

Cartoon by Bob Lynch

## Why the climate models are wrong

Originally published in [The Washington Times](#)

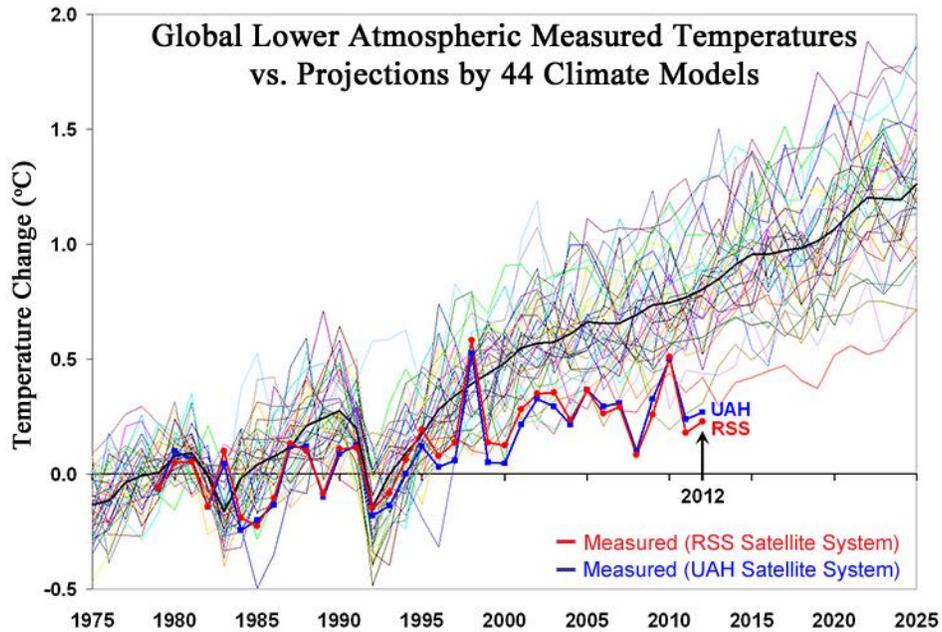
By Steve Goreham

Climate science is in turmoil. Contrary to predictions by the world's leading climate models and despite rising levels of atmospheric carbon dioxide, global surface temperatures have been flat for 16 years. How can it be that the climate models are wrong?

Last October, the UK *Daily Mail* [announced](#) that temperature data from the UK Meteorological Office showed no global warming for 16 years. In December, an advance chart from the upcoming Fifth Assessment Report of the Intergovernmental Panel on Climate Change [showed](#) a divergence between model projections and actual global temperatures. In January of this year, the Met Office [revised](#) their forecast of temperatures down to almost no increase over the next five years.

Media publications that have been staunch supporters of the theory of man-made climate change have noted the model failure. In March, *The Economist* [stated](#), "The climate may be heating up in response to greenhouse gases less than was once thought." *The New York Times* [noted](#) in June that the temperature slowdown "is a bit of a mystery to climate scientists."

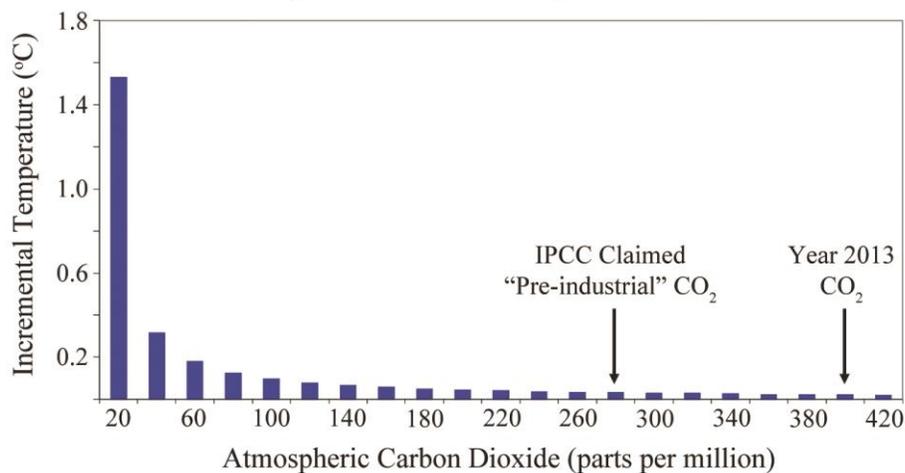
All major climate models have overestimated the effects of man-made warming. Analysis by Dr. Roy Spencer and Dr. John Christy [shows](#) that 44 of the world's leading climate models projected an average temperature rise of about 0.5°C during the last 16 years when measured temperatures were flat. The analysis was recently updated to include 73 of the leading climate models. Not a single model made an accurate forecast.



Spencer and Christy (2013)

In any reasonable scenario, carbon dioxide can't cause catastrophic global warming by itself. This is because the absorption of infrared radiation by CO<sub>2</sub> is non-linear. The first 20 parts per million of CO<sub>2</sub> in our atmosphere account for about one-half of the greenhouse warming from CO<sub>2</sub>. Adding more carbon dioxide has a diminishing warming effect. Doubling atmospheric CO<sub>2</sub> from 280 ppm to 560 ppm, whether from natural or man-made causes, would by itself increase Earth's surface temperature by only about 1.2°C.

### The Diminishing Effect of Atmospheric Carbon Dioxide

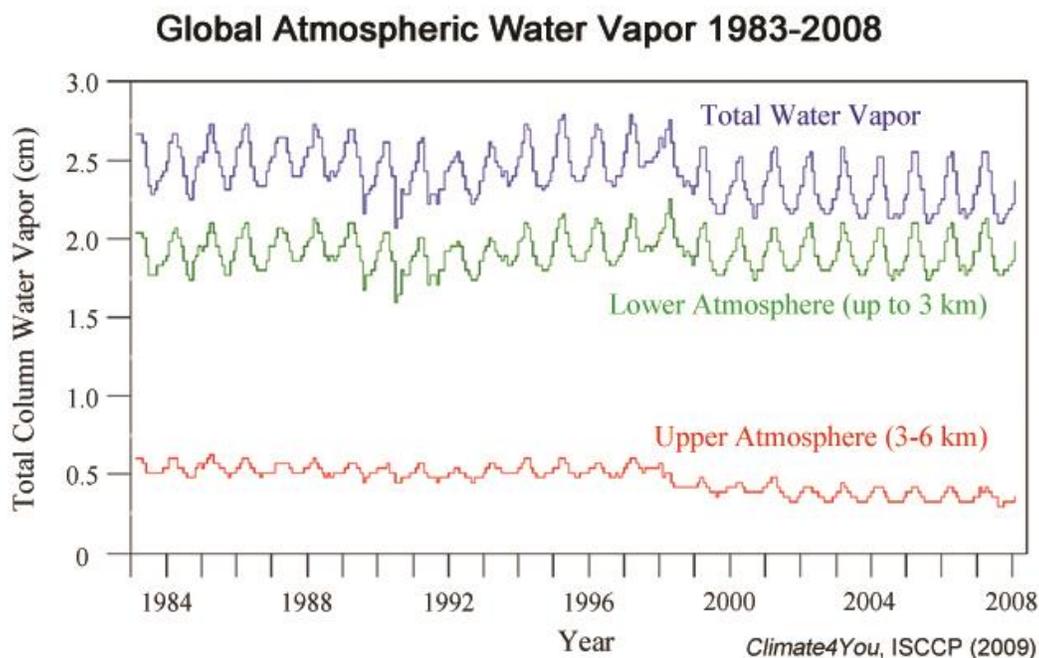


Archibald (2008)

So how do the climate models reach their alarming conclusions? They assume that positive feedback from water vapor will cause additional warming. The argument is that, since warmer air can hold more moisture, water vapor will increase in the atmosphere as Earth warms. Since water vapor is a greenhouse gas, additional water vapor will add additional warming to that caused by CO<sub>2</sub>.

The assumption of positive feedback from water vapor has been integral to the climate models since the 1960s, when Dr. Syukuro Manabe developed one of the first models. As part of his model, he [assumed](#) that global relative humidity remained constant as the atmosphere heated up. This meant that the atmosphere would hold increasing amounts of water vapor, adding additional greenhouse heating to that of carbon dioxide.

But, satellite data shows atmospheric water vapor to be relatively constant over the last 30 years. In addition, peer-reviewed papers by [Lindzen and Choi](#) (2011) and [Spencer and Braswell](#) (2010) show that climate system feedbacks are likely to be low or even negative. Rather than adding to the warming, water vapor and clouds may even act to reduce warming from rising atmospheric CO<sub>2</sub>.



It appears that the models have relied on a “flea wagging the dog” assumption. Forces driving Earth’s water cycle, which includes weather and the oceans, are many orders of magnitude more powerful than the ebb and flow of carbon dioxide into our atmosphere. A large hurricane [releases](#) heat energy at a rate of one exploding 10-megaton nuclear bomb every twenty minutes. The idea that the atmospheric level of CO<sub>2</sub>, a trace gas, is controlling weather and the water cycle is improbable. The idea that mankind’s relatively tiny CO<sub>2</sub> emissions impact the water cycle is preposterous.

As Dr. Spencer [pointed](#) out in his recent congressional testimony, US policies to fight climate change are based on failed climate model projections. Suppose we re-think our misguided war on climate change?

Steve [Goreham](#) is Executive Director of the [Climate Science Coalition of America](#) and author of the [book](#) *The Mad, Mad, Mad World of Climatism: Mankind and Climate Change Mania*.