New Observations Show Carbon Emissions Isn't Causing Global Warming

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2 April 2007

Current Summary of Crucial Evidence

Background

A paper I wrote that briefly describes the history of why we used to believe that carbon emissions caused global warming, and how we got to where we are now in the debate:

http://mises.org/story/2571

Ice Core Data Reverses — 2003

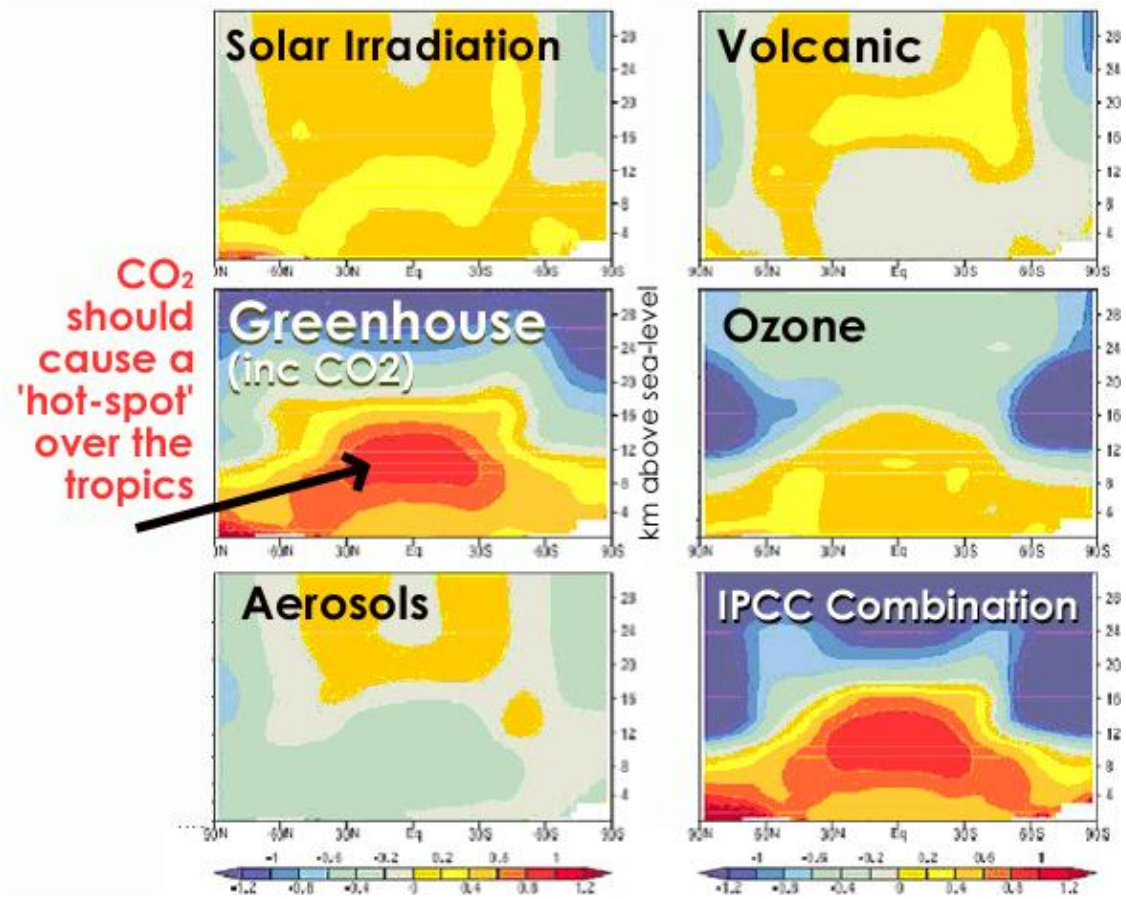
First crucial point, 2003. We've all seen Al Gore's movie. When the world saw the early, low resolution ice core data first gathered from 1985 to 2000, we thought that CO2 was the culprit causing global warming: CO2 levels and temperature rose and fell in lockstep over the last half a million years, to the resolution of the old ice core data (data points over a thousand years apart). We *assumed* that CO2 levels controlled the world's temperature.

After further research, by 2000 – 2003 new high resolution ice core results (data points only a few hundred years apart) allowed us to distinguish which came first—rising temperature or rising CO2? We found that temperature changes *preceded* CO2 changes in past warmings by an average of 800 years. So temperature rises caused the CO2 rises, and not the other way around as previously assumed (as the oceans warm, they release more of their CO2— that is, the vapour pressure of CO2 over the oceans rises). A classic case of the old warning: "correlation is not causation". The world should have started back-pedalling away from blaming carbon emissions in 2003:

http://www.noe21.org/dvd2/Global%20Warming%20FAQ%20-%A0%20temperature.htm

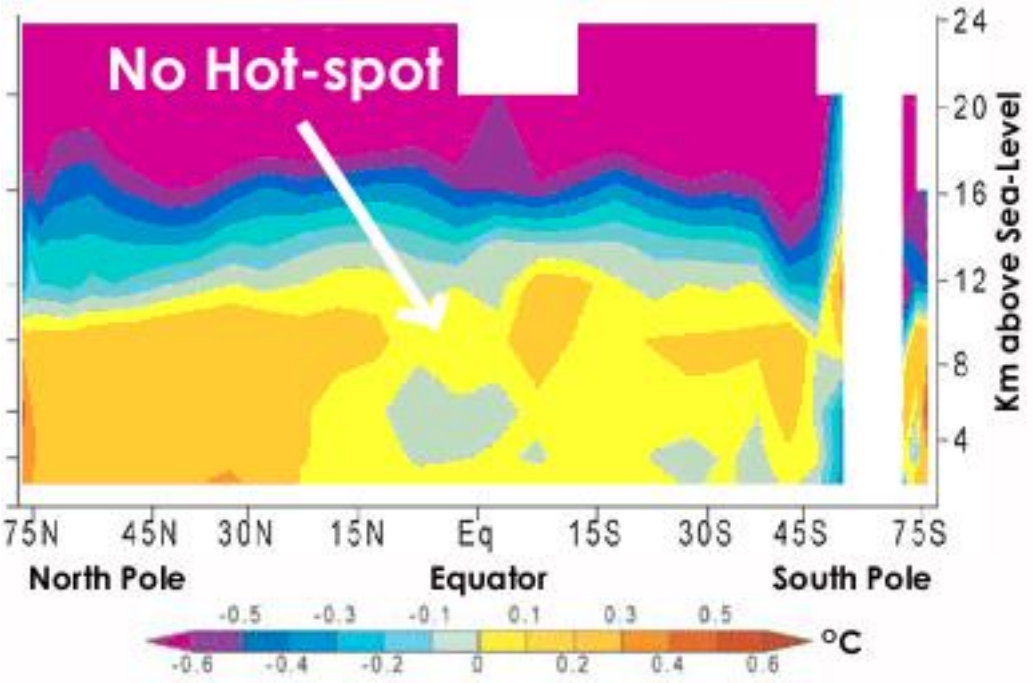
Greenhouse Signature Missing — 2007

Second crucial point, August 2007. Each possible cause of global warming causes the atmosphere to warm at different latitudes and altitudes — that is, each cause will produces a distinct pattern of heating in the atmosphere, a distinct "signature". So there **is** a means of determining what is causing the global warming, as the following diagram from the IPCC demonstrates. (Notice that the IPCC didn't include a diagram for high energy cosmic rays, the most likely cause of global warming, because the IOPCC resolutely refuses to consider that as a cause.) The greenhouse signature is very distinct from the others: warming due to greenhouse would cause most warming in the tropics at about 10 km up in the atmosphere:



Greenhouse Signatures (IPCC AR 4, 2007, Appendix C)

As of August 2007, we've measured where the warming is occurring using satellites and radiosondes (weather balloons). The observed signature is nothing like the greenhouse signature — the distinct greenhouse signature is entirely missing:



Observed Warming (US CCSP 2006 p.116 fig. 5.7, confirmed by more measurements published in 2007)

Those who still blame CO2 would point out that there is measurement uncertainty in a radiosonde measurement of temperature, and have tried to talk up those possible errors enough to suggest that maybe a radiosonde can miss the hotspot. Ok, perhaps the uncertainties are large enough for a single radiosonde to have missed the greenhouse hotspot. But there are now lots of radiosondes saying the same thing — and in a statistical sense the uncertainty decreases with each radiosonde that tells the same story. The uncertainty of the combined ensemble of radiosondes is much less than would allow for the presence of the greenhouse signature.

So there is no hotspot in the tropics at 10 km up. So now we know that greenhouse warming is not the (main) cause of global warming. So we know that carbon emissions are not the (main) cause of global warming. And that's on the basis of the only observational evidence that distinguishes the various causes of the global warming.

Of course, these observations need to be repeated by other researchers before we can be completely sure, but they are made by top-notch researchers and reported in top-of-the-line peer-reviewed journals so at this stage they look solid. Recent radiosondes have confirmed the results so far.

This article from August 2007 is a hard read, but the results are new, it is the most accessible so far, and is easier to understand than the raw scientific papers:

http://scienceandpublicpolicy.org/images/stories/papers/monckton/whatgreenhouse/monckongreenhousewarming.pdf

Where the IPCC Models Went Wrong — 2007

So why did we go wrong? Another set of recent observations partly explains why the UN climate models got it so wrong.

Doubling atmospheric CO2 from the pre-industrial level of 280ppm up to 560ppm (which is roughly were the IPCC says we will be in 2100) is calculated by the IPCC to raise the world's air temperature by 1.2C *in the absence of feedbacks such as convection, evaporation, and clouds*.

(By the way, this 1.2C figure comes from a 1984 paper by James Hansen where he obtained the figure by running crude climate models on a computer. I and others can find no theoretical calculations either in that paper or in anything by the IPCC to support that figure. The 1984 paper does have other theoretical calculations on the extent of the greenhouse effect, but they are not the source of the 1.2C figure that is widely quoted by the IPCC as being from that paper.)

But the modellers *assumed* that increased warming would cause more rainfall, which would cause more clouds high up in the atmosphere — and since high clouds have a net warming effect, this would cause more warming and thus more rainfall, and so on. This is one of the main positive feedbacks that causes the UN climate models to predict a temperature rise due to a CO2 doubling of 3.2C (their central estimate), of which we have already experienced 0.7C.

Roy Spencer is a top-class scientist who has spent a few years closely observing temperatures, clouds, and rainfall. In September 2007 he reported that in reality warming is associated with *fewer* high clouds. So the feedback due to high clouds is actually negative. Reversing this feedback in the IPCC models lowers their estimates of warming for a CO2 doubling by about 1.5C.

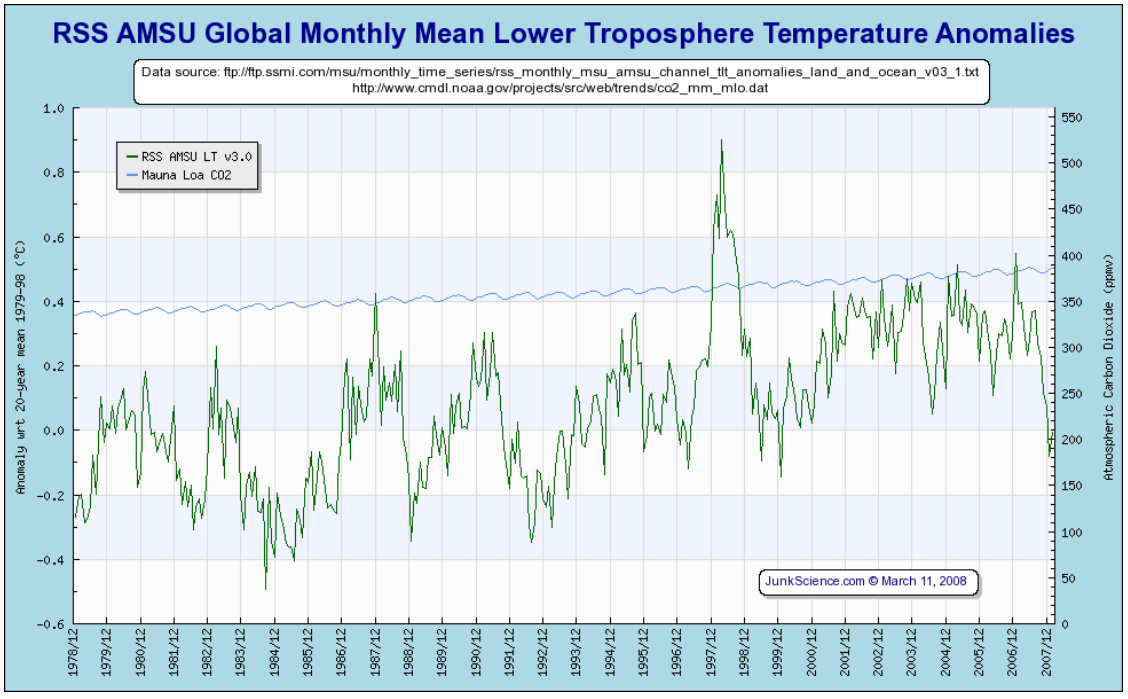
As Spencer says with such understatement: "Global warming theory says warming will generally be accompanied by more rainfall. Everyone just assumed that more rainfall means more high altitude clouds. That would be your first guess and, since we didn't

have any data to suggest otherwise ...". Science is about observational evidence trumping theoretical calculations, which is exactly what is happening here:

http://www.uah.edu/News/newsread.php?newsID=875

Warming Already Waning

The only temperature data we can trust are satellite measurements, and they only go back to 1979. (Ground-station data is corrupted by an unknown amount of urban heat island effect, and the end of Soviet-era hardship subsidies for Siberian outposts based on how cold it was.) Satellite temperature data shows that there has been no warming in the southern hemisphere, and that the warming trend in the northern hemisphere has waned since 2001. For the world as a whole, global warming seems to have stopped since about 2002 (and the peak in 1998 was due to an El Nino).



Global Satellite temperatures (1979 – Mar 2008)

http://www.junkscience.com/MSU_Temps/RSSglobe.html

http://www.junkscience.com/MSU_Temps/RSSNHem.html

http://www.junkscience.com/MSU_Temps/RSSSHem.html

(Gratuitous advice for those whose jobs depend on the idea that carbon emissions cause global warming: Find another job to pay your mortgage and feed your kids!)

Three Stages of Knowledge and the IPCC

Our scientific understanding of global warming has gone through three stages:

1. 1985 – 2003. Old ice core data led us to strongly suspect that CO2 causes global warming.
2. 2003 – 2007. New ice core data eliminated previous reason for suspecting CO2. No evidence to suspect or exonerate CO2.
3. From Aug 2007: Know for sure that greenhouse is not causing global warming. CO2 no longer a suspect.

The IPCC 2007 Assessment Report (the latest and greatest from the IPCC) is based on all scientific literature up to mid 2006. The Bali Conference was the bureaucratic response to that report. Too bad that the data has changed since then!

Further Thoughts

Carbon emissions as the cause of global warming was only ever a theory, based on some simple and unrealistic back-of-the-envelope calculations in the early 1980s and later expanded to computer models that don't really work and cannot “predict” the climate we have already seen given the climate before that.

There is no observational evidence that carbon emissions cause global warming. None. Demand to see it, if anyone disagrees. Evidence has the properties that someone recorded it, at a particular time, using some repeatable method. Theories and computer models are not evidence.

It amazes me that the carbon theories have got as far as they did -- simply because no one demands to see the evidence. Demands to "Show us your evidence!" would collapse the whole alarmist bandwagon in derision and amazement. It's the Emperor's New Clothes all over again. Only this time it’s serious, because there is advanced planning by governments to increase poverty to avoid carbon emissions.

There **is** plenty of evidence that global warming has occurred and may still be occurring. But that is separate to the question of what is **causing** it.