Danbury News Times

Defends position on principles of warming

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The issues raised by Mr. Michael Barnes in his letter of Sept. 29 are important and should be addressed. I appreciate the opportunity to respond in detail.

I encourage any reader with access to a university library (the Internet is also available) to read a scientific journal, such as Science or Nature. If you pick up any single issue, you will find it contains a half-dozen or more articles dealing with climate, ancient climates, sea-surface circulation and temperature changes, widespread drought and flooding, or solar variation, all of which are unconnected with politics, and are simply a search for reality in the world we live in.

First the Koch brothers; they either founded, or now substantially fund the following front groups: American Enterprise Institute, Cato Institute, Americans for Prosperity, FreedomWorks, Federalist Society, Manhattan Institute, Mackinac Center, Heartland Institute, Franklin Center, American Legislative Exchange Council, Reason Foundation, Institute for Justice, Mercatus Center, Foundation for Research on Economics and the Environment, MacIver Institute, Bradley Foundation, Citizens for a Sound Economy, Media Research Center, and the Tea Party Toolbox among others.

Each of these groups advises legislators, prepares position papers and radio and TV ads to push their message of misinformation. The Koch brothers' role in global warming denial is central, and was not mentioned to "misdirect" the reader but to show them how widespread their influence is.

To the science: The greenhouse effect is real and results because short wavelength solar radiation passes through the earth's atmosphere. The earth warms, and reradiates the energy at longer wavelengths, which are trapped by the atmosphere and contribute to warming. Each gas has a characteristic absorption spectrum, with a peak for CO2 at 14-16 nanometers in the infrared part of the spectrum. That makes it a greenhouse gas, and shows that Arrhenius was correct 100 years ago.

I don't understand the "one world" reference, tying me with the IPCC and Al Gore. All I can say is that reality has a well-known liberal bias and the deniers live in another "reality" of their own making. Perhaps Mr. Barnes is trying to misdirect readers.

On the Antarctic ice record: It is true that there is a time lag between CO2 changes and temperature. This lag had been predicted in 1990 in a paper in Nature, vol. 347, by <u>C. Lorius</u>, <u>Jim Hansen</u> and others. The authors state: --|the large uncertainty in (climate) response time may be anywhere from a decade to more than a century..." and, "These results (Antarctic ice core data) further support the role of orbital forcing in Pleistocene glacial-interglacial cycles..."

Where have the deniers been for the past 21 years? Clearly not reading the scientific literature on climate change.

As regards the Holocene Maximum and the medieval warming, I refer Mr. Barnes to the relevant literature, to which he has Internet access. No one in the scientific community argues that CO2 is the only driver of climatic change. The Paleocene-Eocene Thermal Maximum of 50 million years ago ended when Antarctica slipped over the south geographic pole and initiated a long-term global cooling. The Arctic Ocean froze, Greenland became ice-covered, and we eventually slid into our ice ages, which began about 3 million years ago.

Finally, I examined the article by Gerlich and Tscheuschner on "Falsification of the atmospheric CO2 Greenhouse effect..." in which the authors make the astonishing statement that there is no global mean temperature, and that we therefore cannot measure changes in that temperature!

Both authors need to get out of their laboratories and do some field work, where they would see that local temperatures are stirred by winds to produce mean temperatures over wide areas.

Their argument that global warming is impossible because the greenhouse effect does not operate in the atmosphere reminds me of the armchair engineers who looked at the flight of bumblebees. After measuring body mass and wing surface area, they conclusively demonstrated that the bumblebee cannot fly because it would violate the laws of physics. The bumblebee does not know this and goes ahead and flies anyway.

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