

MICHAEL E. MANN, PH.D.,  
Plaintiff,  
  
v.  
  
NATIONAL REVIEW, INC., *et al.*,  
Defendants.

John B. Williams, Esq. (D.C. Bar No. 257667)  
Fara N. Kitton, Esq. (D.C. Bar No. 1007793)  
**WILLIAMS LOPATTO PLLC**  
1629 K Street, N.W.  
Suite 300  
Washington, D.C. 20006  
Telephone: (202) 296-1665  
jbwilliams@williamslopatto.com  
fnkitton@williamslopatto.com

Patrick J. Coyne, Esq. (D.C. Bar No. 366841)  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER LLP  
901 New York Ave. N.W.  
Washington, DC 20003  
Telephone: (202) 256-7792  
patrick.coyne@finnegan.com

*Counsel for Plaintiff, Michael E. Mann, Ph.D.*

Pursuant to Rules 12 and 56 of the Rules of the D.C. Superior Court, plaintiff Michael E. Mann, Ph.D. respectfully files this motion seeking partial summary judgment on the issue of truth, and the entry of an order finding that the defamatory statements of defendants National Review Inc. and Mark Steyn are false. Dr. Mann further seeks an order striking their affirmative defenses that claim that their statements are true or substantially true. This relief is appropriate because the facts on these issues are not genuinely disputed by admissible evidence.

## **I. INTRODUCTION**

In their article published July 15, 2012, the National Review and Mr. Steyn accused Dr. Mann of engaging in “hockey stick deceptions.” *Competitive Enterprise Institute v. Mann*, 150 A.3d 1213, 1264 (D.C. 2016), as amended December 13, 2018. They stated that Dr. Mann was “the man behind the fraudulent climate-change hockey-stick graph.” *Id.* at 1264. And they compared him to the convicted pedophile Jerry Sandusky, claiming that instead of molesting children, he “molested and tortured data in the service of politicized science.” *Id.*

The Court of Appeals has reviewed these “noxious” allegations. *Id.* at 1243. It held that these statements conveyed the defamatory message that Dr. Mann “had engaged in ‘data manipulation’ that was fraudulent...” *Id.* at 1249, n. 46. It also held that the National Review defendants accused Dr. Mann of “deception and misconduct,” *Id.* at 1245, 1260, and “wrongdoing” by “molesting and torturing data.” *Id.* at 1248.

The court found further that these allegations of deception and misconduct “have been proved false by four separate investigations,” *id.* at 1245, noting that the defendants had not even argued that their allegations were true. *Id.* at 1244. The court also held that Dr. Mann had made a sufficient showing that these statements were made with actual malice: knowing falsity or with reckless disregard of the truth. *Id.* at 1262.

Discovery is now closed. It is clear that there is no genuine dispute on the issue of falsity. The falsity of defendants' statements is confirmed not only by the investigations noted by the Court of Appeals, but by the numerous scientific studies and reviews addressing Dr. Mann's research, as well as the testimony of Dr. Mann's expert witnesses.<sup>1</sup> And notably, Dr. Mann's proof of falsity is further confirmed by the opinions of *defendants' own witnesses*, who have stated: (1) that the hockey stick is **not deceptive** (*see* Statement of Undisputed Material Facts ("SOMF") ¶ 75); (2) that Dr. Mann did **not** engage in fraud or misconduct, "**not even close**" (SOMF ¶ 77); and (3) that Dr. Mann "***published diligently***" (SOMF ¶ 82).

In sharp contrast to Dr. Mann's proof of falsity, defendants have failed to produce any admissible evidence that their allegations are true. Not one defense witness has testified that the defendants' allegations are true. Indeed, National Review does not even contend that Dr. Mann engaged in fraud or deception in his hockey stick research. *See* SOMF ¶ 54; Williams Decl. ¶ 6 (Ex. 5) at Response to Interrogatory No. 13. In response to Dr. Mann's contention interrogatory asking whether it claimed that Dr. Mann engaged in fraud or deception, all National Review could muster was to say that Dr. Mann's selection and analysis of data "could be characterized" as "intellectually bogus and wrong." *Id.* Yet, this defense is relevant, if at all, only to the issue of actual malice—not truth. When asked to identify any documents supporting its "bogus and wrong" claim, National Review identified none. *Id.* at Response to Interrogatory 14.

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<sup>1</sup> These expert witnesses, John P. Holdren, Raymond S. Bradley, John R. Mashey, Gerald North, Naomi Oreskes, Peter C. Frumhoff, and John P. Abraham, have submitted expert reports in connection with this case. Dr. John Holdren of Harvard University, was formerly President Obama's top Science Advisor. Dr. Raymond Bradley is a co-author of MBH98 and MBH99. Dr. John Mashey is a leading expert on disinformation in the climate change field who has written extensively about climate change issues. Dr. Gerald North of Texas A&M University chaired the NRC panel which reviewed MBH98 and MBH99. Dr. Naomi Oreskes of Harvard University published an analysis of the climate change controversy in *Merchants of Doubt*. Dr. Peter Frumhoff is the Science Director of the Union of Concerned Scientists. And, Dr. John Abraham, of the University of St. Thomas, is an expert on thermodynamics and a leading climate change researcher who reviewed each of the eight academic and governmental investigations into the climategate emails.

Mr. Steyn, apparently, does contend that Dr. Mann engaged in fraud and deception. In response to the same contention question, he stated that the hockey stick is “fraudulent.” *See* SOMF ¶ 54; Williams Decl. ¶ 7 (Ex. 6) at Response to Interrogatory No. 13. However, in response to Dr. Mann’s request that he identify documents supporting his claim that the hockey stick was fraudulent, he listed just one document—an article he wrote in 2001, which provides no evidence of fraud or deception. *See id.* at Response to Interrogatory No. 14; and SOMF ¶ 54.

Pursuant to Rule 56, a party may move for summary judgment on a “part of each claim or defense.” Summary judgment should be granted “if there is no genuine dispute as to any material fact.” Pursuant to Rule 12, the court may strike any “insufficient defense” from a pleading. Given that there is no genuine dispute that the Steyn defendants’ statements about Dr. Mann are false, he is entitled to partial summary judgment on the issue of falsity, and National Review and Mr. Steyn’s truth and substantial truth affirmative defenses should be stricken.

## **II. STATEMENT OF FACTS**

### **A. DR. MANN AND THE HOCKEY STICK RESEARCH**

Michael E. Mann is a climatologist and geophysicist. He is a Distinguished Professor of Meteorology at the Pennsylvania State University and the director of its Earth System Science Center. He holds a B.A. in applied mathematics and physics from the University of California and a Ph.D. in physics from Yale University. He has published over 200 peer-reviewed articles in his technical field. He has received numerous awards and honors. In 2007, the Intergovernmental Panel on Climate Change (IPCC) presented him, along with all other scientists who had contributed substantially to the preparation of IPCC reports, with a certificate noting their contributions to the award of the Nobel Peace Prize to IPCC and Al Gore. Dr. Mann

is a Fellow of the American Meteorological Society and a member of the National Academy of Sciences.

In 1998 and 1999 Dr. Mann, along with Raymond S. Bradley and Malcolm K. Hughes, published two papers demonstrating that global warming was occurring at an alarming rate. Their papers disclosed substantial data and analysis that disproved the arguments of climate change skeptics and deniers that the 20<sup>th</sup> century temperature rises were due to the cyclical nature of the earth's temperatures. In particular, they disproved that temperatures during the Medieval era were higher than today. Thus, they established that the rise in temperatures over the latter half of the 20<sup>th</sup> Century were outside the range of natural variability and evidenced anthropogenic global warming.

These papers are known as MBH98 and MBH99. MBH98 was published in *Nature*; MBH99 was published in *Geophysical Research Letters*. As the Court of Appeals observed, the “1998 study used a technique to reconstruct temperatures from time periods before the widespread use of thermometers...by using ‘proxy indicators’” such as tree rings, lake and ocean sediment, ice cores, and corals. *CEI*, 150 A.3d at 1221. The court further observed that these proxy data “showed that global mean annual temperatures have been rising since the early twentieth century, with a marked increase in the last fifty years. The papers concluded that this rise in temperature was ‘likely unprecedented in at least the past millennium’ and correlated with higher concentrations of carbon dioxide in the atmosphere emitted by the combustion of fossil fuels.” *Id.* at 1221-22.

“The 1999 paper included a graph depicting global temperatures in the Northern Hemisphere for a millennium, from approximately 1050 through 2000. The graphical pattern is roughly horizontal for ninety percent of the temperature axis — reflecting a slight, long-term

cooling period between 1050 and 1900 — followed by a sharp increase in temperature in the twentieth century. Because of its shape resembling the long shaft and shorter diagonal blade of a hockey stick, this graph became known as the ‘hockey stick.’” *Id.* at 1222.

Given the potential for error from using very old proxy data, the authors were careful to note the uncertainties in their conclusions, as reflected in the title of MBH99: “*Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations.*” SOMF ¶ 5 at Exhibit C. Despite these cautionary words, as the Court of Appeals stated, the hockey stick graph “became a rallying point, and a target, in the subsequent debate over the existence and cause of global warming and what, if anything, should be done about it.”<sup>2</sup> *CEI*, 150 A.3d at 1221-22. As a result, MBH98 and 99 have been subjected to rigorous scrutiny by scientists, statisticians, physicists, and mathematicians. Since these studies were released, their data, analysis, and conclusions have been reviewed—and validated and replicated—in numerous peer-reviewed publications. These follow-on studies used different proxy data and different statistical methods, and all reached the same conclusion that global warming was occurring. And notably, all of the temperature graphs displayed in these studies resembled a hockey stick. SOMF ¶ 65 at ¶ 9 ¶¶ 51-60.

## **B. THE DEFENDANTS**

There are two defamatory articles at issue in this case, and four responsible defendants. Rand Simberg and the Competitive Enterprise Institute (“CEI”) published their article entitled *The Other Scandal in Unhappy Valley* on July 13, 2012. *CEI*, 150 A.3d at 1262-64. Two days

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<sup>2</sup> See also, National Research Council. 2006. *Surface Temperature Reconstructions for the Last 2,000 Years*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11676> (NRC2006) (noting the “research received wide attention, in part because it was illustrated with a simple graphic, the so-called hockey stick curve, that many interpreted as definitive evidence of anthropogenic causes of recent climate change.”)

later, Mark Steyn and the National Review published their article entitled *Football and Hockey*, on July 15, 2012. *Id.* at 1264.

The Competitive Enterprise Institute describes itself as a “think-tank,” and has championed the cause of denying the scientific consensus that climate change research is valid, and that environmental regulations are therefore appropriate. CEI prides itself on its influence in this area and notes on its website that Al Gore has “lamented” that it has “tremendous effect.”<sup>3</sup> <sup>4</sup> Myron Ebell, CEI’s Director of its Center for Energy and Environment, led former President Trump’s Environmental Transition Team in 2016. He claims on his resume that he is “enemy #1 to the current climate change community” (SOMF ¶ 19), and CEI has repeated this claim on its website.<sup>5</sup>

Rand Simberg is a writer for CEI’s “Open Market” website. He also is a fervent climate change skeptic with a particular distaste for Dr. Mann, calling him “corrupt” (*CEI*, 150 A.3d at 1263), “on the take” (SOMF ¶ 25), and a “liar” and a “charlatan[.]” (SOMF ¶ 25). He has advocated that Dr. Mann should lose his job (SOMF ¶ 25) as well as his funding (SOMF ¶ 25). Mr. Simberg also publishes his own website, Transterrestrial Musings, where he promotes conspiracy theories, including “birtherism,” the allegation that former President Obama was born in Kenya (SOMF ¶ 26). More recently he has advocated against pandemic public safety

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<sup>3</sup> <http://web.archive.org/web/20120729144615/http://cei.org/about-cei>

<sup>4</sup> At the time of CEI’s defamatory article, it had just lost a challenge to the EPA’s greenhouse gas “endangerment finding.” EPA had investigated and rejected CEI’s claims of scientific misconduct and had concluded that, “a considerable body of scientific evidence [supports]. . . that motor-vehicle emissions contribute to the total greenhouse gas air pollution, and thus to the climate change problem, which is reasonably anticipated to endanger public health and welfare.” *See Coalition for Responsible Regulation v. EPA*, 684 F.3d 102, 115 (D.C. Cir. 2012) citing EPA, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496, 66,499 (Dec. 15, 2009).

<sup>5</sup> <http://web.archive.org/web/20120729144615/http://cei.org/about-cei>

restrictions, endorsing articles that “people should not wear masks” (SOMF ¶ 26), and that “lockdowns kill people” (SOMF ¶ 26).

Until a falling out related to this litigation, Mark Steyn wrote for the National Review Online, a widely read conservative news and opinion website. Mr. Steyn was National Review’s most prized writer, its “All Star” (SOMF ¶ 30) and its “Happy Warrior” (SOMF ¶ 30). He was widely admired for his controversial and acerbic views, and paid more than anyone else at the publication, including the editor and the publisher. SOMF ¶ 31. Mr. Steyn is currently a guest host for the Rush Limbaugh Show, and has been criticized for his homophobic and anti-Muslim views.<sup>6</sup> He also writes frequent articles excoriating and insulting Dr. Mann: “Doctor Fraudpants” (SOMF ¶ 33), “a worthless piece of garbage” (SOMF ¶ 33), “an insecure litigious dweeb” (SOMF ¶ 33), “a serial liar” (SOMF ¶ 33), “a super-villain” (SOMF ¶ 33), “a sleazy charlatan” (SOMF ¶ 33), and “the Oscar Wilde of climate science with his fellow scientists as his rent boys” (SOMF ¶ 33).

Mr. Steyn concluded that the hockey stick was a fraud in 2001, shortly after Dr. Mann’s research was published—despite the fact that he had never read those articles. SOMF ¶ 34. He has clung to this story line ever since (SOMF ¶ 35); and rejects the overwhelming evidence to the contrary, including the numerous validating studies and reports, and in particular all of the governmental and academic reports confirming the accuracy of Dr. Mann’s research and the rejection of any suggestion of fraud or misconduct. An example of Mr. Steyn disdain for truth is his cavalier dismissal of the “American reports” issues by the National Science Foundation, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration

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<sup>6</sup> <https://www.mediamatters.org/fox-friends/right-wing-media-respond-fort-hood-shooting-attacking-american-muslims> and <https://www.mediamatters.org/national-review/hour-1-fill-steyn-compares-torture-memo-controversy-muss-californiagay-marriage>



rejecting the allegations of fraud and misconduct, as well as the report of the National Research Council of the National Academy of Sciences validating the hockey stick publications. SOMF ¶ 36. He was aware of these reports, but chose not to read them because, in his view, they were authored by agencies with “bewildering” acronyms for names.<sup>7</sup> See SOMF ¶ 36.

### C. THE DEFAMATIONS

The defamations in this case arise from the defendants’ long-held views that global warming is a hoax and that Dr. Mann is the “poster boy” of “corrupt and disgraced” climate change scientists. *CEI*, 150 A.3d at 1263-64. Defendants’ attacks were fueled by the 2009 hacking of emails from the Climate Research Unit at the University of East Anglia. This episode, referred to as “climategate,” included emails written by the director of the Climate Research Unit, Phil Jones. One referred to “Mike’s Nature trick,” another used the term “hide the decline.” Defendants also disbelieved the extensive academic and governmental investigations that addressed and explained the context of these allegedly incriminating emails and that cleared the researchers, including Dr. Mann, of any suggestion of fraud or misconduct. According to the defendants, these investigations were “whitewashes” and “cover-ups.”

Defendants’ invective smoldered after the release of the “Closeout Memorandum” issued by the Inspector General (IG) of the National Science Foundation.<sup>8</sup> (SOMF ¶¶ 135-139.) But their fuse was lit with the July 12, 2012, Report by former FBI Director, Louis Freeh, alleging

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<sup>7</sup> Q: Prior to the time you wrote ‘Football and Hockey,’ had you read the report that was put out in 2006 by the National Academy of Sciences which was chaired by Jerry North?

A: (after objections): I stand on the answer I gave you before, that I told you I had read the United Kingdom reports but that I had not read the ones by your bewildering array of acronyms beginning [with the letter] N at that time.” Steyn Dep. at 103:21-104:10.

<sup>8</sup> The IG Report thoroughly investigated Dr. Mann’s conduct and found no evidence of fraud or deception—based in part on an interview with defense expert witness Judith Curry, who stated (five times) that Dr. Mann did not engage in misconduct). SOMF ¶ 74.

that Dr. Mann's employer, Penn State, had been negligent in investigating misconduct by Jerry Sandusky. *See CEI*, 150 A.3d at 1221-25.

In July 2012, Mr. Steyn read a copy of *The Other Scandal in Unhappy Valley*, which accused Dr. Mann of "hockey stick deceptions," scientific and academic misconduct, and corruption. SOMF ¶ 42. The article also compared Dr. Mann to convicted child molester, Jerry Sandusky, because he "molested and tortured data" just as Mr. Sandusky did children. SOMF ¶ 42. Mr. Steyn evidently enjoyed the article. He had been following the Sandusky case closely—so much so that he obtained a copy of the Sandusky indictment. SOMF ¶ 41. On July 15, 2012, Mr. Steyn republished a number of Mr. Simberg's statements, including the "hockey stick deceptions" and "molesting and torturing" data allegations. *CEI*, 150 A.3d at 1264. He also repeated the Sandusky comparison. *Id.* Mr. Steyn then added a further allegation: Michael Mann was the man behind the fraudulent climate-change "hockey-stick graph, the very ringmaster of the tree-ring circus." *Id.*

In prior court proceedings, the defendants attempted to justify these comments on the ground that they were "opinions" and constituted appropriate commentary on the climate change debate. SOMF ¶ 44. These arguments were decisively rejected by Judge Combs Greene, Judge Weisberg, and, later, by a unanimous D.C. Court of Appeals, sitting en banc. In its decision, the Court of Appeals held that these statements were not protected opinion or commentary. It also rejected defendants' claims that Dr. Mann had not made a sufficient showing of actual malice in view of all of the governmental and academic investigations clearing the researchers and Dr. Mann, as well as their deep opposition to their side of the global warming debate and their

animus towards Dr. Mann.<sup>9</sup> *Id.* at 1258-59. The court went on to hold that the defendants had accused Dr. Mann of a number of “noxious” allegations, including that he had engaged in: (1) fraudulent data manipulation; *CEI*, 150 A.3d. at 1249, n. 46; (2) deception and misconduct in presenting his hockey stick graph, *id.* at 1245, 1260; and (3) wrongdoing by “molesting and torturing data.” *Id.* at 1248. SOMF ¶ 44.

**D. DEFENDANTS’ ALLEGATIONS AGAINST DR. MANN ARE FALSE: THEY HAVE HAD FULL AND OPEN DISCOVERY AND HAVE NO ADMISSIBLE EVIDENCE THAT THEIR STATEMENTS ARE TRUE**

For years the defendants have vowed that, given the appropriate opportunity, they would prove “to the world” that the hockey stick was fraudulent, and that global warming was a hoax. SOMF ¶ 45. CEI’s Myron Ebell testified in this case that because he and his organization disbelieved the honesty of many of the climate researchers, they wanted to “get [them] into court,” where the researchers would be “required to tell the truth.” SOMF ¶ 46. In 2006, Mr. Ebell met up with one of the MBH co-authors, Raymond Bradley, and told him that he looked forward to “see[ing] [him] in court.”<sup>10</sup> SOMF ¶ 47. In 2012, after the publication of the defamatory articles, Dr. Mann’s attorney sent a letter to CEI requesting an apology and a retraction. SOMF ¶ 48. Upon receiving this letter, another CEI staffer described Mr. Ebell as “happy as a cat.” SOMF ¶ 49.

National Review was also pleased when it received a similar letter from Dr. Mann’s counsel. In an article entitled “*Get Lost*,” it described the letter as “laughably threatening,” and stated that any lawsuit by Dr. Mann would provide it with “a journalistic project of great

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<sup>9</sup> The court’s decision on the actual malice issue came before Mr. Steyn’s testimony in this case that, prior to writing his article, he had not read the “American reports” (issued by NSF, EPA, and NOAA) due to their bewildering acronyms. Steyn Tr. at 29:1-7. But as the Court of Appeals stated, “the utter failure to examine evidence within easy reach...demonstrate[s] reckless disregard.” *CEI*, 150 A.3d. at 1259.

<sup>10</sup> Raymond S. Bradley, *Global Warming and Political Intimidation: How Politicians Cracked Down on Scientists as the Earth Heated Up* (Amherst: University of Massachusetts Press, 2011), p. 28.

interest.” *CEI*, 150 A.3d at 1264-65. It would hire a “dedicated reporter” to “comb through the [discovery] materials and regularly post stories on Mann,” which it promised would “expose [Dr. Mann’s] methods and maneuverings to the world.” *Id.* The article concluded with its own threat: that should Dr. Mann proceed with a lawsuit, he risked “making an ass of himself.” *Id.* Mark Steyn chimed in as well, telling his readers he would bring “an array of witnesses” to testify that the hockey stick was fraudulent.<sup>11</sup>

Discovery is now over. *CEI* has had its opportunity to examine the scientists under oath. National Review has had its opportunity to “comb through” every single document they demanded both from Dr. Mann and from every one of Dr. Mann’s witnesses (over one million pages of documents). *SOMF* ¶ 51. And, Mr. Steyn has had his opportunity to bring his array of witnesses into court.

But defendants have identified no proof their accusations are true. Defendants spent virtually no time questioning Dr. Mann on his “methods and maneuverings.” They asked no questions about the allegedly suspicious “Nature trick” and “hide the decline” emails that launched many of the spurious fraud allegations. (These terms do not appear once in the transcript.) Rather, the deposition days were consumed with questions about statements that Dr. Mann made about other scientists—entirely irrelevant in this case.

With respect to the documents that Dr. Mann and his witnesses produced, after combing through the one-million pages, National Review did not identify *a single document* supporting their allegations of fraud and deception. And Mr. Steyn identified only one, and it was not one from Dr. Mann or his witnesses. Rather, it was an opinion piece Mr. Steyn himself had written

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<sup>11</sup> <http://web.archive.org/web/20201030103744/https://www.steynonline.com/6333/michael-e-mann-liar-cheat-falsifier-and-fraud>

in 2001 for the *Sunday Telegraph of London*—and identified no evidence of fraud or misconduct. SOMF ¶ 54.

## 1. DEFENDANTS' EXPERT WITNESSES

As for Mr. Steyn's "array of witnesses,"<sup>12</sup> defendants identified only two: Judith Curry and Abraham Wyner. Not surprisingly, both assiduously *avoided* addressing the allegations of fraud or misconduct. Dr. Curry told defense counsel "upfront" that she would "not...get involved in adjudicating scientific misconduct" in this case. SOMF ¶ 58. Dr. Wyner testified that he was "absolutely specifically" told by defense counsel not to opine on defendants' fraud allegations. SOMF ¶ 59.

Rather than addressing the issue of truth or falsity, defendants' experts were retained instead to offer opinions addressing the defendants' "state of mind"—specifically, whether it was "reasonable" for the defendants to have made their defamatory statements. These opinions are directed to whether the defendants acted with actual malice: knowing falsity or reckless disregard of the truth. Specifically, Dr. Curry's opinion is that it would be "reasonable" for the defendants to have concluded that Dr. Mann engaged in fraud (SOMF ¶¶ 60-61), and Dr. Wyner's opinion is that the defendants' statements "can reasonably be construed [by political commentators] as manipulative" (SOMF ¶ 63). But the law is clear that expert opinion regarding a defendant's state of mind is inadmissible. *See Charalambopoulos v. Grammer*, No. 3:14-cv-2424, 2017 WL 930819, at \*12 (N.D.Tex. March 8, 2017); *Fisher v. Halliburton*, Nos. H-05-1731, H-06-1971, H-06-1168, 2009 WL 5216949, at \*2 (S.D.Tex. Dec. 21, 2009); *Iacangelo v. Georgetown University*, 560 F.Supp.2d 53, 60 (D.D.C. 2008); *U.S. v. Libby*, 461 F.Supp.2d 3, 7

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<sup>12</sup> <http://web.archive.org/web/20201030103744/https://www.steynonline.com/6333/michael-e-mann-liar-cheat-falsifier-and-fraud>

(D.D.C. 2006). Dr. Mann is moving in separate motions to exclude this evidence on the issue of malice.

In addition, as the motion to exclude Dr. Curry's testimony further asserts, her opinion is barred by other *Daubert* factors, which require that an expert's opinion be based on accurate facts and must be reliable—subject to peer review and accepted in the scientific community. *See Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 593-94 (1993); *Motorola Inc. v. Murray*, 147 A.3d 751, 756 (D.C. 2016). The burden is on the proponent of the expert testimony to establish that it is based on accurate facts and that it is accepted in the scientific community. *Daubert*, 509 U.S. at 592 n. 10. But here, no such showing has or could be made. To the contrary, as Dr. Mann's motion to exclude demonstrates, Dr. Curry's opinions are factually incorrect and have been *rejected* in the scientific community.

In her report, Dr. Curry posits three reasons why it might have been “reasonable” for the defendants to have made their statements about Dr. Mann. According to Dr. Curry, Dr. Mann committed: (1) “image fraud” in connection with Dr. Mann's participation in a report of the Intergovernmental Panel on Climate Change in 2001, two years after the publication MBH98 and MBH99; (2) “cherry picking” in connection with the selection of the proxy data for the MBH98 and MBH99 research; and (3) “data falsification” in connection with a different peer-reviewed article Dr. Mann and his colleagues published in 2008, nine years after MBH98 and MBH99 were published. SOMF ¶ 64.

As the attached declarations of Raymond Bradley and Thomas Karl state, Dr. Curry's factual allegations on each of these three points are incorrect. SOMF ¶ 65. Unlike Dr. Curry, Dr. Bradley and Dr. Karl have personal knowledge on these issues, having worked extensively with Dr. Mann on the publications at issue. SOMF ¶ 66. Moreover, Dr. Curry's opinions on

these points have been rejected in the scientific community. SOMF ¶ 67. Dr. Curry ignores this fact, but it is addressed in the Bradley and Karl declarations. The truth is that Dr. Curry is an “extreme” outlier in the scientific community, and even her former colleagues at Georgia Tech agree. SOMF ¶ 68. Her performance reviews noted that the University was “troubled by the vision [she] has on climate science—definitely not mainstream and quite extreme.”<sup>13</sup> *Id.*

Finally, it must be noted that instead of establishing that the defendants’ allegations are true, the testimony of Dr. Curry and Dr. Wyner demonstrates that they are false. In her deposition, Dr. Curry confirmed that—prior to her retention in this case—she had specifically stated on her website that **Dr. Mann had not engaged in research misconduct—falsification or fabrication.** SOMF ¶ 73. And when interviewed by the National Science Foundation, Dr. Curry told the Inspector General (five times) that Dr. Mann did not commit research misconduct. SOMF ¶¶ 74 & 139. Dr. Wyner’s testimony also refutes defendants’ allegations. In his deposition he testified that, in his opinion, **the hockey stick was “not a deception.”** SOMF ¶ 75.

## 2. DEFENDANTS’ FACT WITNESSES

Defendant’s fact witnesses have also testified that Dr. Mann’s research was performed appropriately. Roger Pielke, Jr. is a professor at the University of Colorado, Boulder, and has followed the hockey stick issue closely. Dr. Pielke has written numerous articles about this controversy and stated that there was nothing in the climategate reviews that “presented any evidence of fraud.” SOMF ¶ 76. He also wrote that the *allegations against Dr. Mann did not*

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<sup>13</sup> Nor does Dr. Curry present as an impartial expert witness. She blames Dr. Mann for her dismissal from Georgia Tech and has filed amicus briefs against him in the litigation before this Court. But the truth of the matter is that her wounds were self-inflicted and were due to her extreme views on climate science, views that were questioned by federal program funding managers and by others at “Tier 1 universities” who wanted to know how Georgia Tech could “tolerate [her] positions and her blogging.” See SOMF ¶ 69.

*rise to the level of “fraud or misconduct, not even close.”* SOMF ¶ 77. When CEI learned that Dr. Pielke, its own witness, had made these statements, CEI cancelled Dr. Pielke’s deposition forty minutes before its scheduled start. The deposition eventually took place later, at the request of Dr. Mann’s counsel. SOMF ¶ 78.

Stephen McIntyre is a retired mining executive who has exhaustively reviewed and written on Dr. Mann’s research, according to him, more than any other person. He also claims that no one has more knowledge than he about Dr. Mann’s work. SOMF ¶ 79. Mr. McIntyre’s work has been frequently cited by the defendants in this case as authoritative on the subject of the hockey stick, and Mr. McIntyre and his co-author, Ross McKittrick, an economist, received CEI’s prestigious Julian Simon award for their hockey stick investigations. SOMF ¶ 80. Mr. McIntyre has never accused Dr. Mann of fraud or misconduct in any of his writings or in his interview with the National Science Foundation Inspector General. SOMF ¶ 81. To the contrary, Mr. McIntyre has publicly stated that Dr. Mann “**published diligently.**” SOMF ¶ 82.

Edward Wegman is another of defendants’ fact witnesses. He is a statistician who was asked to analyze Dr. Mann’s work. He testified to Congress that Dr. Mann used incorrect mathematical models, but never testified—or even suggested—that this was in any way fraudulent or corrupt, or constituted academic, scientific, or research misconduct. SOMF ¶ 85.

#### **E. PLAINTIFF’S PROOF OF FALSITY**

In sharp contrast to defendants’ failure of proof, Dr. Mann has assembled overwhelming evidence that the defamatory statements were false. This includes: (1) the report of the National Research Council, of the National Academy of Sciences that conducted a review of Dr. Mann’s research in 2006 at the request of the United States House of Representatives; (2) the body of extensive peer-reviewed, scientific studies reviewing, validating, and replicating the hockey



stick; (3) the reports issued by academic and governmental organizations in 2010 and 2011 which found, as the Court of Appeals affirmed, that Defendants' allegations against Dr. Mann were false;<sup>14</sup> and (4) the testimony of Dr. Mann's own array of expert witnesses in this case: Dr. Raymond Bradley, co-author of MBH98 and MBH99; Dr. John Mashey, a leading expert on disinformation in the climate change field who has written extensively about climate change issues; Dr. John Holdren of Harvard University, formerly President Obama's top Science Advisor; Dr. Gerald North of Texas A&M University, who chaired the NRC panel which reviewed MBH98 and MBH99; Dr. Naomi Oreskes of Harvard University, who published an analysis of the climate change controversy in *Merchants of Doubt*; Dr. Peter Frumhoff, Science Director of the Union of Concerned Scientists; and Dr. John Abraham, of the University of St. Thomas, an expert on thermodynamics and a leading climate change researcher who reviewed each of the eight academic and governmental investigations into the climategate emails. SOMF ¶ 86.

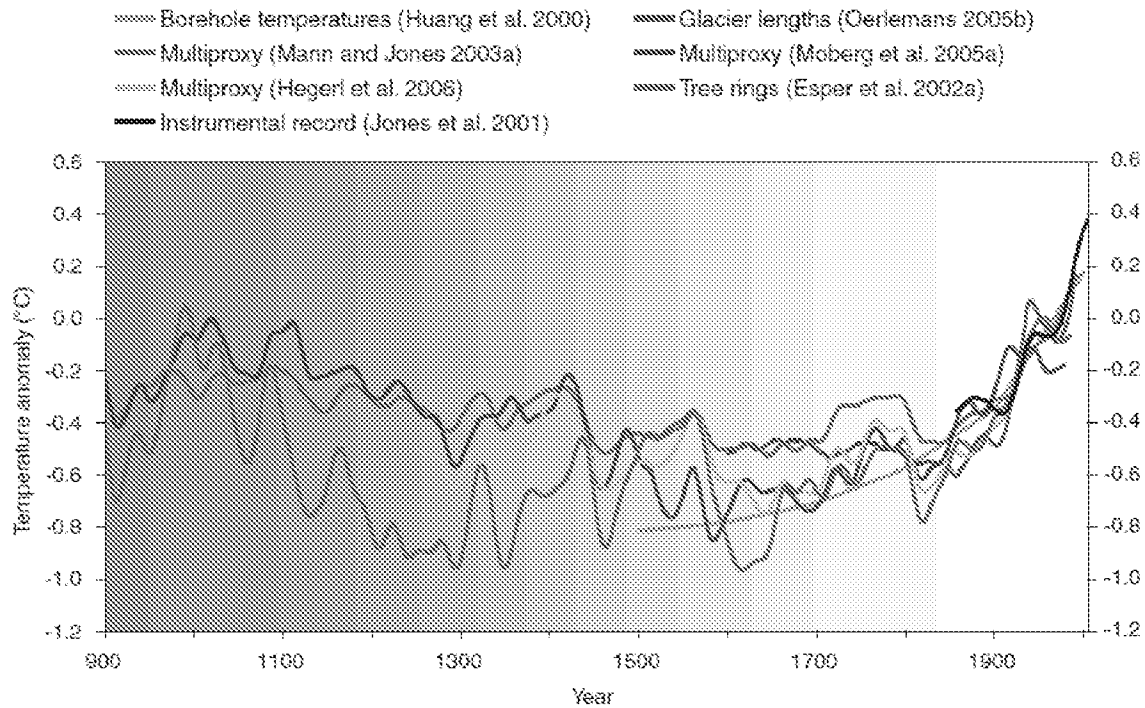
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<sup>14</sup> These reports are: (a) "Report of the International Panel set up by the University of East Anglia to examine the research of the Climatic Research Unit," (April 12, 2010), by the University of East Anglia, Oxburgh Panel; (b) "The Independent Climate Change E-mails Review," (July 2010), by the University of East Anglia, Russell Panel; (c) "The disclosure of climate data from the Climatic Research Unit at the University of East Anglia," (March 24, 2010), by the UK House of Commons, Science and Technology Committee; (d) "Government Response to the House of Commons Science and Technology Committee 8<sup>th</sup> Report of Session 2009-10: The disclosure of climate data from the Climatic Research Unit at the University of East Anglia," (September 2010), by the Secretary of State for Energy and Climate Change by Command of Her Majesty; (e) "RA-10 Inquiry Report: Concerning the Allegations of Research Misconduct Against Dr. Michael Mann, Department of Meteorology, College of Earth and Mineral Sciences," by The Pennsylvania State University, (February 3, 2010); (f) "RA-10 Final Investigation Report Involving Dr. Michael Mann," (June 4, 2010), by The Pennsylvania State University; (g) "Letter and Detailed Results of Inquiry Responding to May 26, 2010, Request from Senator Inhofe," (February 18, 2011), by the Office of Inspector General, United States Department of Commerce; (h) "Closeout Memorandum, Case No. A09120086," by The Office of Inspector General, Office of Investigations, National Science Foundation; (i) "EPA's Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, Final Rule, Fed. Reg. 75:156," (August 13, 2010), by the United States Environmental Protection Agency; (j) "EPA's Response to the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, Volumes 1-3," by the United States Environmental Protection Agency.

## 1. THE NATIONAL RESEARCH COUNCIL REPORT

In 2006, at the request of the United States House of Representatives, Committee on Science, the National Research Council of the National Academy of Science evaluated the methodology and conclusions of MBH98 and MBH99, and the overall state of knowledge concerning proxy data reconstruction of global and hemispheric temperature. SOMF ¶ 87. *See* National Research Council. 2006. *Surface Temperature Reconstructions for the Last 2,000 Years*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11676> (NRC2006). The Chair of the Council was Dr. Jerry North, one of Dr. Mann's expert witnesses in this case. The NRC's review was prompted in part by "critic[isms] of the original papers [which] argued that the statistical methods were flawed, that the choice of data was biased, and that the data and procedures used were not shared so others could verify the work." NRC2006, Preface p. ix. SOMF ¶ 88. These criticisms included those of Stephen McIntyre, one of the defendants' witnesses in this case. SOMF ¶ 89.

The NRC specifically evaluated these criticisms, investigated the hockey stick in depth, and considered a number of subsequent large-scale surface temperature reconstruction studies conducted by different research groups, each of which validated and replicated Dr. Mann and his colleagues' work. SOMF ¶ 90. Each used different methodologies and data, which the NRC depicted in a composite graph, reproduced below, which establishes regardless of the specific proxy and method used, 20<sup>th</sup> Century warming over the prior millennium is undeniable:



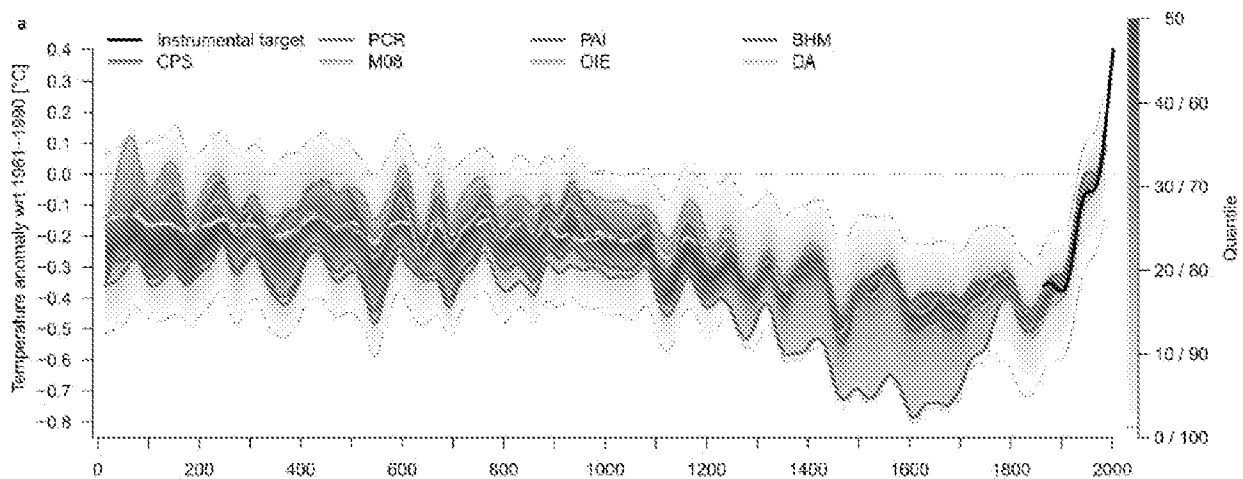
SOMF ¶ 90; *see* NRC2006, Figure S-1, p. 2.

The NRC found the “basic conclusion of Mann et al. (1998, 1999)...[had] subsequently been supported by an array of evidence that includes the additional large-scale surface temperature reconstructions and documentation,” noting the studies of Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D’Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann (in press at the time of the NRC report) (SOMF ¶ 93), and concluded as follows: “*the MBH authors accurately and honestly reported their underlying research and did not make claims that were stronger than the data could support.*” SOMF ¶ 94. Dr. North has addressed this report in this case and has also reviewed “the great deal of research in the area of global warming which has further confirmed the conclusions of the committee.” SOMF ¶ 95. As Dr. North further states, “the MBH work has stood the test of time and should be considered a significant and pioneering contribution in the area of climate science.” SOMF ¶ 96.

## 2. THE PEER REVIEWED STUDIES

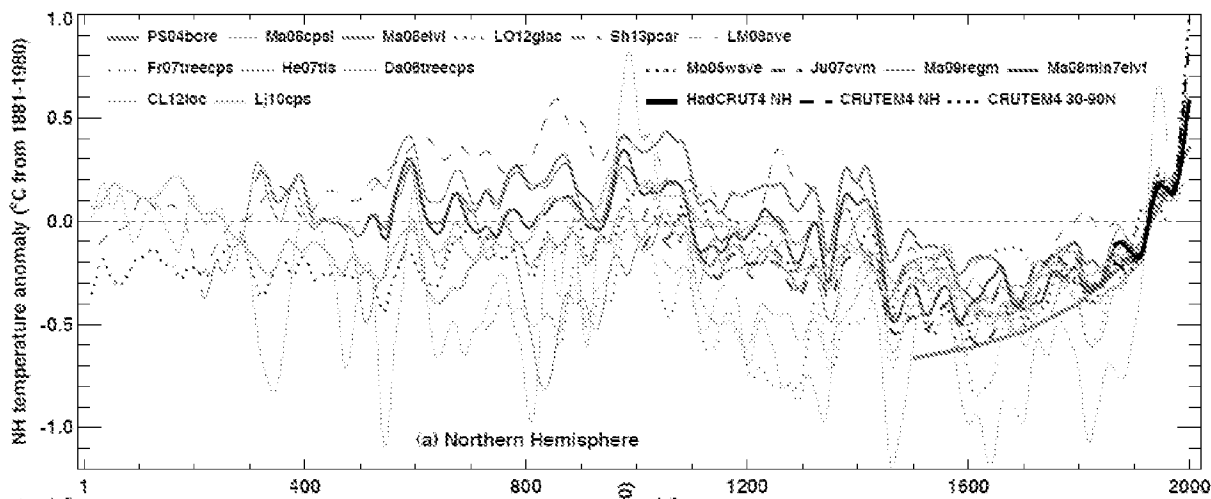
At the time NRC issued its report, six different peer-reviewed studies had confirmed the validity of the MBH research (cited above). Each used different methodologies and data from the MBH papers. Each reached the same conclusions as the MBH authors. Since that time, as Dr. North observed, dozens of subsequent paleoclimate reconstructions using a wide variety of proxy data and analytical methods have cited to, validated, and extended the work on the hockey stick. SOMF ¶ 111.

One of the most recent examples is a paleoclimate temperature reconstructions study performed by the European PAGES consortium, which used seven different statistical methods drawing from a global collection of temperature-sensitive paleoclimate records to reconstruct global temperature over the past 2,000 years. SOMF ¶ 118; *see* PAGES 2k Consortium, Neukom R, Barboza LA, et al. *Consistent multi-decadal variability in global temperature reconstructions and simulations over the Common Era*. *Nat Geosci*. 2019;12(8):643-649. doi:10.1038/s41561-019-0400-0. This study demonstrated remarkably synchronous temperature reconstructions and strongly reinforced the findings in a follow study, Mann et al. 2008, depicted below as the M08 data:



SOMF ¶ 120.

The most recent IPCC report, the Fifth Assessment Report published in 2013, featured the subsequent work Drs. Mann, Hughes, and Bradley, *Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia*, Michael E. Mann, Zhihua Zhang, Malcolm K. Hughes, Raymond S. Bradley, Sonya K. Miller, Scott Rutherford, Fenbiao Ni, Proceedings of the National Academy of Sciences Sep 2008, 105 (36) 13252-13257; DOI: 10.1073/pnas.0805721105 (Mann, et al. 2008). SOMF ¶ 116. Numerous other paleoclimate reconstructions which again show remarkable consistency in demonstrating the anomalous nature of 20<sup>th</sup> Century temperatures, as depicted in this composite hockey stick graph:



IPCC, 2013: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp., Figure 5.7(a).

A common measure of the contribution a scientific paper makes toward developing a scientific consensus is the number of citations it receives in the scholarly literature. MBH98 and MBH99 have been widely cited in the peer reviewed literature, according to Google Scholar. SOMF ¶ 112. At the present time, MBH98 has been cited by 2,470 scholarly works and publications;<sup>15</sup> and MBH99 has been cited by 2,410 scholarly works and publications.<sup>16</sup>

### 3. THE CLIMATEGATE INVESTIGATIONS

In the wake of the theft of the “climategate” emails, eight different academic and governmental panels conducted investigations into the conduct of the climate scientists, including Dr. Mann. The Court of Appeals confirmed: “[f]ollowing disclosure of the emails and the questions raised, Penn State, the University of East Anglia, and five governmental agencies — the U.K. House of Commons Science and Technology Committee, the U.K. Secretary of State for Energy and Climate Change, the Inspector General of the U.S. Department of Commerce, the U.S. Environmental Protection Agency, and the U.S. National Science Foundation — issued reports after conducting inquiries into the validity of the methodology and research underlying the hockey stick graph and investigating the allegations impugning the integrity of Dr. Mann’s and other climate scientists’ conduct.” *CEI*, 150 A.3d at 1223.

After reviewing all these reports, the Court of Appeals observed that none of these investigations found any evidence of fraud, falsification, manipulation or misconduct. *Id.* at

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<sup>15</sup>[https://www.google.com/search?rlz=1C1GCEJ\\_enUS891US891&sxsrf=ALeKk01MoJK0TLQyxgbDrxgxBpNQNLolA%3A1610764145281&ei=cU8CYPGAE0005wLzxgeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&gs\\_lcp=CgZwc3kiYWI0DEAAWABg6x1oAHABeACAAOCIAQCSEAQCYAQCQAQdnd3Mid2IG&schent=psy-ab&ved=0ahUKEwi-\\_ceFLLpAhVjx1kkHXPiCdUQ4dUDCA0](https://www.google.com/search?rlz=1C1GCEJ_enUS891US891&sxsrf=ALeKk01MoJK0TLQyxgbDrxgxBpNQNLolA%3A1610764145281&ei=cU8CYPGAE0005wLzxgeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&gs_lcp=CgZwc3kiYWI0DEAAWABg6x1oAHABeACAAOCIAQCSEAQCYAQCQAQdnd3Mid2IG&schent=psy-ab&ved=0ahUKEwi-_ceFLLpAhVjx1kkHXPiCdUQ4dUDCA0)

<sup>16</sup>[https://scholar.google.com/scholar?rlz=1C1GCEJ\\_enUS891US891&sxsrf=ALeKk03rgc8bwOqUE54XvKtfrRHwTvI2oQ:1610763800601&gs\\_lcp=CgZwc3kiYWI0DDIECAAORzIECAAORzIECAAORzIECAAORICzllizImDbQimgAcAR4AIABAlgBAJIBAJgBAaABAqABAaoBB2d3cvI3aXrlAQTAAOE&umr=1&ie=UTF-8&lr&cites=11253045204762962594](https://scholar.google.com/scholar?rlz=1C1GCEJ_enUS891US891&sxsrf=ALeKk03rgc8bwOqUE54XvKtfrRHwTvI2oQ:1610763800601&gs_lcp=CgZwc3kiYWI0DDIECAAORzIECAAORzIECAAORzIECAAORICzllizImDbQimgAcAR4AIABAlgBAJIBAJgBAaABAqABAaoBB2d3cvI3aXrlAQTAAOE&umr=1&ie=UTF-8&lr&cites=11253045204762962594)

1223. Further, allegations that Dr. Mann had engaged in deception and academic and scientific misconduct “[have] been proved to be false by four separate investigations.” *Id.* at 1245.

Regarding the defendants’ assertions that the negative findings do not support a conclusion that their statements were, in fact, false, the Court of Appeals held: “a determination that there is ‘no evidence’ of fraud is an ultimate conclusion that investigation has not turned up any evidence of misconduct.” *Id.* at 1256.

The Court of Appeals also addressed CEI’s criticisms of the Penn State inquiry and its assertion that there had not yet been an independent investigation of Dr. Mann’s research. It concluded: “In this, Mr. Simberg’s article was inaccurate.” *Id.* at 1246. It continued: “As the NSF Report clearly lays out, in addition to ‘fully review[ing] all the reports and documentation the University provided,’ NSF reviewed ‘a substantial amount of publicly available documentation concerning both [Dr. Mann’s] research and parallel research conducted by his collaborators and other scientists in that particular field of research.’ The NSF also independently interviewed Dr. Mann, his ‘critics, and disciplinary experts.’” *Id.* at 1246-47.

Dr. Mann’s expert witness also address the climategate investigations. Dr. Holdren notes that the allegations against the climate scientists that led to these investigations were “bankrupt” and highlight the harassment that climate denialists inflict on climate change researchers. SOMF ¶ 127. As Dr. Frumhoff and Dr. Oreskes state, the reports of the investigations “vindicated the integrity” of the scientists in question, SOMF ¶ 128, and, in particular, “exonerated” Dr. Mann. SOMF ¶ 128. Dr. Abraham testifies that the investigations confirm the accuracy and validity of the hockey stick and concludes with the following observation: “In fact, the irony is that the unfounded complaints have given such intense scrutiny to Dr. Mann’s work, that we now know, with great certainty, he was correct all along.” SOMF ¶ 129.

Finally, Defendants have identified no evidence that the investigations into Dr. Mann's conduct were somehow unreliable. Their theory that these investigations—every one of them—was a “whitewash” and “cover-up” is just that: a theory grounded in nothing but their own confirmation bias –and without a shred of supporting evidence. They have spent a huge amount of time in this case trying to impeach the Penn State investigation. They have subpoenaed documents from the University and deposed all three of the members of the panel that conducted the inquiry, as well as former Penn State President, Graham Spanier. SOMF ¶ 130. Yet, discovery only confirmed that the Penn State investigation was thorough and complete. Henry Foley, the former Vice President for Research and Dean of Graduate Studies at Penn State, testified that in view of the public scrutiny of the issue, the committee was “keenly concerned that we try to do everything as carefully and as well as we possibly could.” SOMF ¶ 131. He also testified that the committee came into the investigations with no preconceived notions and stated that he and Dr. Scaroni (a committee member) were initially skeptical of the validity of the hockey stick research until convinced otherwise. SOMF ¶ 132.

As Candice Yekel, Penn State's Research Integrity Officer testified:

Q: What would you say to the people that say that Penn State's inquiry and investigation of Dr. Mann was a whitewash?

A: I would say that is not true, and we took great care and effort to make sure we looked at these allegations.... The committee members...were some of our best. And so I would absolutely stand behind the report that it was thorough and complete.

Q: What would you say to someone that alleges that Penn State's inquiry and investigation was a cover-up of wrongdoing?

A: I would say that is not accurate. And to suggest such a thing, I would expect to have some evidence to even suggest such a thing.



See SOMF ¶ 134.

There is no such evidence. Nor is there evidence that any of the other investigations was a “whitewash” or a “cover-up.” Defendants have made no attempt to impeach the NOAA investigation, or the EPA investigation (which, ironically, CEI requested), or any of the investigations carried out in the United Kingdom. Defendants did send a Freedom of Information Act request to the National Science Foundation, only to learn that both Judith Curry and Stephen McIntyre had been interviewed by NSF investigators, with neither accusing Dr. Mann of misconduct—and Dr. Curry explicitly stating that Dr. Mann did not engage in misconduct. SOMF ¶¶ 135-139.

#### **4. DR. MANN’S WITNESSES**

Dr. Mann’s witnesses directly address the falsity of Defendants’ allegations. Dr. Bradley, noting the extensive body of peer-reviewed articles validating Dr. Mann’s research, states:

This body of scientific reports is significant for multiple reasons. Each was conducted by qualified and independent, accredited scientists. In addition, each reaches essentially the same conclusion, reinforcing and supporting the conclusions reached by the others. Specifically, they each found that there is no basis to conclude that: a. the MBH authors had molested or tortured the data used in our studies; b. the MBH authors had engaged in data manipulation; c. the MBH authors had engaged in corrupt or disgraced science or that any of these investigations were a whitewash; d. anyone covered up or allowed to continue heinous crimes or that the MBH authors had engaged in academic and scientific misconduct; and e. the “hockey stick” graph was fraudulent.

SOMF ¶ 142.

Dr. Naomi Oreskes also rejects Defendants’ allegations against Dr. Mann as “false and unjustified.” SOMF ¶ 143. Dr. Peter Frumhoff similarly opines that the “statements made by National Review and the Competitive Enterprise Institute at issue in this case are false.” SOMF ¶ 144. Dr. John Mashey states in his report that there is no research demonstrating that Dr.

Mann’s research is falsified or that his methods or conclusions were fraudulent or involved misconduct. SOMF ¶ 145. He also states that no researcher who has investigated Dr. Mann’s work has suggested that his research was fraudulent or improper or constituted misconduct, including the defendants’ own witnesses: Mr. McIntyre, Dr. Wyner, and Dr. Wegman. SOMF ¶ 146.

Dr. Mashey was the last expert witness to testify in this case and thus had an opportunity to review all of the defendants’ expert reports, all of their deposition testimony, and all of their fact witness testimony (except for Dr. Wegman who was deposed two days later). SOMF ¶ 147. In reviewing this testimony, Dr. Mashey observed correctly that not one of defendants’ witnesses made any allegation of fraud, or corruption, or scientific misconduct, or scientific misconduct, or research misconduct. SOMF ¶ 148. (Nor did Dr. Wegman in his subsequent deposition.) SOMF ¶ 148.

In sum, as Dr. Mashey states, the allegations of fraud and improper conduct are false. SOMF ¶ 149. And as Dr. Bradley states: “there is no factual basis for any of the statements” at issue in this litigation. SOMF ¶ 150.

### **III. PARTIAL SUMMARY JUDGMENT SHOULD BE GRANTED: THERE IS NO GENUINE DISPUTE THAT THE DEFENDANTS’ ALLEGATIONS AGAINST DR. MANN ARE FALSE**

D.C. Superior Court Rule 56 provides that “[a] party may move for summary judgment, identifying each claim or defense—or *the part of each claim* or defense—on which summary judgment is sought.”<sup>17</sup> (emphasis added). The Advisory Committee’s Note to the 2010 amendments to Federal Rule of Civil Procedure 56 explains that this sentence was “added to

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<sup>17</sup> “This rule is identical to *Federal Rule of Civil Procedure* 56, as amended in 2010, except that 1) a reference to local district court rules is omitted from the language in subsection (b)(1) and 2) subsection (b)(2), which is unique to the Superior Court rule. . .” DC R RCP Rule 56, cmt. to 2017 Amendments.

make clear at the beginning that summary judgment may be requested not only as to an entire case but also as to a claim, defense, *or part of a claim* or defense.” Fed. R. Civ. P. 56 advisory committee’s note to 2010 amendment (emphasis added).

Since 2010, courts have repeatedly recognized that it is proper to move for summary judgment on a single element, or part of a claim.<sup>18</sup> *See, e.g., United States ex rel. Morsell v. Symantec Corporation*, No. 12-cv-800, 2020 WL 5651277, at \*27 (D.D.C. March 30, 2020) (finding that the “[g]overnment is . . . only entitled to partial summary judgment on [the duty] element of its negligent misrepresentation claim, to the same extent it was entitled to summary judgment on the duty element of its breach claim.”); *LUX EAP, LLC v. Bruner*, No. 17-cv-1359, 2018 WL 6016973, at \*13 (C.D.Cal. July 31, 2018) (granting partial summary judgment as to the publication element of the counterclaim for defamation); *Hudak v. Clark*, No. 3:16-cv-288, 2018 WL 1785865, at \*2 (M.D.Pa. April 13, 2018) (granting plaintiff’s motion for partial summary judgment as to a single element, the absence of probable cause, of his claim for unlawful seizure/arrest); *Operation Technology, Inc. v. Cyme International T & D Inc.*, 14-cv-00999, 2016 WL 6246806, at \*8 (C.D.Cal. March 31, 2016) (“grant[ing] summary judgment on the element of a Lanham Act false advertising claim that several communications were literally false statements of fact.”).

“Regardless of whether a party seeks summary judgment on part of a claim or the entire claim, the same standard applies: The movant must establish through its pleadings that no genuine issue exists as to a material fact.” *United States ex rel. Landis v. Tailwind Sports Corp.*, 234 F.Supp.3d 180, 191 (D.D.C. 2017); *Johnson v. Washington Gas Light Co.*, 109 A.3d 1118, 1120 (D.C. 2015) (“to prevail on a motion for summary judgment, the moving party must

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<sup>18</sup> Plaintiff notes that despite being decided after 2010, the D.C. District Court in *Davis v. District of Columbia*, 2020 WL 6134670, at \*6 n.8 (D.D.C. 2020) evidently did not consider the amendment.

demonstrate that there is no genuine issue of material fact and that it is entitled to judgment as a matter of law.”).

Once the movant has made a sufficient evidentiary showing to support the motion, the opposing party’s response must set forth specific facts showing that there is a genuine issue for trial. The movant is entitled to summary judgment if the opposing party fails to make a sufficient showing on an essential element of her claim with respect to which she has the burden of proof. However, in assessing whether there exists a genuine issue of material fact, the pleadings and probative evidentiary materials submitted on the motion must be viewed in the light most favorable to the non-moving party[.]

*Johnson*, 109 A.3d at 1120.

One element of Dr. Mann’s defamation claim is the necessity to show that the statements at issue are false.<sup>19</sup> The defamatory statements made in this case by Mr. Steyn and the National Review include the allegation regarding “hockey stick deceptions;” the allegation that Dr. Mann, “molested and tortured data” comparable to the conduct of Jerry Sandusky, and that Dr. Mann was the man behind the “fraudulent climate change hockey stick graph.” As the Court of Appeals has held, these allegations convey the defamatory messages that: (1) Dr. Mann “engaged in data manipulation that was fraudulent...,” *id.* at 1249, n. 46; (2) Dr. Mann engaged in “deception and misconduct,” *id.* at 1245, 1260; and (3) Dr. Mann committed “wrongdoing” by “molesting and torturing data.” *Id.* at 1248.

There is no genuine issue that these statements are false. Dr. Mann’s evidence of falsity, cited above, is overwhelming. In contrast, National Review and Mr. Steyn have identified no evidence that any of these allegations are true. They have no evidence that the hockey stick is

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<sup>19</sup> To succeed on a defamation claim, a plaintiff must prove: “(1) that the defendant made a *false* and defamatory statement concerning the plaintiff; (2) that the defendant published the statement without privilege to a third party; (3) that the defendant’s fault in publishing the statement [met the requisite standard]; and (4) either that the statement was actionable as a matter of law irrespective of special harm or that its publication caused the plaintiff special harm.” See *CEI*, 150 A.3d at 1240 (emphasis added).

fraudulent. They have no evidence that Dr. Mann engaged in deception and misconduct. They have no evidence that Dr. Mann engaged in wrongdoing by molesting and torturing data. And even were the opinions of Dr. Curry and Dr. Wyner considered admissible on the issue of truth—and by their own admissions, they are not—neither will testify that the defamatory statements are true. To avoid summary judgment defendants must present admissible evidence establishing a genuine issue of material fact—here there is none.

#### **IV. THE AFFIRMATIVE DEFENSES OF TRUTH AND SUBSTANTIAL TRUTH SHOULD BE STRICKEN**

In their Answers and Affirmative Defenses, both the National Review and Mr. Steyn have asserted affirmative defenses of “truth” and “substantial truth.” The National Review Answer is set forth in Williams Decl. ¶ 59 (Exhibit 58) and the Steyn Answer is set forth in Williams Decl. ¶ 60 (Exhibit 59). A court may strike an affirmative defense where, as here, it is clear that the defense is “irrelevant and frivolous and its removal from the case would avoid wasting unnecessary time and money litigating the invalid defense.” *Malibu Media, LLC v. Parsons*, No. 12-1331, 2013 WL 12324463, at \*2 (D.D.C. May 31, 2013); *Intex Recreation Corp. v. Team Worldwide Corp.*, 390 F.Supp.2d 21, 24 (D.D.C. 2005). Courts are often inclined to strike affirmative defenses where discovery has been completed and the sufficiency of the allegations can be determined on the merits. *See, e.g., Mme. Pirie’s v Keto Ventures, LLC*, 57 N.Y.S.3d 555, 557 (3d Dep’t June 15, 2017) (holding that the court “properly granted plaintiffs’ motion for summary judgment dismissing defendants’ affirmative defense and counterclaim for fraud” after discovery was completed.); *S.E.C. v. Sands*, 902 F.Supp. 1149, 1166 (C.D.Cal. 1995) (granting the SEC’s motion to strike the affirmative defense of unclean hands after discovery was completed and defendants had produced no evidence of unconstitutional actions by the SEC); *Fijal v. American Export Isbrandtsen Lines*, 514 N.Y.S.2d 6, 7 (1st Dep’t 1987)

(finding that the affirmative defense of contributory negligence was unsubstantiated and properly stricken after discovery and deposition proceedings had been completed.).

Discovery has closed and defendants have had their opportunity to fully develop facts relating to their truth defenses. As noted above, there is no genuine issue in this case that defendants' allegations are false. Nor is there any support for any "substantial truth" defense. The substantial truth defense is one that can excuse minor or immaterial inaccuracies in an article. *See Arpaio v. Zucker*, 414 F.Supp.3d 84, 90 (D.D.C. 2019). But here the defendants' articles contain far more than minor or immaterial inaccuracies—the articles advance severe indictments of fraud, deception, and wrongdoing. It is the defendants' burden to establish this defense, and defendants do not come close.<sup>20</sup> Their truth and "substantial truth" affirmative defenses are meritless and should be stricken. *See, e.g., Schiavone Const. Co. v. Time, Inc.*, 619 F.Supp. 684, 700-01 (D.N.J. 1985) (holding that no disputed issue of fact existed as to plaintiffs' truth defense, striking the defense, and granting plaintiffs' motion for summary judgment on that element of their defamation claim).

## **V. CONCLUSION**

For the foregoing reasons, Dr. Mann respectfully requests that the Court grant its motion for partial summary judgment on the issue of falsity and to strike the affirmative defense of truth and substantial truth.

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<sup>20</sup> To successfully assert this defense, "a defendant in a defamation action must prove that the statements made were substantially true, and that any minor misstatements of fact or inaccuracies of expression were immaterial." *Lohrenz v. Donnelly*, 223 F.Supp.2d 25, 59 (D.D.C. 2002).

Dated: January 22, 2021

Respectfully submitted,

/s/ John B. Williams

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John B. Williams (No. 257667)  
Fara N. Kitton (No. 1007793)  
WILLIAMS LOPATTO PLLC  
1629 K Street, N.W.  
Suite 300  
Washington, D.C. 20006  
Tel: (202) 296-1665  
jbwilliams@williamslopatto.com

Peter J. Fontaine (No. 435476)  
COZEN O'CONNOR  
1650 Market Street, Suite 2800  
Philadelphia, PA 19103  
Tel: (215) 665-2723  
pfontaine@cozen.com

Patrick J. Coyne (No. 366841)  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, LLP  
901 New York Ave., N.W.  
Washington, D.C. 20001-4413  
Tel: (202) 408-4000  
Patrick.coyne@finnegan.com

*Counsel for Plaintiff, Michael E. Mann, Ph.D.*

MICHAEL E. MANN, PH.D.,  
Plaintiff,  
  
v.  
  
NATIONAL REVIEW, INC., *et al.*,  
Defendants.

John B. Williams, Esq. (D.C. Bar No. 257667)  
Fara N. Kitton, Esq. (D.C. Bar No. 1007793)  
WILLIAMS LOPATTO PLLC  
1629 K Street, N.W.  
Suite 300  
Washington, D.C. 20006  
Telephone: (202) 296-1665  
jbwilliams@williamslopatto.com  
nkitton@williamslopatto.com

Peter J. Fontaine, Esq. (D.C. Bar No. 435476)  
COZEN O'CONNOR  
One Liberty Place  
1650 Market Street  
Suite 2800  
Philadelphia, PA 19103  
Telephone: (215) 665-2723  
pfontaine@cozen.com



Patrick J. Coyne, Esq. (D.C. Bar No. 366841)  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER LLP  
901 New York Ave. N.W.  
Washington, DC 20003  
Telephone: (202) 256-7792  
patrick.coyne@finnegan.com

*Counsel for Plaintiff, Michael E. Mann, Ph.D.*

Pursuant D.C. Superior Court Rule 56, plaintiff Michael E. Mann, Ph.D. hereby provides this Statement of Undisputed Material Facts In Support of his Motion for Partial Summary Judgment Against Rand Simberg, Competitive Enterprise Institute, National Review Inc. and Mark Steyn and Motion to Strike Affirmative Defenses Against All Defendants.

**A. DR. MICHAEL MANN AND THE HOCKEY STICK RESEARCH**

1. Michael E. Mann is a climatologist and geophysicist. He is a Distinguished Professor of Meteorology at the Pennsylvania State University and the director of its Earth System Science Center. He holds a B.A. in applied mathematics and physics from the University of California and a Ph.D. in physics from Yale University. He has published over 200 peer-reviewed articles on issues in his area. He has received numerous awards and honors. In 2007, the Intergovernmental Panel on Climate Change (IPCC) presented him, along with all other scientists who had contributed substantially to the preparation of IPCC reports, with a certificate noting their contributions to the award of the Nobel Peace Prize to IPCC and Al Gore. Dr. Mann is a Fellow of the American Meteorological Society and a member of the National Academy of Sciences. (Williams Decl. ¶ 52 at 19-21; ¶ 54 at 19-21).

2. In 1998 and 1999 Dr. Mann, along with Dr. Raymond S. Bradley and Dr. Malcolm K. Hughes, published two papers analyzing climate proxy data, which demonstrated that global warming was occurring at a concerning rate. (Williams Decl. ¶ 9 at ¶¶22-25).

3. Climate proxies are obtained from natural archives such as tree rings, ice cores, corals, sediments, and boreholes, the physical attributes of which contain information reflecting past ambient temperature and other climatic conditions. Climate proxies can be used to determine ambient temperatures back in time before the beginning of instrumental temperature records about 150 years ago. (Williams Decl. ¶ 9 at ¶7).

4. The first paper written by Drs. Mann, Bradley and Hughes, entitled *Global-Scale Temperature Patterns and Climate Forcing over the Past Six Centuries*, was published in 1998 in the scientific journal *Nature* (MBH98). (Williams Decl. ¶ 9 at ¶¶22-24).

5. The second paper written by Drs. Mann, Bradley and Hughes, *Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations*, was published in 1999 in *Geophysical Research Letters* ( MBH99). (Williams Decl. ¶ 9 at ¶¶22-25).

6. MBH98 and MBH99 were among the first research efforts to use a very large set of proxy data from all over the world and to apply powerful statistical techniques to this large data set to extract information about temperature patterns. Rather than examining a few records and relating them to local temperature changes, as had been done by previous research teams, MBH 98 and MBH99 sought to examine extensive networks of data and correlate local temperature changes to larger-scale patterns in the atmosphere, so that variations in one region might be linked to conditions far from that location. (Williams Decl. ¶ 9 at ¶23).

7. The MBH98 and MBH99 papers tended to disprove the arguments of climate change skeptics and deniers that the 20<sup>th</sup> century temperature rises were due to the cyclical nature of the earth's temperatures, and in particular that the temperatures during the Medieval era were higher than today, thus proving that the rise in temperatures over the latter half of the 20<sup>th</sup> Century were in the range of natural variability and not evidence of anthropogenic global warming. (Williams Decl. ¶ 9 Ex. D at 27-28; ¶ 53 at 45-48).

8. According to the District of Columbia Court of Appeals opinion in this case, the “1998 study used a technique to reconstruct temperatures from time periods before the widespread use of thermometers...by using ‘proxy indicators’” such as tree rings, lake and ocean

sediment, ice cores, and corals. *Competitive Enterprise Institute v. Mann*, 150 A.3d 1213, 1221-22 (D.C. 2016), as amended December 13, 2018.

9. These proxy data showed that global mean annual temperatures have been rising since the early twentieth century, with a marked increase in the last fifty years. The papers concluded that this rise in temperature was ‘likely unprecedented in at least the past millennium’ and correlated with higher concentrations of carbon dioxide in the atmosphere emitted by the combustion of fossil fuels. *CEI*, 150 A.3d at 1221-22.

10. The 1999 paper included a graph depicting global temperatures in the Northern Hemisphere for a millennium, from approximately 1050 through 2000. The graphical pattern is roughly horizontal for 90% of the temperature axis — reflecting a slight, long-term cooling period between 1050 and 1900 — followed by a sharp increase in temperature in the twentieth century. Because of its shape resembling the long shaft and shorter diagonal blade of a hockey stick, this graph became known as the ‘hockey stick.’ *CEI*, 150 A.3d at 1221-22.

11. Dr. Mann and his co-authors noted the uncertainties in their conclusions, as reflected in the title of this paper: “*Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations.*” (Williams Decl. ¶ 9 at ¶ 25).

12. The hockey stick graph became a rallying point, and a target, in the subsequent debate over the existence and cause of global warming and what, if anything, should be done about it. *CEI*, 150 A.3d at 1221-22.

13. In 2006, the National Research Council (NRC), an arm of the National Academies of Science (NAS), noted that the “research received wide attention, in part because it was illustrated with a simple graphic, the so-called hockey stick curve, that many interpreted as definitive evidence of anthropogenic causes of recent climate change. The research was given

prominence in the 2001 report of the Intergovernmental Panel on Climate Change and then was picked up by many in the wider science community and by the popular media.” (Williams Decl. ¶ 9 Ex. D at ix).

14. The MBH98 and MBH99 papers have been subjected to rigorous scrutiny by scientists, statisticians, physicists, and mathematicians. (Williams Decl. ¶ 9 at ¶¶14-59).

15. Since MBH98 and MBH99 were released, their data, analysis, and conclusions have been reviewed—and validated and replicated—in numerous peer-reviewed publications. These follow-on studies used different proxy data and different statistical methods, but all reached the conclusion that global warming was occurring-- and all of the temperature graphs displayed in these studies resembled a hockey stick shape. (Williams Decl. ¶ 9 at ¶¶14-59).

## **B. THE DEFENDANTS**

16. The defendants are deeply invested in one side of the global warming debate that is opposed to the view supported by Dr. Mann's research.” *CEI*, 150 A.3d at 1258-59.

### **1. COMPETITIVE ENTERPRISE INSTITUTE (CEI)**

17. The Competitive Enterprise Institute describes itself as a “think-tank,” and has championed the cause against the acceptance of consensus climate change research and environmental regulations.

<http://web.archive.org/web/20120804041011/http://www.globalwarming.org/>.

18. On the “About CEI” web page, CEI states that it is “[u]nique among free market groups” because it “pursues a full-service approach to advancing public policy,” and highlighted Al Gore’s comment that CEI has had “a tremendous effect.”

<http://web.archive.org/web/20120729144615/http://cei.org/about-cei>.

19. Myron Ebell is CEI's Director of its Center for Energy and Environment. He led former President Trump's Environmental Transition Team in 2016 and claims on his resume that he is considered "Enemy Number One to the Current Climate Change Community." The "About CEI" page made the same point about Mr. Ebell's influence in the area of climate change. *Id.*

20. In 2009, the U.S. Environmental Protection Agency issued its Endangerment Finding, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496, 66,499 (Dec. 15, 2009), which found that the current and projected concentrations of six key well-mixed greenhouse gases—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)—in the atmosphere threaten the public health and welfare of current and future generations and that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

<https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean>.

21. CEI has long executed a public relations campaign to prevent policy action addressing climate change. (Williams Decl. ¶ 53 at 15-17).

22. CEI has sought to overturn the Endangerment Finding, filing petitions seeking a repeal of the Endangerment Finding in 2009, 2017, and 2019. *See CEI, Science Groups Petition EPA to Reconsider Increasingly Dubious Global Warming "Endangerment" Finding* (Feb. 12, 2010)

[https://cei.org/news\\_releases/cei-science-groups-petition-epa-to-reconsider-increasingly-dubious-global-warming-endangerment-finding/](https://cei.org/news_releases/cei-science-groups-petition-epa-to-reconsider-increasingly-dubious-global-warming-endangerment-finding/); *In Re: Endangerment and Cause or Contribute*

*Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act: Final Rule*, 74 FR 66,495 (DEC.15, 2009), *Petition For Reconsideration of the Nongovernmental International Panel on Climate Change, the Science and Environmental Policy Project, and the Competitive Enterprise Institute*, United States Environmental Protection Agency, Docket EPA-HQ-OAR-2009-0171 (Feb. 12, 2010) [https://www.epa.gov/sites/production/files/2016-08/documents/petition\\_for\\_reconsideration\\_competitive\\_enterprise\\_institute.pdf](https://www.epa.gov/sites/production/files/2016-08/documents/petition_for_reconsideration_competitive_enterprise_institute.pdf); *CEI Petitions EPA on Endangerment Finding* (April 4, 2017) [https://cei.org/news\\_releases/cei-petitions-epa-on-endangerment-finding/#?text=On%20February%2017%2C%202017%2C%20CEI,global%20warming%20and%20the%20environment](https://cei.org/news_releases/cei-petitions-epa-on-endangerment-finding/#?text=On%20February%2017%2C%202017%2C%20CEI,global%20warming%20and%20the%20environment) (claiming a “growing body of satellite and balloon data demonstrates that the atmosphere is far less sensitive to CO<sub>2</sub> than predicted by the climate models that EPA relied on . . . there’s been no statistically significant increase in global temperatures from 1998 to 2016, despite newspaper headlines about allegedly record-setting yearly temperatures.”); *CEI Petitions EPA to Correct 2009 Endangerment Finding* (May 17, 2019) <https://cei.org/blog/cei-petitions-epa-to-correct-2009-endangerment-finding/>

23. In a 2010 request for reconsideration to EPA, CEI claimed that “Starting on November 19, 2009, emails from the CRU were leaked to the public. These emails reveal coordinated efforts in both Britain and the US to suppress independent studies that are contrary to IPCC conclusions of human-caused global warming. Thus, the IPCC scientific review process has a systematic bias of an unknowable magnitude in favor of human-induced warming. Consequently, the EPA Endangerment Finding is severely undermined by a systematic bias of an

unknowable magnitude in favor of human-induced warming.” <https://cei.org/wp-content/uploads/2010/07/1-Joint-Petition-for-Reconsideration-2-12-10.pdf>

24. At the time of the Simberg article, CEI had just lost its challenge to the Endangerment Finding, pursuant to which EPA had investigated and rejected CEI’s claims that the emails at issue in this litigation constituted scientific misconduct. *See Coalition for Responsible Regulation v. EPA*, 684 F.3d 102, 115 & 125 (D.C. Cir. 2012) (rejecting as exaggerated and contradicted by other evidence CEI’s claims that internal emails released from the University of East Anglia’s Climate Research Unit (CRU) undermined the scientific evidence supporting the Endangerment Finding by calling into question whether the IPCC scientists adhered to “best science practices.”)

## **2. RAND SIMBERG**

25. Rand Simberg is a writer for CEI’s “Open Market” website and a fervent climate change skeptic with a particular distaste for Dr. Mann, calling him “corrupt” (*CEI*, 150 A.3d at 1263), “on the take” (Williams Decl. ¶¶ 11 & 12 at 78:1-80:15), and “a liar and a charlatan.” (Williams Decl. ¶ 12 at 48:18-52:5 & ¶ 13). He has advocated that Dr. Mann should lose his job (Williams Decl. ¶ 12 at 59:10-14 & ¶ 13) and lose his funding. (Williams Decl. ¶ 12 at 75:11-77:10 & ¶ 14).

26. Mr. Simberg also publishes his own website, Transterrestrial Musings, where he promotes conspiracy theories, including “birtherism,” the allegation that former President Obama was born in Kenya (Williams Decl. ¶ 12 at 256:19-257:7 & ¶ 15). More recently, Mr. Simberg has advocated against pandemic public safety restrictions, endorsing articles that “people should not wear masks” (Williams Decl. ¶ 12 at 15:4-8 & ¶ 16), and that “lockdowns kill people” (Williams Decl. ¶ 12 at 15:9-13 & ¶ 17).



27. Mr. Simberg has publicly stated that “All’s fair in love war and political campaigns. . . ,” which according to Mr. Simberg “means that people are entitled to say what they want about public figures.” (Williams Decl. ¶ 12 at 276).

28. Mr. Simberg has publicly stated that his remarks about Dr. Mann in *Another Scandal in Unhappy Valley*, are beyond reach because “If I believe it to be true, it is not a “reckless disregard for the truth” and they lose.” (Williams Decl. ¶12 at 276, ¶ 65).

29. In the wake of all of the investigations into Dr. Mann’s conduct, James Fallows wrote in the *Atlantic*: “If you hear people talking in environmental debates about “climategate” and “Mann’s misconduct,” recognize that what you’re hearing is just like ‘Obama was born in Kenya.’ These people are either passively uninformed or knowingly beyond the reach of fact.” (Williams Decl. ¶ 67).

### **3. MARK STEYN**

30. Mark Steyn wrote for the National Review Online, a widely read conservative news and opinion website. National Review has described Mr. Steyn as its “All Star” (Williams Decl. ¶ 18 at 128:7-10) and its “Happy Warrior” (Williams Decl. ¶ 19 at 144:5-10).

31. Mr. Steyn was admired for his controversial and acerbic views. Mr. Steyn was paid more than anyone else at the publication, including the editor and the publisher. (Williams Decl. ¶ 18 at 103:20-108:13 & 154:1-23).

32. Mr. Steyn is currently a guest host for the Rush Limbaugh Show, and has been criticized for his homophobic and anti-Muslim views. *See*

<https://www.mediamatters.org/national-review/hour-1-fill-steyn-compares-torture-memo-controversy-miss-californiagay-marriage> and <https://www.mediamatters.org/fox-friends/right-wing-media-respond-fort-hood-shooting-attacking-american-muslims>.

33. Mr. Steyn has written articles referring to Dr Mann as: Doctor Fraudpants (Williams Decl. ¶ 20), a worthless piece of garbage (Williams Decl. ¶ 21), an insecure litigious dweeb (Williams Decl. ¶ 22), a serial liar (Williams Decl. ¶ 23), a super-villain (Williams Decl. ¶ 22), a sleazy charlatan (Williams Decl. ¶ 21), and “the Oscar Wilde of climate science with his fellow scientists as his rent boys” (Williams Decl. ¶ 24).

34. Mr. Steyn concluded that the Hockey Stick was fraudulent in 2001, shortly after Dr. Mann’s research was featured in the 2001 Intergovernmental Panel on Climate Change (IPCC). At that time, he had not read MBH98 and MBH99. (Williams Decl. ¶ 25 at 36:10-40:11, 84:17-85:1, 103:13-17).

35. Mr. Steyn has maintained his position that MBH98 and MBH99 research is fraudulent ever since. (Williams Decl. ¶ 25 at 41:21-58:1 & 103:21-104:10, ¶ 9, ¶ 61, ¶9 at ¶51 & Ex. D, ¶ 54 at 19-20, ¶ 52 at 14-15, ¶ 53 at 18-29; Wikipedia, *The Hockey Stick Graph*, [https://en.wikipedia.org/wiki/Hockey\\_stick\\_graph](https://en.wikipedia.org/wiki/Hockey_stick_graph) ).

36. Prior to publication of his article, *Football and Hockey*, Mr. Steyn had not read the reports” issued by the National Science Foundation, the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, and the National Research Council of the National Academy of Sciences. He also stated that this was because, they were authored by agencies with “bewildering” acronyms starting with the letter “N.” (Williams Decl. ¶ 25, 28:5-31:7, 103:21-104:13).

### **C. THE DEFAMATIONS**

37. Defendants’ attacks were fueled by private email correspondence by and between climate scientists, which had been stolen from the Climate Research Unit at the University of East Anglia in the United Kingdom, and then disclosed in November 2009 on the world wide

web on the eve of the United Nations international climate treaty negotiations in Copenhagen, Denmark. See Norfolk Constabulary, Operation Cabin, July 2012, archived at <https://web.archive.org/web/20120719210841/http://www.norfolk.police.uk/newsevents/newsstories/2012/july/ueadatabreachinvestigation.aspx>

38. The stolen emails included several written by the director of the Climate Research Unit, Phil Jones, one referring to “Mike’s Nature trick” and the other using the term “hide the decline.” *CEI*, 150 A.3d at 1224, n. 9.

39. The defamations in this case arise from the defendants’ long-held views that global warming is a hoax and that Dr. Mann is the “poster boy” of “corrupt and disgraced” climate change scientists. *CEI*, 150 A.3d at 1263-64.

40. There are two articles at issue in this case. Rand Simberg and CEI published the article entitled *The Other Scandal in Unhappy Valley* on July 13, 2012. Mark Steyn and the National Review published their article entitled *Football and Hockey* two days later, on July 15, 2012.

41. Before he wrote *Football and Hockey*, Mr. Steyn had obtained a copy of the Sandusky indictment. (Williams Decl. ¶ 25 at 158:8-160:4, ¶ 26).

42. In July 2012, Mr. Steyn read a copy of *The Other Scandal in Unhappy Valley*, which accused Dr. Mann of “hockey stick deceptions” and scientific and academic misconduct—and compared him to the convicted child molester, Jerry Sandusky, because he “molested and tortured data” just as Mr. Sandusky did with children. *CEI*, 150 A.3d at 1262.

43. On July 15, 2012, Mr. Steyn republished a number of Mr. Simberg’s statements, including the “hockey stick deceptions” and “molesting and torturing” data allegations. *CEI*, 150 A.3d at 1264. He also repeated the Sandusky comparison. *Id.* Mr. Steyn then added a

further allegation: Michael Mann was the man behind the fraudulent climate-change “hockey-stick graph, the very ringmaster of the tree-ring circus.” *Id.*

44. In prior court proceedings, the defendants attempted to justify these comments on the ground that they were simply “opinions” and constituted appropriate commentary given the tenor of the climate change debate. These arguments were rejected by Judge Combs Greene, Judge Weisberg, and later by a unanimous Court of Appeals, sitting en banc, which held that these statements were not protected opinion or commentary, and further that they were defamatory against Dr. Mann in their accusations of: (1) fraudulent data manipulation; *CEI* at 1249, n. 46; deception and misconduct in presenting his hockey stick graph, *Id.* at 1245, 1260; and (3) “wrongdoing” by “molesting and torturing data.” *Id.* at 1248.

45. For years the defendants have vowed that, given the appropriate opportunity, they would prove “to the world” that the hockey stick was fraudulent and that global warming was a hoax.” (Williams Decl. ¶ 27 at 106:25-107:5).

46. CEI’s Myron Ebell testified that because he and his organization disbelieved the honesty of many of the climate researchers they wanted to “get [them] into court,” where they would be “required to tell the truth.” (Williams Decl. ¶ 27 at 106:25-107:5).

47. In 2006, Mr. Ebell met up with one of the MBH co-authors, Raymond Bradley, and told him that he looked forward to “see[ing] [him] in court.” (Williams Decl. ¶ 27 at 106:25-107:18).

48. In 2012, after the publication of the defamatory articles, Dr. Mann’s attorney sent a letter to CEI requesting an apology and a retraction. *CEI* at 1225.

49. After receiving that letter, Mr. Ebell was described by another CEI staffer as “happy as a cat.” (Williams Decl. ¶ 27 at 108:14-114:5, ¶ 29).

50. National Review received a similar letter from Dr. Mann’s counsel. In an article entitled “*Get Lost*,” it described the letter as “laughably threatening,” and stated that any lawsuit by Dr. Mann would provide it with “a journalistic project of great interest.” *CEI*, 150 A.3d at 1264-65.

51. National Review stated that it intended to hire a “dedicated reporter” to “comb through the [discovery] materials and regularly post stories on Mann,” which it promised would “expose [Dr. Mann’s] methods and maneuverings to the world.” *Id.* The article stated that should Dr. Mann proceed with a lawsuit, he risked “making an ass of himself.” *Id.*

52. Following the release of the unauthorized stolen emails, the Pennsylvania State University, the University of East Anglia, the United Kingdom House of Commons, the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, and the National Science Foundation all investigated the supposedly incriminating emails, and cleared the researchers, including Dr. Mann, of fraud or misconduct. (Williams Decl. ¶ 49).

53. The Court of Appeals stated: “The reports that are relevant to the defamation claims are those that concern appellants’ statements that Dr. Mann engaged in ‘dishonesty,’ ‘fraud,’ and ‘misconduct.’ The University of East Anglia Independent Climate Change E-mails Review, Penn State University, the United Kingdom House of Commons, and the Office of the Inspector General of the U.S. National Science Foundation, all conducted investigations and issued reports that concluded that the scientists’ correspondence in the 1,075 CRU emails that were reviewed did not reveal research or scientific misconduct.” *CEI*, 150 A.3d at 1253. Defendants do not counter any of these reports with other investigations into the CRU emails that reach a contrary conclusion about Dr. Mann’s integrity.

54. With respect to the documents that Dr. Mann and his witnesses produced, National Review and Mr. Steyn have not, in interrogatory responses, identified one document that demonstrates that Dr. Mann engaged in fraud or deception in connection with his research. Mr. Steyn has identified only one document that he claims supports his position that the hockey stick graph is fraudulent: an opinion piece he wrote in 2001 for the *Sunday Telegraph of London*. This opinion piece provides no evidence of fraud or misconduct. (Williams Decl. ¶ 24 at 37:10-40:18 & ¶ 8).

55. The Court of Appeals noted that “The [investigation] reports that are relevant to the defamation claims are those that concern appellants’ statements that Dr. Mann engaged in ‘dishonesty,’ ‘fraud,’ and ‘misconduct.’ The University of East Anglia Independent Climate Change E-mails Review, Penn State University, the United Kingdom House of Commons, and the Office of the Inspector General of the U.S. National Science Foundation, all conducted investigations and issued reports that concluded that the scientists’ correspondence in the 1,075 CRU emails that were reviewed did not reveal research or scientific misconduct. Appellants do not counter any of these reports with other investigations into the CRU emails that reach a contrary conclusion about Dr. Mann’s integrity.” *CEI*, 150 A.3d at 1253.

#### **D. DEFENDANTS’ EXPERT WITNESSES**

56. Defendants have identified two expert witnesses: Judith Curry and Abraham Wyner. (Williams Decl. ¶¶ 31 & 32).

57. Defendants’ experts were retained to offer opinions addressing the defendants’ “state of mind”— whether it was “reasonable” for the defendants to have made their defamatory

statements—but both *avoided* addressing the allegations of fraud or misconduct. (Williams Decl. ¶¶ 31 & 32).

58. Dr. Curry told defense counsel “upfront” that she would “not...get involved in adjudicating scientific misconduct” in this case. (Williams Decl. ¶ 31 at 79:23-80:5).

59. Dr. Wyner testified that he was “absolutely specifically” told by defense counsel not to opine on defendants’ fraud allegations. (Williams Decl. ¶ 2 at 207:20-24).

60. Dr. Curry’s opinion is that it would be “reasonable” for the defendants to have concluded that Dr. Mann engaged in fraud. (Williams Decl. ¶33 at 2-3 & 28).

61. In explaining her expert opinion, Dr. Curry testified that she repeated what other people had said about Dr. Mann’s research and had not conducted an investigation of the evidence for and against:

A: Okay, if 20 people are calling it a fraud and then the 21<sup>st</sup> person comes along and calls it a fraud, one might infer that what they're saying is consistent with other statements that people have made. It's a simple statement.

Q: Well, isn't it important to know in terms of evaluating the credibility of information, which you have made no attempt to evaluate here, the credibility of the person making the statement?

MR. WILSON:· Objection to the form.

THE WITNESS:· There’s two approaches that you can take.· One is to do a personal investigation of all the evidence for and against, which is beyond the interests or capabilities of most journalists. An alternative approach is to parrot what other people are saying or listen to your preferred expert. I mean, there are many different rationales for how people come to a judgment about these things, their personal judgment.

(Williams Decl. ¶31 at 175:18-176:12).

62. Dr. Curry states that she does not pass judgment on research misconduct: “I’m not making any judgments about the veracity of any scientific piece of this or that or any judgment for or against Michael Mann in terms of scientific misconduct.” (Williams Decl. ¶ 31 at 52:6-21).

63. Dr. Wyner's opinion is that the defendants' statements "can reasonably be construed [by political commentators] as manipulative." (Williams Decl. ¶ 32, ¶ 9).

64. In her report, Dr. Curry posits three reasons why it might have been "reasonable" for the defendants to have made their statements about Dr. Mann: (1) "image fraud" in connection with Dr. Mann's participation in a report of the Intergovernmental Panel on Climate Change in 2001, two years after the publication MBH98 and MBH99; (2) "cherry picking" in connection with the selection of the proxy data for the MBH98 and MBH99 research; and (3) "data falsification" in connection with a different peer-reviewed article Dr. Mann and his colleagues published in 2008, nine years after MBH98 and MBH99 were published. (Williams Decl. ¶ 33 at 2-3 & 28, ).

65. Dr. Raymond Bradley and Dr. Thomas Karl have submitted declarations stating that Dr. Curry's factual allegations on each of these three points are incorrect. (Williams Decl. ¶¶ 9 & 34).

66. Dr. Bradley and Dr. Karl have personal knowledge on these issues, having worked extensively with Dr. Mann on the publications at issue. (Williams Decl. ¶ 9 at ¶ 6 & ¶ 34 at ¶9).

67. Dr. Curry's opinions on these points have been raised before and explicitly rejected by the scientific community. (Williams Decl. ¶¶ 9, 49, 50, 51, 52, 53, 54).

68. Dr. Curry's views on climate change are regarded by her former colleagues at Georgia Tech as extreme and an outlier in the scientific community. (Williams Decl. ¶ 35 at GATECH000018).



69. Dr. Curry's views on climate science were questioned by federal program funding managers and by others at "Tier 1 universities" who wanted to know how Georgia Tech could "tolerate [her] positions and her blogging." (Williams Decl. ¶ 35 at GATECH0000019).

70. Dr. Curry's has submitted two substantially similar amicus curia briefs on behalf of CEI and against Dr. Mann in this case, one to the District of Columbia Court of Appeals and one to the United States Supreme Court. *See*

[https://cei.org/sites/default/files/2017.01.25%20Br.%20of%20Amicus%20Dr.%20Judith%20A.%20Curry%20Nos.%2014-cv-101%2014-cv-126%20%28D.C.%29\\_1.pdf](https://cei.org/sites/default/files/2017.01.25%20Br.%20of%20Amicus%20Dr.%20Judith%20A.%20Curry%20Nos.%2014-cv-101%2014-cv-126%20%28D.C.%29_1.pdf) and [https://www.supremecourt.gov/DocketPDF/18/18-1451/104809/20190702152803297\\_18-1451%20and%2018-1477%20tsac%20Dr.%20Judith%20A.%20Curry.pdf](https://www.supremecourt.gov/DocketPDF/18/18-1451/104809/20190702152803297_18-1451%20and%2018-1477%20tsac%20Dr.%20Judith%20A.%20Curry.pdf).

71. Neither of Dr. Curry's amicus curia briefs allege Dr. Mann committed research misconduct or had improperly manipulated data, or that the Hockey Stick was fraudulent. *Id.*

72. Dr. Curry blames Dr. Mann for her dismissal from Georgia Tech. (Williams Decl. ¶ 31 at 204:4-207:7, 208:12-209:2).

73. In her deposition, Dr. Curry confirmed that—prior to her retention in this case—she had stated on her blog that Dr. Mann had not engaged in research misconduct-- falsification or fabrication. (Williams Decl. ¶¶ 36 & 31 at 44:1-46:12).

74. When she was interviewed by the National Science Foundation, Dr. Curry told the Inspector General that Dr. Mann did not commit research misconduct. (Williams Decl. ¶¶ 37 & 31 at 151:2-9).

75. Dr. Wyner's testified during his deposition that, in his opinion, the hockey stick was "not a deception." (Williams Decl. ¶ 2 at 232:7-10).

## **E. DEFENDANTS' FACT WITNESSES**

76. Defendant's fact witness, Roger Pielke, Jr., a professor at the University of Colorado, Boulder, who has followed the hockey stick issue closely and has written numerous articles about this controversy, testified during his deposition that there was nothing in the climategate reviews that "presented any evidence of fraud." (Williams Decl. ¶ 3 & ¶ 4 at 67:10-68:8).

77. Dr. Pielke also wrote that the allegations against Dr. Mann did not rise to the level of "fraud or misconduct, not even close." (Williams Decl. ¶ 3 & ¶ 4 at 67:10-68:8).

78. When CEI learned that Dr. Pielke, its own witness, had made these statements, CEI cancelled Dr. Pielke's deposition forty minutes before its scheduled start. The deposition eventually took place later, at the request of Dr. Mann's counsel. (Williams Decl. ¶ 38).

79. Defendant's fact witness, Stephen McIntyre, is a retired mining executive who has reviewed and written about Dr. Mann's research for the better part of 20 years. Mr. McIntyre testified that no one has more knowledge than he about Dr. Mann's work. (Williams Decl. ¶ 5 at 257:11-258:12).

80. Mr. McIntyre's work has been frequently cited by the defendants in this case as authoritative on the subject of the hockey stick. Mr. McIntyre and his co-author, Ross McKittrick, an economist, received CEI's Julian Simon award for their hockey stick investigations. (Williams Decl. ¶ 5 at 36:6-18).

81. Mr. McIntyre has never accused Dr. Mann of fraud or misconduct in any of his writings or in his interview with the National Science Foundation Inspector General. (Williams Decl. ¶ 5 at 220:14-16, ¶ 39).

82. Mr. McIntyre has publicly stated that Dr. Mann “published diligently.” (Williams Decl. ¶ 5 at 200:16-19).

83. In his interview with the NSF Inspector General investigators, Mr. McIntyre claimed Dr. Mann’s MBH98 and MBH99 research contained mistakes but did not allege Dr. Mann had committed research misconduct or had improperly manipulated data, or that the Hockey Stick was fraudulent. (Williams Decl. ¶ 5 at 202:18-208:25; 209-218, ¶ 38 at 4-5, ¶ 39).

84. Mr. McIntyre, in his email communication to CEI transmitting a copy of the NSF Inspector General memorandum recording his interview (a copy of which Mr. McIntyre had obtained from the NSF under the Freedom of Information Act), did not allege the interview memorandum was inaccurate. (Williams Decl. ¶ 5 at 202:18-208:25; 211:8-218:2, ¶ 39).

85. Defendant’s fact witness, Edward Wegman, is a statistician who previously analyzed Dr. Mann’s work and testified to Congress that Dr. Mann used incorrect mathematical models, but did not testify that his conduct was fraudulent or constituted academic, scientific, or research misconduct. (Williams Decl. ¶ 40 at 21:12-24:10).

#### **F. PLAINTIFF’S PROOF OF FALSITY**

86. Dr. Mann has presented the following evidence: (1) the report of the National Research Council, of the National Academy of Sciences that conducted a review of Dr. Mann’s research in 2006 at the request of the United States House of Representatives (Williams Decl. ¶9, Ex. D); (2) peer-reviewed, scientific studies reviewing, validating, and replicating the hockey stick (Williams Decl. ¶9 at ¶ 51 & Ex. D, ¶ 54 at 19-20, ¶ 52 at 14-15, ¶ 53 at 18-19; Wikipedia, *The Hockey Stick Graph*, [https://en.wikipedia.org/wiki/Hockey\\_stick\\_graph](https://en.wikipedia.org/wiki/Hockey_stick_graph)); (3) the reports issued by academic and governmental organizations in 2010 and 2011 (Williams Decl. ¶¶41, 42, 43, 44, 45 46, 47, 48); and (4) the testimony of Dr. Mann’s expert witnesses in this case: Dr.

Raymond Bradley, co-author of MBH98 and MBH99 (Williams Decl. ¶50); Dr. John Mashey, a leading expert on disinformation in the climate change field and who has written extensively about climate change issues (Williams Decl. ¶53); Dr. John Holdren of Harvard University, formerly President Obama's top Science Advisor (Williams Decl. ¶52); Dr. Gerald North of Texas A&M University, who chaired the NRC panel which reviewed MBH98 and MBH99 (Williams Decl. ¶54); Dr. Naomi Oreskes of Harvard University, who published an analysis of the climate change controversy in *Merchants of Doubt* (Williams Decl. ¶55); Dr. Peter Frumhoff, Science Director of the Union of Concerned Scientists (Williams Decl. ¶51); and Dr. John Abraham, of the University of St. Thomas, an expert on thermodynamics and a leading climate change researcher who reviewed each of the eight academic and governmental investigations into the climategate emails (Williams Decl. ¶49).

# **1. THE 2006 NATIONAL RESEARCH COUNCIL REPORT**

87. In 2006, at the request of the United States House of Representatives, Committee on Science, the National Research Council of the National Academy of Science evaluated the methodology and conclusions of MBH98 and MBH99, and the overall state of knowledge concerning proxy data reconstruction of global and hemispheric temperature. (Williams Decl. ¶9 at ¶ 30, Ex. D at ix, 1, 3, 4, 15, 20-21, 95, 111-115).

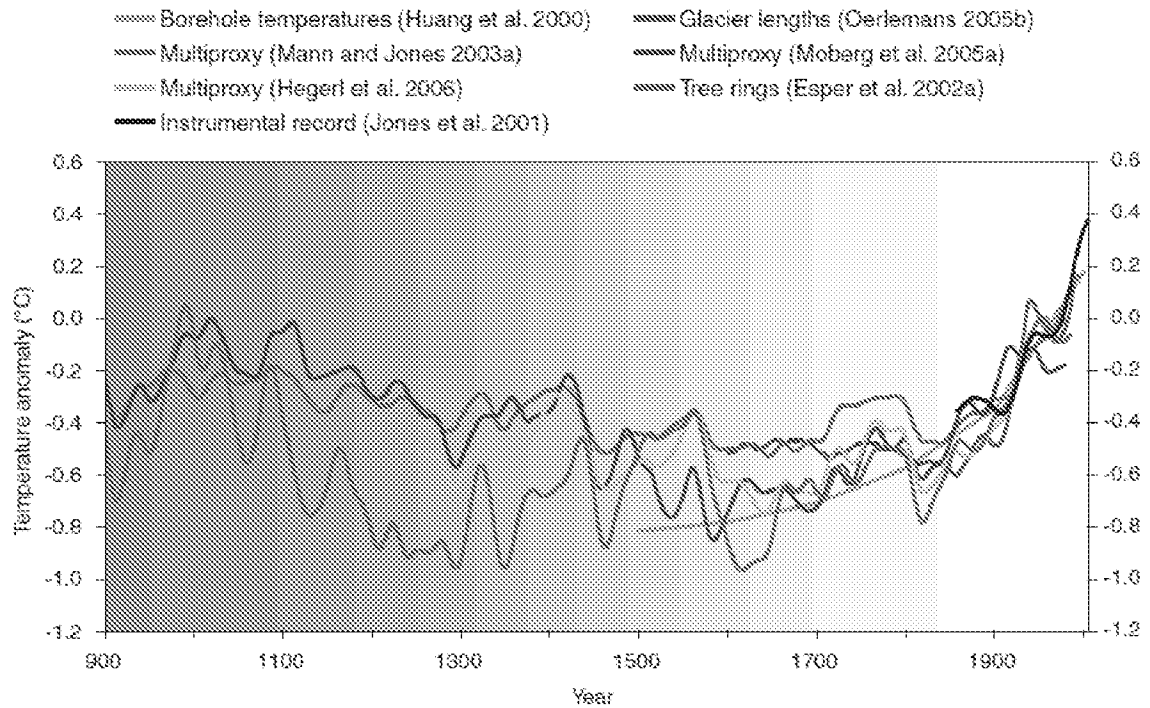
88. The Chair of the Council was Dr. Jerry North, one of Dr. Mann's expert witnesses in this case. The NRC's review was prompted in part by "critic[isms] of the original papers [which] argued that the statistical methods were flawed, that the choice of data was biased, and that the data and procedures used were not shared so others could verify the work." (Williams Decl. ¶9 at ¶ 30, Ex. D at ix).

89. These criticisms included those of Stephen McIntyre, one of the defendants' witnesses in this case. (Williams Decl. ¶9 at ¶ 30, Ex. D at 90, 112-113).

90. The NRC specifically evaluated the McIntyre criticisms, investigated the hockey stick in depth, and considered a number of subsequent large-scale surface temperature reconstruction studies conducted by different research groups, each of which validated and replicated Dr. Mann and his colleagues' work. (Williams Decl. ¶9 at ¶ 30, Ex. D at 1-2, Fig. S-1; ¶ 54 at 17-18).

91. According to Dr. North, "the 2003 McIntyre and McKittrick paper argued that under some conditions the leading principal component could exhibit a spurious trend-like appearance, which could lead to a spurious proxy-based reconstruction. However, the committee concluded that the principal component analysis did not 'bias the shape of the reconstructions,' and that even if MBH had used a different statistical method, the results would have been approximately the same. Accordingly, while we questioned some technical choices made in the use of the principal components analysis, it did not appear to 'unduly influence reconstructions of historic mean temperatures,' particularly given the fact that the many reconstructions performed without the principal component analysis were quantitatively similar to the MBH work, including the research of Crowley and Lowery, Huybers, D'Arrigo, Hegerl, and Wahl and Ammann." (Williams Decl. ¶ 54 at 17-18).

92. According to the NRC, each of the different proxy reconstructions used different methodologies and data, which the NRC depicted in a composite graph, reproduced below, which establishes regardless of the specific proxy and method used, 20<sup>th</sup> Century warming over the prior millennium is undeniable:



(Williams Decl. ¶9 at ¶ 30, Ex. D at 1-2, Fig. S-1).

93. The NRC found the “basic conclusion of Mann et al. (1998, 1999)...[had] subsequently been supported by an array of evidence that includes the additional large-scale surface temperature reconstructions and documentation,” noting the studies of Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D’Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann (in press at the time of the NRC report) (Williams Decl. ¶9 at ¶ 30, Ex. D at 115).

94. According to Dr. North, the NRC concluded “*the MBH authors accurately and honestly reported their underlying research and did not make claims that were stronger than the data could support.*” (Williams Decl. ¶54 at 12).

95. Dr. North also states in his expert report that “Since the committee issued its report, there has been a great deal of research in the area of global warming which has further confirmed the conclusions of the committee, and my own opinion, that the MBH research was valid, accurate, and fairly presented.” (Williams Decl. ¶54 at 19).

96. Dr. North further states, “the MBH work has stood the test of time and should be considered a significant and pioneering contribution in the area of climate science.” (Williams Decl. ¶54 at 20). The NRC’s 2006 review was prompted in part by political pressure from Congressman Joseph Barton (R-Texas) who promoted “*critic[isms] of the original papers [which] argued that the statistical methods were flawed, that the choice of data was biased, and that the data and procedures used were not shared so others could verify the work.*” NRC2006, Preface p. ix.

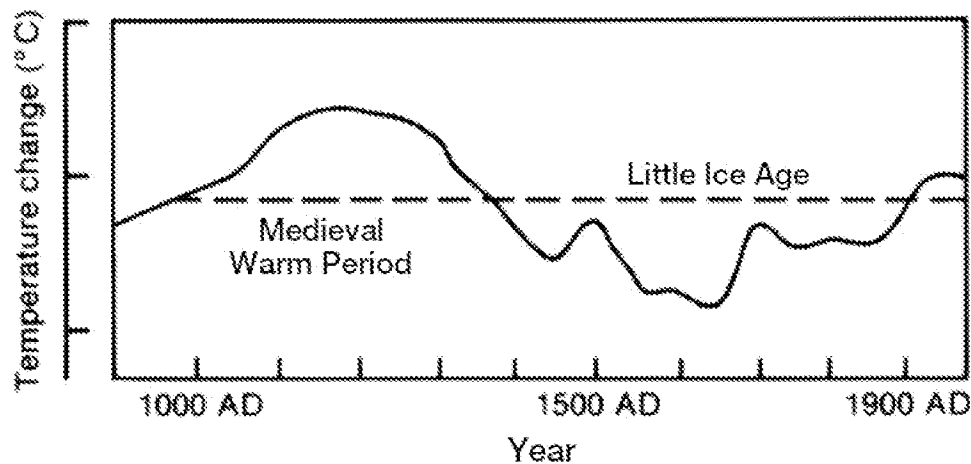
97. The NRC stated that its report was “*an opportunity to examine the strengths and limitations of surface temperature reconstructions and the role that they play in improving our understanding of climate. The reconstruction produced by Dr. Mann and his colleagues was just one step in a long process of research, and it is not (as sometimes presented) a clinching argument for anthropogenic global warming, but rather one of many independent lines of research on global climate change.*” (Williams Decl. ¶9 at ¶ 30, Ex. D at ix).

98. The NRC evaluated the reliability of proxy data, acknowledged the many different approaches to selecting and analyzing proxy data, and concluded that “*proxy records are meaningful recorders of environmental variables . . . the connections between proxy records and environmental variables are well justified in terms of physical, chemical, and biological processes . . . [t]ree rings, the dominant data source in many large-scale surface temperature reconstructions . . . are derived from regional networks with extensive replication that reflect temperature variability at the regional scale.*” (Williams Decl. ¶9 at ¶ 30, Ex. D at 20).

99. The NRC evaluated how understanding of large-scale surface temperature reconstructions had evolved over the last few decades, which it illustrated through a series of

temperature reconstruction graphs that revealed progressively more sophisticated techniques for reconstructing mean surface temperature (Williams Decl. ¶9 at ¶¶ 30-34, Ex. D pp. 111-113).

100. The NRC pointed to a crude graph from the very first report of the IPCC in 1990, which featured a crude graph showing elevated temperatures during a “Medieval Warm Period” between roughly the 11<sup>th</sup> and 13<sup>th</sup> centuries which exceeded 20<sup>th</sup> century temperatures by an unspecified margin and inexplicably omitted “[t]he pronounced warming trend that began around 1975 [which] was not indicated in the graphic.” (Williams Decl. ¶9 at ¶ 30, Ex. D pp. 14-15, Figure O-3).

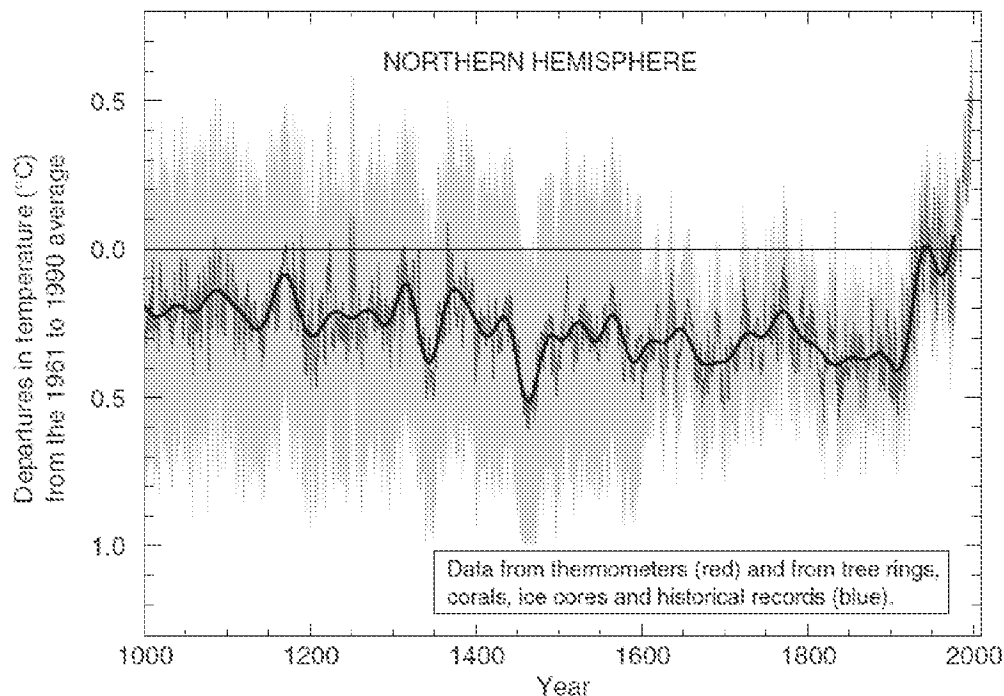


101. The crude graph from IPCC’s 1990 report, which omitted “[t]he pronounced warming trend that began around 1975” is the same graph Mr. Steyn testified contributed to his conclusion formed in 2001 that the Hockey Stick graphs was fraudulent. (Williams Decl. ¶9 at ¶ 30, Ex. D pp. 14-15, Figure O-3, ¶ 25 at 41:21-58:1 & 103:21-104:10, ¶ 9, ¶ 61).

102. Next, the NRC reviewed our work in MBH99 and included a graph of our multiproxy reconstruction of Northern Hemisphere surface temperature variations over the past millennium, Figure O-4, which had been featured as Figure 2.20 in the IPCC’s 2001 Third



Assessment Report and which the NRC acknowledged is sometimes referred to as the “hockey stick.”



(Williams Decl. ¶9 at ¶ 30, Ex. D pp. 15, Figure O-4; *IPCC Third Assessment Report Climate Change 2001: The Scientific Basis*

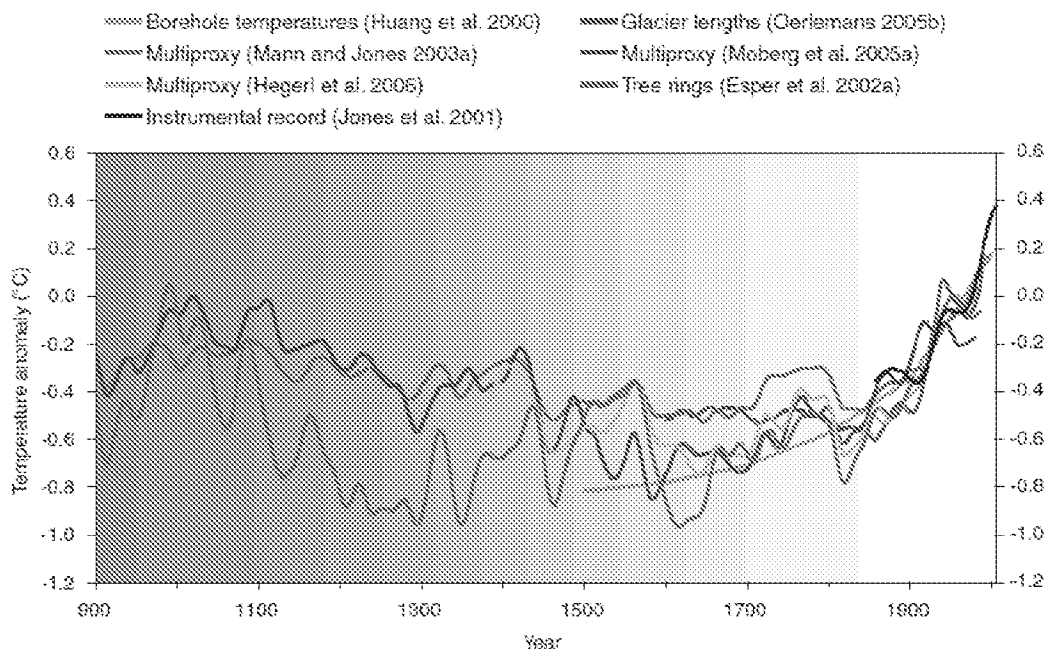
[https://www.ipcc.ch/site/assets/uploads/2018/03/WGI\\_TAR\\_full\\_report.pdf](https://www.ipcc.ch/site/assets/uploads/2018/03/WGI_TAR_full_report.pdf) at 3 & 134).

103. The NRC acknowledged that in comparison to the 1990 figure (Figure O-3), the reconstructed surface temperature variations prior to the 20<sup>th</sup> century were less pronounced, and the 20th century warming was shown to be more dramatic by the inclusion of data after 1975 (Figure O-4). On the basis of the results summarized in this figure, the IPCC concluded that “*the increase in temperature in the 20th century is likely to have been the largest of any century during the last 1,000 years. It is also likely that, in the Northern Hemisphere, the 1990s was the warmest decade and 1998 the warmest year.*” (Williams Decl. ¶ 9 at ¶ 30, Ex. D at 15)

104. The NRC observed that MBH99 was the first large-scale surface temperature reconstruction to include explicit statistical error bars, which were relatively small back to about A.D. 1600, but much larger for A.D. 1000–1600, which “*provided an indication of the confidence that can be placed in the results.*” (Williams Decl. ¶9 at ¶ 30, Ex. D at 115).

105. The NRC stated that “[d]espite the wide error bars, Figure O-4 was misinterpreted by some as indicating the existence of one “definitive” reconstruction with small century-to-century variability prior to the mid-19th century. ((Williams Decl. ¶9 at ¶ 30, Ex. D at 16).

106. The NRC evaluated a number of subsequent large-scale surface temperature reconstruction studies conducted by different research groups, each using different methodologies and selected proxies, as well as the instrumental record (beginning in 1856) of global mean surface temperature, which the NRC depicted in the following composite graph, which clearly showed that, regardless of the specific proxy and method used, 20<sup>th</sup> Century warming over the prior millennium was undeniable:



(Williams Decl. ¶9 at ¶ 30, Ex. D Figure S-1, p. 2).

107. The NRC also evaluated a number of additional paleoclimate reconstruction studies and their associated Hockey Stick graphs, each of which substantially agreed with MBH98 and MBH99, namely Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D'Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann (in press, published in 2007) (Williams Decl. ¶9 at ¶ 30, Ex. D, at 115).

108. Based upon its review of each of these proxy reconstructions of temperature, the NRC found the “*basic conclusion of Mann et al. (1998, 1999) was that the late 20th century warmth in the Northern Hemisphere was unprecedented during at least the last 1,000 years. This conclusion has subsequently been supported by an array of evidence that includes the additional large-scale surface temperature reconstructions and documentation of the spatial coherence of recent warming described above (Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D'Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann in press) and also the pronounced changes in a variety of local proxy indicators described in previous chapters (e.g., Thompson et al. in press). Based on the analyses presented in the original papers by Mann et al. and this newer supporting evidence, the committee finds it plausible that the Northern Hemisphere was warmer during the last few decades of the 20th century than during any comparable period over the preceding millennium.*” (Williams Decl. ¶9 at ¶ 30, Ex. D at 115).

109. The NRC also reinforced the suggestions made in MBH99 by recommending additional follow-on research to update and improve the methods and analyses in MBH98, MBH99, and the other referenced paleoclimate reconstructions, including (a) improving site chronologies that were collected 20–30 years ago; (b) increasing the number and geographic coverage of temperature-sensitive tree ring chronologies longer than 1,000 years; (c) quantifying

the precision and accuracy of low-frequency temperature signals; (d) performing experimental studies on biophysical relationships between temperature and tree ring parameters; and (e) refining mechanistic models of temperature effects on tree ring parameters at multiple spatial and temporal scales. (Williams Decl. ¶9 at ¶ 30, Ex. D, at 52).

## **2. THE PEER REVIEWED STUDIES**

110. At the time NRC issued its report, six different peer-reviewed studies had confirmed the validity of the MBH research (cited above). Each used different methodologies and data from the MBH papers. Each reached the same conclusions as the MBH authors. (Williams Decl. ¶9 at ¶ 30, Ex. D at 2, Fig. S-2).

111. Since the NRC's comprehensive evaluation of MBH98 and MBH99 and other paleoclimate reconstructions, dozens of subsequent paleoclimate reconstructions using a wide variety of proxy data and analytical methods have cited to, validated, and extended the work on the hockey stick. (Williams Decl. ¶9 at ¶ 34-60, Ex. D at 52, ¶ 54 at 19-20).

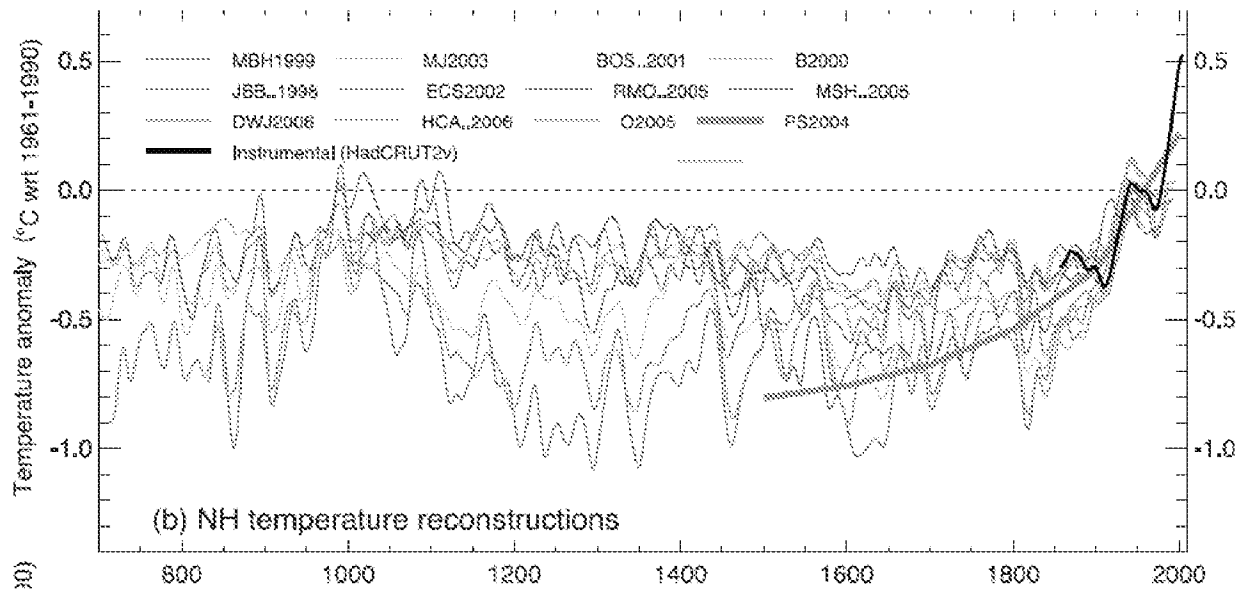
112. A common measure of the contribution a scientific paper makes toward developing a scientific consensus is the number of citations it receives in the scholarly literature. The MBH98 and MBH99 papers have been widely cited in the peer reviewed literature, according to Google Scholar. MBH98 has been cited by 2,470 scholarly works and publications.

*See*

[https://www.google.com/search?rlz=1C1GCEJ\\_enUS891US891&sxsrf=ALeKk01MoJK0TLOvxgbDrxgxBpNQNL\\_olA%3A1610764145281&ei=cU8CYP6AF0005wLzxgeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&gs\\_lcp=CgZwc3ktYWlQDFAAWABg6x1oAHABeACAAQOCIAQCSAQCYAQCAQdnd3Mtd2l6&sclient=p](https://www.google.com/search?rlz=1C1GCEJ_enUS891US891&sxsrf=ALeKk01MoJK0TLOvxgbDrxgxBpNQNL_olA%3A1610764145281&ei=cU8CYP6AF0005wLzxgeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&gs_lcp=CgZwc3ktYWlQDFAAWABg6x1oAHABeACAAQOCIAQCSAQCYAQCAQdnd3Mtd2l6&sclient=p)



400 years, than was shown in the TAR [IPCC 2001 Third Assessment Report]. On the evidence of the previous and four new reconstructions that reach back more than 1 kyr, it is likely that the 20th century was the warmest in at least the past 1.3 kyr.” IPCC2007, p. 474). (Williams Decl. ¶ 9 at 53). Figure 6.10b is shown below.



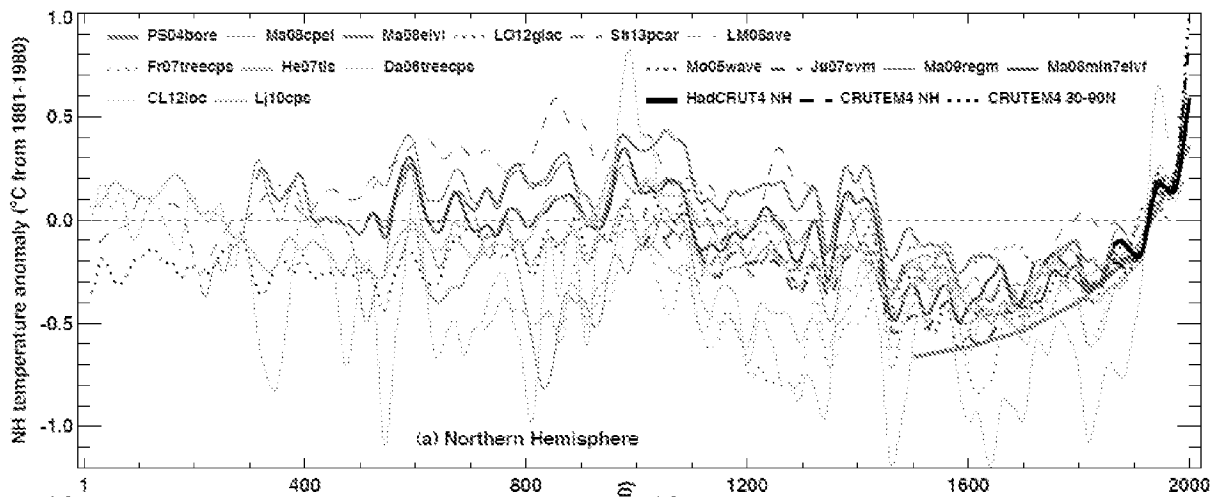
116. The most recent IPCC report, the Fifth Assessment Report published in 2013, also featured Mann et al. 2008, and numerous other paleoclimate reconstructions which again show remarkable consistency in demonstrating the anomalous nature of 20<sup>th</sup> Century temperatures.

IPCC, 2013: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 1535 pp. (IPCC2013). See

[https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5\\_all\\_final.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf) (Williams Decl. ¶ 9 at

54.

117. IPCC2013 concluded “[b]ased on multiple lines of evidence (using different statistical methods or different compilations of proxy records; see Appendix 5.A.1 for a description of reconstructions and selection criteria), published reconstructions and their uncertainty estimates indicate, with high confidence, that the mean NH temperature of the last 30 or 50 years very likely exceeded any previous 30- or 50-year mean during the past 800 . . . almost all reconstructions agree that each 30-year (50-year) period from 1200 to 1899 was very likely colder in the NH than the 1983–2012 (1963–2012) instrumental temperature.” IPCC2013, pp. 409-410. Figure 5.7(a) of IPCC2013 is shown below.

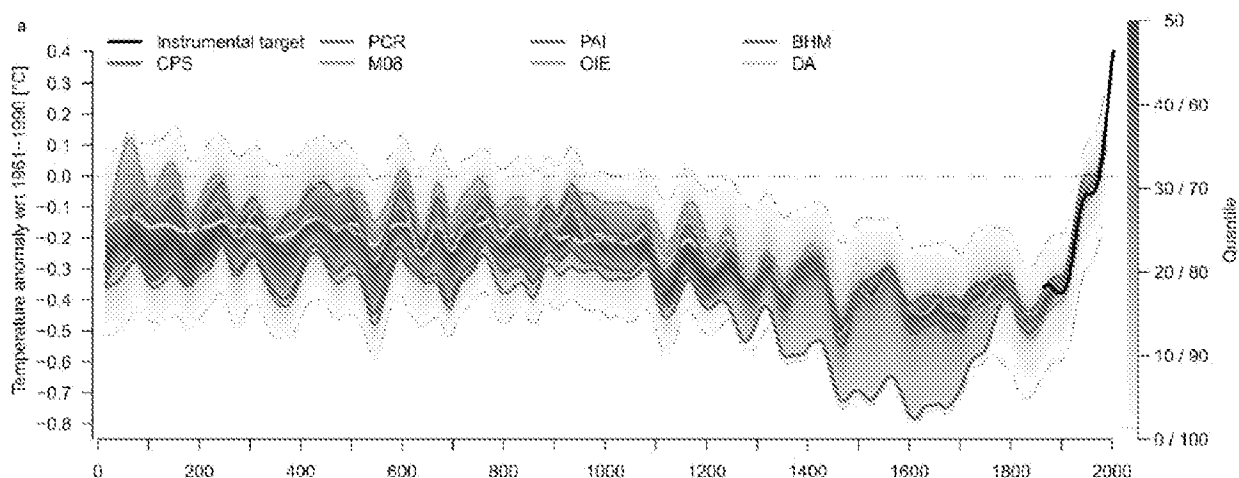


118. One of the most recent examples is a paleoclimate temperature reconstructions study performed by the International PAGES consortium, which used seven different statistical methods applied to a global collection of temperature-sensitive paleoclimate records, in order to reconstruct global temperature over the past 2,000 years. See PAGES 2k Consortium, Neukom R, Barboza LA, et al. *Consistent multi-decadal variability in global temperature reconstructions and simulations over the Common Era*. *Nature Geoscience*. 2019;12(8):643-649. doi:10.1038/s41561-019-0400-0 (PAGES2020) (Williams Decl. ¶ 9 at ¶ 57).

119. The PAGES2020 study found “[r]econstructions and simulations qualitatively agree on the amplitude of the unforced global mean multi-decadal temperature variability, thereby increasing confidence in future projections of climate change on these timescales. The largest warming trends at timescales of 20 years and longer occur during the second half of the 20th century, highlighting the unusual character of the warming in recent decades.”

PAGES2020, p. 2. (Williams Decl. ¶ 9 at ¶ 58).

120. The PAGES2020 study demonstrated remarkably synchronous temperature reconstructions and strongly reinforced our findings in Mann et al. 2008, depicted below as the M08 data.



### 3. THE CLIMATEGATE INVESTIGATIONS

121. In the wake of the theft of the “climategate” emails, eight different academic and governmental panels conducted investigations into the conduct of the climate scientists, including Dr. Mann. (Williams Decl. ¶ 49, ¶ 51 at 5-12, ¶ 52 at 17-19, ¶ 53 at 18-29).

122. The Court of Appeals confirmed: “[f]ollowing disclosure of the emails and the questions raised, Penn State, the University of East Anglia, and five governmental agencies —



the U.K. House of Commons Science and Technology Committee, the U.K. Secretary of State for Energy and Climate Change, the Inspector General of the U.S. Department of Commerce, the U.S. Environmental Protection Agency, and the U.S. National Science Foundation — issued reports after conducting inquiries into the validity of the methodology and research underlying the hockey stick graph and investigating the allegations impugning the integrity of Dr. Mann’s and other climate scientists’ conduct.” *CEI*, 150 A.3d at 1223.

123. None of these investigations found any evidence of fraud, falsification, manipulation or misconduct. *Id.* at 1223.

124. The allegations that Dr. Mann had engaged in deception and academic and scientific misconduct “[have] been proved to be false by four separate investigations.” *Id.* at 1245.

125. Regarding the defendants’ assertions that the negative findings do not support a conclusion that their statements were, in fact, false, the Court of Appeals held: “a determination that there is ‘no evidence’ of fraud is an ultimate conclusion that investigation has not turned up any evidence of misconduct.” *Id.* at 1256.

126. The Simberg article was inaccurate in asserting that there had not been an independent investigation of Dr. Mann’s research. *Id.* at 1246. The NSF reviewed all the reports and documentation the Penn State provided and reviewed ‘a substantial amount of publicly available documentation concerning Dr. Mann’s research and parallel research conducted by his collaborators and other scientists in that particular field of research. The NSF interviewed Dr. Mann, his critics, and disciplinary experts. *Id.* at 1246-47.

127. Dr. Holdren notes that the allegations against the climate scientists that led to these investigations were “bankrupt” and highlight the harassment that climate denialists inflict on climate change researchers. (Williams Decl. ¶ 52 at 18).

128. As Dr. Frumhoff and Dr. Oreskes state, the reports of the investigations “vindicated the integrity” of the scientists in question (Williams Decl. ¶¶ 51 at 7, 55 at 20-24), and, in particular, “exonerated” Dr. Mann. (Williams Decl. ¶¶ 51 at 9-10, 55 at 24).

129. Dr. Abraham testified that the investigations confirm the accuracy and validity of the hockey stick and concludes with the following observation: “In fact, the irony is that the unfounded complaints have given such intense scrutiny to Dr. Mann’s work, that we now know, with great certainty, he was correct all along.” (Williams Decl. ¶49 at 53).

**a. THE PENN STATE INVESTIGATION**

130. Defendants deposed all three of the members of the Penn State panel, that conducted the inquiry, as well as former Penn State President, Graham Spanier. (Williams Decl. ¶¶ 56, 57).

131. Dr. Henry Foley, the former Vice President for Research and Dean of Graduate Studies at Penn State, testified that in view of the public scrutiny of the issue, the committee was “keenly concerned that we try to do everything as carefully and as well as we possibly could.” (Williams Decl. ¶ 56 at 201:11-14).

132. Dr. Foley also testified that the committee came into the investigations with no preconceived notions and stated that he and Dr. Alan Scaroni (a committee member) were initially skeptical of the validity of the hockey stick research but were later convinced after reviewing all of the emails, reading the NRC report, and speaking with Dr. North. (Williams Decl. ¶ 56 at 200-01).

133. Dr. Foley testified that he reviewed every single email, reviewed the entire 2006 NRC report, interviewed the Chair of the NRC report, Dr. Jerry North, and conducted a thorough and comprehensive review of all of it, to reach the conclusion that Dr. Mann had not committed academic misconduct and that his MBH98 and MBH99 research was sound. (Williams Decl. ¶ 56 at 200:15-203:25, 204:7-205:20, 212:3-213:21, 209:6-211:9, 212:3-213:21).

134. Candace Yekel, Penn State's Research Integrity Officer testified that the inquiry and investigation committees took great care to examine the allegations and there was no cover-up of wrongdoing:

Q: What would you say to the people that say that Penn State's inquiry and investigation of Dr. Mann was a whitewash?

A: I would say that is not true, and we took great care and effort to make sure we looked at these allegations.... The committee members...were some of our best. And so I would absolutely stand behind the report that it was thorough and complete.

Q: What would you say to someone that alleges that Penn State's inquiry and investigation was a cover-up of wrongdoing?

A: I would say that is not accurate. And to suggest such a thing, I would expect to have some evidence to even suggest such a thing.

(Williams Decl. ¶ 57 at 256:17-57:19).

#### **b. THE NSF INVESTIGATION**

135. The 2011 NSF investigation evaluated whether Mann had fabricated and falsified data based on a reading of publicly released emails, many of which contained language that reasonably caused individuals, not party to the communications, to suspect some impropriety on the part of the authors. (Williams Decl. ¶ 48 at 2-3).

136. As part of its investigation, NSF attempted to determine if data fabrication or falsification may have occurred and interviewed the subject, critics, and disciplinary experts in coming to our conclusions. (Williams Decl. ¶ 48 at 3).

137. The NSF's investigation reviewed all of the emails cited by the critics of Dr. Mann, including the emails Dr. Curry now claims demonstrated that Dr. Mann "cherry picked" the data to create the Hockey Stick, and concluded that nothing contained in them evidenced research misconduct within the definition in the NSF Research Misconduct Regulation. (Williams Decl. ¶ 48 at 2).

138. The NSF closed its investigation, finding: *"To recommend a finding of research misconduct, the preponderance of the evidence must show that with culpable intent the Subject committed an act that meets the definition of research misconduct (in this case, data fabrication or data falsification). The research in question was originally completed over 10 years ago. Although the Subject's data is still available and still the focus of significant critical examination, no direct evidence has been presented that indicates the Subject fabricated the raw data he used for his research or falsified his results. Much of the current debate focuses on the viability of the statistical procedures he employed, the statistics used to confirm the accuracy of the results, and the degree to which one specific set of data impacts the statistical results. These concerns are all appropriate for scientific debate and to assist the research community in directing future research efforts to improve understanding in this field of research. Such scientific debate is ongoing but does not, in itself, constitute evidence of research misconduct."* (Williams Decl. ¶ 48 at 3).

139. In her interview with the NSF Inspector General investigators, Dr. Curry asserted that Dr. Mann's MBH98 and MBH99 research was not the product of research misconduct. Dr. Curry was asked if she believed any research misconduct occurred in Mann's work. Curry said: in 1998-1999 Mann was ambitious, but his statistics were 'goofy.' He demonstrated 'shoddy science in his data analysis, trying to get global answers from a few local data points.'

She stated that this is not good science. But she did not see it as research misconduct . . . ‘it’s terrible science, but not misconduct . . .’ She said there are ethical issues regarding the IPCC, but ‘it’s not research misconduct . . .’ ‘You have bad statistics, but not research misconduct.’” (Williams Decl. ¶ 37, ¶ 31 at 151:2-153:21, ¶ 37).

### **c. THE 2010 EPA INVESTIGATION**

140. The EPA evaluated CEI’s claims, made in its 2010 Petition for Review challenging the Endangerment Finding, that the emails stolen from the University of East Anglia Climate Research Unit undermined the credibility of scientists and the scientific basis for the finding. See EPA, *Response to the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, Preface & Volume 1: Climate Science and Data Issues Raised by Petitioners* <https://www.epa.gov/sites/production/files/2016-08/documents/response-preface.pdf> and <https://www.epa.gov/sites/production/files/2016-08/documents/response-volume1.pdf>.

141. EPA rejected claims that the November 1999 Dr. Phil Jones email, “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,” evidenced an effort to deliberately manipulate data to yield desired results. EPA concluded “the evidence shows that the research community was fully aware of these issues and was not hiding or concealing them . . . the Third Assessment Report, published in 2001 (IPCC, 2001), had a full paragraph on “important caveats to be kept in mind” regarding paleoclimate reconstructions that use tree rings. The paragraph included a discussion of the divergence and concluded that tree rings were best used as one of multiple proxies rather than being the sole source for a climate reconstruction . . . The petitioners highlight the use of the word “trick” . . . more formal reviews did not find that

this phrase indicated an “attempt to cook the books”. The UK Science & Technology Committee (2010) reviewed this specific e-mail in its investigation of the disclosure of climate data from the CRU. This investigation concluded: “We are content that the phrases such as ‘trick’ or ‘hiding the decline’ were colloquial terms used in private e-mails, and the balance of evidence is that they were not part of a systematic attempt to mislead.” *Id.* Vol. 1, p. 22-23.

<https://www.regulations.gov/document?D=EPA-HQ-OAR-2009-0171-12067>

#### **4. DR. MANN’S WITNESSES**

142. Dr. Mann’s witnesses address the falsity of Defendants’ allegations. Dr. Bradley, noting the extensive body of peer-reviewed articles validating Dr. Mann’s research, states:

This body of scientific reports is significant for multiple reasons. Each was conducted by qualified and independent, accredited scientists. In addition, each reaches essentially the same conclusion, reinforcing and supporting the conclusions reached by the others. Specifically, they each found that there is no basis to conclude that: a. the MBH authors had molested or tortured the data used in our studies; b. the MBH authors had engaged in data manipulation; c. the MBH authors had engaged in corrupt or disgraced science or that any of these investigations were a whitewash; d. anyone covered up or allowed to continue heinous crimes or that the MBH authors had engaged in academic and scientific misconduct; and e. the “hockey stick” graph was fraudulent.

(Williams Decl. ¶ 50 at 19-20).

143. Dr. Naomi Oreskes states that the Defendants’ allegations against Dr. Mann are “false and unjustified.” (Williams Decl. ¶ 55 at 24).

144. Dr. Peter Frumhoff states that the “statements made by National Review and the Competitive Enterprise Institute at issue in this case are “false.” (Williams Decl. ¶ 51 at 3).

145. Dr. John Mashey states in his report that there is no research demonstrating that Dr. Mann’s research is falsified or that his methods or conclusions were fraudulent or involved misconduct. (Williams Decl. ¶ 53 at 18-29).

146. Dr. Mashey also states that no researcher who has investigated Dr. Mann's work has suggested that his research was fraudulent or improper or constituted misconduct, including the defendants' own witnesses: Mr. McIntyre, Dr. Wyner, and Dr. Wegman. (Williams Decl. ¶ 58 at 258:14-267:8).

147. Prior to his deposition, Dr. Mashey had an opportunity to review all of the defendants' expert reports, all of their deposition testimony, and all of their fact witness testimony (except for Dr. Wegman who was deposed two days later). (Williams Decl. ¶ 58 at 258:14-267:8).

148. In reviewing this testimony, Dr. Mashey stated that not one of defendants' witnesses made any allegation of fraud, or scientific misconduct, or scientific misconduct, or research misconduct. (Nor did Dr. Wegman in his subsequent deposition.) (Williams Decl. ¶ 58 at 262:18-266:10; ¶ 40 at 21:12-24:10).

149. Dr. Mashey states that the allegations of fraud and improper conduct are false. (Williams Decl. ¶ 58 at 256:11-22 and 260:18-23).

150. Dr. Bradley states: "there is no factual basis for any of the statements" at issue in this litigation. (Williams Decl. ¶ 50 at 17 and 20).

#### **SUBSTANTIAL TRUTH AFFIRMATIVE DEFENSES**

151. CEI and Mr. Simberg assert that their statements were not "substantially false." (Williams Decl. ¶ 62, Affirmative Defense No. 4).

152. In their article, the CEI defendants alleged that Dr. Mann had engaged in "hockey stick deceptions" by molesting and torturing data, and by engaging in data manipulation to keep the blade on the hockey stick.

153. These statements accused Dr. Mann of *specific acts* of academic and scientific misconduct *in the manipulation of data*, of deception *in producing the graph*” and of deception *in the presentation of data*. *Competitive Enterprise Institute v. Mann*, 150 A.3d 1213, 1243, 1259, 1260 (D.C. 2016) (emphasis added).

154. The allegations of “misconduct” and “deception” involved Dr. Mann’s data practices that led to the production and presentation of the hockey stick graph.

155. CEI asserts that the conduct that constituted “hockey stick deceptions” refers to conduct that occurred *years after* his research was completed and published. (Williams Decl. ¶ 66, Second Supplemental Response to Interrogatories 13 & 14).

156. The alleged hockey stick deceptions include statements that Dr. Mann made to the Penn State investigative committee in 2010—ten years after the hockey stick was published. (Williams Decl. ¶ 66, Second Supplemental Response to Interrogatories 13 & 14).

157. They also include allegations regarding conduct that occurred after the publication of the MBH 98 and 99 research.

158. CEI’s counsel states that Mr. Simberg, in using the term “hockey stick deceptions, did not, nor did he intend to, limit the basis for the deceptions concerning the ‘hockey stick’ to just the research and publication of the MBH articles in 1998 and 1999.” (Williams Decl. ¶ 67 at 2).

159. In his deposition, Mr. Simberg stated:

Q: Okay. Tell me what the hockey stick deceptions were?

A: The hockey stick deceptions were—well the hockey stick itself was a graph...[and] the deception was the means by which they generated the curve by the use of, you know, selective – selection of proxy—

Q: And-



A: --among other things.

Q: Well, what else—you mentioned the selection of proxy data before, and we’ve been through that. Tell me what the other deceptions were other than the selection of the particular proxy data they used.

A: Well, that basically was it.

(Williams Decl. ¶ 12 at 135:9-136:8).

160. In his deposition, Mr. Simberg further stated:

Q: Were there any other hockey stick deceptions?

A: No. But, again, those seem sufficient to me.

Q: I understand.

A: And I think there were other deceptions. Not hockey stick deceptions.

(*Id.* at 137:6-12).

161. The Simberg article asserted that Dr. Mann “has molested and tortured data” and engaged in “data manipulation to keep the blade on his famous hockey stick graph,” were allegations of deceptions in “the manipulation of data,” in the “presentation of data, and in “producing the graph.” (*CEI* 150 A.3d at 1243).

162. Mr. Simberg stated that the term “hockey stick deceptions” means “the means by which they generated the curve.” (*Id.* at 135:19-20).

163. The Simberg article, *The Other Scandal In Unhappy Valley*, contains no mention of Dr. Mann’s conduct before the Penn State inquiry and investigative committees in 2010. (*CEI* , 150 A.3d at 1262-1265 Appendix).

164. The Simberg article does not mention any conduct of Dr. Mann other than his hockey stick research. *Id.*

165. The Simberg article accuses Dr. Mann of “academic and scientific misconduct.” Just prior to the paragraph in which this statement appears, the article addresses the NSF Research Misconduct Regulations and criticizes the NSF investigation and its finding, repeated in the Simberg article, that “nothing in [the emails] evidenced *research misconduct within the definition of the NSF Research Misconduct Regulation.*” The article then links to another article, <https://scholarsandrogues.com/2011/08/27/nsf-psu-mann-exonerated>, which identifies what acts constitute research misconduct, and they include *falsification, fabrication, and plagiarism. Id.*

166. Mr. Simberg understood the phrase “research misconduct” to include falsification and fabrication:

Q: All right. Let’s talk about the academic and scientific misconduct that you’re referring to on the part of Dr. Mann. You said earlier that he had engaged in unscientific conduct, right?

A: Yes

Q: (after objections) That’s scientific misconduct, isn’t it?

A: I’m not sure if they’re exactly the same thing. . . . [T]here’s a specific definition...the National Science Foundation has for research misconduct.

Q: All right. And what is that?

A: It’s—specifically it’s—basically three things. I think its falsification, fabrication or plagiarism.

(Williams Decl. ¶ 12 at 155:12-156:19).

167. Mr. Simberg stated in his deposition that Dr. Mann did not engage in data fabrication and further that he did not think he engaged in data falsification. (*Id.* at 159:1-9).

168. In their Second Supplemental Responses to Interrogatories 10 and 11, defendants state that their use of the term “academic and scientific misconduct” was intended to mean that

Dr. Mann did not act with “academic integrity,” They also allege that Dr. Mann’s conduct violated the Penn State General Standards for Professional Ethics (referred to as AD47). (Williams Decl. ¶ 66).

169. The Penn State AD47 policy is an ethical standard specifying that professors should strive for the highest standards in data gathering and data presentation. (Williams Decl. ¶ 69).

170. AD47 does not mention “research misconduct,” and notes that other Penn State policies include RA10, Penn State’s Research Misconduct Standards—the policy under which Penn State conducted its NSF-supervised research misconduct inquiry and investigation of Dr. Mann—which Mr. Simberg conceded during his deposition that Dr. Mann did not violate. (Williams Decl. ¶ 69, ¶45, ¶ 46, ¶ 12 at 159:1-9).

171. Mr. Simberg’s article did not accuse Dr. Mann of an ethical violation. The Simberg article accused Dr. Mann wrongdoing, corruption, and data manipulation in order to reach a predetermined conclusion. (*CEI*, 150 A.3d at 1262-1265 Appendix).

172. Mr. Simberg’s article contains accusations of misconduct and not ethical violations. The article made factual assertions that Dr. Mann had engaged in specific acts of academic and scientific misconduct in the manipulation of data. (*CEI*, 150 A.3d at 1243 and 1262-1265 Appendix).

173. The Simberg article made factual assertions that Dr. Mann had engaged in specific acts of academic and scientific misconduct in the manipulation of data and which constituted scientific and academic misconduct.” (*Id.* at 1243 & 1249, n. 46).

Dated: January 22, 2021

Respectfully submitted,

/s/ John B. Williams

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John B. Williams (No. 257667)  
Fara N. Kitton (No. 1007793)  
WILLIAMS LOPATTO PLLC  
1629 K Street, N.W.  
Suite 300  
Washington, D.C. 20006  
Tel: (202) 296-1665  
jbwilliams@williamslopatto.com  
fnkitton@williamslopatto.com

Peter J. Fontaine (No. 435476)  
COZEN O'CONNOR  
1650 Market Street, Suite 2800  
Philadelphia, PA 19103  
Tel: (215) 665-2723  
pfontaine@cozen.com

Patrick J. Coyne (No. 366841)  
FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, LLP  
901 New York Ave., N.W.  
Washington, D.C. 20001-4413  
Tel: (202) 408-4000  
Patrick.coyne@finnegan.com

*Counsel for Plaintiff, Michael E. Mann, Ph.D.*

**SUPERIOR COURT OF THE DISTRICT OF COLUMBIA  
CIVIL DIVISION**

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MICHAEL E. MANN, PH.D.,

Plaintiff,

v.

NATIONAL REVIEW, INC., *et al.*,

Defendants.

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) Case No 2012 CA 008263 B  
) Calendar No.: 3  
) Judge: Irving  
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**DECLARATION OF JOHN B. WILLIAMS IN SUPPORT OF  
PLAINTIFF’S MOTION FOR PARTIAL SUMMARY JUDGMENT AND MOTION TO  
STRIKE AFFIRMATIVE DEFENSES AGAINST ALL DEFENDANTS**

Pursuant to Rule 43, Superior Court Rules of Civil Procedure, I, John B. Williams,  
declare:

1. I am currently a member in good standing of the Bar of the District of Columbia. I am an attorney at Williams Lopatto PLLC, and counsel in this matter for Plaintiff Michael E. Mann, Ph.D. (“Plaintiff”). I submit this declaration in support of Plaintiff’s Motion for Partial Summary Judgment and Motion to Strike. I have personal knowledge of the facts stated herein and, if called as a witness, I could competently testify to them.

2. Attached hereto as Exhibit 1 is a true and correct copy of the transcript of the deposition of Abraham Wyner, Ph.D., which took place on November 10, 2020.

3. Attached hereto as Exhibit 2 is a true and correct copy of the blog post “Fishing Expedition,” dated May 1, 2010, which was written by Roger Pielke, Jr., Ph.D., and, as MANN-PIELKE-EXHIBIT-9, used as an exhibit during the deposition of Dr. Pielke.

4. Attached hereto as Exhibit 3 is a true and correct copy of excerpted portions of the transcript of the deposition of Roger Pielke, Jr., Ph.D., which took place on September 30, 2020.

5. Attached hereto as Exhibit 4 is a true and correct copy of excerpted portions of the transcript of the deposition of Stephen McIntyre, which took place on November 16, 2020.

6. Attached hereto as Exhibit 5 is a true and correct copy of Defendant National Review Inc.'s Objections and Responses to Plaintiff's First Set of Interrogatories to National Review, dated February 3, 2020.

7. Attached hereto as Exhibit 6 is a true and correct copy of Defendant Steyn's Supplemental Response to Plaintiff's First Set of Interrogatories to all Defendants, dated June 15, 2020.

8. Attached hereto as Exhibit 7 is a true and correct copy of the article "Where rising hot air hits cold hard facts," dated April 1, 2001, which was written by Mark Steyn, and, as MANN-STEYN-02, used as an exhibit during the deposition of Mr. Steyn.

9. Attached hereto as Exhibit 8 is a true and correct copy of the declaration of Raymond S. Bradley, D.Sc., dated January 19, 2021.

10. Attached hereto as Exhibit 9 is a true and correct copy of the resume of Myron Ebell, which, as MANN-EBELL-01, was used as an exhibit during the deposition of Mr. Ebell.

11. Attached hereto as Exhibit 10 is a true and correct copy of a tweet by Rand Simberg, dated July 6, 2012, which, as MANN-RS-28, was used as an exhibit during the deposition of Mr. Simberg.

12. Attached hereto as Exhibit 11 is a true and correct copy of the transcript of the deposition of Rand Simberg, which took place on October 21, 2020.

13. Attached hereto as Exhibit 12 is a true and correct copy of a series of emails dated November 22, 2011, sent by and to Rand Simberg, which, as MANN-RS-23, was used as an exhibit during the deposition of Mr. Simberg.

14. Attached hereto as Exhibit 13 is a true and correct copy of an email dated May 14, 2012, sent by Rand Simberg, which, as MANN-RS-26, was used as an exhibit during the deposition of Mr. Simberg.

15. Attached hereto as Exhibit 14 is a true and correct copy of the blog post “Born In Kenya,” dated May 17, 2012, which was written by Rand Simberg, and, as MANN-RS-58, used as an exhibit during the deposition of Mr. Simberg.

16. Attached hereto as Exhibit 15 is a true and correct copy of the blog post “The Latest On Masks,” dated June 1, 2020, which was written by Rand Simberg.

17. Attached hereto as Exhibit 16 is a true and correct copy of the blog post “Hydroxychloriquine,” dated August 7, 2020, which was written by Rand Simberg.

18. Attached hereto as Exhibit 17 is a true and correct copy of the transcript of the deposition of Richard Lowry, which took place on September 15, 2020.

19. Attached hereto as Exhibit 18 is a true and correct copy of excerpted portions of the transcript of the deposition of John Fowler, which took place on September 18, 2020.

20. Attached hereto as Exhibit 19 is a true and correct copy of the blog post “The Lonesomest Mann in Town,” dated September 16, 2014, which was written by Mark Steyn, and, as MANN-STEYN-51, used as an exhibit during the deposition of Mr. Steyn.

21. Attached hereto as Exhibit 20 is a true and correct copy of the blog post “Big Climate’s Sleazy Charlatan,” dated September 28, 2015, which was written by Mark Steyn, and, as MANN-STEYN-47, used as an exhibit during the deposition of Mr. Steyn.

22. Attached hereto as Exhibit 21 is a true and correct copy of the blog post “Dr Mann, Super-Villain,” dated November 14, 2014, which was written by Mark Steyn, and, as MANN-STEYN-45, used as an exhibit during the deposition of Mr. Steyn.

23. Attached hereto as Exhibit 22 is a true and correct copy of the blog post “Real Nobel Laureate Takes Pity on Fake Nobel Laureate,” dated August 12, 2014, which was written by Mark Steyn, and, as MANN-STEYN-43, used as an exhibit during the deposition of Mr. Steyn.

24. Attached hereto as Exhibit 23 is a true and correct copy of the blog post “Mann, I Feel Like A-Warmin’,” dated March 16, 2014, which was written by Mark Steyn, and, as MANN-STEYN-53, used as an exhibit during the deposition of Mr. Steyn.

25. Attached hereto as Exhibit 24 is a true and correct copy of the transcript of the deposition of Mark Steyn, which took place on October 26, 2020.

26. Attached hereto as Exhibit 25 is a true and correct copy of an email from Tiffany Cole to Melissa Howes (two of Mark Steyn’s colleagues), dated November 16, 2011, together with an attachment titled “Sandusky-Grand-Jury-Presentment.pdf,” which, as MANN-STEYN-55, was used as an exhibit during the deposition of Mr. Steyn.

27. Attached hereto as Exhibit 26 is a true and correct copy of the transcript of the deposition of Myron Ebell, which took place on November 5, 2020.

28. Attached hereto as Exhibit 27 is a true and correct copy of excerpted portions of the book *Global Warming and Political Intimidation: How Politicians Cracked Down on Scientists as the Earth Heated Up*, which was written by Dr. Raymond S. Bradley and published by the University of Massachusetts Press in 2011.



29. Attached hereto as Exhibit 28 is a true and correct copy of a series of emails between Nicole Ciandella and Ryan Radia, dated August 23, 2012, which, as MANN-EBELL-15, was used as an exhibit during the deposition of Myron Ebell.

30. Attached hereto as Exhibit 29 is a true and correct copy of the blog post “Michael E Mann: Liar, Cheat, Falsifier and Fraud,” dated May 13, 2014, which was written by Mark Steyn, and, as MANN-STEYN-48, used as an exhibit during the deposition of Mr. Steyn.

31. Attached hereto as Exhibit 30 is a true and correct copy of the transcript of the deposition of Judith Curry, Ph.D., which took place on November 12, 2020.

32. Attached hereto as Exhibit 31 is a true and correct copy of the expert report that was submitted by Abraham Wyner, Ph.D. in connection with this litigation.

33. Attached hereto as Exhibit 32 is a true and correct copy of the expert report that was submitted by Judith Curry, Ph.D. in connection with this litigation.

34. Attached hereto as Exhibit 33 is a true and correct copy of the declaration of Thomas R. Karl, dated January 14, 2021.

35. Attached hereto as Exhibit 34 is a true and correct copy of the Georgia Institute of Technology’s Performance Evaluation of Dr. Curry, dated June 25, 2012, with Bates numbers GATECH0000018 to GATECH0000021.

36. Attached hereto as Exhibit 35 is a true and correct copy of the blog post “Fraudulent (?) hockey stick,” dated September 11, 2014, which was written by Dr. Curry and, as Mann-Curry Ex. 179, was used as an exhibit during the deposition of Dr. Curry.

37. Attached hereto as Exhibit 36 is a true and correct copy of a memorandum of investigation produced by the National Science Foundation in connection with case number

A09120086, which, as Mann-Curry Ex. 161, was used as an exhibit during the deposition of Dr. Curry.

38. Attached hereto as Exhibit 37 is a true and correct copy of a series of emails dated September 16, 2020, between myself and counsel for the defendants as well as counsel for Dr. Pielke, concerning the postponement of Dr. Pielke's deposition.

39. Attached hereto as Exhibit 38 is a true and correct copy of an email dated October 6, 2014, as well as a letter and a memorandum of investigation produced by the National Science Foundation in connection with case number A09120086, which, as McIntyre EXHIBIT 144, was used as an exhibit during the deposition of Mr. McIntyre.

40. Attached hereto as Exhibit 39 is a true and correct copy of excerpted portions of the transcript of the deposition of Edward Wegman, Ph.D., which took place on December 11, 2020.

41. Attached hereto as Exhibit 40 is a true and correct copy of the "Report of the International Panel set up by the University of East Anglia to examine the research of the Climatic Research Unit," which was submitted April 12, 2010 (with an April 19, 2010 addendum), by the University of East Anglia, Oxburgh Panel.

42. Attached hereto as Exhibit 41 is a true and correct copy of "The Independent Climate Change E-mails Review," which was released in July 2010, by the University of East Anglia, Russell Panel.

43. Attached hereto as Exhibit 42 is a true and correct copy of "The disclosure of climate data from the Climatic Research Unit at the University of East Anglia," which was released on March 24, 2010, by the United Kingdom House of Commons Science and Technology Committee.

44. Attached hereto as Exhibit 43 is a true and correct copy of the “Government Response to the House of Commons Science and Technology Committee 8<sup>th</sup> Report of Session 2009-10: The disclosure of climate data from the Climatic Research Unit at the University of East Anglia,” dated September 2010, which was produced by the United Kingdom Secretary of State for Energy and Climate Change.

45. Attached hereto as Exhibit 44 is a true and correct copy of the “RA-10 Inquiry Report: Concerning the Allegations of Research Misconduct Against Dr. Michael Mann, Department of Meteorology, College of Earth and Mineral Sciences,” which Pennsylvania State University released on February 3, 2010.

46. Attached hereto as Exhibit 45 is a true and correct copy of the “RA-10 Final Investigation Report Involving Dr. Michael Mann,” which Pennsylvania State University released on June 4, 2010.

47. Attached hereto as Exhibit 46 is a true and correct copy of the “Letter and Detailed Results of Inquiry Responding to May 26, 2010, Request from Senator Inhofe,” by the United States Department of Commerce Office of Inspector General, dated February 18, 2011.

48. Attached hereto as Exhibit 47 is a true and correct copy of “Closeout Memorandum, Case No. A09120086,” by the National Science Foundation Office of Inspector General.

49. Attached hereto as Exhibit 48 is a true and correct copy of the expert report that was submitted by John P. Abraham, Ph.D. in connection with this litigation.

50. Attached hereto as Exhibit 49 is a true and correct copy of the expert report that was submitted by Raymond S. Bradley, D.Sc. in connection with this litigation.

51. Attached hereto as Exhibit 50 is a true and correct copy of the expert report that was submitted by Peter C. Frumhoff, Ph.D., in connection with this litigation.

52. Attached hereto as Exhibit 51 is a true and correct copy of the expert report that was submitted by John P. Holdren, Ph.D., in connection with this litigation.

53. Attached hereto as Exhibit 52 is a true and correct copy of the expert report that was submitted by John R. Mashey, Ph.D., in connection with this litigation.

54. Attached hereto as Exhibit 53 is a true and correct copy of the expert report that was submitted by Gerald North, Ph.D., in connection with this litigation.

55. Attached hereto as Exhibit 54 is a true and correct copy of the expert report that was submitted by Naomi Oreskes, Ph.D., in connection with this litigation.

56. Attached hereto as Exhibit 55 is a true and correct copy of excerpted portions of the transcript of the deposition of Henry C. Foley, Ph.D., which took place on November 19, 2020.

57. Attached hereto as Exhibit 56 is a true and correct copy of excerpted portions of the transcript of the deposition of Candice Yekel, which took place on September 4, 2020.

58. Attached hereto as Exhibit 57 is a true and correct copy of excerpted portions of the transcript of the deposition of John R. Mashey, Ph.D., which took place on December 9, 2020.

59. Attached hereto as Exhibit 58 is a true and correct copy of Defendant National Review, Inc.'s Answer to Plaintiff's Complaint, dated July 5, 2019.

60. Attached hereto as Exhibit 59 is a true and correct copy of Defendant Steyn's Amended Answer and Counterclaims to Amended Complaint, dated March 12, 2014.

61. Attached hereto as Exhibit 60 is a true and correct copy of a graph that was used as an exhibit during the deposition of Mark Steyn, as MANN-STEYN-64.

62. Attached hereto as Exhibit 61 is a true and correct copy of Defendant Competitive Enterprise Institute's and Rand Simberg's Answer and Defenses to Plaintiff's Amended Complaint, dated July 5, 2019, which, as MANN-CEI-34, was used as an exhibit during the 30(b)(6) deposition of designees of the Competitive Enterprise Institute.

63. Attached hereto as Exhibit 62 is a true and correct copy of the article "I don't bluff," dated July 25, 2012, which was published in the *Columbia Journalism Review*.

64. Attached hereto as Exhibit 63 is a true and correct copy of the article "The Other Scandal In Unhappy Valley," which was published on Openmarket.org on July 13, 2012, showing reader comments.

65. Attached hereto as Exhibit 64 is a true and correct copy of the blog post "On The Mannsuits," which was published on August 25, 2012, written by Rand Simberg, and, as MANN-RS-64, used as an exhibit during the deposition of Mr. Simberg.

66. Attached hereto as Exhibit 65 is a true and correct copy of Competitive Enterprise Institute and Rand Simberg's Second Supplemental Objections and Answers to Plaintiff's First Set of Interrogatories, dated November 23, 2020.

67. Attached hereto as Exhibit 66 is a true and correct copy of the letter that Mark I. Bailen sent to Peter J. Fontaine, dated December 31, 2020.

68. Attached hereto as Exhibit 67 is a true and correct copy of the article "Michael Mann Cleared (Again), which was published August 24, 2011, written by James Fallows, and as MANN-RS-57, used as an exhibit during the deposition of Rand Simberg.

69. Attached hereto as Exhibit 68 is a true and correct copy of Pennsylvania State University's "Policy AD47 General Standards of Professional Ethics," which, as CEI-Y-40, was used as an exhibit during the deposition of Candice Yekel.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 22nd day of January, 2021, in Washington, D.C.

/s/ John B. Williams  
JOHN B. WILLIAMS

# Williams Declaration

## Exhibit 8

**SUPERIOR COURT OF THE DISTRICT OF COLUMBIA  
CIVIL DIVISION**

\_\_\_\_\_  
MICHAEL E. MANN, PH.D.,

Plaintiff,

v.

NATIONAL REVIEW, INC., *et al.*,

Defendants.  
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) Case No. 2012 CA 008263 B  
) Judge Alfred S. Irving  
) Civil I, Calendar 3  
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**DECLARATION OF RAYMOND S. BRADLEY**

I, Raymond S. Bradley, D.Sc., am over 18 years of age and have personal knowledge herein and fully swear that, to the best of my knowledge and under penalty of perjury, the following:

1. I am a Distinguished Professor and the Director of the Climate System Research Center in the Department of Geosciences at the University of Massachusetts, Amherst.

My research focuses on climate variability and understanding the causes of climatic change. I have co-authored over 200 peer-reviewed articles and written or edited thirteen books on climatic change, including one of the definitive texts on paleoclimatology, *Paleoclimatology, Reconstructing Climates of the Quaternary*. My curriculum vitae and publications are available on my University webpage: <https://www.geo.umass.edu/faculty/bradley/>.

2. I earned a B.Sc. and D.Sc. from Southampton University (U.K.) in 1971 and 2003, respectively, and an M.A. and Ph.D. from the University of Colorado, Boulder (in 1971



and 1974). I was awarded Honorary Doctorates by the University of Lancaster (U.K.) in 2006, Queen's University (Canada) in 2013, and the University of Bern (Switzerland) in 2016.

3. In my Ph.D. program, I studied 19<sup>th</sup> century instrumental meteorological data from the western United States. After I earned my Ph.D., I focused on instrumental temperature records.

4. I have been asked by Dr. Mann to testify as a witness in this case. The subject of my testimony includes facts that I have observed or of which I have personal knowledge, as well as expert opinions I have reached on various aspects of the research relevant to this case. I previously prepared an expert report in this case.

5. Recently, I was asked to review the facts alleged and opinions expressed in the Expert Report of Dr. Judith Curry, dated August 2020 ("Curry Report") (**Exhibit A**), which contains a number of false allegations and unsupported opinions, which I address in this declaration.

### **BACKGROUND**

6. Unlike Dr. Curry, who is not a paleoclimatologist, was not party to any of the paleoclimatology research discussed in her report and has no personal knowledge of the selection and analyses of data pertaining thereto, I have been a paleoclimatologist for 50 years, and was a co-author with Dr. Mann and other scientists of the paleoclimatology research at issue in this case, as detailed in my own expert report.

7. My work involves studying past climate variations, using temperature and rainfall measurements from around the world as well as climate proxies. Climate proxies are obtained from natural archives such as tree rings, ice cores, corals, sediments, and boreholes, the physical attributes of which contain information reflecting past ambient temperature and other climatic

conditions. Climate proxies can be used to determine ambient temperatures back in time before the beginning of instrumental temperature records about 150 years ago. Much of my work has involved collaboration with colleagues from around the world, including those at the National Oceanic and Atmospheric Administration (NOAA), the University of East Anglia in Norwich, England, and specialists at the Laboratory of Tree-Ring Research at the University of Arizona, in Tucson, AZ.

8. My research on past climate began before it was generally accepted in the scientific community that global warming due to greenhouse gases from the burning of fossil fuels was becoming a problem.<sup>1</sup> In fact, almost 70% of industrial-era (post 1860) greenhouse gases have been produced since I began my graduate studies in 1969. My research seeks to understand how the climate changed over time and what factors may have played a role, including natural effects such as explosive volcanic eruptions and changes in solar activity.<sup>2</sup>

#### **DR. CURRY'S FALSE ALLEGATIONS**

9. Dr. Curry renders certain opinions on the “Hockey Stick graph,” which she describes as *“a graph of global temperatures for the last 600 to 1000 years, reconstructed from tree rings and other so-called proxy data. Its name comes from its shape—a long flat ‘handle’ representing comparatively stable temperatures in earlier centuries, followed by a dramatic uptick—the ‘blade’.* The Hockey Stick graph was originally published in two papers co-authored by Michael Mann, Raymond Bradley, and Malcolm Hughes (MBH98, MBH99). MBH98 included a 600-year reconstruction and MBH99 included a 1000-year reconstruction . . . In a subsequent reconstruction of paleo-temperatures, Mann used the Tiljander proxies (data taken from

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<sup>1</sup> Raymond S. Bradley, *Global Warming and Political Intimidation: How Politicians Cracked Down on Scientists as the Earth Heated Up*, pg. 95 (Amherst: University of Massachusetts Press, 2011).

<sup>2</sup> *Id.* at 30-31.

*sediments from Lake Korttajarvi in Iceland) in Mann et al. (2008), which was published in the Proceedings of the National Academies of Sciences (PNAS).” Curry Report pp. 3 & 23.*

10. As a collaborating scientist and co-author with Dr. Mann of all three “Hockey Stick” publications contained in Dr. Curry’s report—MBH98, MBH99, and Mann et al. 2008—I have personal knowledge that the facts alleged in her report are incorrect.

11. Specifically, Dr. Curry alleges:

*“Is it reasonable to regard the Hockey Stick as 'fraudulent'? It is my opinion that it is reasonable to have referred to the Hockey Stick in 2012 as 'fraudulent,' in the sense that aspects of it are deceptive and misleading: . . .*

*(ii) Cherry picking: Evidence shows that Mann engaged in selective data cherry picking to create the Hockey Stick, and that this cherry picking contributes to the perception of a "fraudulent" Hockey Stick by journalists, the public and scientists from other fields”; and*

*(iii) Data falsification (the 'upside-down' Tiljander proxy): Substantial evidence shows that Mann inverted data from the Tiljander proxies in a version of the Hockey Stick published in 2008. Mann did not acknowledge his mistaken interpretation of data. Even after published identification of the mistake, this mistake has propagated through subsequent literature including the IPCC 4th Assessment Report.”*

Curry Report pp. 1-2 (emphasis added).

12. Dr. Curry further alleges:

*“The focus of the arguments presented here is based on the public understanding of 'fraud,' particularly in connection with internet commentary. Referring to the Hockey Stick as 'fraudulent' is supported by the public understanding of fraud and how the issues surrounding the Hockey Stick have been portrayed in the media. These include: . . .*

*• Data cherry picking, by selecting only the tree ring proxies that produced the results desired by Mann.*

*• Data falsification, by persistent use of the Tiljander proxies upside down, even after a letter pointing this out was published in PNAS and three of the authors on the Tiljander paper calling this out.*

Curry Report p. 28 (emphasis added).

13. With regard to the alleged “data cherry picking,” Dr. Curry claims the “[*Hockey Stick*] graph relies heavily on *Bristlecone Pines* to produce its *Hockey Stick* shape. Mann weighted these proxies more heavily than other datasets to produce this outcome. However, the reliability of *Bristlecone Pines* to reflect changes in temperature, as opposed to other factors like *CO<sub>2</sub>* fertilization or moisture content, has been called into question . . .” Curry Report p. 22.

14. Dr. Curry’s factual allegation that Dr. Mann cherry picked data to produce the Hockey Stick graph is false. As I state in below, Dr. Mann did not select the proxy data used in the statistical analysis contained in MBH98 and MBH99 and therefore could not have “cherry picked” data. The source data used in the statistical analysis conducted in these works was selected by me and Dr. Hughes. We then provided the selected data to Dr. Mann, who conducted the statistical analysis on the proxy data we selected. Once his analysis was completed, he shared the results with us and we jointly wrote the papers. After the initial data was analyzed by Dr. Mann there was no effort to select other data or to alter the data in any way. The notion that we selected data to achieve a desired outcome is completely wrong. Given the complexity of the statistical procedure employed, it would have been almost impossible to pre-determine the outcome of the analysis; indeed, I was quite surprised to see the results that the MBH 98 analysis produced. Later on, in the Mann et al. 2008 paper, to make sure that particular sets of data were

not unduly influencing the results, specific attention was paid to this matter by systematically removing data and re-running the analysis. No substantial differences were found, giving us confidence that the basic result was robust. My initial view of the “hockey stick” as a “working hypothesis” has now been tested by many subsequent studies by other independent scientists from around the world (as discussed further below). It is now very clear that our “hockey stick” result is as solid as a brick house. Accordingly, Dr. Curry’s reliance upon blog posts and other internet claims that Dr. Mann “cherry picked” data in connection with the Hockey Stick research of MBH98 and MBH99 is incorrect.

15. Furthermore, Dr. Curry’s allegation that Dr. Mann cherry picked data to produce the Hockey Stick research has been roundly rejected by authoritative reviews of our work by the two highest scientific bodies in the United States, the National Research Council (NRC) (an arm of the National Academies of Sciences (NAS)) and the National Science Foundation (NSF).

16. In 2006, the NRC critically examined our work and found it to be valid, with no suggestion that we had “cherry picked” data. The NRC specifically rejected the contention Dr. Curry makes—that we selected bristlecone pine proxy data to reach a pre-determined result. *“A second area of criticism focuses on statistical validation and robustness. McIntyre and McKittrick (2003, 2005a,b) question . . . the selection of proxies, especially the bristlecone pine data used in some of the original temperature reconstruction studies.”* See, National Research Council. 2006. *Surface Temperature Reconstructions for the Last 2,000 Years*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/11676> , p. 113 (NRC2006) (**Exhibit D**).

17. In 2011, the NSF, which had funded our research in MBH98, MBH99, and Mann et al. 2008, also expressly rejected claims that our work was fraudulent following a detailed review. See NSF, *Closeout Memorandum, Case No. A09120086* (Aug. 15, 2011),

<https://www.nsf.gov/oig/case-closeout/results.jsp?filter=reptsrch&caseNumber=A09120086&sbreptfrm=Search&sortCaseNumber=cn&filter=catsrch&classification=2&sortClassification=cn&sortAll=cn> (NSF2011)

(Exhibit I).

18. Similarly, Dr. Curry’s allegation regarding “*data falsification (the ‘upside-down’ Tiljander proxy)*,” which she alleges was based on a “mistake,” also is false:

*“it appears that Mann’s original use of the upside-down Tiljander proxy was based on a mistaken interpretation of the Tiljander et al. publication. This mistake propagated through several subsequent publications: Tingley and Huybers (2010), Kaufmann et al. (2009) and Mann et al. (2009). . . Mann never issued a corrigendum. Continuing to misuse the incorrect version of the data after being notified of the issue is a clear example of data falsification.”*

Curry Report, p. 26.

19. As I discuss below, these claims were expressly rejected in the Supporting Information published with our Mann et al. 2008 research (which included the Tiljander proxy data and many other proxy data sets) where we showed that use of the Tiljander proxy data had no effect on the final results). This was also addressed in our subsequent formal reply to a critical comment submitted by Stephen McIntyre and Ross McKittrick to the journal which published our work, the Proceedings of the National Academies of Science.

20. Moreover, notwithstanding Dr. Curry’s false allegation that we misused the Tiljander proxy data (the so-called alleged inversion of the data), our 2008 work has been cited favorably by several subsequent peer reviewed studies. Accordingly, Dr. Curry’s claims that we used the Tiljander proxy data incorrectly, and that this was an example of data falsification, is

false. There was no data falsification, and Dr. Curry's allegation is therefore completely baseless.

21. Also, Dr. Curry's opinion that someone could have concluded in 2012 that our hockey stick research was fraudulent, based on alleged mistaken use of the Tiljander proxy data in Mann et. al 2008, is illogical. The Tiljander proxy data was not even published until 2003 and did not exist when we completed our work on the hockey stick graph in MBH98 and MBH99. It therefore would have been impossible for anyone reasonably to conclude that misuse of data in Mann et al. 2008, even if true, made the hockey stick graph from MBH98 and MBH99 fraudulent, as this data did not exist at the time.

#### **THE ENDURING LEGACY OF THE HOCKEY STICK GRAPH**

22. In the late 1990's, I was a co-author of two paleoclimate studies with Dr. Michael Mann and Dr. Malcolm Hughes, *Global-scale temperature patterns and climate forcing over the past six centuries* (MBH98) (**Exhibit B**) and *Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations* ( MBH99) (**Exhibit C**), published in 1998 and 1999 in the scientific journals *Nature* and *Geophysical Research Letters*, respectively.

23. MBH98 and MBH99 were among the first research efforts to use a very large set of proxy data from all over the world and to apply powerful statistical techniques to this large data set to extract information about temperature patterns. Rather than examining a few records and relating them to local temperature changes, as had been done by previous research teams, we sought to examine extensive networks of data and correlate local temperature changes to larger-scale patterns in the atmosphere, so that variations in one region might be linked to conditions far from that location.

24. The principal conclusion of MBH98, based upon a multivariate calibration of widely distributed high-resolution proxy climate indicators back to the year 1400, was that mean temperatures in the Northern Hemisphere in three of the past eight years (at that time) were warmer than any other year since (at least) AD 1400.

25. However, we also emphasized substantial uncertainty of the data prior to the year 1400 and the need to develop additional proxy data sets to reduce uncertainty and to further the reliability of paleoclimate temperature reconstructions. The title of this paper is “*Northern Hemisphere temperatures during the past millennium: inferences, uncertainties, and limitations*”. In the abstract, we stated: “*We focus not just on the reconstructions, but on the uncertainties therein, and important caveats*” and noted that “*expanded uncertainties prevent decisive conclusions for the period prior to AD1400*”. We concluded by stating, “*more widespread high-resolution data are needed before more confident conclusion scan be reached.*” It is hard to imagine how much more explicit we could have been about the uncertainties in the reconstruction; indeed, that was the very point of the article. Nevertheless, we felt that it was justified to conclude that, notwithstanding the uncertainties, “*... several important conclusions are still possible. While warmth early in the millennium approaches mean 20th century levels, the late 20th century still appears anomalous: the 1990s are likely the warmest decade, and 1998 the warmest year, in at least a millennium. More widespread high-resolution data which can resolve millennial-scale variability are needed before more confident conclusions can be reached with regard to the spatial and temporal details of climate change in the past millennium and beyond.*” MBH99 p. 762.

26. In 2006, at the request of the United States House of Representatives, Committee on Science, NRC evaluated the methodology and conclusions of MBH98 and MBH99, and the



overall state of knowledge concerning proxy data reconstruction of global and hemispheric temperature. NRC2006.

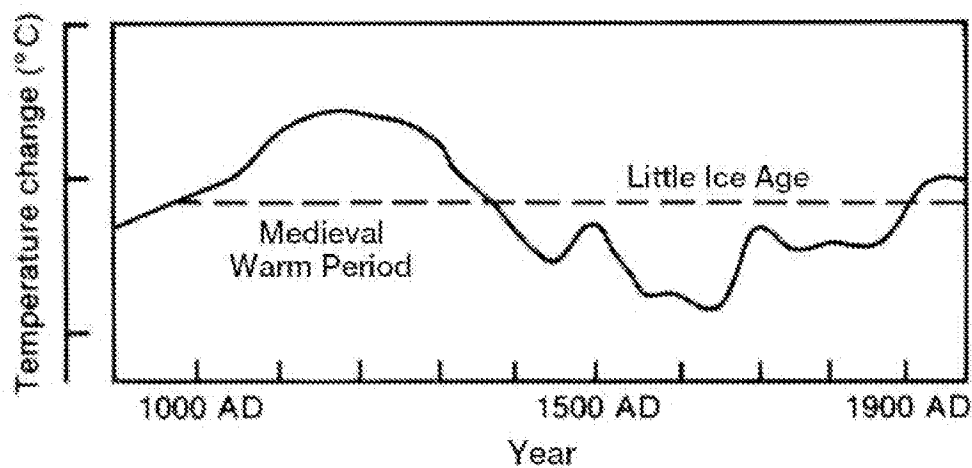
27. The NRC's 2006 review was prompted in part by political pressure from Congressman Joseph Barton (R-Texas) who promoted "*critic[isms] of the original papers [which] argued that the statistical methods were flawed, that the choice of data was biased, and that the data and procedures used were not shared so others could verify the work.*" NRC2006, Preface p. ix.

28. Accordingly, the NRC framed its report as "*an opportunity to examine the strengths and limitations of surface temperature reconstructions and the role that they play in improving our understanding of climate. The reconstruction produced by Dr. Mann and his colleagues was just one step in a long process of research, and it is not (as sometimes presented) a clinching argument for anthropogenic global warming, but rather one of many independent lines of research on global climate change.*" NRC2006, Preface, p. ix.

29. The NRC specifically evaluated the reliability of proxy data, acknowledged the many different approaches to selecting and analyzing proxy data, and concluded that "*proxy records are meaningful recorders of environmental variables . . . the connections between proxy records and environmental variables are well justified in terms of physical, chemical, and biological processes . . . [t]ree rings, the dominant data source in many large-scale surface temperature reconstructions . . . are derived from regional networks with extensive replication that reflect temperature variability at the regional scale.*" NRC2006 p. 20.

30. The NRC specifically evaluated how understanding of large-scale surface temperature reconstructions had evolved over the last few decades, which it illustrated through a series of temperature reconstruction graphs that revealed progressively more sophisticated

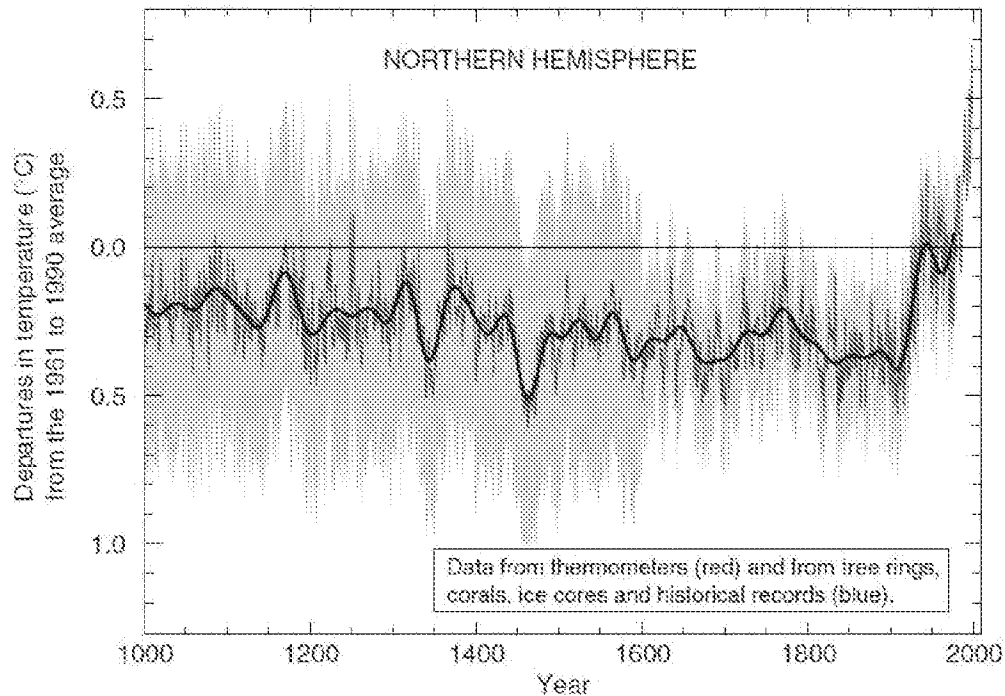
techniques for reconstructing mean surface temperature [NRC 2006 pp. 111-113]. The NRC first pointed to a crude graph from the very first report of the Intergovernmental Panel on Climate Change (IPCC) in 1990, which featured elevated temperatures during a “Medieval Warm Period” between roughly the 11<sup>th</sup> and 13<sup>th</sup> centuries which exceeded 20<sup>th</sup> century temperatures by an unspecified margin and inexplicably omitted “[t]he pronounced warming trend that began around 1975 [which] was not indicated in the graphic.” NRC2006, pp. 14-15.



NRC2006, Figure O-3, p. 14.

31. Next, the NRC reviewed our work in MBH99 and included a graph of our multiproxy reconstruction of Northern Hemisphere surface temperature variations over the past millennium, which had been featured in the IPCC’s 2001 Third Assessment Report and which the NRC acknowledged is sometimes referred to as the “hockey stick.” NRC2006 p. 15. The NRC acknowledged that in comparison to the 1990 figure, our reconstructed surface temperature variations prior to the 20<sup>th</sup> century were less pronounced, and the 20<sup>th</sup> century warming was shown to be more dramatic by the inclusion of data after 1975. On the basis of the results summarized in this figure, the IPCC concluded that *“the increase in temperature in the 20<sup>th</sup> century is likely to have been the largest of any century during the last 1,000 years. It is also*

likely that, in the Northern Hemisphere, the 1990s was the warmest decade and 1998 the warmest year.” NRC2006, p. 15.



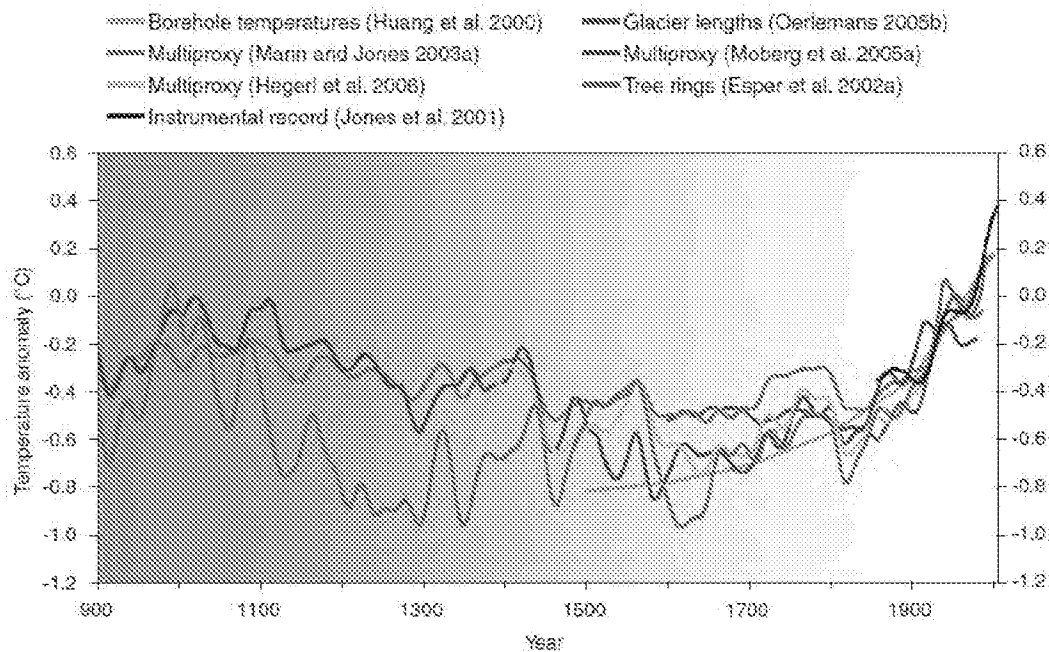
NRC2006, Figure O-4.

32. The NRC correctly observed that MBH99 was the first large-scale surface temperature reconstruction to include explicit statistical error bars, which were relatively small back to about A.D. 1600, but much larger for A.D. 1000–1600, which “*provided an indication of the confidence that can be placed in the results.*” NRC2006 p. 115.

33. The NRC also correctly acknowledged that “[d]espite the wide error bars, Figure O-4 was misinterpreted by some as indicating the existence of one “definitive” reconstruction with small century-to-century variability prior to the mid-19th century. NRC2006 p. 16 (emphasis added).

34. The NRC specifically evaluated a number of subsequent large-scale surface temperature reconstruction studies conducted by different research groups, each using different

methodologies and selected proxies, as well as the instrumental record (beginning in 1856) of global mean surface temperature, which the NRC depicted in the following composite graph, which clearly showed that, regardless of the specific proxy and method used, 20<sup>th</sup> Century warming over the prior millennium was undeniable:

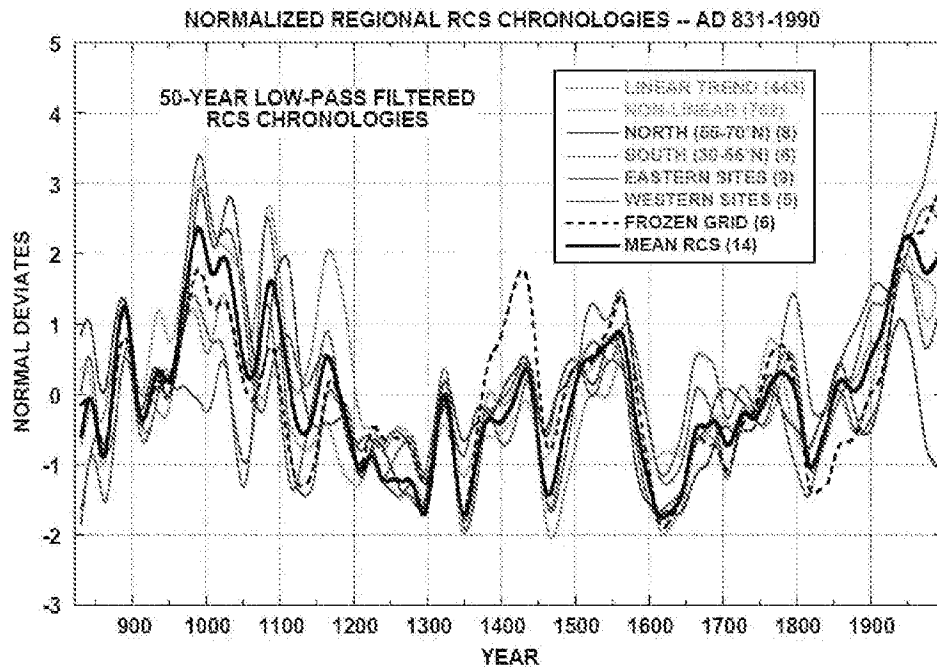


NRC2006, Figure S-1, p. 2.

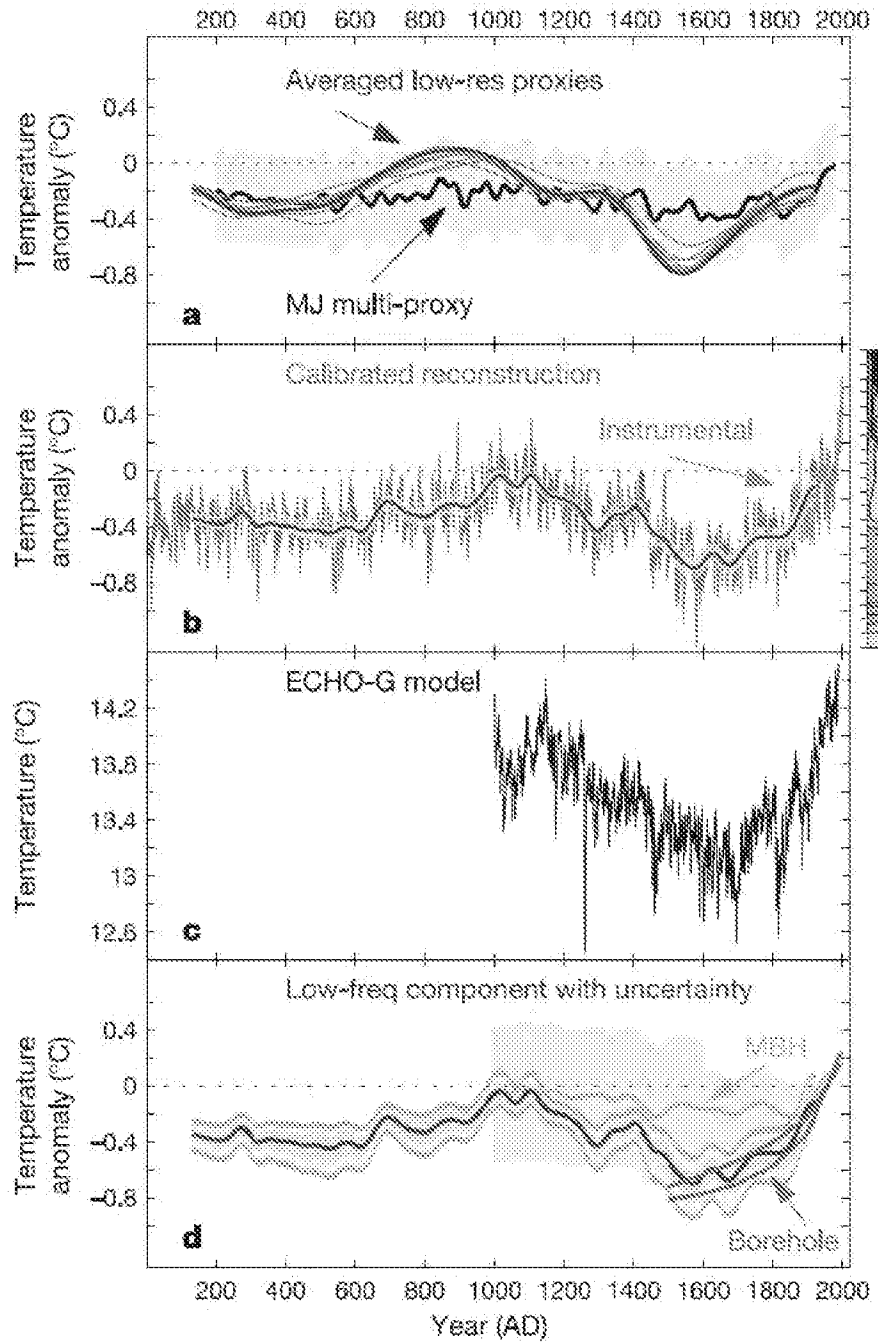
35. The NRC also evaluated a number of additional paleoclimate reconstruction studies and their associated Hockey Stick graphs, each of which substantially agreed with MBH98 and MBH99, namely Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D'Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann (in press, published in 2007):

a. Cook, E.R., J. Esper, and R.D. D'Arrigo. 2004. *Extra-tropical Northern Hemisphere land temperature variability over the past 1000 years. Quaternary Science Reviews* 23:2063-2074 ("annual temperatures up to AD 2000 over extra-tropical NH land areas have probably exceeded by about 0.3C the warmest previous interval over the past 1162 years . . . Based on what we now show here, it appears that late-20thcentury land-only extra-tropical NH

temperatures are warmer than at anytime over the past 1162 years. This conclusion is consistent with other evaluations of recent global warming and its cause(s) (e.g., Jones et al., 1998, 2001; Mann et al., 1999; Crowley, 2000; Mann and Jones, 2003).”); Figure 6.

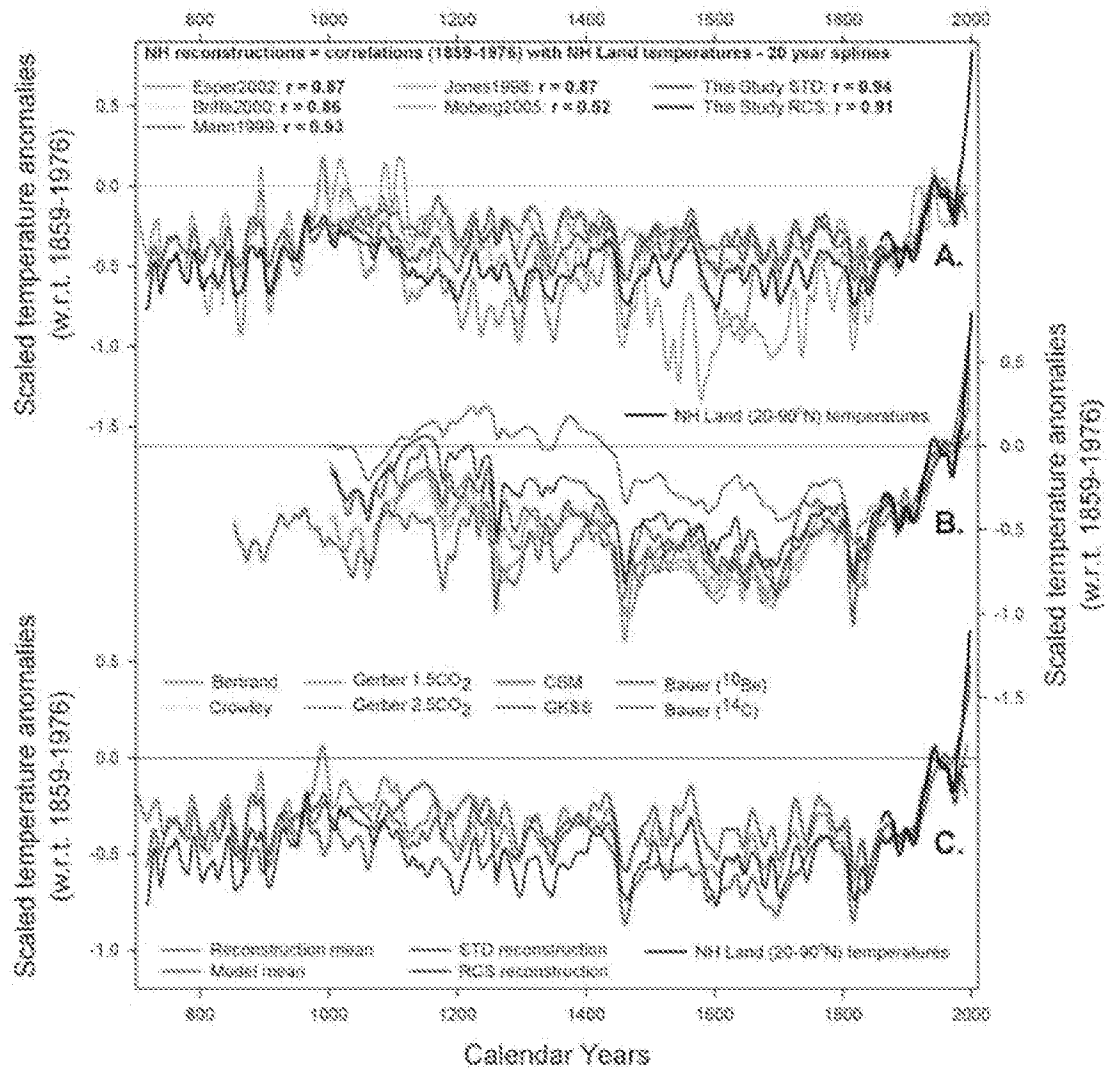


b. Moberg, A., D.M. Sonechkin, K. Holmgren, N.M. Datsenko, and W. Karlen. 2005b. Highly variable Northern Hemisphere temperatures reconstructed from low- and high-resolution proxy data. *Nature* 433:613-617 (“We find no evidence for any earlier periods in the last two millennia with warmer conditions than the post-1990 period—in agreement with previous similar studies.”); Figure 2.



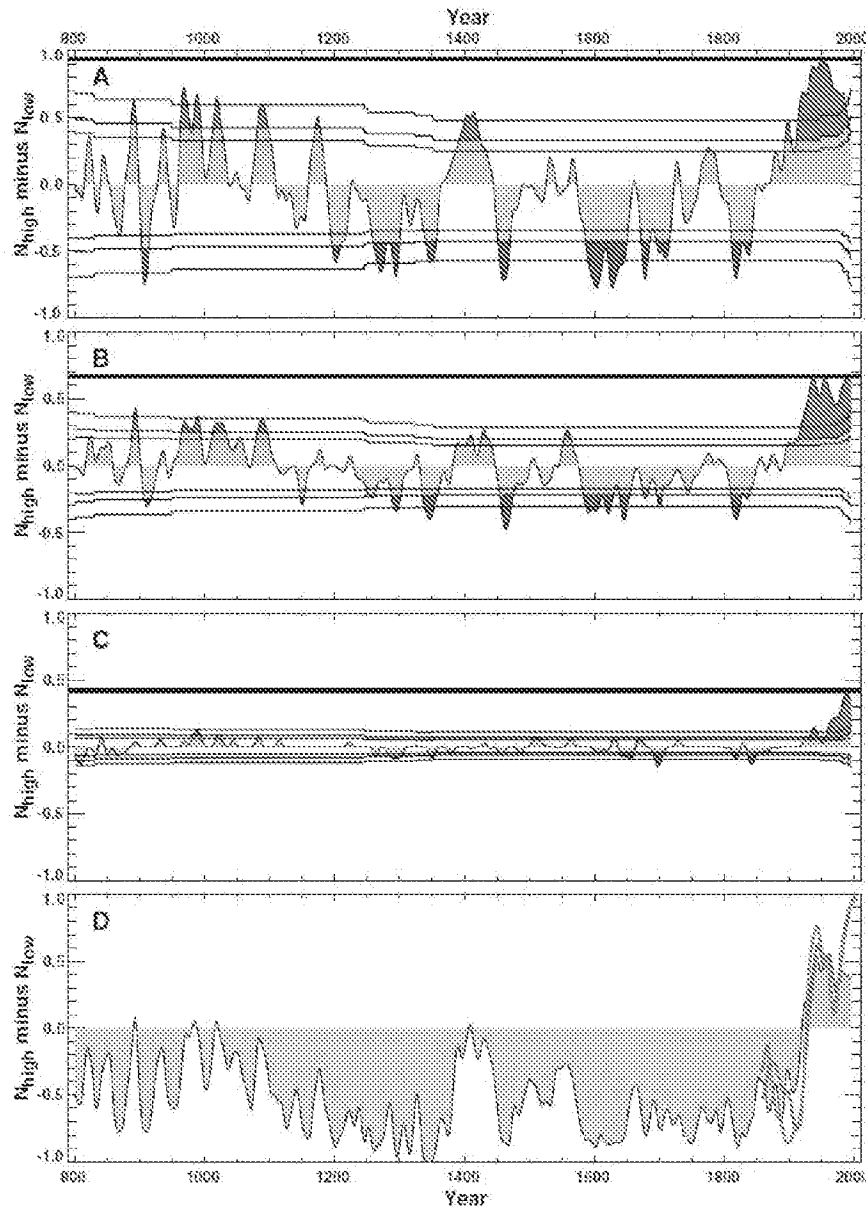
c. D'Arrigo, R.D., R.J.S. Wilson, and G.C. Jacoby. 2006. *On the long-term context for late twentieth century warming. Journal of Geophysical Research* 111:D03103 ("Taken at face value, our reconstruction indicates that MWP conditions were nearly 0.7°C cooler than those of the late twentieth century. These results suggest how extreme recent warming has been

relative to the natural fluctuations of the past millennium. This conclusion, however, must be taken cautiously.”); Figure 6.



d. Osborn, T.J., and K.R. Briffa. 2006. *The spatial extent of 20th-century: warmth in the context of the past 1200 years*. *Science* 311:841-844. (“Periods of widespread warmth or cold are identified by positive or negative deviations that are synchronous across a number of temperature-sensitive proxy records drawn from the Northern Hemisphere. The most significant and longest duration feature during the last 1200 years is the geographical extent of warmth in the middle to late 20th century. Positive anomalies during 890 to 1170 and negative anomalies

during 1580 to 1850 are consistent with the concepts of a Medieval Warm Period and a Little Ice Age, but comparison with instrumental temperatures shows the spatial extent of recent warmth to be of greater significance than that during the medieval period.”); Figure 3.

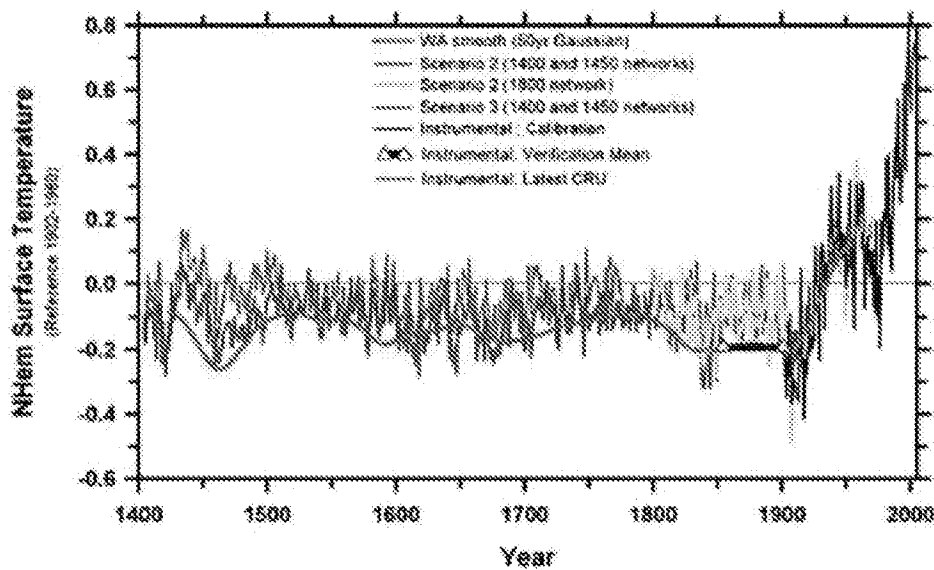


e. Wahl, E.R., and C.M. Ammann. *Robustness of the Mann, Bradley, Hughes reconstruction of Northern Hemisphere surface temperatures: examination of criticisms based on the nature and processing of proxy climate evidence.* (in press, later published, *Climatic*



Change (2007) 85:33–69 Springer DOI10.1007/s10584-006-9105-7) (“Our results show that the MBH climate reconstruction method applied to the original proxy data is not only reproducible, but also proves robust against important simplifications and modifications . . . Our results do not support the large upward “correction” to MBH reconstructed 15th century temperatures described in MM03 (p. 766) and MM05b (p. 71), and leave unaltered the single-bladed hockey stick conclusion of strongly anomalous late 20th century temperatures. The conclusion of strongly anomalous late 20th century temperatures is retained even if the bristlecone/foxtail pine records were eliminated for the 15th century . . . Results for the exclusion of the bristlecone/foxtail pine series developed according to scenario 3 are shown by the green curve in Figure 2. The exclusion of these proxy records generally results in slightly higher reconstructed temperatures than those derived from inclusion of all the proxy data series, with the greatest differences (averaging  $\sim +0.10^\circ$ ) over the period 1425–1510 . . . Overall, the primary outcome from our results is that the work reported in MM03, MM05a, and MM05b does not provide substantive reason to invalidate the general conclusion of anomalous warmth in the later 20th century derived from the MBH reconstruction method and proxy data framework. We find that this result is neither an artifact of selection of the proxy series nor the result of formation or application of PC summaries in the reconstruction procedure . . . the MBH result of anomalous warmth in the later 20th century remains consistent with other paleoclimate reconstructions developed for the last 1–2 millennia (Mann et al., 2007; Osborn and Briffa, 2006; Moberg et al., 2005; Oerlemans, 2005; Cook et al., 2004; Huang, 2004; Jones and Mann, 2004; Mann and Jones, 2003; Esper et al., 2002; Briffa et al., 2001; Huang et al., 2000; Crowley and Lowery, 2000; Jones et al., 1998; Bradley and Jones, 1993), especially in light of the recent

reconciliation of the Esper et al. (2002; cf. Cook et al., 2004) and MBH reconstructions reported by Rutherford et al. (2005).”); Figure 2.



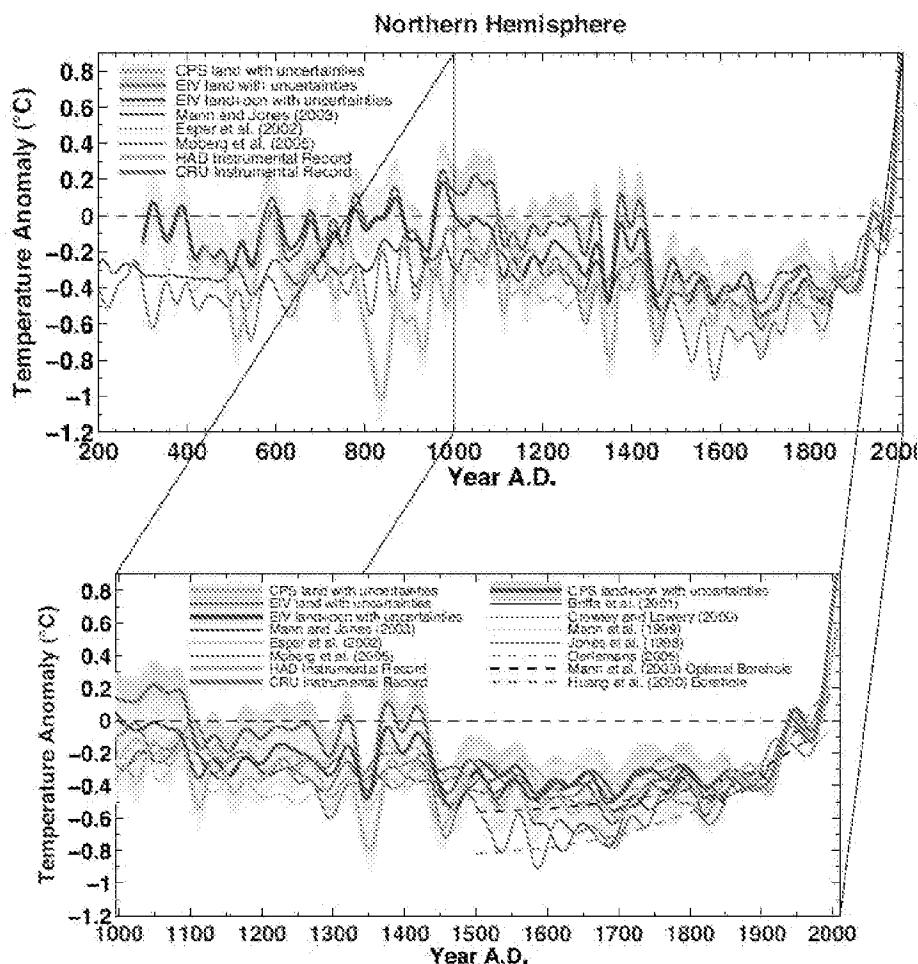
36. Based upon its review of each of these proxy reconstructions of temperature, the NRC found the “*basic conclusion of Mann et al. (1998, 1999) was that the late 20th century warmth in the Northern Hemisphere was unprecedented during at least the last 1,000 years. This conclusion has subsequently been supported by an array of evidence that includes the additional large-scale surface temperature reconstructions and documentation of the spatial coherence of recent warming described above (Cook et al. 2004, Moberg et al. 2005b, Rutherford et al. 2005, D’Arrigo et al. 2006, Osborn and Briffa 2006, Wahl and Ammann in press) and also the pronounced changes in a variety of local proxy indicators described in previous chapters (e.g., Thompson et al. in press). Based on the analyses presented in the original papers by Mann et al. and this newer supporting evidence, the committee finds it plausible that the Northern Hemisphere was warmer during the last few decades of the 20th century than during any comparable period over the preceding millennium.*” NRC2006, p. 115.

37. The NRC also reinforced the suggestions we made in MBH99 by recommending additional follow-on research to update and improve the methods and analyses in MBH98, MBH99, and the other referenced paleoclimate reconstructions, including (a) improving site chronologies that were collected 20–30 years ago; (b) increasing the number and geographic coverage of temperature-sensitive tree ring chronologies longer than 1,000 years; (c) quantifying the precision and accuracy of low-frequency temperature signals; (d) performing experimental studies on biophysical relationships between temperature and tree ring parameters; and (e) refining mechanistic models of temperature effects on tree ring parameters at multiple spatial and temporal scales. NRC2006, p. 52.

38. In 2008, I participated in another paleoclimate reconstruction study with Dr. Mann and Dr. Hughes, along with Dr. Zhihua Zhang, Dr. Sonya Miller, Dr. Scott Rutherford, and Dr. Fenbiao Ni, the purpose of which was to implement the NRC’s recommendations. The study, *Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia*, was published in the prestigious scientific journal *Proceedings of the National Academies of Sciences* (PNAS) (Mann, et al. 2008) (**Exhibit E**).

39. In Mann et al. 2008, we reconstructed surface temperature over the last 2,000 years using a greatly expanded set of proxy data and complementary statistical methods thoroughly tested and validated with model simulation experiments, as had been recommended by the NRC. (Mann et. al. 2008). “*Our results extend previous conclusions that recent Northern Hemisphere surface temperature increases are likely anomalous in a long-term context. Recent warmth appears anomalous for at least the past 1,300 years whether or not tree-ring data are used. If tree-ring data are used, the conclusion can be extended to at least the past 1,700 years, but with additional strong caveats. The reconstructed amplitude of change over past centuries is*

greater than hitherto reported, with somewhat greater Medieval warmth in the Northern Hemisphere, albeit still not reaching recent levels . . . We find that the hemispheric-scale warmth of the past decade for the NH is likely anomalous in the context of not just the past 1,000 years, as suggested in previous work, but longer. This conclusion appears to hold for at least the past 1,300 years. (consistent with the recent assessment by ref. 2) from reconstructions that do not use tree-ring proxies, and are therefore not subject to the associated additional caveats. This conclusion can be extended back to at least the past 1,700 years if tree-ring data are used, but with the additional strong caveats noted.” Figure 3 from Mann et al. 2008 is shown below.



40. In Mann et al. 2008, we analyzed an expanded set of proxy data, including sediments collected from Lake Korttajarvi in Finland first analyzed by Tiljander, M., Saarnisto,

M., Ojala, A. E. K. & Saarinen, T. 2003 (December): *A 3000-year palaeoenvironmental record from annually laminated sediment of Lake Korttajarvi, central Finland*. *Boreas*, Vol. 26, pp. 566–577. Oslo. ISSN 0300-9483 (Tiljander et al. 2003).

41. Mann et al. 2008 was accompanied by Supporting Information, which contained a detailed explanation of how we selected the greatly expanded set of proxy data and how we analyzed these data using complementary methods that had been tested and validated with model simulation experiments. (**Exhibit F**). Because we were aware of potential data quality problems with four of the Tiljander et al. 2003 Lake Korttajarvi sediment series and three other tree ring records in our database, the Supporting Information also contained a series of additional analyses, both with and without this potentially problematic data. Supporting Information p. 2, Fig. S7 and Fig. S8.

42. In the Supporting Information, we also analyzed the impact of excluding each of the 15 available Northern Hemisphere screened proxy records available back to the early 9th century, including all of the Lake Korttajarvi sediments from Tiljander et al. 2003. Supporting Information p. 2, Fig. S9.

43. The results of our various temperature reconstructions demonstrated that the inclusion or removal of a particular data set, including the Lake Korttajarvi sediments from Tiljander et al. 2003, did not materially change our basic finding that recent warming is quite anomalous in the context of the long-term reconstructions. This is simply because the underlying changes in temperature are a strong and robust feature of the climate of the past, as we had discovered in our initial paper (MBH98).

44. Following publication of Mann et al. 2008, Stephen McIntyre and Ross McKittrick published a comment letter in PNAS, titled *Proxy inconsistency and other problems in millennial*

*paleoclimate reconstructions, which claimed that the Mann et al. 2008 “non-dendro [tree ring] network uses some data with the axes upside down, e.g., Korttajarvi sediments, which are also compromised by agricultural impact (M. Tiljander, personal communication) . . .” McIntyre & McKittrick Comment (Exhibit G).*

45. In response to the McIntyre & McKittrich Comment, we published a reply, titled *Reply to McIntyre and McKittrick: Proxy-based temperature reconstructions are robust (Exhibit H)* which pointed out that the multivariate regression methods we used to screen all of the data, as explained in the Supporting Information, made it impossible to use any data “*with the axes upside down*”. Therefore, the assertion by McIntyre & McKittrick that we used the Korttajarvi sediment data with the axes inverted was incorrect.

46. The Proceedings of the National Academy of Sciences—the journal which published Mann et al. 2008 and the subsequent commentary and our response—apparently was satisfied as nothing further came of the matter.

47. MBH98 and MBH99 was subjected to further critical review in 2011, in the wake of the illegal theft of private emails from a server at the University of East Anglia (UK) and distribution of these on the internet. The NSF conducted an in-depth investigation of allegations now being repeated by Dr. Curry—that Mann “*engaged in selective data cherry picking to create the Hockey Stick.*” NSF2011.

48. The NSF’s investigation specifically reviewed the emails Dr. Curry claims demonstrated that Dr. Mann “cherry picked” the data to create the Hockey Stick and rejected any suggestion of research misconduct: “*We reviewed the emails and concluded that nothing contained in them evidenced research misconduct within the definition in the NSF Research*

*Misconduct Regulation . . . We found no basis to conclude that the emails were evidence of research misconduct or that they pointed to such evidence.” NSF2011 p. 2.*

49. The NSF closed its investigation, finding: *“To recommend a finding of research misconduct, the preponderance of the evidence must show that with culpable intent the Subject committed an act that meets the definition of research misconduct (in this case, data fabrication or data falsification). The research in question was originally completed over 10 years ago. Although the Subject’s data is still available and still the focus of significant critical examination, no direct evidence has been presented that indicates the Subject fabricated the raw data he used for his research or falsified his results. Much of the current debate focuses on the viability of the statistical procedures he employed, the statistics used to confirm the accuracy of the results, and the degree to which one specific set of data impacts the statistical results. These concerns are all appropriate for scientific debate and to assist the research community in directing future research efforts to improve understanding in this field of research. Such scientific debate is ongoing but does not, in itself, constitute evidence of research misconduct.”* NSF2011 p. 3 (emphasis added).

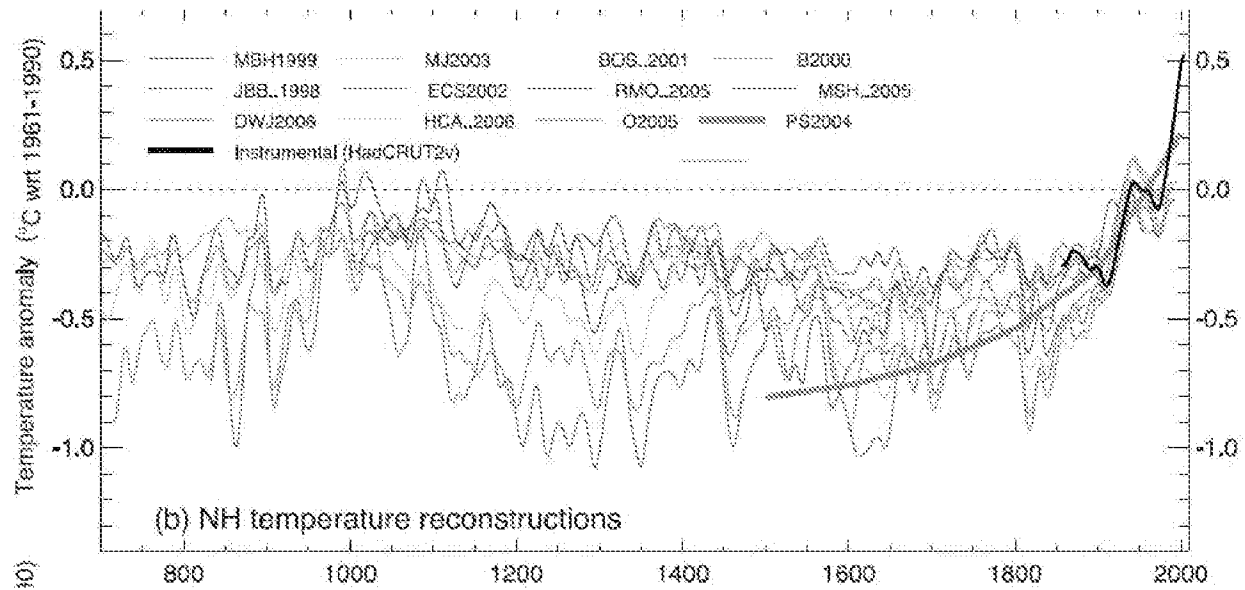
50. A common measure of the contribution a scientific paper makes toward developing a scientific consensus is the number of citations it receives in the scholarly literature. The MBH98 and MBH99 papers have been widely cited in the peer reviewed literature, according to Google Scholar. MBH98 has been cited by 2,470 scholarly works and publications (see

[https://www.google.com/search?rlz=1C1GCEJ\\_enUS891US891&sxsrf=ALeKk01MoJK0TLOv\\_xgbDrxgxBpNQNI\\_olA%3A1610764145281&ei=cU8CYP6AE00O5wLzxqeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-](https://www.google.com/search?rlz=1C1GCEJ_enUS891US891&sxsrf=ALeKk01MoJK0TLOv_xgbDrxgxBpNQNI_olA%3A1610764145281&ei=cU8CYP6AE00O5wLzxqeoDQ&q=Global-scale+temperature+patterns+and+climate+forcing+over+the+past+six+centuries&oq=Global-)





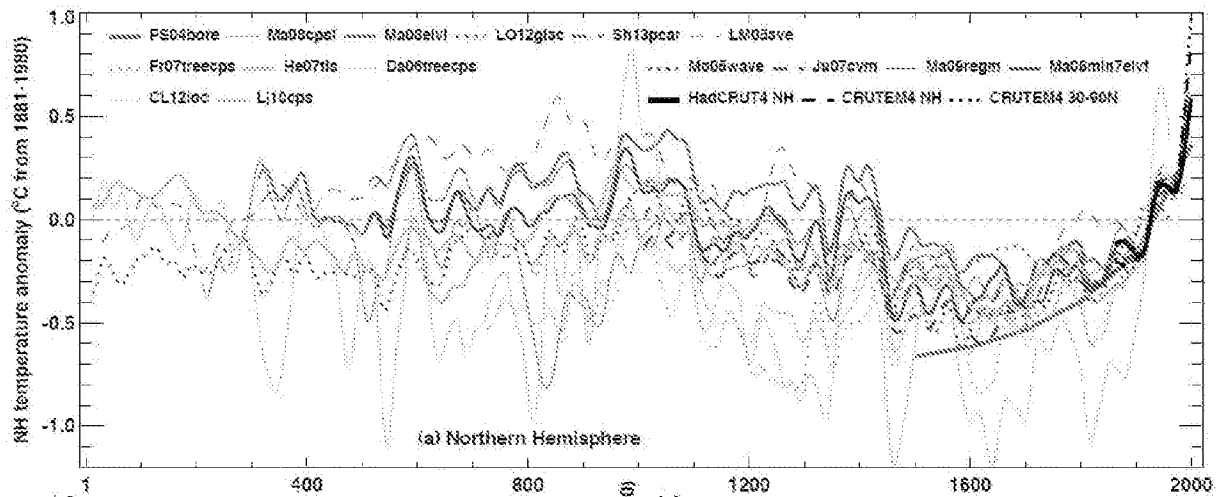
of the previous and four new reconstructions that reach back more than 1 kyr, it is likely that the 20th century was the warmest in at least the past 1.3 kyr.” IPCC2007, p. 474. Figure 6.10b is shown below.



54. The most recent IPCC report, the Fifth Assessment Report published in 2013, also featured Mann et al. 2008, and numerous other paleoclimate reconstructions which again show remarkable consistency in demonstrating the anomalous nature of 20<sup>th</sup> Century temperatures. IPCC, 2013: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 1535 pp. (IPCC2013).

55. IPCC2013 concluded “[b]ased on multiple lines of evidence (using different statistical methods or different compilations of proxy records; see Appendix 5.A.1 for a description of reconstructions and selection criteria), published reconstructions and their uncertainty estimates indicate, with high confidence, that the mean NH temperature of the last 30

or 50 years very likely exceeded any previous 30- or 50-year mean during the past 800 . . . almost all reconstructions agree that each 30-year (50-year) period from 1200 to 1899 was very likely colder in the NH than the 1983–2012 (1963–2012) instrumental temperature.” IPCC2013, pp. 409-410. Figure 5.7(a) of IPCC2013 is shown below.



56. Since IPCC, 2013, numerous additional paleoclimate reconstructions using a wide variety of proxy data and analytical methods have also cited, validated, and extended our work.

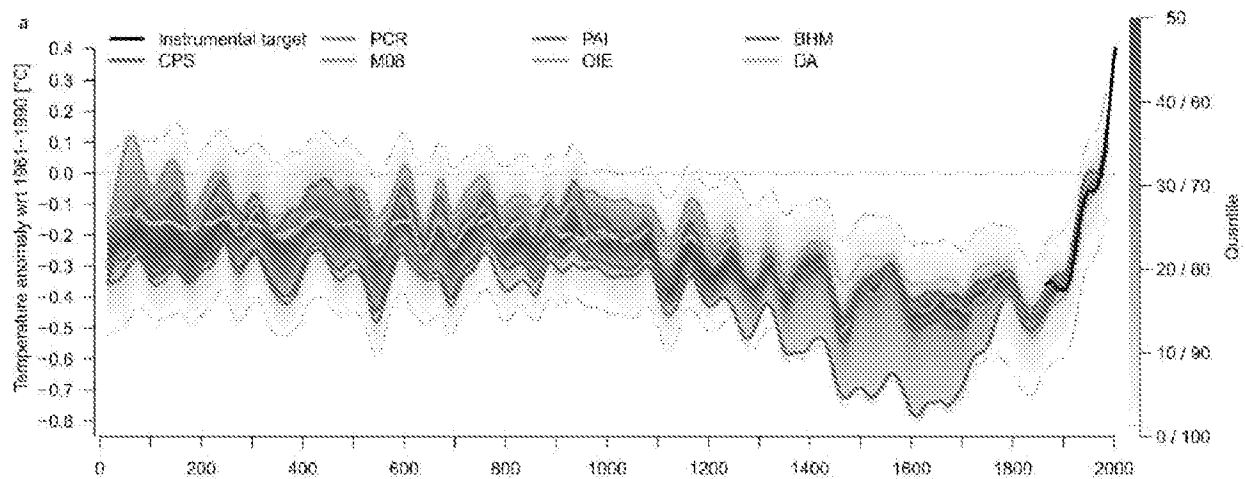
57. The most recent example is a paleoclimate temperature reconstructions study performed by the International PAGES consortium, which used seven different statistical methods applied to a global collection of temperature-sensitive paleoclimate records, in order to reconstruct global temperature over the past 2,000 years. *See PAGES 2k Consortium, Neukom R, Barboza LA, et al. Consistent multi-decadal variability in global temperature reconstructions and simulations over the Common Era. Nature Geoscience. 2019;12(8):643-649. doi:10.1038/s41561-019-0400-0 (PAGES2020).*

58. The PAGES2020 study found “[r]econstructions and simulations qualitatively agree on the amplitude of the unforced global mean multi-decadal temperature variability, thereby increasing confidence in future projections of climate change on these timescales. The

*largest warming trends at timescales of 20 years and longer occur during the second half of the 20th century, highlighting the unusual character of the warming in recent decades.”*

PAGES2020, p. 2.

59. The PAGES2020 study demonstrated remarkably synchronous temperature reconstructions and strongly reinforced our findings in Mann et al. 2008, depicted below as the M08 data.



60. In sum, the fundamental integrity of our original hockey stick research has withstood the test of time and proven to be enduring science.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 19<sup>th</sup> day of January, 2021, in Amherst, Massachusetts.

*Raymond S. Bradley*

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RAYMOND S. BRADLEY

# Williams Declaration

## Exhibit 33

**SUPERIOR COURT OF THE DISTRICT OF COLUMBIA  
CIVIL DIVISION**

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MICHAEL E. MANN, PH.D.,

Plaintiff,

v.

NATIONAL REVIEW, INC., *et al.*,

Defendants.

---

)  
)  
)  
) Case No. 2012 CA 008263 B  
) Judge Alfred S. Irving  
) Civil I, Calendar 3  
)  
)  
)  
)  
)  
)  
)

**DECLARATION OF THOMAS R. KARL**

I, Thomas R. Karl am over 18 years of age and have personal knowledge herein and fully swear that, to the best of my knowledge and under penalty of perjury, the following:

1. I am a climate scientist. I received a B.S. in Meteorology in 1973 from Northern Illinois University, a Masters Degree in Meteorology in 1974 from the University of Wisconsin, and a Doctorate of Humane Letters (Honoris Causa) from North Carolina State University in 2004.

2. Subsequent to working at the National Oceanic and Atmospheric Administration's (NOAA's) Environmental Sciences Research Laboratory, in 1980, I began working at the NOAA's National Climate Center, which later became the National Climatic Data Center (NCDC). In 1998, I transitioned from the Senior Scientist for NCDC to Director of the National Climatic Data Center. In 2015, the National Climatic Data Center was subsumed into a new institution known as the National Centers for Environmental Information ("NCEI"). I was the founding director of NCEI, and served until my retirement in 2016.

3. I have authored over two hundred scientific publications. In addition, I was the Editor of the peer-reviewed American Meteorological Society's scientific journal *Climate* and the Associate Editor of the peer-reviewed scientific journal *Climatic Change*.

4. Over the course of my career, I have been the recipient of numerous professional honors. In 2003, the American Meteorological Society recognized my contributions with the Verner E. Suomi Award. I received several National Oceanic and Atmospheric Administration ("NOAA") Administrator's Awards, and Department of Commerce Gold Medals. I am also a National Associate of the U.S. National Academy of Sciences.

5. I am a fellow of the American Geophysical Union and the American Meteorological Society. I am also the past President of the American Meteorological Society.

6. Along with Christopher Folland, I was a "Co-Coordinating Lead Author" of Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report (TAR), Chapter 2. Chapter 2 was entitled, "Observed Climate Variability and Change." The IPCC has instituted a process that includes a complement of positions which ensure an open and transparent method for developing their reports. Coordinating Lead Authors (CLAs) and Lead Authors (LAs) have collective responsibility for the contents of a chapter. CLAs are responsible for coordinating work on major sections of a report such as chapters. LAs are responsible for the production of designated sections of the report within a chapter on the basis of the best scientific, technical and socio-economic information available. Review Editors (REs) help identify expert reviewers, ensure that all substantive comments are afforded appropriate consideration, and advise LAs on how to handle contentious or controversial issues. In addition, there are Contributing Authors (CAs) who provide specific knowledge or expertise in a given area, and help ensure that the full range of views held in the scientific community is reflected in the report. For Chapter 2 of the

TAR there were two REs and eight LAs of which Dr. Mann was one of the LAs. In addition, there were over 100 CAs.

7. I write this declaration in view of Dr. Curry's assertion that Dr. Mann engaged in "image fraud" in connection with his participation in the publication of Chapter 2 of the TAR of the IPCC. I have read the Expert Statement from Dr. Curry as follows: "*Mann concealed the 'divergence problem' in the Hockey Stick by deleting Briffa's post-1960 tree ring data that diverged from actual observed temperatures. While observed temperatures were rapidly increasing from 1950-2000, the tree ring data suggested that temperatures were decreasing. Mann's splicing of proxy and instrumental data enhanced his concealment of the divergence problem by 'patch[ing] together . . . multiple instances of data from distinct experiments . . . to create more convincing . . . images.'* Together, these manipulations are consistent with most definitions of image fraud."

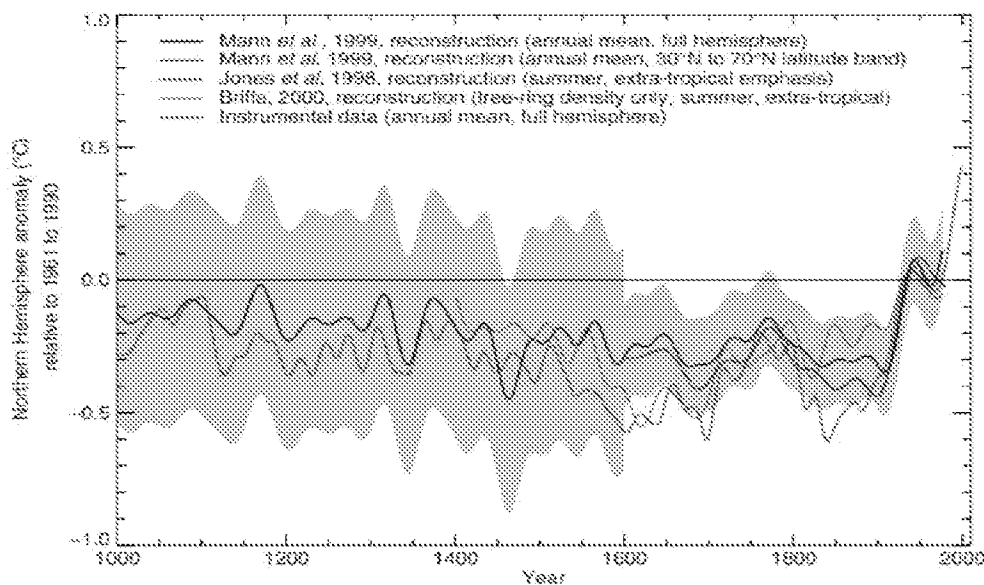
8. As Co-Coordinating Lead Author of that report, I can unequivocally state that there were comprehensive discussions among the authors of the Chapter 2 as to the most scientifically sound and effective ways to reflect the underlying data. Dr. Mann engaged in frank and open scientific discussions about how best to represent all the paleoclimate data reflecting the past 1000 years regardless of origin.

9. I note that Dr. Curry was not involved in any way in the preparation of Chapter 2, and to my knowledge Dr. Curry has no first-hand knowledge of any of the discussions that involved the preparation of Chapter 2 including the Figures 2.20 and 2.21 where she alleges "image fraud." Each section of Chapter 2, including all figures, was discussed among the CLAs and LAs with consideration of sound science, new science, clarity of communication, and reviewer comments. Author in-person meetings and other communications occurred to discuss



drafts of the chapter sections which included discussions of the most appropriate figures relevant to the text, reviewer comments, and space limitations. Consensus among the authors of the entire Chapter which included all figures was sacrosanct. The process also included responses to written peer-review, public, and government comments which were refereed by the Review editors. For some figures, like Figure 2.21, the CA (Dr. Briffa and his close associates) was also directly engaged.

10. Of particular relevance the TAR Chapter 2 shows certain data from Briffa (2000)<sup>1</sup> along with data from Mann et al. (1999)<sup>2</sup> and Jones et al. (1998)<sup>3</sup> as depicted below:



**Figure 2.21:** Comparison of warm-season (Jones *et al.*, 1998) and annual mean (Mann *et al.*, 1998, 1999) multi-proxy-based and warm season tree-ring-based (Briffa, 2000) millennial Northern Hemisphere temperature reconstructions. The recent instrumental annual mean Northern Hemisphere temperature record to 1999 is shown for comparison. Also shown is an extra-tropical sampling of the Mann *et al.* (1999) temperature pattern reconstruction, more directly comparable in its latitudinal sampling to the Jones *et al.* series. The self-consistently estimated two standard error limits (shaded region) for the smoothed Mann *et al.* (1999) series are shown. The horizontal zero line denotes the 1961 to 1990 reference period mean temperature. All series were smoothed with a 30-year running-weighted low-pass filter, with boundary constraints imposed by padding the series with its mean values during the first and last 25 years.

<sup>1</sup> Briffa, K.R., 2000: Annual climate variability in the Holocene: interpreting the message of ancient trees. *Quat. Sci. Rev.*, 19, 87-105 (Briffa, 2000).

<sup>2</sup> Mann, M.E., R.S. Bradley and M.K. Hughes, 1999: Northern Hemisphere Temperatures During the Past Millennium: Inferences, Uncertainties, and Limitations. *Geophys. Res. Lett.*, 26, 759-762.

<sup>3</sup> Jones, P.D., K.R. Briffa, T.P. Barnett and S.F.B. Tett, 1998: High-resolution palaeoclimatic records for the last millennium: interpretation, integration and comparison with General Circulation Model control run temperatures. *The Holocene*, 8, 455-471.

11. The consensus decision to end the Briffa data set in 1960 was based on the well-known (among paleoclimate science experts) “divergence problem” concerning the tree-ring growth of certain trees rings as related to recent decadal temperature changes. This inconsistency was specifically addressed by Dr. Briffa and his colleagues in Nature Magazine (Briffa et al., *Reduced sensitivity of recent tree-growth to temperatures at high northern latitudes*. Nature, 1998) and again in the Briffa 2000 paper, *which was expressly referenced in the above Figure 2.21* appearing in the TAR.

12. In the Briffa 2000 paper, Dr. Briffa noted “an apparent divergence in the post-1950 trends (Briffa et al., 1998b). . . [as] average [tree ring] density levels have continuously fallen while temperatures in recent decades have risen.” Dr. Briffa further cautioned against using this divergent tree ring density data, noting “[t]here are important implications in this observation not least the possibility of biased regression coefficients in attempts to reconstruct past low-frequency temperature change based on long density series calibrated against recent temperatures. These may overestimate past temperature levels and underestimate the extent of apparent 20th century warming (as described below and that in Briffa et al., 1998c).” (Briffa 2000).

13. Accordingly, as shown by the attached email (Exhibit 1), when Dr. Briffa, through his colleague Tim Osborn, sent his data set for inclusion in the TAR he did not include the post-1960 data that Dr. Curry claims should have been included. Chapter 2 of the TAR depicted all the relevant data sets from Briffa consistent with best scientific practices and disclosed that biological response to climate forcing may change over time, citing “evidence, for example, that high latitude tree-ring density variations have changed in their response to temperature in recent decades, associated with possible nonclimatic factors (Briffa et al.,

1998a).” Therefore, exclusion of data from non-responsive tree-rings to recent temperature changes was well-justified and a scientifically appropriate response by the CLA and LA team as recommended by the CA.

14. I further note that the attached emails (Exhibit 2) from some of the discussions show that Dr. Mann was amenable to including the Briffa data in the appropriate time series.

15. In addition to Fig. 2.21 of the TAR, the Mann et al. data also appeared separately in another figure (Fig. 2.20) because it was new and based on sound science, which for the first time quantitatively depicted the relationship between annual mean northern hemisphere instrumental and multi-proxy data going back 1000 years.

16. Up-to-date analyses have only served to provide further evidence that the Mann et al. data sets of 1998 and 1999 are consistent with other proxy paleoclimate data using a variety of statistical methods. As NOAA summarized from the most recent IPCC report, “[t]he similarity of characteristics among the different paleoclimate reconstructions of the last 2,000 years provides confidence in the following important conclusions, as reported in the Intergovernmental Panel on Climate Change Fifth Assessment Report.”<sup>4</sup> First, “[d]ramatic warming has occurred since the 19th century.”<sup>5</sup> Second, “[f]or average annual Northern Hemisphere temperatures, the period 1983–2012 was very likely the warmest 30-year period of the last 800 years and likely the warmest 30-year period of the last 1,400 years.”<sup>6</sup> Third, “[w]armer than average temperatures are more widespread over the Northern Hemisphere since the mid-20th century than in any previous time.”<sup>7</sup>

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<sup>4</sup> <https://www.ncdc.noaa.gov/global-warming/last-2000-years>

<sup>5</sup> <https://www.ncdc.noaa.gov/global-warming/last-2000-years>

<sup>6</sup> <https://www.ncdc.noaa.gov/global-warming/last-2000-years>

<sup>7</sup> <https://www.ncdc.noaa.gov/global-warming/last-2000-years>

17. Accordingly, there is no reasonable basis to assert that Figure 2.21 (or Fig. 2.20) in the TAR constituted “image fraud.” Indeed, to assert that “Mann’s splicing of proxy and instrumental data enhanced his concealment of the divergence problem by ‘patch[ing] together . . . multiple instances of data from distinct experiments . . . to create more convincing . . . images . . .,’” suggests a miscomprehension as to how proxy-based paleoclimate reconstructions are depicted in time series graphical form. The standard practice is to calibrate proxy data against the modern temperature record derived from instruments. Graphics such as the TAR Figure 2.21 showing accurately-calibrated proxy temperatures along with the instrumental record (which obviously is the most reliable evidence of temperature) is not image fraud. Rather, it is good science.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on January 14, 2021, in Mills River, North Carolina.

/s/ Thomas R. Karl  
THOMAS R. KARL

# Exhibit 1

**From:** Tim Osborn <[t.osborn@uea.ac.uk](mailto:t.osborn@uea.ac.uk)>  
**Subject:** Re: newest reconstruction  
**Date:** February 28, 2000 at 8:50:17 AM EST  
**To:** "Michael E. Mann" <[mann@muliproxy.evsc.virginia.edu](mailto:mann@muliproxy.evsc.virginia.edu)>  
**Cc:** k.briffa@uea, t.osborn@uea

At 11:56 25/02/00 -0500, you wrote:

I need your newest northern hemisphere density-based tree-ring reconstruction and appropriate reference for updating IPCC. Please send in ASCII format as soon as possible so we can incorporate. I hope all is well. Thanks,

Hi Mike

Keith asked me to get back to you on this. The reconstruction is the same as the one I sent on the 5th October 1999, but I'm sending it again in case that e-mail isn't handy. The reconstruction has now been published, in the following paper:

Briffa K.R. (2000) Annual climate variability in the Holocene: interpreting the message of ancient trees. *Quaternary Science Reviews* 19, 87-105.

This paper does not, however, give full details about how the reconstruction was obtained. The details are not yet published, but will soon be submitted:

Briffa KR, Osborn TJ, Schweingruber FH, Harris IC, Jones PD, Shiyatov SG and Vaganov EA (2000) Low-frequency temperature variations from a northern tree-ring density network. In preparation (to be submitted to *Journal of Geophysical Research*).

Details about the file I'm sending you (repeated from 5th Oct 99):

The data are attached to this e-mail. They go from 1402 to 1994, although we usually stop the series in 1960 because of the recent non-temperature signal that is superimposed on the tree-ring data that we use. I haven't put a 40-yr smoothing through them - I thought it best if you were to do

this to ensure the same filter was used for all curves. The data I've sent are calibrated over the period 1881-1960 against the instrumental Apr-Sep temperatures averaged over all land grid boxes (that have observed data) that are north of 20N. As such, the mean of our reconstruction over 1881-1960 matches the mean of the observed target series over the same period. Since the observed series consists of degrees C anomalies wrt to 1961-90, we say that the reconstructed series also represents degrees C anomalies wrt to 1961-90.

(I've already truncated the series at 1960 because of the problems with the recent period.)

Best regards

Tim

Calibrated against observed Apr-Sep temperature over 1881-1960  
averaged over all land grid boxes north of 20N

Year Reconstructed temperature anomaly (degrees C wrt 1961-90)

1402	-0.283
1403	-0.334
1404	-0.286
1405	-0.350
1406	-0.152
1407	-0.124
1408	-0.220
1409	-0.175
1410	-0.100
1411	-0.129
1412	-0.226
1413	-0.115
1414	-0.386
1415	-0.319
1416	-0.277
1417	-0.136
1418	-0.172
1419	-0.294
1420	-0.280
1421	-0.335
1422	-0.406
1423	-0.312
1424	-0.207
1425	-0.136
1426	-0.354
1427	-0.222
1428	-0.305
1429	-0.322
1430	-0.282

1431	-0.143
1432	-0.212
1433	-0.234
1434	-0.076
1435	-0.309
1436	-0.411
1437	-0.122
1438	-0.272
1439	-0.159
1440	-0.330
1441	-0.160
1442	-0.105
1443	-0.080
1444	-0.308
1445	-0.138
1446	-0.317
1447	-0.270
1448	-0.301
1449	-0.357
1450	-0.137
1451	-0.183
1452	-0.207
1453	-0.485
1454	-0.265
1455	-0.358
1456	-0.241
1457	-0.199
1458	-0.366
1459	-0.397
1460	-0.252
1461	-0.230
1462	-0.252
1463	-0.209
1464	-0.174
1465	-0.174
1466	-0.280
1467	-0.256
1468	-0.256
1469	-0.222
1470	-0.237
1471	-0.094
1472	-0.122
1473	-0.056
1474	-0.320
1475	-0.376
1476	-0.133
1477	-0.075
1478	0.037
1479	-0.161
1480	-0.379
1481	-0.513
1482	-0.286



1483	-0.354
1484	-0.327
1485	-0.208
1486	-0.125
1487	-0.380
1488	-0.193
1489	-0.245
1490	-0.466
1491	-0.244
1492	-0.146
1493	-0.278
1494	-0.394
1495	-0.526
1496	-0.275
1497	-0.264
1498	-0.233
1499	-0.169
1500	-0.128
1501	-0.415
1502	-0.306
1503	0.011
1504	-0.013
1505	-0.378
1506	-0.226
1507	-0.428
1508	-0.192
1509	-0.312
1510	-0.157
1511	-0.162
1512	-0.188
1513	-0.135
1514	-0.418
1515	-0.258
1516	-0.381
1517	-0.134
1518	-0.180
1519	-0.166
1520	-0.035
1521	-0.384
1522	-0.302
1523	-0.541
1524	-0.371
1525	-0.183
1526	-0.289
1527	-0.224
1528	-0.247
1529	-0.432
1530	-0.291
1531	-0.467
1532	-0.343
1533	-0.586
1534	-0.183

1535 -0.417  
1536 -0.350  
1537 -0.257  
1538 -0.451  
1539 -0.398  
1540 -0.497  
1541 -0.406  
1542 -0.584  
1543 -0.448  
1544 -0.317  
1545 -0.312  
1546 -0.289  
1547 -0.114  
1548 -0.459  
1549 -0.335  
1550 -0.009  
1551 -0.074  
1552 -0.047  
1553 -0.207  
1554 -0.285  
1555 -0.116  
1556 -0.141  
1557 -0.419  
1558 -0.174  
1559 -0.465  
1560 -0.287  
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1562 -0.231  
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1566 -0.202  
1567 -0.278  
1568 -0.445  
1569 -0.488  
1570 -0.465  
1571 -0.434  
1572 -0.674  
1573 -0.324  
1574 -0.493  
1575 -0.273  
1576 -0.623  
1577 -0.483  
1578 -0.521  
1579 -0.551  
1580 -0.473  
1581 -0.436  
1582 -0.382  
1583 -0.345  
1584 -0.280  
1585 -0.565  
1586 -0.409

1587 -0.580  
1588 -0.530  
1589 -0.534  
1590 -0.354  
1591 -0.377  
1592 -0.407  
1593 -0.337  
1594 -0.591  
1595 -0.459  
1596 -0.436  
1597 -0.475  
1598 -0.152  
1599 -0.134  
1600 -0.381  
1601 -1.169  
1602 -0.403  
1603 -0.414  
1604 -0.472  
1605 -0.393  
1606 -0.564  
1607 -0.529  
1608 -0.822  
1609 -0.789  
1610 -0.617  
1611 -0.681  
1612 -0.670  
1613 -0.364  
1614 -0.733  
1615 -0.428  
1616 -0.698  
1617 -0.479  
1618 -0.485  
1619 -0.524  
1620 -0.706  
1621 -0.671  
1622 -0.714  
1623 -0.662  
1624 -0.387  
1625 -0.566  
1626 -0.671  
1627 -0.665  
1628 -0.759  
1629 -0.654  
1630 -0.379  
1631 -0.466  
1632 -0.330  
1633 -0.377  
1634 -0.521  
1635 -0.222  
1636 -0.265  
1637 -0.252  
1638 -0.396

1639 -0.382  
1640 -0.400  
1641 -1.152  
1642 -1.067  
1643 -1.092  
1644 -0.649  
1645 -0.588  
1646 -0.632  
1647 -0.554  
1648 -0.368  
1649 -0.572  
1650 -0.215  
1651 -0.317  
1652 -0.529  
1653 -0.268  
1654 -0.343  
1655 -0.400  
1656 -0.372  
1657 -0.332  
1658 -0.359  
1659 -0.182  
1660 -0.260  
1661 -0.258  
1662 -0.433  
1663 -0.433  
1664 -0.353  
1665 -0.440  
1666 -0.837  
1667 -0.857  
1668 -0.816  
1669 -0.779  
1670 -0.871  
1671 -0.463  
1672 -0.434  
1673 -0.631  
1674 -0.663  
1675 -0.870  
1676 -0.523  
1677 -0.670  
1678 -0.794  
1679 -0.768  
1680 -0.701  
1681 -0.380  
1682 -0.518  
1683 -0.364  
1684 -0.369  
1685 -0.688  
1686 -0.178  
1687 -0.481  
1688 -0.351  
1689 -0.229  
1690 -0.254

1691	-0.221
1692	-0.545
1693	-0.263
1694	-0.316
1695	-0.955
1696	-0.816
1697	-0.687
1698	-1.054
1699	-1.005
1700	-0.630
1701	-0.818
1702	-0.510
1703	-0.377
1704	-0.420
1705	-0.527
1706	-0.328
1707	-0.257
1708	-0.465
1709	-0.493
1710	-0.288
1711	-0.344
1712	-0.345
1713	-0.242
1714	-0.390
1715	-0.305
1716	-0.390
1717	-0.309
1718	-0.270
1719	-0.194
1720	-0.110
1721	-0.427
1722	0.005
1723	-0.193
1724	-0.249
1725	-0.497
1726	-0.381
1727	-0.241
1728	-0.133
1729	-0.261
1730	-0.633
1731	-0.723
1732	-0.426
1733	-0.371
1734	-0.104
1735	-0.373
1736	-0.330
1737	-0.206
1738	-0.557
1739	-0.291
1740	-0.734
1741	-0.594
1742	-0.808

1743	-0.378
1744	-0.372
1745	-0.418
1746	-0.501
1747	-0.150
1748	-0.389
1749	-0.328
1750	-0.168
1751	-0.343
1752	-0.227
1753	-0.218
1754	-0.377
1755	-0.328
1756	-0.221
1757	-0.259
1758	-0.431
1759	-0.340
1760	-0.335
1761	-0.261
1762	-0.466
1763	-0.291
1764	-0.473
1765	-0.378
1766	-0.212
1767	-0.429
1768	-0.544
1769	-0.343
1770	-0.341
1771	-0.265
1772	-0.547
1773	-0.421
1774	-0.048
1775	-0.289
1776	-0.186
1777	-0.288
1778	-0.178
1779	-0.550
1780	-0.339
1781	-0.251
1782	-0.164
1783	-0.757
1784	-0.142
1785	-0.141
1786	-0.179
1787	-0.432
1788	-0.207
1789	-0.235
1790	-0.612
1791	-0.163
1792	-0.086
1793	-0.023
1794	-0.030

1795	-0.243
1796	-0.028
1797	-0.565
1798	-0.049
1799	-0.228
1800	-0.287
1801	-0.413
1802	-0.117
1803	0.020
1804	0.036
1805	-0.094
1806	-0.251
1807	-0.089
1808	-0.241
1809	-0.460
1810	-0.582
1811	-0.353
1812	-0.459
1813	-0.545
1814	-0.458
1815	-0.588
1816	-0.855
1817	-0.861
1818	-0.629
1819	-0.680
1820	-0.289
1821	-0.351
1822	-0.159
1823	-0.246
1824	-0.276
1825	-0.263
1826	-0.140
1827	-0.293
1828	-0.033
1829	-0.087
1830	-0.173
1831	-0.045
1832	-0.621
1833	-0.660
1834	-0.141
1835	-0.647
1836	-0.775
1837	-0.771
1838	-0.359
1839	-0.267
1840	-0.144
1841	-0.077
1842	-0.337
1843	-0.435
1844	-0.101
1845	-0.412
1846	0.106

1847	-0.079
1848	-0.346
1849	-0.393
1850	-0.261
1851	-0.165
1852	-0.100
1853	-0.174
1854	-0.138
1855	-0.418
1856	-0.250
1857	-0.538
1858	-0.126
1859	-0.195
1860	-0.231
1861	-0.029
1862	-0.555
1863	-0.303
1864	-0.407
1865	-0.256
1866	-0.437
1867	-0.413
1868	-0.119
1869	-0.321
1870	-0.213
1871	-0.352
1872	-0.163
1873	-0.183
1874	-0.372
1875	-0.247
1876	-0.487
1877	-0.192
1878	0.120
1879	-0.152
1880	-0.346
1881	-0.184
1882	-0.200
1883	-0.183
1884	-0.717
1885	-0.534
1886	-0.485
1887	-0.281
1888	-0.261
1889	-0.153
1890	-0.341
1891	-0.313
1892	-0.138
1893	-0.301
1894	-0.134
1895	-0.128
1896	-0.241
1897	-0.016
1898	0.065



1899	-0.574
1900	-0.218
1901	-0.049
1902	-0.287
1903	-0.142
1904	-0.205
1905	-0.308
1906	-0.034
1907	-0.412
1908	-0.048
1909	-0.214
1910	-0.147
1911	-0.194
1912	-0.631
1913	-0.161
1914	-0.294
1915	-0.074
1916	-0.277
1917	-0.297
1918	-0.460
1919	-0.013
1920	-0.272
1921	-0.114
1922	-0.036
1923	-0.305
1924	-0.141
1925	-0.258
1926	-0.115
1927	-0.198
1928	-0.018
1929	-0.161
1930	0.086
1931	0.104
1932	0.081
1933	-0.057
1934	0.007
1935	-0.037
1936	-0.019
1937	0.060
1938	0.163
1939	-0.075
1940	0.113
1941	-0.200
1942	0.128
1943	0.053
1944	-0.080
1945	0.059
1946	-0.016
1947	-0.188
1948	-0.038
1949	-0.107
1950	-0.269

1951 -0.100  
1952 -0.118  
1953 0.161  
1954 -0.235  
1955 -0.127  
1956 -0.308  
1957 -0.194  
1958 -0.308  
1959 -0.224  
1960 0.076

Dr Timothy J Osborn | phone: +44 1603 592089  
Senior Research Associate | fax: +44 1603 507784  
Climatic Research Unit | e-mail: [t.osborn@uea.ac.uk](mailto:t.osborn@uea.ac.uk)  
School of Environmental Sciences | web-site:  
University of East Anglia | <http://www.cru.uea.ac.uk/~timo/>  
Norwich NR4 7TJ | sunclock:  
UK | <http://www.cru.uea.ac.uk/~timo/sunclock.htm>

# Exhibit 2

---

**From:** Folland, Chris [ckfolland@meto.gov.uk]  
**Sent:** 9/22/1999 8:56:51 PM  
**To:** 'Michael E. Mann' [mann@multiproxy.evsc.virginia.edu]; Keith Briffa [k.briffa@uea.ac.uk]; Folland, Chris [ckfolland@meto.gov.uk]; 'Phil Jones' [p.jones@uea.ac.uk]  
**CC:** tkarl@ncdc.noaa.gov; mann@virginia.edu  
**Subject:** RE: IPCC revisions

Dear All

IPCC is a consensus report or if there is a majority viewpoint and a legitimate minority point, both can be aired. So Mikes points need to be addressed one way or the other.

I was only stating, purely for the discussion, my own feelings based on the evidence I have read over many years about how global temperature might have varied over the last 500 years in particular. I am not contributing to this section, only acting as an editor. So I expressed my own thoughts, not Mikes, about what might ultimately turn out to be the case. In the meantime, the disagreement between the series, if all are shown, needs more comment.

Mike, Ian will be getting round to your plots later tomorrow. I guess the existing diagram should be tarted up (please liaise directly with Ian on what you want and react to him) but there will be time for one change of mind in the coming working week should that is agreed between you. I will take no further part in the debate for now but watch it with interest.

Best wishes

Chris

> -----Original Message-----

> From: Michael E. Mann [SMTP:mann@multiproxy.evsc.virginia.edu]

> Sent: 22 September 1999 17:35

> To: Keith Briffa; Folland, Chris; 'Phil Jones'

> Cc: tkarl@ncdc.noaa.gov; mann@virginia.edu

> Subject: RE: IPCC revisions

>

> Thanks for your response Keith,

>

> For all:

>

> Walked into this hornet's nest this morning! Keith and Phil have both  
> raised some very good points. And I should point out that Chris, through  
> no

> fault of his own, but probably through ME not conveying my thoughts very  
> clearly to the

> others, definitely overstates any singular confidence I have in my own  
> (Mann et al) series. I believe strongly that the strength in our  
> discussion

> will be the fact that certain key features of past climate estimates are  
> robust among a number of quasi-independent and truly independent  
> estimates,

> each

> of which is not without its own limitations and potential biases. And I  
> certainly don't want to abuse my lead authorship by advocating my own  
> work.

>

> I am perfectly amenable to keeping Keith's series in the plot, and can ask  
> Ian Macadam (Chris?) to add it to the plot he has been preparing (nobody  
> liked my own color/plotting conventions so I've given up doing this  
> myself).

> The key thing is making sure the series are vertically aligned in a  
> reasonable

> way. I had been using the entire 20th century, but in the case of Keith's,  
> we need to align the first half of the 20th century w/ the corresponding  
> mean

> values of the other series, due to the late 20th century decline.

>

> So if Chris and Tom (?) are ok with this, I would be happy to add Keith's  
> series. That having been said, it does raise a conundrum: We demonstrate

> (through comparing an extratropical averaging of our northern hemisphere  
> patterns with Phil's more extratropical series) that the major  
> discrepancies between Phil's and our series can be explained in terms of  
> spatial sampling/latitudinal emphasis (seasonality seems to be secondary  
> here, but probably explains much of the residual differences). But that  
> explanation certainly can't rectify why Keith's series, which has similar  
> seasonality  
> \*and\* latitudinal emphasis to Phil'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.  
>  
> So, if we show Keith's series in this plot, we have to comment that  
> "something else" is responsible for the discrepancies in this case.  
> Perhaps  
> Keith can  
> help us out a bit by explaining the processing that went into the series  
> and the potential factors that might lead to it being "warmer" than the  
> Jones  
> et al and Mann et al series?? We would need to put in a few words in this  
> regard. Otherwise, the skeptics have an field day casting  
> doubt on our ability to understand the factors that influence these  
> estimates  
> and, thus, can undermine faith in the paleoestimates. I don't think that  
> doubt is scientifically justified, and I'd hate to be the one to have  
> to give it fodder!  
>  
>  
> The recent Crowley and Lowery multiproxy estimate is an important  
> additional piece of information which I have indeed incorporated into the  
> revised draft.  
> Tom actually estimates the same mean warming since the 17th century in his  
> reconstruction, that we estimate in ours, so it is an added piece of  
> information that Phil and I are probably in the ballpark (Tom has used  
> a somewhat independent set of high and low-resolution proxy data and a  
> very  
> basic compositing methodology, similar to Bradley and Jones, so there is  
> some independent new information in this estimate.  
>  
> One other key result with respect to our own work is from a paper in the  
> press in "Earth Interactions". An unofficial version is available here:  
>  
> [http://www.ngdc.noaa.gov/paleo/ei/ei\\_cover.html](http://www.ngdc.noaa.gov/paleo/ei/ei_cover.html)  
>  
> The key point we emphasize in this paper is that the low-frequency  
> variability in our hemispheric temperature reconstruction is basically the  
> same if we don't use any dendroclimatic indicators at all (though we  
> certainly resolve less variance, can't get a skillful reconstruction as  
> far  
> back, and there are notable discrepancies at the decadal and interannual  
> timescales). I believe I need to add a sentence to the current discussion  
> on this point,  
> since there is an unsubstantiated knee-jerk belief that our low-frequency  
> variability is suppressed by the use of tree ring data.  
>  
> We have shown that this is not the case: (see here:  
> [http://www.ngdc.noaa.gov/paleo/ei/ei\\_datarev.html](http://www.ngdc.noaa.gov/paleo/ei/ei_datarev.html)  
> and specifically, the plot and discussion here:  
> [http://www.ngdc.noaa.gov/paleo/ei/ei\\_nodendro.html](http://www.ngdc.noaa.gov/paleo/ei/ei_nodendro.html)  
> Ironically, you'll note that there is more low-frequency variability when  
> the tree ring data \*are\* used, then when only other proxy and  
> historical/instrumental data are used!  
>  
> So I think we're in the position to say/resolve somewhat more than,  
> frankly,  
> than Keith does, about the temperature history of the past millennium.  
> And the issues I've spelled out all have to be dealt with in the chapter.  
>  
> One last point: We will (like it or not) have SUBSTANTIAL  
> opportunity/requirement to revise much of this discussion after review, so

> we don't have to resolve everything now. Just the big picture and the  
> important details...  
>  
> I'm sure we can can up with an arrangement that is amenable to all, and  
> I'm  
> looking forward to hearing back from Keith, Phil, and Chris in particular  
> about the above, so we can quickly move towards finalizing a first draft.  
>  
>  
> Looking forward to hearing back w/ comments,  
>  
> mike  
>  
> At 04:19 PM 9/22/99 +0100, Keith Briffa wrote:  
> >  
> >Hi everyone  
> > Let me say that I don't mind what you put in the policy makers  
> >summary if there is a general consensus. However some general discussion  
> >would be valuable . First , like Phil , I think that the supposed  
> >separation of the tree-ring reconstruction from the others on the grounds  
> >that it is not a true "multi-proxy" series is hard to justify. What is  
> >true  
> >is that these particular tree-ring data best represent SUMMER  
> >temperatures  
> >mostly at the northern boreal forest regions. By virtue of this , they  
> >also  
> >definitely share significant variance with Northern Hemisphere land and  
> >land and marine ANNUAL temperatures - but at decadal and multidecadal  
> >timescales - simply by virtue of the fact that these series correlated  
> >with  
> >the former at these timescales. The multi proxy series (Mann et al .  
> >Jones  
> >et al) supposedly represent annual and summer seasons respectively, and  
> >both contain large proportions of tree-ring input. The latest tree-ring  
> >density curve ( i.e. our data that have been processed to retain low  
> >frequency information) shows more similarity to the other two series- as  
> >do  
> >a number of other lower resolution data ( Bradley et al, Peck et al .,  
> >and  
> >new Crowley series - see our recent Science piece) whether this  
> >represents  
> >'TRUTH' however is a difficult problem. I know Mike thinks his series is  
> >the 'best' and he might be right - but he may also be too dismissive of  
> >other data and possibly over confident in his (or should I say his use of  
> >other's). After all, the early ( pre-instrumental) data are much less  
> >reliable as indicators of global temperature than is apparent in modern  
> >calibrations that include them and when we don't know the precise role of  
> >particular proxies in the earlier portions of reconstruction it remains  
> >problematic to assign genuine confidence limits at multidecadal and  
> >longer  
> >timescales. I still contend that multiple regression against the recent  
> >very trendy global mean series is potentially dangerous. You could  
> >calibrate the proxies to any number of seasons , regardless of their true  
> >optimum response . Not for a moment am I saying that the tree-ring , or  
> >any  
> >other proxy data, are better than Mike's series - indeed I am saying that  
> >the various reconstructions are not independent but that they likely  
> >contribute more information about reality together than they do alone. I  
> >do  
> >believe , that it should not be taken as read that Mike's series (or  
> >Jones et al. for that matter) is THE CORRECT ONE. I prefer a Figure  
> >that  
> >shows a multitude of reconstructions (e.g similar to that in my Science  
> >piece). Incidentally, arguing that any particular series is probably better  
> >on the basis of what we now about glaciers or solar output is flaky  
> >indeed.  
> >Glacier mass balance is driven by the difference mainly in winter  
> >accumulation and summer ablation , filtered in a complex non-linear way  
> >to  
> >give variously lagged tongue advance/retreat .Simple inference on the  
> >precidence of modern day snout positions does not translate easily into  
> >absolute (or relative) temperature levels now or in the past. Similarly,  
> >I

> >don't see that we are able to substantiate the veracity of different  
> >temperature reconstructions through reference to Solar forcing theories  
> >without making assumptions on the effectiveness of (seasonally specific )  
> >long-term insolation changes in different parts of the globe and the  
> >contribution of solar forcing to the observed 20th century warming .  
> > There is still a potential problem with non-linear responses in the  
> >very recent period of some biological proxies ( or perhaps a  
> fertilisation  
> >through high CO2 or nitrate input) . I know there is pressure to present  
> a  
> >nice tidy story as regards 'apparent unprecedented warming in a thousand  
> >years or more in the proxy data' but in reality the situation is not  
> quite  
> >so simple. We don't have a lot of proxies that come right up to date and  
> >those that do (at least a significant number of tree proxies ) some  
> >unexpected changes in response that do not match the recent warming. I do  
> >not think it wise that this issue be ignored in the chapter.  
> > For the record, I do believe that the proxy data do show unusually  
> >warm conditions in recent decades. I am not sure that this unusual  
> warming  
> >is so clear in the summer responsive data. I believe that the recent  
> warmth  
> >was probably matched about 1000 years ago. I do not believe that global  
> >mean annual temperatures have simply cooled progressively over thousands  
> of  
> >years as Mike appears to and I contend that that there is strong evidence  
> >for major changes in climate over the Holocene (not Milankovich) that  
> >require explanation and that could represent part of the current or  
> future  
> >background variability of our climate. I think the Venice meeting will  
> be  
> >a good place to air these issues.  
> > Finally I apologise for this rather self-indulgent ramble, but I  
> >thought I may as well voice these points to you . I too would be happy to  
> >go through the recent draft of the chapter when it becomes available.  
> >  
> > cheers to all  
> > Keith  
> >  
> >At 01:07 PM 9/22/99 +0100, Folland, Chris wrote:  
> >>Dear All  
> >>  
> >>A proxy diagram of temperature change is a clear favourite for the  
> >Policy  
> >>Makers summary. But the current diagram with the tree ring only data  
> >>somewhat contradicts the multiproxy curve and dilutes the message rather  
> >>significantly. We want the truth. Mike thinks it lies nearer his result  
> >>(which seems in accord with what we know about worldwide mountain  
> >glaciers  
> >>and, less clearly, suspect about solar variations). The tree ring  
> >results  
> >>may still suffer from lack of multicentury time scale variance. This is  
> >>probably the most important issue to resolve in Chapter 2 at present.  
> >>  
> >>Chris  
> >>  
> >>> -----Original Message-----  
> >>> From: Phil Jones [SMTP:p.jones@uea.ac.uk]  
> >>> Sent: 22 September 1999 12:58  
> >>> To: Michael E. Mann; k.briffa@uea.ac.uk  
> >>> Cc: ckfolland@meto.gov.uk; tkarl@ncdc.noaa.gov  
> >>> Subject:Re: IPCC revisions  
> >>>  
> >>>  
> >>> Mike,  
> >>> Been away in Japan the last week or so. Malcolm was there in a  
> >>> wheelchair  
> >>> because of his ruptured achilles. We both mentioned the lack of  
> >>> evidence  
> >>> for global scale change related to the MWE and LIA, but all the later  
> >>> Japanese speakers kept saying the same old things.  
> >>>  
> >>> As for the TAR Chap 2 it seems somewhat arbitrary division to

> exclude  
> >>> the  
> >>> tree-ring only reconstructions. Keith's reconstruction is of a  
> different  
> >>> character to other tree-ring work as it is as 'hemispheric in scale'  
> as  
> >>> possible so is unlike any other tree-ring related work that is  
> reported  
> >>> upon.  
> >>> If we go as is suggested then there would be two diagrams - one  
> simpler  
> >>> one with just Mann et al and Jones et al and in another section  
> Briffa et  
> >>> al. This might make it somewhat awkward for the reader trying to put  
> them  
> >>> into context.  
> >>> The most important bit of the proxy section is the general  
> discussion  
> >>> of  
> >>> 'was there an MWE and a LIA' drawing all the strands together. Keith  
> and  
> >>> I  
> >>> would be happy to look through any revisions of the section if there  
> is  
> >>> time.  
> >>>  
> >>> One other thing, did you bring up the possibility of having a  
> >>> proxy-only  
> >>> chapter (albeit short) for the next assessment ?  
> >>>  
> >>> On Venice I suggested to Peck that you and Keith give talks on the  
> >>> reconstructions - frank and honest etc emphasising issues and I lead  
> a  
> >>> discussion with you both and the rest of those there where the issues  
> >>> can be addressed (ie I would like to get the views of other proxy  
> types  
> >>> and  
> >>> the modellers/detectors there). I suggested to Peck that this was  
> early  
> >>> in the week as I have to leave on the Thursday to go to the last day  
> of  
> >>> a Working Group meeting of the Climate Change Detection group in  
> Geneva  
> >>> (a joint WMO Commission for Climatology/CLIVAR). I hope to report on  
> the  
> >>> main findings of the Venice meeting.  
> >>>  
> >>> Another issue I would like to raise is availability of all the  
> series  
> >>> you use in your reconstructions. That old chestnut again !  
> >>>  
> >>> How is life in Charlottesville ? Do you ever bump into Michaels  
> or is  
> >>> always off giving skeptical talks ?  
> >>>  
> >>> Tim Osborn is making great progress with his NERC grant and will  
> be  
> >>> looking  
> >>> into dates soon for coming to see you.  
> >>>  
> >>> Cheers  
> >>> Phil  
> >>>  
> >>>  
> >>> Prof. Phil Jones  
> >>> Climatic Research Unit Telephone +44 (0) 1603 592090  
> >>> School of Environmental Sciences Fax +44 (0) 1603 507784  
> >>> University of East Anglia  
> >>> Norwich Email p.jones@uea.ac.uk  
> >>> NR4 7TJ  
> >>> UK  
> >>>  
> >>>



> -----  
> >>> --  
> >>>  
> >>>  
> >>  
> >--  
> >Dr. Keith Briffa, Climatic Research Unit, University of East Anglia,  
> >Norwich, NR4 7TJ, United Kingdom  
> >Phone: +44-1603-592090 Fax: +44-1603-507784  
> >  
> >  
> >  
> -----  
> Professor Michael E. Mann  
> Department of Environmental Sciences, Clark Hall  
> University of Virginia  
> Charlottesville, VA 22903  
> -----  
> e-mail: mann@virginia.edu Phone: (804) 924-7770 FAX: (804) 982-2137  
> <http://www.evsc.virginia.edu/faculty/people/mann.html>

MICHAEL E. MANN, Ph.D.,	)	
	)	
	)	
Plaintiff,	)	Case No. 2012 CA 008263 B
	)	
	)	Judge Alfred S. Irving, Jr.
v.	)	Calendar No.: 3
	)	
	)	
NATIONAL REVIEW, INC., <i>et al.</i> ,	)	
	)	
Defendants.	)	
	)	

Upon consideration of the Motion for Partial Summary Judgment Against National Review and Mark Steyn on the Issue of Falsity, and Motion to Strike their Affirmative Defenses of Truth and Substantial Truth by Plaintiff Michael E. Mann, Ph.D., and Defendants' opposition to that Motion, it is hereby:

**ORDERED**, that the defamatory statements of National Review and Mark Steyn are false;

**FURTHER ORDERED** that the Affirmative Defenses of Truth and Substantial Truth are stricken.

**SO ORDERED.**

This \_\_\_\_ day of \_\_\_\_\_, 2021

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Honorable Alfred S. Irving, Jr.  
Associate Judge