

## Energy - Docket Optical System

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**From:** Francis Brandt [f.brandt@att.net]  
**Sent:** Sunday, May 12, 2013 3:15 PM  
**To:** Dana Hull; Green, Lynette@Energy  
**Subject:** Fw: Report Card on Global Warming Predictions - Comparing Climate Models With Reality(A-D)

Dana please show to Paul Rogers  
Lynette please show to CEC Commisioners

----- Forwarded Message -----

**From:** ROGER BAIRD <rogbaird@pacbell.net>  
**To:** Roger and Donna Baird <rogbaird@pacbell.net>  
**Sent:** Sat, May 11, 2013 10:34:32 PM  
**Subject:** Report Card on Global Warming Predictions - Comparing Climate Models With Reality(A-D)

California Energy Commssion

**DOCKETED**

**13-IEP-1J**

**TN 70795**

**MAY 13 2013**

Dear Nuclear Folks and Others Interested In Atmospheric Phenomena and Global Impact:

On May 4th Bryce Johnson sent a "Report Card on Global Warming Predictions" which is attached to this note. He also wrote a note with the same graph in which is discussed "Comparing Climate Models with Reality". Clearly, there is increasing divergence over the years between the satellite observations (University of Alabama at Huntsville,UAH, and RSS; RSS in the figure refers to Remote Sensing Systems, a private concern that also measures atmospheric temperatures) and the models. The reasons for the disagreement are not obvious but a few possibilities are discussed.

**From:** Bryce Johnson <[brycenuc@gmail.com](mailto:brycenuc@gmail.com)>  
**Date:** April 30, 2013 9:08:28 PM PDT  
**To:** undisclosed-recipients;;  
**Subject:** Comparing Climate Models with Reality

The alarming temperature predictions made by global-warming "hysterians" have been going on for some thirty years now and history is catching up with them. History has not been kind. The authors give three possible reasons for the discrepancy. I have been preaching reason 1 for years. Reason 2 requires a capricious ocean mentality that decides when it is going to share its vast

heat capacity with the atmosphere and when it will turn it off. I have not examined reason 3, but the authors have cogent comments on it.

One doesn't have to have scientific training to get the message here.

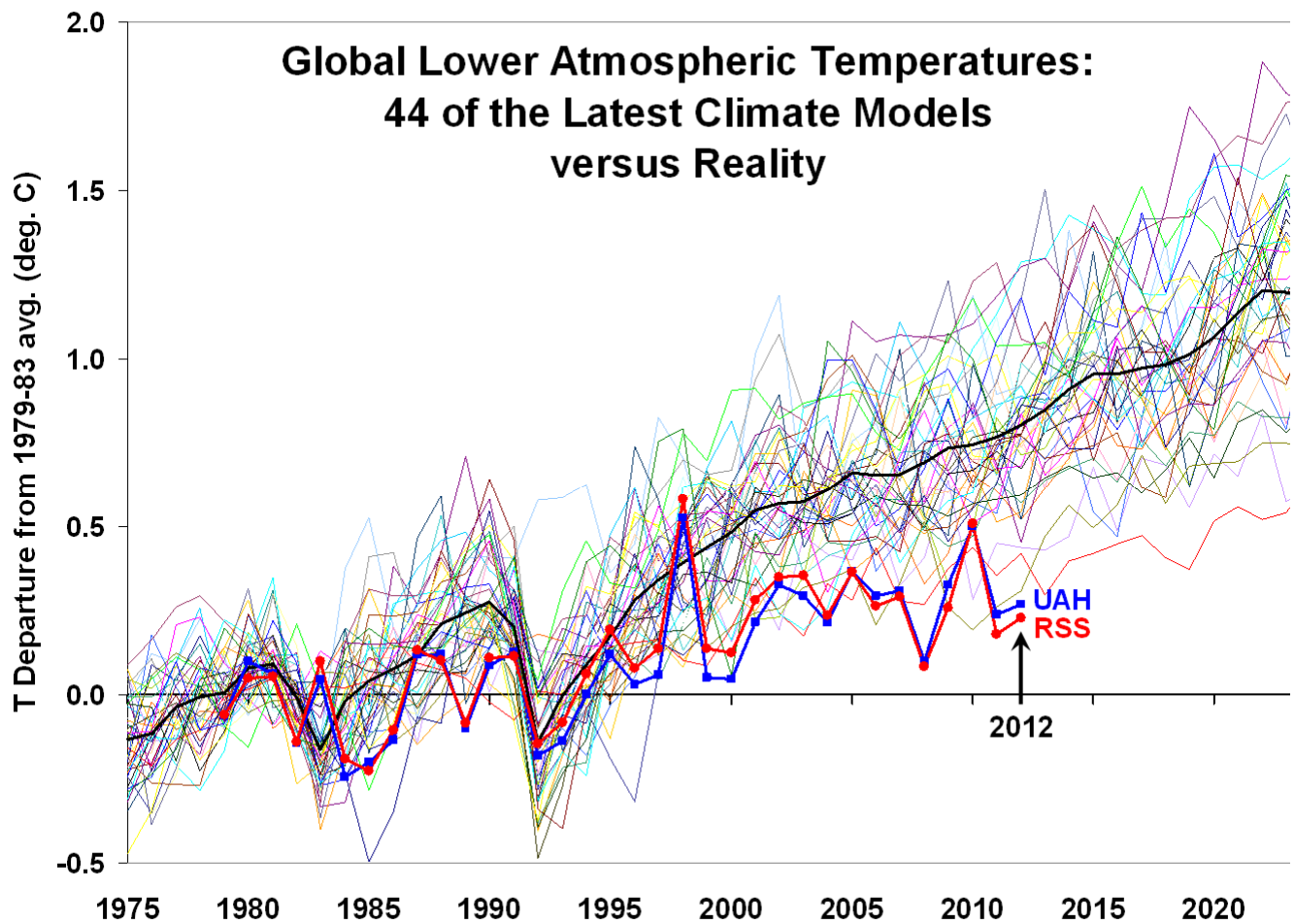
Bryce

### **Global Warming Slowdown: The View from Space**

**April 16th, 2013**

Since the slowdown in surface warming over the last 15 years has been a popular topic recently, I thought I would show results for the lower tropospheric temperature (LT) compared to climate models calculated over the same atmospheric layers the satellites sense.

Courtesy of John Christy, and based upon data from the [KNMI Climate Explorer](#), below is a comparison of 44 climate models versus the UAH and RSS satellite observations for global lower tropospheric temperature variations, for the period 1979-2012 from the satellites, and for 1975 – 2025 for the models:



Clearly, there is increasing divergence over the years between the satellite observations (UAH, RSS) and the models. The reasons for the disagreement are not obvious, since there are at least a few possibilities:

- 1) the real climate system is not as sensitive to increasing CO<sub>2</sub> as the models are programmed to be (my preferred explanation)
- 2) the extra surface heating from more CO<sub>2</sub> has been diluted more than expected by increased mixing with cooler, deeper ocean waters (Trenberth's explanation)
- 3) increased manmade aerosol pollution is causing a cooling influence, partly mitigating the manmade CO<sub>2</sub> warming

If I am correct (explanation #1), then we will continue to see little warming into the future. Additional evidence for lower climate sensitivity in the above plot is the observed response to the 1991 Pinatubo eruption: the temporary temperature dip in 1992-93, and subsequent recovery, is weaker in the observations than in the models. This is exactly what would be predicted with lower climate sensitivity.

On the other hand, if Trenberth is correct (explanation #2), then there should be a period of rapid surface warming that resumes at some point, since the climate system must eventually try to achieve radiative energy equilibrium. Of course, exactly when that might be is unknown.

Explanation #3 (anthropogenic aerosol cooling), while theoretically possible, has always seemed like cheating to me since the magnitude of aerosol cooling is so uncertain it can be invoked in any amount desired to explain the observations. Besides, blaming a *lack* of warming on humans just seems a little bizarre.

The dark line in the above plot is the 44-model average, and it approximately represents what the IPCC uses for its official best estimate of projected warming. Obviously, there is a substantial disconnect between the models and observations for this statistic.

I find it disingenuous for those who claim that, because not ALL of individual the models disagree with the observations, the models are somehow vindicated. What those pundits fail to mention is that the few models which support weaker warming through 2012 are usually those with lower climate sensitivity.

So, if you are going to claim that the observations support *some* of the models, and least be honest and admit they support the models that are NOT consistent with the IPCC best estimates of warming.