

An Update on the Science of Climate Change

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As I said on the Senate floor on July 28, 2003, “much of the debate over global warming is predicated on fear, rather than science.” I called the threat of catastrophic global warming the “greatest hoax ever perpetrated on the American people,” a statement that, to put it mildly, was not viewed kindly by environmental extremists and their elitist organizations. I also pointed out, in a lengthy committee report, that those same environmental extremists exploit the issue for fundraising purposes, raking in millions of dollars, even using federal taxpayer dollars to finance their campaigns.

For these groups, the issue of catastrophic global warming is not just a favored fundraising tool. In truth, it’s more fundamental than that. Put simply, man-induced global warming is an article of religious faith. Therefore contending that its central tenets are flawed is, to them, heresy of the most despicable kind. Furthermore, scientists who challenge its tenets are attacked, sometimes personally, for blindly ignoring the so-called “scientific consensus.” But that’s not all: because of their skeptical views, they are contemptuously dismissed for being “out of the mainstream.” This is, it seems to me, highly ironic: aren’t scientists supposed to be non-conforming and question consensus? Nevertheless, it’s not hard to read between the lines: “skeptic” and “out of the mainstream” are thinly veiled code phrases, meaning anyone who doubts alarmist orthodoxy is, in short, a quack.

I have insisted all along that the climate change debate should be based on fundamental principles of science, not religion. Ultimately, I hope, it will be decided by hard facts and data-and by serious scientists committed to the principles of sound science. Instead of censoring skeptical viewpoints, as my alarmist friends favor, these scientists must be heard, and I will do my part to make sure that they are heard.

Since my detailed climate change speech in 2003, the so-called “skeptics” continue to speak out. What they are saying, and what they are showing, is devastating to the alarmists. They have amassed additional scientific evidence convincingly refuting the alarmists’ most cherished assumptions and beliefs. New evidence has emerged that further undermines their conclusions, most notably those of the UN’s Intergovernmental Panel on

Climate Change-one of the major pillars of authority cited by extremists and climate alarmists.

This evidence has come to light in very interesting times. Just last month, the 10th Conference of the Parties (COP-10) to the Framework Convention on Climate Change convened in Buenos Aires to discuss Kyoto's implementation and measures to pursue beyond Kyoto. As some of my colleagues know, Kyoto goes into effect on February 16th. I think, with the exception of Russia, an exception that I will explain later, the nations that ratified Kyoto and agreed to submit to its mandates are making a very serious mistake.

In addition, last month, popular author Dr. Michael Crichton, who has questioned the wisdom of those who trumpet a "scientific consensus," released a new book called "State of Fear," which is premised on the global warming debate. I'm happy to report that Dr. Crichton's new book reached #3 on the New York Times bestseller list.

I highly recommend the book to all of my colleagues. Dr. Crichton, a medical doctor and scientist, very cleverly weaves a compelling presentation of the scientific facts of climate change-with ample footnotes and documentation throughout-into a gripping plot. From what I can gather, Dr. Crichton's book is designed to bring some sanity to the global warming debate. In the "Author's Message" at the end of the book, he refreshingly states what scientists have suspected for years: "We are also in the midst of a natural warming trend that began about 1850, as we emerged from a 400 year cold spell known as the Little Ice Age." Dr. Crichton states that, "Nobody knows how much of the present warming trend might be a natural phenomenon," and, "Nobody knows how much of the present trend might be man-made." And for those who see impending disaster in the coming century, Dr. Crichton urges calm: "I suspect that people of 2100 will be much richer than we are, consume more energy, have a smaller global population, and enjoy more wilderness than we have today. I don't think we have to worry about them."

For those who do worry, or induce such worry in others, "State of Fear" has a very simple message: stop worrying and stop spreading fear. Throughout the book, "fictional" environmental organizations are more focused on raising money, principally by scaring potential contributors with bogus scientific claims and predictions of a global apocalypse, than with "saving the environment." Here we have, as the saying goes, art imitating life.

As my colleagues will remember from a floor speech I gave last year, this is part and parcel of what these organizations peddle to the general public. Their fear mongering knows no bounds. Just consider the debate over mercury emissions. President Bush proposed the first-ever cap to reduce mercury

emissions from power plants by 70 percent. True to form, these groups said he was allowing more mercury into the air. Go figure.

BUENOS AIRES

As I mentioned earlier, several nations, including the United States, met in Buenos Aires in December for the 10th round of international climate change negotiations. I'm happy to report that the U.S. delegation held firm both in its categorical rejection of Kyoto and the questionable science behind it. Paula Dobriansky, under secretary of state for global affairs, and the leader of the U.S. delegation, put it well when she told the conference, "Science tells us that we cannot say with any certainty what constitutes a dangerous level of warming, and therefore what level must be avoided."

Ms. Dobriansky and her team also rebuffed attempts by the European Union to drag the U.S. into discussions concerning post-Kyoto climate change commitments. With the ink barely dry on Kyoto ratification, not to mention what the science of climate change is telling us, Ms. Dobriansky was right in dubbing post-2012 talks "premature."

It was clear from discussions in Buenos Aires that Kyoto supporters desperately want the U.S. to impose on itself mandatory greenhouse emission controls. Moreover, there was considerable discussion, but no apparent resolution, over how to address emissions from developing countries, such as India and especially China, which over the coming decades will be the world's leading emitter of greenhouse gases. But developing nations, most notably China, remained adamant in Buenos Aires in opposing any mandatory greenhouse gas reductions, now or in the future. Securing this commitment, remember, was a necessary component for U.S. ratification of Kyoto, as reflected in the Byrd-Hagel resolution, which the Senate passed 95 to 0. Without that commitment, Kyoto, at least in the U.S., is dead.

Kyoto goes into force on February 16th. According to the EU Environment Ministry, most EU member states won't meet their Kyoto targets. They may do so only on paper due to Russia's ratification of the treaty. Russia, of course, ratified Kyoto not because its government believes in catastrophic global warming-it doesn't-but because ratification was Russia's key to joining the World Trade Organization. Also, under Kyoto, Russia can profit from selling emissions credits to the EU and continue business as usual, without undertaking economically harmful emissions reductions.

As talks in Buenos Aires revealed, if alarmists can't get what they want at the negotiating table, they will try other means. I was told by reliable sources that some delegation members of the European Union subtly

hinted that America's rejection of Kyoto could be grounds for a challenge under the WTO. I surely hope this was just a hypothetical suggestion and not something our European friends are actively and seriously considering. Such a move, I predict, would be devastating to US-EU relations, not to mention the WTO itself.

But I suspect it's not just hypothetical. The lawsuit is the stock in trade of environmental activists, and we are witnessing a new crop of global warming lawsuits now being leveled at individual U.S. companies and the U.S. itself.

In Buenos Aires, Earth Justice, a San Francisco-based environmental group, and the Center for International Law, announced plans to seek a ruling from the Inter-American Commission on Human Rights that the U.S., because of its supposed contribution to global warming, is causing environmental degradation in the Arctic, and therefore violating the human rights of Alaska's Inuits, or Eskimos. As the New York Times wrote, "The commission, an investigative arm of the Organization of American States, has no enforcement powers. But a declaration that the United States has violated the Inuits' rights could create the foundation for an eventual lawsuit, either against the United States in an international court or against American companies in a U.S. court, said a number of legal experts, including some aligned with industry."

The Times didn't mention that such lawsuits already have been filed in the U.S. Eliot Spitzer, New York's state attorney general, along with 8 other state attorneys general, mainly from the Northeast, last year sued 5 coal-burning electric utilities in the Midwest. The reason? "Given that these are among the largest carbon dioxide polluters in the world," Mr. Spitzer wrote, "it is essential that the court direct them to reduce their emissions."

To me, this is a clear-cut sign of desperation by the alarmists, but I'm not surprised. President Bush has rejected Kyoto, the United States Senate rejected Kyoto 95 to 0, the United States Senate rejected the McCain-Lieberman bill 55 to 43, and there is little hope that Congress will pass mandatory greenhouse gas reductions, at least not in the near future. So resorting to the courts is their last, best hope.

I hope the courts have enough sense and moderation to reject these lawsuits out of hand. I am interested, for one, to see how Mr. Spitzer quantifies with scientific precision just how these particular companies have contributed to climate change. How is it, one might ask, that emissions, specifically from American Electric Power, are causing rising sea levels, droughts, and hurricanes?

NEW SCIENCE

Such efforts fly in the face of compelling new scientific evidence that makes a mockery of these lawsuits. By now, most everyone familiar with the climate change debate knows about the hockey stick graph, constructed by Dr. Michael Mann and colleagues, which shows that temperature in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th Century. The hockey-stick graph was featured prominently in the IPCC's Third Assessment Report, published in 2001. The conclusion inferred from the hockey stick is that industrialization, which spawned widespread use of fossil fuels, is causing the planet to warm. I spent considerable time examining this work in my 2003 speech. Because Mann effectively erased the well-known phenomena of the Medieval Warming Period-when, by the way, it was warmer than it is today-and the Little Ice Age, I didn't find it very credible. I find it even less credible now.

But don't take my word for it. Just ask Dr. Hans von Storch, a noted German climate researcher, who, along with colleagues, published a devastating finding in the Sept. 30, 2004 issue of the journal *Science*. As the authors wrote: "We were able to show in a publication in *Science* that this [hockey stick] graph contains assumptions that are not permissible. Methodologically it is wrong: Rubbish."

Dr. von Storch and colleagues discovered that the Mann hockey stick had severely underestimated past climate variability. In a commentary on Dr. von Storch's paper, T. J. Osborn and K. R. Briffa, prominent paleo-climatologists from the University of East Anglia, stressed the importance of the findings. As they wrote, "The message of the study by von Storch et al. is that existing reconstructions of the NH [northern hemisphere] temperature of recent centuries may systematically underestimate the true centennial variability of climate" and, "If the true natural variability of NH [northern hemisphere] temperature is indeed greater than is currently accepted, the extent to which recent warming can be viewed as 'unusual' would need to be reassessed." In other words, in obliterating the Medieval Warming Period and the Little Ice Age, Mann's hockey stick just doesn't pass muster.

Dr. von Storch is one of many critics of Michael Mann's hockey stick. To recount just one example, three geophysicists from the University of Utah, in the April 7, 2004 edition of *Geophysical Research Letters*, concluded that Mann's methods used to create his temperature reconstruction were deeply flawed. In fact, their judgment is harsher than that. As they wrote, Mann's results are "based on using end points in computing changes in an oscillating series" and are "just bad science." I repeat: "just bad

science.”

ARCTIC CLIMATE ASSESSMENT

These findings come alongside a spate of new reports that, at least in the eyes of the media, supposedly confirm the “consensus” on global warming. “The Arctic Climate Impact Assessment,” released last fall, perfectly fits that mold. “Arctic Perils Seen in Warming,” blared a headline in the New York Times. As the Times wrote, “The findings support the broad but politically controversial scientific consensus that global warming is caused mainly by rising atmospheric concentrations of heat-trapping greenhouse gases, and that the Arctic is the first region to feel its effects.”

What do we really know about temperatures in the Arctic? Let’s take a closer look. As Oregon State University climatologist George Taylor has shown, Arctic temperatures are actually slightly cooler today than they were in the 1930s. [Chart #1] As Dr. Taylor has explained, it’s all relative—in other words, it depends on the specific time period chosen in making temperature comparisons. “The [Arctic Climate Impact Assessment],” Dr. Taylor wrote, “appears to be guilty of selective use of data. Many of the trends described in the document begin in the 1960s or 1970s—cool decades in much of the world—and end in the warmer 1990s or early 2000s. So, for example, temperatures have warmed in the last 40 years, and the implication, ‘if present trends continue,’ is that massive warming will occur in the next century.”

Dr. Taylor concluded: “Yet data are readily available for the 1930s and early 1940s, when temperatures were comparable to (and probably higher than) those observed today. Why not start the trend there? Because there is no net warming over the last 65 years?”

This is pretty convincing stuff. But, one might say, this is only one scientist, while nearly 300 scientists from several countries, including the United States, signed onto the Arctic report. Mr. President, I want to submit for the record a list of scientists, compiled by the Center for Science and Public Policy, from several countries, including the United States, whose published work shows current Arctic temperature is no higher than temperatures in the 1930s and 1940s. For example, according to a group of 7 scientists in a 2003 issue of the *Journal of Climate*: “In contrast to the global and hemispheric temperature, the maritime Arctic temperature was higher in the late 1930s through the early 1940s than in the 1990s.” Or how about this excerpt from the 2000 *International Journal of Climatology*, by Dr. Rajmund Przybylak, of Nicholas Copernicus University, in Torun, Poland: “The highest temperatures since the beginning of instrumental observation occurred clearly in the 1930s and can be attributed to changes in

atmospheric circulation.”

THE TSUNAMI AND GLOBAL WARMING

Despite this evidence, alarmism is alive and well. [Chart #2] As you can see behind me, the Washington Post today ran an editorial cartoon that actually blames the Sumatra tsunami on global warming. Are we to believe now that global warming is causing earthquakes? The tsunami, of course, was caused by an earthquake off Sumatra’s coast, deep beneath the sea floor, completely disconnected from whatever the climate was doing at the surface. Regrettably, the tsunami-warming connection is yet another facet of the “State of Fear” alarmists have concocted. As Terence Corcoran of Canada’s Financial Post wrote, “The urge to capitalize on the horror in Asia is just too great for some to resist if it might help their cause. Green Web sites are already filling up with references to tsunami risks associated with global warming.”

To address this, let’s ask some simple questions: Is global warming causing more extreme weather events of greater intensity, and is it causing sea levels to rise? The answer to both is an emphatic ‘no’.

[Chart #3] Just look at this chart behind me. It’s titled “Climate Related Disasters in Asia: 1900 to 1990s.” What does it show? It shows the number of such disasters in Asia, and the deaths attributed to them, declining fairly sharply over the last 30 years.

Or let’s take hurricanes. Alarmists linked last year’s hurricanes that devastated parts of Florida to global warming. Nonsense. Credible meteorologists quickly dismissed such claims. Hugh Willoughby, senior scientist at the International Hurricane Research Center of Florida International University stated plainly: “This isn’t a global-warming sort of thing.... It’s a natural cycle.” A team led by the National Oceanic and Atmospheric Administration’s (NOAA) Dr. Christopher Landsea concluded that the relationship of global temperatures to the number of intense land-falling hurricanes is either non-existent or very weak. In this chart [chart #4], you can see that the overall number of hurricanes and the number of the strongest hurricanes fluctuated greatly during the last century, with a great number in the 1940s. In fact, through the last decade, the intensity of these storms has declined somewhat.

What about sea level rise? Alarmists have claimed for years that sea level, because of anthropogenic warming, is rising, with ominous consequences. Based on modeling, the IPCC estimates that sea level will rise 1.8 millimeters annually, or about one-fourteenth of an inch.

[Chart #5] But in a study published this year in Global and Planetary

Change, Dr. Nils-Axel Morner of Sweden found that sea level rise hysteria is overblown. In his study, which relied not only on observational records, but also on satellites, he concluded: "There is a total absence of any recent 'acceleration in sea level rise' as often claimed by IPCC and related groups." Yet we still hear of a future world overwhelmed by floods due to global warming. Such claims are completely out of touch with science. As Sweden's Morner puts it, "there is no fear of massive future flooding as claimed in most global warming scenarios."

CONCLUSION

What I have outlined today won't appear in the New York Times. Instead you'll read much about "consensus" and Kyoto and hand wringing by its editorial writers that unrestricted carbon dioxide emissions from the United States are harming the planet. You'll read nothing, of course, about how Kyoto-like policies harm Americans, especially the poor and minorities, causing higher energy prices, reduced economic growth, and fewer jobs. After all, that is the real purpose behind Kyoto, as Margot Wallstrom, the EU's environment minister, said in a revealing moment of candor. To her, Kyoto is about "leveling the playing field" for businesses worldwide-in other words, we can't compete, so let's use a feel-good treaty, based on shoddy science, fear, and alarmism, and which will have no perceptible impact on the environment (Chart #6), to restrict America's economic growth and prosperity. Unfortunately for Ms. Wallstrom and Kyoto's staunchest advocates, America was wise to the scheme, and it has rejected Kyoto and similar policies convincingly. Whatever Kyoto is about-to some, such as French President Jacques Chirac, it's about forming "an authentic global governance"-it's the wrong policy and it won't work, as many participants in Buenos Aires grudgingly conceded.

Despite the bias, omissions, and distortions by the media and extremist groups, the real story about global warming is being told, and, judging by the welcome success of Michael Crichton's "State of Fear," it's now being told to the American public.