve whether the hockey stick constitutes "fabrication" or "honest error, or honest differences in interpretations or judgments of data."

Mann might have also violated PSU's conflict of interest policy:

Increasingly, Penn State researchers, including faculty, students, staff, administrators, and other University officers, have interests and ties outside the University. Some of those outside interests and ties are to private industry through privately-funded research, consulting practices, or individual entrepreneurial activity and are considered financial in nature. However, not all outside interests are financial. Non-financial outside interests might be based upon personal values and beliefs, a desire for career advancement and enhanced reputation, the need for publishable results, conflicting time commitments, and personal and family relationships. Outside ties or outside interests do not automatically present conflicts of interest for researchers; however, such outside

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interests can present the potential for a real *or perceived* conflict of interest between a researcher's outside interests and his or her research and other University activities. [emphasis added]

Mann is the co-founder of RealClimate.org, an ideological website on the climate change issue. RealClimate.org is associated with Fenton Communications, a partisan public relations firm, and Environmental Media Services, an ideological non-profit group. While it is not known whether RealClimate.org represents a financial conflict of interest, it certainly is a perceived or real non-financial conflict of interest.

What do the Climategate emails reveal about Mann's conduct?

Details about Mann's questionable behavior are illustrated by excerpts from the released CRU emails, which can be viewed at EastAngliaEmails.com.

The CRU emails show Dr. Mann to be unusually sensitive to lines of scientific inquiry related to his research products. His extremely sensitive nature leads him to not only shield his research results from others (thereby cutting off the normal course of scientific scrutiny), but also to retaliate against those who publicly challenge his research results.

Dr. Mann's extremely sensitive nature leads him to take action not only to shield his research results from others (thereby cutting off the normal course of scientific scrutiny), but also to retaliate against those who publicly challenge his research results.

This retaliation takes several forms: personal degradation of his challengers to colleagues and the media, impugning their motives, and attempting to close off the avenues of peer-review publication (i.e., association with efforts to overturn the journal editor or editors involved in overseeing certain publications critical of Dr. Mann's work). While it is natural and expected for a scientist to act to clarify, discuss, and defend his work, Dr. Mann's actions, as evidenced in the released emails, go beyond the norms of accepted behavior and border on, if not cross, the lines of scientific misconduct.

According to the Climategate emails, this behavior has not gone unnoticed by his colleagues in the field of paleoclimate research:

Monday, 19 April 1999 09:41:31 : Filename: 924532891.txt Dr. Ray Bradley to Dr. Keith Briffa:

As for [Dr. Mann's] thinking that it is "Better that nothing appear, than something unacceptable to us"as though we are the gatekeepers of all that is acceptable in the world of paleoclimatology seems amazingly arrogant. Science moves forward whether we agree with individual articles or not....

Thursday, 6 May 1999 16:37:34 : Filename: 926026654.txt Dr. Jones to Dr. Mann:

I've not seen the censored email that Ray has mentioned but this doesn't, to my way of working, seem to be the way you should be responding - ie slanging us all off to Science [magazine]. We are all trying to work together for the good of the 'Science'.

Monday, 17 June 2002 12:20:40 : Filename: 1024334440.txt Dr. Ed Cook to Dr. Keith Briffa:

He [Dr. Mann] is just as capable of regressing these data against any other “target” series, such as the increasing trend of self-opinionated verbiage he has produced over the last few years, and... (better say no more)

Monday, 17 June 2002 12:20:40 : Filename: 1024334440.txt Dr. Keith Briffa to Dr. Ed Cook:

It is puzzling to me that a guy as bright as Mike would be so unwilling to evaluate his own work a bit more objectively.

Wednesday, 3 May 2006 22:31:00 : Filename: 1146713460.txt Dr. Eduardo Zorita to Drs. Keith Briffa and Tim Osborn:

Even considering the considerable pressure that he has been exposed to in American politics, I think Michael Mann is unable of any constructive discussion.

Dr. Mann is quick to lash out at anyone questioning his research data, methods, or techniques, rather than fostering a collegial exchange of ideas and either correcting any misconceptions or learning from any new insights that often accompany honest critique. Such behavior does not lead to the establishment of the types of open discourse necessary to facilitate the advancement of scientific knowledge; instead, it serves to block it.

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When papers are published in the peer-review literature critical of Dr. Mann's work, he strikes out at the journals and/or journal editors themselves:

Tuesday, 11 March 2003 07:14:49 : Filename: 1047388489.txt Dr. Mann tells colleagues that the peer-review journal *Climate Research* has been “hijacked” by skeptical scientists:

The Soon & Baliunas paper couldn't have cleared a 'legitimate' peer review process anywhere. That leaves only one possibility--that the peer-review process at *Climate Research* has been hijacked by a few skeptics on the editorial board. And it isn't just De Freitas, unfortunately I think this group also includes a member of my own department... The skeptics appear to have staged a 'coup' at “Climate Research” (it was a mediocre journal to begin with, but now it's a mediocre journal with a definite 'purpose').

Friday, 11 July 2003 11:40:57 : Filename: 1057941657.txt Dr. Mann spearheads effort to boycott the peer-reviewed journal *Climate Research* for publishing a series of papers with which he doesn't agree:

It seems to me that this “Kinne” character's [Dr. Otto Kinne is the president of the foundation which publishes the journal *Climate Research* among other titles] words are disingenuous, and he probably supports what De Freitas is trying to do. It seems clear we have to go above him. I think that the community should, as Mike H has previously suggested in this eventuality, terminate its involvement with this journal at all levels--reviewing, editing, and submitting, and leave it to wither away into oblivion and disrepute.

Friday, 21 January 2005 09:47:40 : Filename: 1106322460.txt Dr. Mann takes issues with papers (critical of his work) published by the peer-reviewed journal *Geophysical Research Letters* and suggests taking action against it:

What a shame that would be. It's one thing to lose "Climate Research". We can't afford to lose GRL. I think it would be useful if people begin to record their experiences w/ both Saiers and potentially Mackwell (I don't know him--he would seem to be complicit w/what is going on here).

If there is a clear body of evidence that something is amiss, it could be taken through the proper channels. I don't that the entire AGU hierarchy has yet been compromised!

Dr. Mann fights tooth and nail to deny these flaws rather than to acknowledge them, correct them, and move the field forward.

Dr. Mann closely guards his research methods to the detriment of good science. Others are interested in examining Dr. Mann's work, primarily because his work addresses an important part of the climate change picture; that is, how much does the earth's climate naturally fluctuate, as evidenced by temperature changes over the past one to two thousand years.

There are problems with Dr. Mann's work that he knows about, that he eventually finds out about, and probably others that he denies or prevented from being discovered by erecting roadblocks. Yet Dr. Mann fights tooth-and-nail to deny these flaws rather than acknowledging them, correcting them, and moving the field forward. Instead, his actions slow the path toward the truth (whatever that may be).

Dr. Mann hides errors that he knows about:

Thursday, 31 July 2003 10:18:24 : Filename: 1059664704.txt Dr. Mann provides some data analysis to colleague Dr. Osborn, with this cautionary note:

p.s. I know I probably don't need to mention this, but just to insure absolutely clarify on this, I'm providing these 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...

Dr. Mann dismisses errors that he discovers himself when trying to respond to inquiries about his methodology (which in an of itself demonstrates the need for cooperation and constant re-evaluation):

Tuesday, 10 August 2004 14:47:04 : Filename: 1092167224.txt Dr. Mann writes colleagues to describe a 30% error (underestimate) he made when determining the amount of past temperature variation, but tries to downplay its significance:

I've attached a cleaned-up and commented version of the matlab code that I wrote for doing the Mann and Jones (2003) composites. I did this knowing that Phil and I are likely to have to respond to more crap criticisms from the idiots in the near future, so best to clean up the code and provide to some of my close colleagues in case they want to test it, etc. Please feel free to use this code for your own internal purposes, but don't pass it along where it may get into the hands of the wrong people. In the process of trying to clean it up, I realized I had something a bit odd, not necessarily wrong, but it makes a small difference. ...Turns it, this has the net effect of decreasing the amplitude of the NH reconstruction by a factor of $0.11/0.14 = 1.29$. This may explain part of what perplexed Gabi when she was comparing w/ the instrumental series.

And there are no doubt other errors, known or unknown, that he doesn't want anyone else to find out about:

Monday, 9 February 2004 14:50:09 : Filename: 1076359809.txt *Dr. Mann write to Dr. Jones not to release his data:*

Personally, I wouldn't send him anything. I have no idea what he's up to, but you can be sure it falls into the "no good" category....I would not give them *anything*. I would not respond or even acknowledge receipt of their emails. There is no reason to give them any data, in my opinion, and I think we do so at our own peril!

Friday, 6 August 2004 08:26:49 : Filename: 1091798809.txt *Dr. Phil Jones expresses Dr. Mann's feeling on data disclosure:*

Mike Mann refuses to talk to these people and I can understand why. They are just trying to find if we've done anything wrong.

Dr. Mann accuses researchers wanting to examine his methodology, such as Steven McIntyre, as having dishonorable motives and as being "frauds":

Tuesday, 4 January 2005 10:22:31 : Filename: 1104855751.txt *Dr. Mann refers to someone trying to get his data as a "fraud" and "not interested in honest debate" as evidenced by his funding source (about which Dr. Mann is in error)*

I would immediately delete anything you receive from this fraud.... I would NOT RESPOND to this guy. As you know, only bad things can come of that. The last thing this guy cares about is honest debate--he is funded by the same people as Singer, Michaels, etc.

There are no doubt other errors, known or unknown, that Dr. Mann doesn't want anyone else to find out about.

Tuesday, 8 February 2005 15:44:17 : Filename: 1107899057.txt *Dr. Mann does not limit his characterization of other researchers critical of his work as "frauds" to just colleagues, but share that opinion with an influential member of the press (New York Times science writer Andy Revkin)*

Hi Andy,

The McIntyre and McKittrick paper is pure scientific fraud. I think you'll find this reinforced by just about any legitimate scientist in our field you discuss this with.

Wednesday, 28 October 2009 08:04:27 : Filename: 1256735067.txt *Later, when Dr. Mann does not like the way that Andy Revkin is coving the topic of his research, he warns colleagues to be careful with him:*

p.s. be a bit careful about what information you send to Andy and what emails you copy him in on. He's not as predictable as we'd like

Friday, 26 August 2005 09:52:32 : Filename: 1125067952.txt *In a bit of irony, here is what Dr. Mann offers as reasons to keep some members of the paleoclimate research community from taking part in an important international workshop:*

I'm afraid I don't agree on [inviting] Zorita. He has engaged in some very nasty, and in my opinion unprofessional email exchanges with some close colleagues of mine who have established some fundamental undisclosed errors in work he co-published with von Storch. Given this, I don't believe he can be involved in constructive dialogue of the sort we're looking for at this workshop. There are some similarly problematic issues w/Cubist, who like von Storch, who has engaged in inflammatory and ad hominem public commentary. There is no room for that on any side of the debate.

Perhaps the most egregious acts of academic misconduct by Dr. Mann are his apparent efforts to subvert the scientific peer review process that is supposed to be based on independent and objective review of the results of others:

Tuesday, 24 October 2000 14:20:04 : Filename: 972415204.txt *Serving as an Editor for the Journal of Climate, Dr. Mann invited Dr. Phil Jones to review a paper by Dr. Tom Wigley and Dr. Ben Santer (who are close friends and colleagues of Dr. Jones—Dr. Wigley was Dr. Jones and Dr. Santer’s PhD advisor):*

Professor Michael Mann, Editor of Journal of Climate, has suggested you as a possible reviewer of a paper entitled “Differential ENSO and volcanic >effects on surface and tropospheric temperatures” (JCL-3435 by T. M. L. Wigley and B. D. Santer.

Tuesday, 24 October 2000 14:20:04 : Filename: 972415204.txt *Dr. Jones submits his review:*

My review of the paper JCL 3435 is attached. My recommendation is to accept the paper subject to minor changes. I don’t wish to see it again.

Wednesday, 25 October 2000 13:38:07 : Filename: 972499087.txt *Dr. Jones sends a warm personal email to Dr. Santer telling him, among other things, that he gave him an easy review despite having larger criticisms*

Also just sent back comments to Mike Mann on the paper by Tom and you factoring out ENSO and Volcanoes. Felt like writing red ink all over it, but sent back a short publish subject to minor revision to Mike.

Dr. Mann makes rash (and often poor) decisions when angered at the apparent audacity of other researchers publishing material critical of his research:

Sunday, 26 October 2003 12:47:44 : Filename: 1067194064.txt *Dr. Mann sends out suggestions to colleagues as to how to respond to a paper (critical of his work) that he hasn’t even seen yet:*

My suggested response is:

1) to dismiss this as stunt, appearing in a so-called “journal” which is already known to have defied standard practices of peer-review. It is clear, for example, that nobody we know has been asked to “review” this so-called paper

2) to point out the claim is nonsense since the same basic result has been obtained by numerous other researchers, using different data, elementary compositing techniques, etc. Who knows what sleight of hand the authors of this thing have pulled. Of course, the usual suspects are going to try to peddle this crap. 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..

Wednesday, 12 November 2003 10:01:22 : Filename: 1068652882.txt *In an email among his colleagues, they comment that in Dr. Mann’s haste to respond, he got things very wrong:*

I do wish Mike had not rushed around sending out preliminary and incorrect early responses - the waters are really muddied now. He would have done better to have taken things slowly and worked out a final response before publicising this stuff. Excel files, other files being created early or now deleted is really confusing things!

The most egregious acts of academic misconduct by Dr. Mann are his apparent efforts to subvert the scientific peer review process that is supposed to be based on independent and objective review of the results of others.

Mann has apparently participated in the destruction of emails with the intent of thwarting FOIA requests:

Thursday, 29 May 2008 07:12:02 : Filename: 1212063122.txt Dr. Jones asks Dr. Mann to delete emails regarding the development of the IPCC Fourth Assessment Report and contact a colleague to do the same.

Mike,

Can you delete any emails you may have had with Keith re AR4?

Keith will do likewise. He's not in at the moment - minor family crisis.

Can you also email Gene and get him to do the same? I don't have his new email address.

We will be getting Caspar to do likewise...

Cheers

Phil

Thursday, 29 May 2008 07:12:02 : Filename: 1212063122.txt Dr. Mann responds:

Hi Phil,

I'll contact Gene about this ASAP. His new email is: generwahl@xxxxxxxxxx.xxx

Mike

There is good reason to believe that a PSU-managed investigation may amount to little more than a whitewash.

Though Mann has publicly denied destroying emails, the text of the preceding email indicates that he was a willing participant in Jones' plan to destroy potentially embarrassing or incriminating emails.

Conclusion and Recommendation

The hockey stick controversy and Climategate emails reveal that Michael Mann may have committed significant and intentional scientific misconduct, including improper data manipulation, inappropriately shielding research methods and results from others, and engaging in a number of forms of retaliation against those who publicly challenge his research results.

Were scientific misconduct a criminal matter, the aforementioned facts might be said to constitute "probable cause" for a search warrant. Analogously, these facts provide probable cause for an investigation into Mann's conduct at PSU.

Although PSU has announced that it will investigate Climategate, given Mann's financial and reputational value to the university, and the likely embarrassment resulting from an adverse finding concerning his conduct, there is good reason to believe that a PSU-managed investigation might amount to little more than a whitewash.

Accordingly, the Pennsylvania General Assembly should commission an external and independent investigation of Mann in order to avoid PSU's glaring conflict of interest. Only with a credible and thorough inquiry of Dr. Mann's research can the general public know that their state and national policymakers are making important legislative decisions based on sound science.

More than merely the reputations of PSU and Mann are at stake. Public policies are advocated at the federal and state levels that owe a substantial portion of their origins to the hockey stick and Mann's activities in defense of it. The U.S. and Pennsylvania economies and social structures stand to be significantly altered by climate legislation. Taxpayers have the right to know before such bills are enacted what role, if any, scientific misconduct played in the development of that legislation.

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