



Water high in the sky, water frozen in glaciers both point to climate change

By Michael Scott

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We've talked a lot about water in this space and in The Plain Dealer over the last three years and with good reason. Water is absolutely essential to life and even on this blue planet, increasingly critical as we careen toward 9 billion people.

Our discussion has ranged from the worldwide concerns (**millions still without access to sanitation** or clean drinking water), the Great Lakes (**the 2008 interstate compact**, invasive species, the **Great Lakes Science Center's new exhibit**), Lake Erie (**the return of toxic algae**, the **fight for clean beaches**), the **Cuyahoga River** and other Northeast Ohio streams (the return of healthy fish species) and even stormwater (floods, sewer overflows).

There has been recent discussion in environmental circles, however, about water in two other locations: 10 miles above the Earth and locked up (if decreasingly) in ice -- and both relate to the ongoing global warming brouhaha.

Stratospheric water vapor: Scientists from the National Oceanic and Atmospheric Administration **on Thursday reported** (in the journal **Science**) that they now believe that a recent 10 percent drop in water vapor miles above Earth's surface has tempered (by about 25 percent) the rate of global warming in the last decade compared to the 1980s and 1990s.

"Current climate models do a remarkable job on water vapor near the surface," Susan Solomon, a NOAA senior scientist and primary author of the study said in a news release. "But this is different - it's a thin wedge of the upper atmosphere that packs a wallop from one decade to the next in a way we didn't expect."

The next part, depending on how politically indoctrinated many of us have become on global warming matters, you might find exciting (because there's now more to learn and understand) or indicting (as in 'aha, these guys still don't know what's going on').

The authors of this study also readily admit: "The reason for the recent decline in water vapor is unknown."

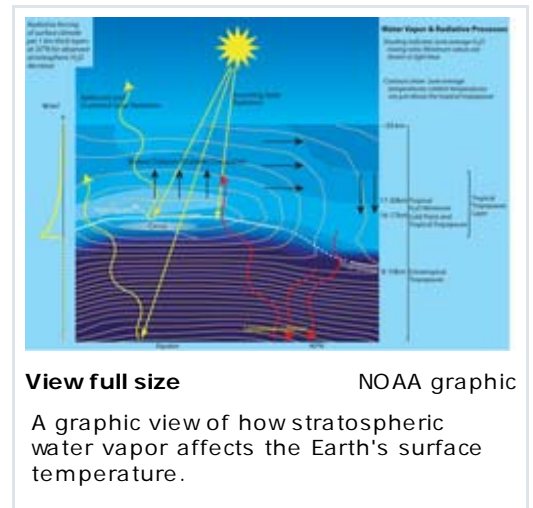
Let the spinning begin.

Glaciergate or minor mistake?:

The Intergovernmental Panel on Climate Change last week stunned us by divulging that its most recent report had overstated (by about 300 years, it would seem) the likelihood of the Himalayan glaciers melting away by 2035.

The **IPCC's statement** points out that the mistake was contained in "a paragraph in the 938-page" report.

Still, coming on the heels of the East Anglia University e-mail scandal, it has given global warming doubters new ammunition.



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NOAA graphic

A graphic view of how stratospheric water vapor affects the Earth's surface temperature.

One doubter (Patrick Michaels of the **Cato Institute**) called for the head of the IPCC to resign, according to the Associated Press. "I'd like to know how such an absurd statement made it through the review process," Michaels said.

The **Union of Concerned Scientists** responded with remarks from scientists, including Ohio State University polar research scientist Lonnie Thompson, asserting that even this error doesn't disprove that glaciers are in decline overall.

A 2005 **World Glacier Monitoring Service** study showed 26 glaciers are advancing, another 18 appear stationary, but that 398 others are retreating.

Cold, snow support warming?:

Meanwhile, the National Wildlife Federation this week released a **new study** that addresses the seemingly contradictory matter of extreme winter weather being *caused* by global warming.

This is a common debate here on the southern shore of the shallowest and most temperamental of the Great Lakes and worthy of more discussion on another day.

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