# SPIEGEL ONLINE

# 04/01/2010 05:00 PM

## **Climate Catastrophe**

#### Part 3: A Climate Rebel Takes on the Establishment

One man notes with particular satisfaction how Phil Jones and his colleagues are being forced to confess to one mistake after another. Steve McIntyre lives in a small brick house near downtown Toronto. It is a Sunday afternoon and he is sitting at his well-worn desk, illuminated only by a small energy-saving bulb on the ceiling.

This man, with his thinning gray hair, is an unlikely adversary for climatologists, and yet he is largely responsible for the current tumult in their field. "This is the computer I used to begin doing the recalculations," he says, holding a six-year-old Acer laptop with a 40-gigabyte hard drive. "My wife finally gave me a new one for Christmas."

The laptop marks a sharp contrast to the supercomputers at the disposal of Phil Jones and the other prophets of global warming, whose computers fill entire floors. Instead of gigabytes, they deal in petabytes. How is possible that this Canadian was able to bring such a self-confident group of scientists to their knees?

It all began when his three children went off to college and moved out of his house, which is filled with Asian antiques. "Things weren't going so well in the markets at the time," says McIntyre, "so I took six months to examine how climatologists arrive at their curves."

# **Hitting Pay Dirt**

McIntyre normally works in the investment field, specializing in major mining projects. He has always been good at math. "I won mathematics prizes in school," says McIntyre. But after finishing his studies, which included a spell at the UK's elite Oxford University, he left the academic world for a career in high finance.

His late return would shake the academic world to its core. One day, McIntyre came across a curve that seemed all too familiar to him. It was the famous hockey stick curve (see graphic), with which US climatologist Michael Mann sought to prove that, during the last millennium, temperatures have never increased as sharply as they are rising today.

But McIntyre was suspicious. "In financial circles, we talk about a hockey stick curve when some investor presents you with a nice, steep curve in the hope of palming something off on you."

The stubborn Canadian pestered one scientist after another to provide him with raw data -- until he hit pay dirt and discovered that the hockey stick curve was, in his opinion at least, a sham.

### **Too Few Trees**

The climate historians working with Michael Mann used tree rings as the primary source of their data. The problem with this approach is that large numbers of trees from suitable regions are required if

conclusions about past temperatures based on tree growth are to be drawn. "Unfortunately, if we go back more than 500 years, we don't have many reliable trees for our analyses," explains Jan Esper of the University of Mainz in western Germany.

For example, there are many indications that in medieval times, between 900 and 1,300 A.D., when the Vikings raised livestock in Greenland and grape vines were cultivated in Scotland, it was in fact warmer than it is today. This is precisely what Mann denied, with a certainty that irritated even his allies.

McIntyre put the Mann curve to the arithmetic test. He accuses Mann of having filtered out the hockey stick graph more or less arbitrarily from the fluctuation noise of his tree-ring data. To prove his contention, McIntyre programmed his computer using Mann's methodology and entered completely random data into the program. The results, says McIntyre, "was a hockey stick curve."

Then the Canadian rebel turned his attention to the far more important temperature curves of the recent past, those of Phil Jones and of his comrade-in-arms at NASA, James Hansen. All things considered, the blunders he discovered at first were not particularly significant, but they were all the more embarrassing. For instance, scientists had long claimed that 1998 was the warmest year in the United States since temperatures were first recorded -- until McIntyre discovered that it was even warmer in 1934.

#### 'Playground Bully'

McIntyre's findings did not make him very popular. In the hacked Climategate emails, he is referred to as a "bozo," a "moron" and a "playground bully." But with their self-aggrandizement, the climatologists made him into a legend on the Internet. A million people a month visit his blog, climateaudit.org. They include climate skeptics and the usual conspiracy theorists, but also, more recently, many academics who are able to do the math themselves.

McIntyre asserts that he does believe in climate change. "I don't want to throw the baby out with the bath water," he says, "but when I find mistakes, I want them to be corrected."

He repeatedly bombarded Jones with emails in which he drew his attention to freedom of information laws. This tenacity would prove to be disastrous for Jones.

McIntyre doggedly asked for access to the raw data. Jones was just as dogged in denying his requests, constantly coming up with new, specious reasons for his rejections. Unfortunately for Jones, however, McIntyre's supporters eventually included people who know how to secretly hack into computers and steal data.

Their target was well selected. Jones was like a spider in its web. Almost every internal debate among the climate popes passed through his computer, leaving behind a digital trail.