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**Business & Education News – August 31, 2005**

**How the *Wall Street Journal* and Rep. Barton celebrated a global-warming skeptic**

The untold story of how a front-page article and powerful U.S. politicians morphed former mining executive Stephen McIntyre into a scientific superstar.

Why do so many U.S. business leaders and members of Congress doubt the scientific consensus on global warming? Consider the case of Stephen McIntyre, a semiretired businessman. His attack on one climate-change study, known as the “hockey stick”—a study often cited to make the case for global warming—

plucked McIntyre from obscurity and got him featured on the front page of the February 14, 2005, *Wall Street Journal*. The [page-one story](#) caught the attention of Rep. Joe Barton (R-TX), chair of the House Committee on Energy and Commerce. By late June, Barton was creating his own headlines by demanding that prominent researchers turn over the raw data from the hockey-stick analysis.

When *ES&T* contacted more than a dozen leading scientists to find out how these events affected the scientific consensus on climate change, many researchers began criticizing the *Wall Street Journal* and Barton. But to former director of the geophysical fluid dynamics laboratory at Princeton, Jerry Mahlman, the chain of events reads like a slapstick comedy. “It is all eminently lampoonable,” he says.

However scientists look at these events, the success of climate-change skeptic McIntyre hints at why the findings of the Intergovernmental Panel on Climate Change (IPCC) report and other mainstream, peer-reviewed global climate studies have failed to persuade Congress and the Bush Administration that action is needed to curb greenhouse gas emissions.

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ES&T

The article on Stephen McIntyre ran on the far left or column one, a position that former page-one editor Frank Allen says was normally reserved for weighty pieces. The president-elect of the American Association for the Advancement of Science, John Holdren, says the story is a sign of “creep off the editorial page.” [View the story](#)

**A nontraditional path to scientific eminence**

McIntyre began his career in climate studies in 2003 when he published a paper in *Energy & Environment*, an obscure social science journal that [eschews traditional peer review](#) (2003, 14, 751–772). McIntyre and his coauthor, economist Ross McKittrick, outlined what they called serious errors in the hockey-stick analysis that throw all the results into dispute. The original hockey-stick analysis plotted reconstructed Northern Hemisphere mean temperature variations since 1400 and found that since 1900, temperatures have increased to give the graph its distinctive shape (*Nature* 1998, 392, 779–787). The hockey-stick study’s lead author is [Michael Mann](#), who recently became the director of the Earth System Science Center at Pennsylvania State University. Multiple subsequent studies by other researchers have yielded similar hockey-stick results, but climate-change skeptics continue to attack the research.

As a result of the *Energy & Environment* paper, lead author [Stephen McIntyre](#), a Canadian, was flown to Washington, D.C., to brief U.S. business leaders and the staff of Sen. James Inhofe (R-OK), chair of the committee on Environment and Public Works. He also presented his [findings](#) that year at the Marshall Institute, a nonprofit organization whose [chief executive officer](#) is [ExxonMobil lobbyist](#) William O’Keefe.

After this fleeting brush with fame, McIntyre retreated to Canada and began a more aggressive attack on the hockey stick. He launched a [blog](#) to attract attention to his research and created a [website](#) where he posted his manuscripts that had been rejected by *Nature*. But in early January of this year, he finally had a paper accepted into a real science journal—*Geophysical Research Letters* (GRL).

Decades of research have created a massive body of scientific literature on climate change, and thousands of new studies on the subject appear every year in different science journals. Yet, within weeks of publishing his first peer-reviewed study, McIntyre was profiled on the front page of the *Wall Street Journal*. The article ran 2209 words and was written by reporter Antonio Regalado.

Four days later, the *Wall Street Journal* editorial page praised Regalado’s reporting and launched an attack on the hockey stick, the IPCC, and the science of global warming.

To discover how often the *Wall Street Journal* carried stories on climate-change science, *ES&T* examined one year of coverage by the newspaper. (see sidebar “Distinctive coverage of global warming”). In April 2005, the

### An independent researcher


A number of reports have noted strong ties between climate skeptics and oil company, ExxonMobil. In his [biography](#) and in news coverage, McIntyre is reported to be a former director of several small public mineral exploration companies. But in 2003, the [annual report](#) of CGX Energy, Inc., an oil and gas exploration company, listed McIntyre as a “strategic advisor”.

While investigating this story, *ES&T* contacted [CGX Energy](#) and asked to speak with Stephen McIntyre. A secretary responded that she did not think that he worked in the building but that contact information could be left and McIntyre would call back. McIntyre admits to *ES&T* that he “occasionally consults” for the company, but he says he is not funded by industry.

“I’ve earned some money,” he says, “and I can indulge an eccentric hobby.”

### Distinctive coverage of global warming

In researching this story, *ES&T* performed a Factiva search of Wall Street Journal articles with the terms “global warming” or “climate change.” The timeline was between August 1, 2004, and July 31, 2005. Three news stories based on new research from science journals were found: a



paper ran a 169-word story highlighting a [Science article](#) authored by well-known climatologist Jim Hansen, director of NASA's Goddard Institute for Space Studies. A third, 576-word story, which was based on a press conference about scientific research, appeared in August 2004.

"It's a bit out of balance, obviously," laughs [John Orcutt](#), president of the American Geophysical Union (AGU). "But the *Wall Street Journal* has a conservative point of view, and studies like [McIntyre's] are the type of stuff that attracts them."

"It is a concern if there is a group that thinks that this one paper is the most important to come out on climate change," says [Jay Famiglietti](#), an associate professor in earth system science at the University of California, Irvine, and editor-in-chief of *GRL*, the journal in which McIntyre published his study. "If I had a student come to me and say, 'I found this one paper that proves that climate change is hogwash,' I'd say, 'Well, that's one paper out of how many? In science, you never look at [only] one paper.'"

But the harshest critic of the whole issue is former *Wall Street Journal* page-one editor, [Frank Allen](#). He now directs the Institutes for Journalism & Natural Resources in Missoula, Mont. When asked to read the front-page article, he described it to *ES&T* as a "public disservice" littered with "snide comments" and "unsupported assumptions". He says he does not understand how the story got past the editors.

"It was a strange story 'cause it had this bizarre undertone of being investigative but it didn't investigate," says Allen. "And this

research from science journals were found. A 169-word Associated Press story based on Jim Hansen's *Science* article that appeared on page A4, the front-page feature by Regalado, and a 576-word story on a press conference about scientific research that was reported by John J. Fialka and was placed on page D2.

Although most other U.S. newspapers, with the notable exception of the *New York Times*, also provide minimal coverage of climate change studies in science journals, *ES&T* found no other newspaper that reported on the McIntyre and McKittrick article.

Max Boykoff, a graduate student in the department of environmental science at the University of California, Santa Cruz, says that it is odd that the *Wall Street Journal* would devote so much space to a story about McIntyre and McKittrick when they seldom write about global warming. Boykoff recently published his own [study](#) of U.S. "prestige press" coverage of global warming in 2004. For his study, he gathered news stories on global warming that appeared in the *New York Times*, the *Los Angeles Times*, the *Washington Post*, and the *Wall Street Journal* during the years 1988–2002 (*Global Environ. Change* **2004**, 14, 125–136).


Boykoff's search netted 3543 articles, of which about 41% came from the *New York Times*, 29% from the *Washington Post*, 25% from the *Los Angeles Times*, and 5% from the *Wall Street Journal*.

*ES&T*'s search found that the *Wall Street Journal* does provide extensive coverage on the business aspects of global warming, with dozens of news stories on emissions trading, the energy bill, the move toward alternative forms of energy, and how countries and corporations are responding to efforts to control emissions. Most of the writing in the *Wall Street Journal* discussing climate-change science was found in the opinion sections of the newspaper, including three book reviews.

In one review, Russell Seitz points out, "Billions of dollars are spent annually on understanding aspects of climate change too ephemeral to elicit consensus." Another review by Ronald Bailey, a science correspondent for *Reason*, presents a positive look at Michael Crichton's novel *State of Fear*. In the novel, Crichton's villains are environmentalists trying to promote a trumped-up global-climate-change scare.

[Update 10/19/05 -- [Read](#) a letter to the editor from Russell Seitz and a response from Paul Thacker.]

The *Wall Street Journal*'s most intense scrutiny can be found on the op-ed page, where dozens of editorials and opinion pieces have pilloried the



piece—what I thought was bothersome about it—it purported to be authoritative, and it's just full of holes.”

*ES&T* asked Regalado and his immediate editor to respond on-the-record to the criticisms of the story and the paper's coverage of climate-change science, and were directed to set up an interview through Dow Jones & Co., the owner of the *Wall Street Journal*. After four days of phone calls and emails, Robert Christie, director of corporate communications for Dow Jones, responded by email: “We've made it clear [that] when you submit your questions, we'll be more than happy to provide written on-the-record answers.”

*ES&T* then emailed 19 questions and asked to receive a response within three days. Six days later, editor Bob McGough confirmed by phone that the questions had been received.

*ES&T* has never received a response.

### **Off the front page, onto the floor of Congress**

McIntyre says that after he was profiled in the *Wall Street Journal*, he received a phone call from the congressional staff of [Rep. Barton](#). “They wanted to know if I had spoken to the *Wall Street Journal* and if the article was true,” McIntyre tells *ES&T*.

In late June, Barton swung into action and sent out letters to Mann, his colleagues, and two scientific groups. The [letter](#) to Mann begins: “Questions have been raised, according to a February 14, 2005, article in *The Wall Street Journal*, about the significance of methodological flaws and data errors in your studies of the historical records of temperatures and climate change.” The same letter makes extensive requests for raw data. Mann and his colleagues have complied with Barton's demands, and the investigation is apparently still open.

“I'm a pretty unlikely protagonist to this whole story—a middle-aged, Canadian businessman who nobody's heard of doing battle with an IPCC superstar,” admits McIntyre.

[Jim Hansen](#) of NASA agrees. “Although I have been carrying out research in the atmospheric science and climate field for more than four decades, I have never heard of either of them,” wrote Hansen in an email, referring to McIntyre and McKittrick. “That perhaps tells you something.”

When asked why his debut into science gained so much attention, McIntyre responds, “It intrigued reporters and, to some extent, reporters have driven the story. They've almost forced people to read it. Certainly Regalado . . . [Francis] Zwiers read it because Regalado asked him to.” Francis Zweirs is chief of the division at the Canadian Centre for Climate Modelling and Analysis.

“All I can say is that story gave an undeserved amount of attention to a controversy that most scientists regard as ludicrous,” says [Michael Oppenheimer](#), professor of geoscience and international affairs at Princeton University.

scientists and the science of climate change. Here, the terms global warming and climate change can sometimes be found in quotes.

“[T]he case linking fossil fuels to global warming has, if anything, become even more doubtful,” states a June 22, 2005, editorial.

The only scientist found to have written an opinion piece on global warming for the *Wall Street Journal* is climate-change skeptic Fred Singer. —PDT

#### **Source**

[The questions emailed to Regalado by \*ES&T\*](#)  
[MS Word document]



## Searching for an award-winning story

But does the *Wall Street Journal* newsroom really have a political bias on global warming? According to one reporter who left the newspaper three years ago, the *Wall Street Journal* runs only three front-page features a day, and well over 250 reporters compete to write those articles.

[Jim Detjen](#), the director of the Knight Center for Environmental Journalism at Michigan State University, says that contrarian issues make for good headlines. “So if something comes out that says, ‘Exercise is bad for you’ or ‘Bran muffins are bad for you,’ that becomes front-page news,” he says. “Ambitious journalists know that and know that studies like that can lead to a front-page article.”

However, Mann doesn’t blame the reporter. “I think [Regalado is] a reasonably straight journalist who might have a bit of a bias for telling an interesting story and making things a bit ad hominem. And that played into the final story.” Mann believes that Regalado sees his story as fair coverage, reporting on the science while adding in a human aspect.

“I could tell by the sorts of questions he was asking me and my colleagues that this is what he was interested in—the David versus Goliath storyline that he was trying to build with [McIntyre] as David.”

But others are less sympathetic. Tom Crowley, a professor of earth systems science at Duke University, says he tried to put the brakes on the story when contacted by Regalado. “I did go into a long explanation for why McIntyre’s work isn’t great shakes, as some people would like to believe. That didn’t come out in the article, but that doesn’t mean that what he wrote wasn’t edited by the higher-ups.”

The resulting bias in the article, he says, confirmed his suspicions that the *Wall Street Journal* slants their news on climate change. “They acted like I suspected,” he says. “And on their op-ed page their writers get free shots at global warming.” Crowley’s name did not appear in the article.

Now an emeritus researcher, [Jerry Mahlman](#) recalls that his interview with Regalado was anything but smooth. “He had this cute little lead, ‘Oh, I heard you’re the guy that coined the term hockey stick.’ I said, ‘Guilty as charged.’”

### Source

[Excerpt of ES&T interview with Jerry Mahlman](#)  
[MS Word document]


But what began as an interview, Mahlman explains, quickly evolved into a spirited debate. Whenever he pointed out the importance of Mann’s work, Regalado would try to shift the discussion back to McIntyre and McKittrick. “I told him that as far as I know they’re quacks. That kinda riled him.”

Mahlman says he also pointed out that numerous other studies have confirmed Mann’s original results. “Then he started to get squirmy because I was saying that [even] if we didn’t have the hockey stick and the paleorecord, we have an absolutely reliable record over the last 100 years or so, and it’s warming like crazy.” We didn’t have thermometers 1000 years ago, but we do now, Mahlman says.

In the end, Mahlman was not mentioned in the article.

## The inside story of “dog bites man”

Global-climate-change scientists interviewed by *ES&T* say that there is some basis



for questioning the hockey-stick study, but Regalado's story blurred any distinction between businessman Stephen McIntyre and scientist [Hans von Storch](#), who directs the Institute for Coastal Research at the GKSS Research Center (Germany). Von Storch disagrees with Mann about the degree of variability in past temperatures before the present warming. Mann's research finds little variability; von Storch argues that there was more.

"We are speaking about the shaft of the hockey stick, not the blade," says von Storch. "We have no conflict about anthropogenic warming. That's not the point."

"It's a legitimate scientific exchange that has been amplified and distorted by contrarians," adds Mann. "That is strikingly different from this McIntyre stuff, which was garbage from the start."

Mahlman says that outside attention to the science of climate change by contrarians and amateur observers has amplified the Mann-von Storch disagreement. "If this hadn't been hyperpoliticized, then the microsquabble between von Storch and Mike Mann would have just ended up as a letter to the editor of a journal criticizing a Mann paper or a von Storch paper," he says.

Significantly, both von Storch and Mann have submitted letters to *GRL* about McIntyre's paper. Mann says the work is completely wrong, while von Storch offers a backhanded compliment. "We sent in a comment that the glitch [McIntyre] detected in Mann's paper is correct, but it doesn't matter," von Storch says. "It's a minor thing."

Oddly, the McIntyre incident is not an anomaly, according to [Kevin Trenberth](#), head of the climate analysis section at the National Center for Atmospheric Research. "There have been several examples of people who have come into the field of climate change and done incredibly stupid things by applying statistics in ways that are inappropriate for the data," he says.

Famiglietti, editor-in-chief of *GRL*, says that because the McIntyre paper generated a total of four letters, an abnormally high number, he will personally supervise their acceptance. He says that the letters differ in their specific criticisms and adds that he is ignoring the political controversy and focusing on the science.

### **Fallout from Barton's letters**

While scientists have essentially dismissed McIntyre's research, professional societies have gone after Rep. Barton and his letters. The American Association for the Advancement of Science and the AGU, for example, have protested Barton's intrusion into the scientific process. Mann provided an 11-page point-by-point [refutation](#) of every issue raised by Barton.

Mann's colleague, Raymond Bradley, a professor at the University of Massachusetts at Amherst, also sought to explain to Barton that criticisms such as McIntyre's often appear within the scientific literature. "That is the nature of scientific activity. We publish a paper and others may point out why its conclusions or methods may be wrong," Bradley [wrote](#). However, he noted, "[Science] does not move forward through editorials or articles in the *Wall Street Journal* or *USA Today*."

Attempting to resolve the issue, The National Research Council has even offered to perform an independent review of the controversy for Barton. Bill Colglazier, the council's executive director, declares, "It was a sincere good-faith offer, but [the congressman] didn't seem too positive on this."



For his part, McIntyre says that his analysis of climate-change science is far from complete. Studies by other researchers with similar results to the hockey stick contain the same glitch, he says. Meanwhile, his blog has received more than 500,000 hits, and McIntyre reports that he is getting more web traffic from Washington, D.C.

*ES&T* found support for McIntyre's claim. In late July, Sen. Inhofe referenced McIntyre's work during a Senate [debate](#) on climate change, declaring, "We have the *Energy & Environment* report that came out in 2003 that says the original Mann papers contain collusion errors, unjustifiable truncations of extrapolations of source data, obsolete data . . ."

"I had no idea that there would be any interest in my work, and the fact that some people have found it interesting, I find very flattering," McIntyre admits.

He adds that he is not making any definitive statements on the science of global warming. "I'm just saying that I don't know," he said. "I looked at one narrow topic. I haven't studied issues of infrared radiation and water vapor. And there are a host of issues that need to be studied." —[PAUL D. THACKER](#)

**Update 10/28/05:** Following *ES&T's* investigation, the *Wall Street Journal* published an article questioning the validity of claims made by businessman Steven McIntyre. "Global Warming Skeptics Under Fire" by Antonio Regalado, October 26, 2005; [Page B3](#).