

# The Missing Hotspot Proves that the IPCC Climate Theory is Wrong

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Web address: [sciencespeak.com/SimpleHotspot.pdf](http://sciencespeak.com/SimpleHotspot.pdf)

Alarmist climate theory depends in part on a plausible guess made in the early 1980s when there was insufficient data, but disproved by 1999. Otherwise, alarmist and skeptic scientists mostly agree about how much global warming is caused by extra carbon dioxide.

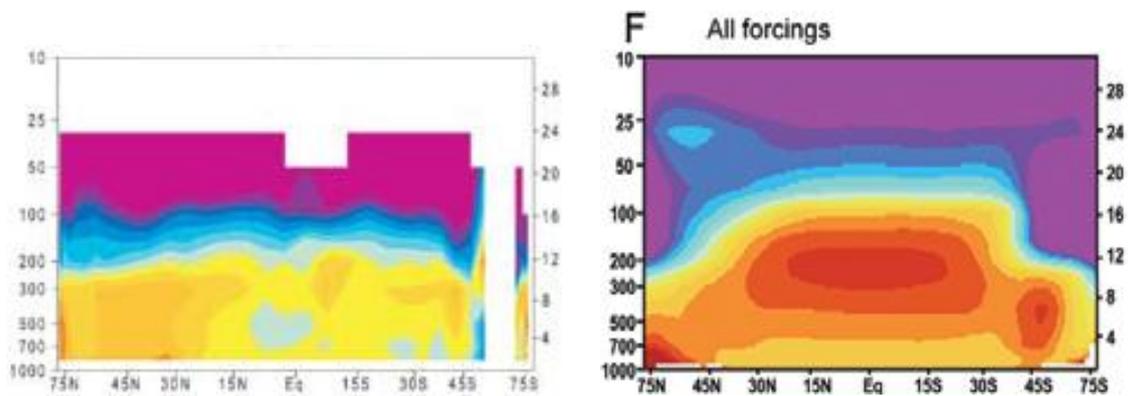
The guess is that water feedbacks strongly amplify the warming due to extra carbon dioxide.

We can calculate how much global temperature will rise if carbon dioxide levels rise by a certain amount, ***if the earth does not respond in any way to being warmer***. Alarmists and skeptics agree on these calculations.

But the earth responds to being warmer by increasing rainfall and evaporation and so on. This response in turn affects the temperature further, called “feeding back”. Particularly important are the feedbacks due to water in all its forms—clouds, rain, water vapor, humidity, snow, ice, and so on. Alarmists say the feedbacks ***triple the warming*** due to carbon dioxide, skeptics say they ***halve them***.

The theoretical amplifying assumed by alarmists would, according to them, be nearly all due to extra water vapor in the atmosphere, from extra evaporation. Water vapor is a greenhouse gas, so this would further warm the planet. That extra water vapor would expand the warm, moist, lower troposphere into the cooler, dry air above it. If that happened it would create a “hotspot” in the atmospheric warming pattern, mainly about 10km up over the tropics. All the climate models predict a prominent hotspot.

But radiosonde (weather balloon) observations from 1979 to 1999, the last period of global warming, show beyond reasonable doubt that there is no hotspot. None at all. So the alarmist climate theory is wrong: there is no extra water vapor, so the feedbacks do not amplify.



**Atmospheric warming: Observed (left) versus alarmist climate theory (right).  
[US CCSP 2006, Figures 5.7 and 1.3. Latitude along bottom from 75 North to 75  
South, height on right from 0 to 30 km.]**

The radiosonde data shocked the alarmists, who expected a hotspot to confirm their theory. Alarmists now dispute the radiosonde data, saying it is so poor that it cannot show any pattern. But radiosondes can reliably detect temperature differences of 0.1°C, and the hotspot would be at least 0.6°C warmer. And there were hundreds of radiosondes—they cannot all have missed it. Alarmists now distract people away from the hotspot issue, and often give the *impression* that they found the hotspot without actually claiming they have.

By 2009, observations of clouds and of outgoing radiation by satellites have both independently shown that water feedbacks in fact *dampen* the warming due to increased carbon dioxide, cutting its warming effect in half.

The alarmists are right that increased extra carbon dioxide heats the planet, but they are exaggerating about the extent. Doubling carbon dioxide levels by 2100 will warm the world by 0.5°C, not the 3.3°C+ predicted by the alarmists and their models. (We agree that the no-feedback warming would be 1.1°C.)

More at [sciencespeak.com](http://sciencespeak.com). An in-depth analysis with links to the major papers and web discussions is at [sciencespeak.com/MissingSignature.pdf](http://sciencespeak.com/MissingSignature.pdf).