

## Global Warming Is a Threat? It Just Ain't So!

BY PATRICK J. MICHAELS

ast December Naomi Oreskes, an associate professor of history at UCLA, published a *Washington Post* Outlook piece called "Undeniable Global Warming." She asserted that the planet is warming (true), that increases in greenhouse gases have something to do with it (true), that several scientific societies hold this view (true), that the remainder of the discussion is quibbling about the details, and that we must "respond to the threats that global warming presents."

The last two are more than debatable, the middle one is predictable, and the first two are hardly relevant to any policy.

To bolster her argument, Oreskes searched the Institute for Scientific Information database since 1993 using the keywords "global climate change." She claims that, based on the 928 abstracts returned, 75 percent "either explicitly or implicitly accepted the consensus view" (which she simply defined as stating that the planet is warming and that greenhouse gases are a significant cause).

Note that she only read the abstracts. Had she delved deeper (as Michael Crichton discovered when he researched global warming) she would have found that the *only* internally consistent picture is one of a very modest warming that would be hard put to present "threats" that we must "respond to."

Start at the top. The surface temperature of the earth averages about 0.75 degrees Celsius warmer than it was a century ago. There were two eras of twentieth-century warming, with a slight cooling in between. The first had virtually nothing to do with human activity because incremental increases in atmospheric greenhouse gases, such as carbon dioxide, were exceedingly small. Instead, the sun got hotter. According to thermometric records used by the United Nations Intergovernmental Panel on

Climate Change (IPCC), the surface warmed about 0.4°C between 1900 and 1940. For unknown reasons the surface then cooled about 0.2° from 1940 through the early 1970s, and has warmed about 0.5° since then.

There is clearly a human component to the latter warming, because it is accentuated in cold, dry regions in the Northern Hemisphere, as is projected by greenhouse-effect theory.

In the Northern Hemisphere, where we have decent temperature histories, central Asia (Siberia) and northern North America should be prime places to find greenhouse warming. Of course, it's best to look in the driest season, which is obviously winter, and indeed these are the areas that show the greatest warming.

All well and good. But what does it mean? Here's where Oreskes makes illogical jumps and shows surprisingly little critical insight for a historian.

Do these verities inform the argument that we "must respond to the threats that global warming presents"? First, define the threat. To do that, you have to make some reliable estimate for future warming, and there is where Oreskes's argument is hoist by its own petard.

According to James Mahoney, National Oceanic and Atmospheric Administration deputy secretary, taxpayers have already disbursed \$20 billion on the climatescience research community. Much of this expense has been in the development of models of climate behavior under conditions of increasing greenhouse effect. There are now dozens of these models.

One of the papers that Oreskes must have come across is a landmark meta-analysis of climate models by Gerry Meehl, published in 2000 in the *Bulletin of the* 

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American Meteorological Society. This highly cited reference remains the gold standard of model analysis and is titled "The Coupled Model Intercomparison Project," or CMIP. According to the CMIP, individually and in toto these models indicate one central tendency: Soon after warming begins it takes place at a constant rate.

The models use the same increase in atmospheric carbon dioxide: 1 percent per year, compounded annually. But this number is dead wrong and has been known to be wrong for years. According to NASA's climate modeler James Hansen (who started much of the ballyhoo about global warming back in 1988), increases in the last three decades are barely a percentage at all, about 0.4 percent per year. There are other "greenhouse" emissions, such as methane, that have also increased, but they only add a small increment. The total increase is an effective change in carbon dioxide around 0.6 percent per year.

Another wonderful aspect of our climate models that Oreskes does not appreciate is that their warming is also very linear with carbon dioxide. In other words, doubling the rate of carbon-dioxide increase doubles the warming rate. So we have to chop the mean tendency given in the CMIP results (approximately 2.5°C per century) down 40 percent (to account for the fact that the real increases are running around 0.6 percent instead of 1 percent, and have been for decades). That gives a 100-year warming closer to 1.5°C.

But why go through all this rigmarole? Just test the hypothesis that the warming of the last several decades is indeed linear, and Ma Nature has declared her hand on future warming, unless all that climate-modeling science cited by Oreskes can't even get the functional form—a straight line—of the warming right.

The CMIP also shows the observed surface temperatures since 1970 (when the planet began the second warming phase of the twentieth century); the record is from the IPCC. The warming couldn't be more linear! Any attempt to explain the warming trend as an upwards curve (an exponential warming) or a flattening curve fails to add any statistical significance.

This is the way science works: not by counting citations using crude search engines and declaring a truth, but by testing clearly defined hypotheses, in this case, linear warming.

## Flimsy Straw Person

Indeed, Oreskes has set up a profoundly flimsy straw person (straw men being politically incorrect). What does it matter if the planet warms? What is much more important is how and how much, meaning its distribution through the seasons and its rate. And when one appreciates that the rate is small and the seasonality is disproportionately in the cold time of the year, the impact is lessened even further.

To emphasize the seriousness of global warming, Oreskes then cites the "Arctic Climate Impact Assessment," a scary document, largely produced by political activists, projecting an Arctic warming with a range of several degrees in the next century, from 3 to 7°C.

The same process repeats itself in the Arctic that shows up in global and hemispheric temperatures: the warmings projected by all the models in the report are all constant-rate changes. Ironically, this is despite the fact that the text goes to great lengths to say that change in the Arctic may be nonlinear because of sudden changes if snow disappears (it won't). So, as in the case of the linearity argument on global temperatures, you have to throw out all the science and posit something that is not occurring, or you have to accept the linearity. And, as with the global situation, the warming of the Arctic in recent decades is remarkably constant.

So again the rate was known. And are readers surprised that it was at the absolute low end of the projected range, at 1.6°C per half-century? According to the IPCC, this is merely twice the rate that the Arctic warmed in the early twentieth century, long before human greenhouse emissions could have caused it.

The basis for Oreskes's *Post* article was an opinion piece she wrote in *Science*. Many of the paragraphs are direct lifts. But there is a less-than-subtle change at the end.

To the scientific audience she wrote, "The question of what to do about climate change is also still open." But for the newspaper readers she concludes, "The chattering of skeptics is distracting us from the real issue: how best to respond to the threats that global warming presents."

The first statement was accurate, and the second, as we have shown, had absolutely no basis in her article.