

## Better Science - Where is the Recent Warming?

Two Friends of Science members published the following letters in the Readers' Forum section of the September 2012 issue of "The PEG Magazine", the official publication of the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

### HERE'S SOME BETTER SCIENCE

*Re: Online Denials Not Well Founded, by J. Edward Mathison, P.Geol., and Let's Get Back to Applying Science, by Joe Green, P.Eng., Readers' Forum, The PEG, April 2012.*

A return to the appropriate application of science would be most welcome. But how do we define Science? Since the 17th century a scientific method with accepted standards has developed. Researchers propose hypotheses as explanations of observed phenomena and design experimental studies to test them. Fundamental is the principle of full transparency, with data and methodology archived and shared so results can be verified and reproduced independently by other scientists.

This has not been the pattern for the climatologists in the Intergovernmental Panel on Climate Change, who have shown a total disregard for these procedures by withholding data, refusing to reveal or discuss methodology, and essentially ignoring evidence contrary to their hypothesis.

Phil Jones of the Climate Research Unit of the U.K.'s University of East Anglia has not been forthcoming. Despite numerous freedom of information requests and enquiries, data and its associated methodology have not been fully released for independent due diligence. This is notwithstanding that this is the temperature data set presented as primary evidence of late 20th century warming, and the basis for draconian policy and taxation measures.

Jim Hansen told us in 1988 to expect 2-4 C of warming in 25 years. We have experienced only a tenth of that. Current global temperatures are significantly below IPCC forecasts published in 2007. We are below even the zero-emission path indicated then by the IPCC. Since CO<sub>2</sub> is being added continuously, the lack of response demonstrates that the IPCC estimates of warming induced by it are substantially in error.

Then there is the notorious Hockey Stick graph, a piece of bad science which should never have achieved peer review. It eliminated well-documented, historical variations in climate, and it inadequately handled statistics, resulting in the spurious representation of late 20th century warming.

There have been eight cycles since the Pleistocene Ice Age, which have all been documented in worldwide, peer-reviewed papers. The Little Ice Age has 600 citations. The Medieval Warm Period has 1,008 citations. The Dark Ages Cold Period, the Warm Period, the Bronze Age Cooling and the Minoan Warming are documented in historic and archaeological literature and by detailed proxy temperature studies.

The presence of these millennial-scale oscillations of climate, with temperatures of the warm cycles greater than our current high, clearly demonstrates that there is nothing unusual about the Earth's present climate state and that the warming we're experiencing is not unprecedented.

Even in the 20th century, the correlation of CO<sub>2</sub> with global average temperature is poor, while there is a body of literature indicating a strong correlation of solar activity with global climate - and not just in the past century but throughout geological time.

Henrik Svensmark, director of the Centre for Sun-Climate Research at the Danish National Space Institute, argues that the Earth's climate results from the interplay of cosmic rays with solar wind. He has demonstrated experimentally that cosmic nucleate aerosols that stimulate cloud formation, especially in the lower troposphere. Recently the European Centre for Nuclear Research experimentally confirmed Svensmark's hypothesis.

Since low cloud reflects the sun's shortwave radiation, the surface cools. Thus a highly active sun gives low cosmic ray counts and warming, but a weak sun results in high cosmic ray counts and cooling.

This concept has now been confirmed by observation, measurement and experiment, and shows that the solar system interacting with the cosmos, especially the Milky Way Galaxy, is the primary driver of the Earth's climate. This interaction accounts for 95 per cent of the climate variability of the last 550 million years, said Shaviv and Veizer in research published in 2003. Also, Solar Cycle 24, once predicted to be the most active in recorded history, now appears to be the weakest since 1790. Most solar scientists regard this as an indication of future cooling of Earth's climate.

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## **IF HUMANS ARE CAUSING CLIMATE CHANGE, WHERE IS THE RECENT WARMING?**

*Re: Online Denials of Climate Change Not Well Founded, by J. Edward Mathison, P.Geol., Readers' Forum, The PEG, April 2012.*

Let's get the facts straight. There is no question that the climate is changing. Always has been, always will be. The debate, and the potential waste of trillions of dollars of Earth's limited resources, revolves around whether humankind is causing the Earth to warm.

For hundreds of years, our actions have been increasing carbon dioxide concentrations in the atmosphere. During much of the time, the Earth's temperature has actually dropped.

But what about recent history? It has been 30 years since someone tweaked the computer inputs and began proclaiming that, because man causes the concentration of carbon dioxide to increase (specifically by burning fossil fuels), a corresponding temperature increase will occur, thereby unleashing devastating, anthropogenic climate change. Now that we have 30 years of real data behind us, isn't it time to analyse whether even the most basic computer projection has come true?

Since 1980, man has increased carbon dioxide concentrations, year after year on an almost straight line, trending upwards. According to computer projections, we should see a similar upward trend in the Earth's temperature. But we don't.

Recent history tells us that Earth's temperature increased from 1980 until about 2000, but now has flatlined, with hints of dropping, even though we continue adding carbon dioxide to the atmosphere. This simple observation should raise red flags.

We should be extremely cautious about expending more of our limited resources on something that, at its very heart, could be wrong. The global warming and inherent climate change we have seen recently are but the tail end of a warming cycle that has melted 99 per cent of the glacial ice caps. Humankind has just awakened to this observation and somehow feels responsible.

As a nation, Canada should applaud this natural global warming – because without it, Canada wouldn't even exist.

For more information, visit [friendsofscience.org](http://friendsofscience.org), where real science is used to analyze the climate.

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