

Real friends tell the truth

On November 19 - the day after Greenpeace leaked unsavoury secrets of TransCanada's Energy East Pipeline campaign - the Ottawa airport was adorned with a billboard proclaiming "global warming has stopped" and commuters along the TransCanada highway in Montreal woke up to the slogan: "The sun is the main factor causing climate change. Not you. Not CO₂". The billboards are just a part of a 15 city pan Canadian advertising campaign.

The organization behind the signs is a Calgary group with the Orwellian name "Friends of Science" whose purpose is "To educate the public about climate science". For over ten years, the Friends have been spreading the message that the scientific community is wrong, that the warming isn't man-made and that "the Sun is the main direct and indirect driver of climate change."

When the Friends started in 2002, it was possible to plausibly portray their solar theory as scientifically valid. True, the theory might have been implausible: after all, the sun had been cooling for decades and most of the scientific community were convinced that the warming was anthropogenic. But implausible is not disproven: the Friends could legitimately hope that someday, someone, somewhere would find a mechanism strong enough to amplify microscopic solar changes and explain how the sun really was responsible.

But all that changed in April this year when - for the first time in the journal *Climate Dynamics* - the giant natural fluctuation theory was scientifically tested and rejected. More precisely, it was shown that the global warming of nearly 0.9°C over the period 1880-2004 had less than a 1% chance of being caused by a giant natural fluctuation (most likely less than 0.1%). This means that solar (and other) theories of natural variability could be confidently rejected, leaving the anthropogenic theory as the only one viable.

Take a medical analogy. Someone proposes a new drug to cure an ailment. They have a plausible sounding reason for why it works. Yet no matter how beautiful the explanation, if the drug fails a controlled test, then it doesn't work and it can be a criminal offense to foist it on an unsuspecting patient. The idea that the sun has driven the post-industrial warming may sound great, but it has failed.

When these results were announced through a McGill University press release, it generated a lot of excitement. Within hours, on a skeptics' site, Lord Christopher Monkton of Brenchley set the tone by terming the paper "a mephitic ecotoplasmic emanation of the forces of darkness". Soon after, the "Friends" issued their own communiqué and pressured the McGill chancellor to remove the McGill release. The Friends headline was "100% Wrong to Omit Previous Natural Warm Periods" citing as evidence the fact that between 1663 and 1762, Central England (roughly the Greater London area) had witnessed a 0.9°C warming hence proving that such increases were natural. Unfortunately, they failed to realize that all of England is only 0.04% of the Earth's surface area and that the actual global temperature change over that period was the far smaller 0.2°C.

As further evidence that the temperature increase over the last one hundred years might be natural, they pointed to earlier periods: the "Minoan Warm of 3,000

years ago, the Roman Optimum of 2,000 years ago, and Medieval Warm of 1,000 years ago". But this simply compounded their local / global confusion with another one: a slow versus rapid confusion. What the science showed was that the (rapid) natural global scale change of 0.9°C over a 125 year period was so unlikely as to be discounted; however the same (slow) change over much longer periods are possible.

A final argument that resurfaced just last week on a Friends sponsored billboard at the Ottawa airport, is the claim that since 1998 the warming has "stopped". While it is true that since 1998, the temperatures have mostly fluctuated about their record high levels, giving the appearance of a stoppage, this was quite simply explained in a new paper in July. Using the same statistical approach as in the April paper, it turns out that the hiatus in the warming is simply a moderate natural cooling fluctuation that followed a somewhat larger natural prepause warming event from 1992-1998. Indeed, the prepause warming was so strong and took us so far above the long term behaviour, that it was only in 2012 that the global temperature fell back to its average long term (rising) anthropogenic trend. In the meantime, the natural cooling has temporarily masked continuing anthropogenic warming.

The Friends' advertising campaign is a deceptive business practice that aims to sell a theory that is known to be false. The snake oil they purvey is a worthless product that would prevent us from taking meaningful action. Their false advertising falls under the *Federal Competition Act*, that "prohibits the making, or the permitting of the making, of a representation to the public, in any form whatever, that is false or misleading in a material respect." The legal authorities should take them to task.

References:

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