

NATIONAL REVIEW ONLINE

Obama's Drought of Facts

By Patrick Michaels

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Following up on his 2008 promise that “This was the moment when the rise of the oceans began to slow, and our planet began to heal,” President Obama has promised to do something about droughts, which are caused — in his opinion — by the dreaded global warming.

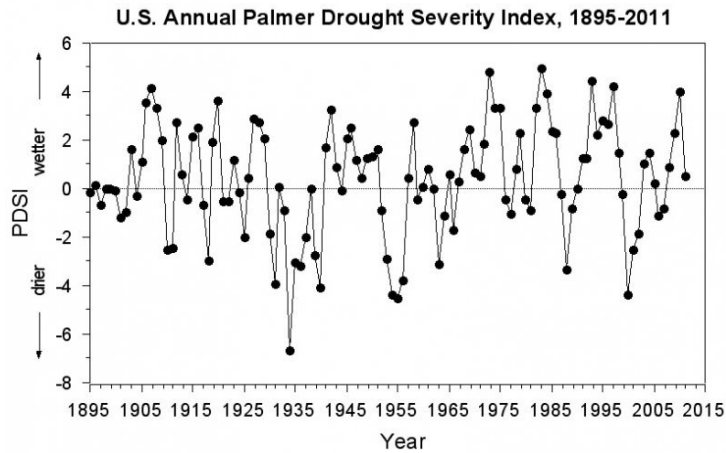
Obama gets a lot of his climate information from NASA's Jim Hansen, an astrophysicist who heads the Goddard Institute for Space Studies. A federal employee, Hansen endorsed John Kerry for president in hotly contested Iowa ten days before the 2004 election. This year, he has been all over the media blaming the summer's major drought on “global warming.”

Global-warming ideologues often make statements of “fact” that are actually testable hypotheses. Good! Let's subject Hansen's statement to some normal scientific scrutiny. Warning: Graphs to follow.

Hansen is saying, simply, that global warming is affecting U.S. temperatures in a way that makes us more prone to drought. Given that the equations that calculate likelihood of drought indeed include a temperature variable (warmer temperature = more evaporation), it would seem he's home free, no?

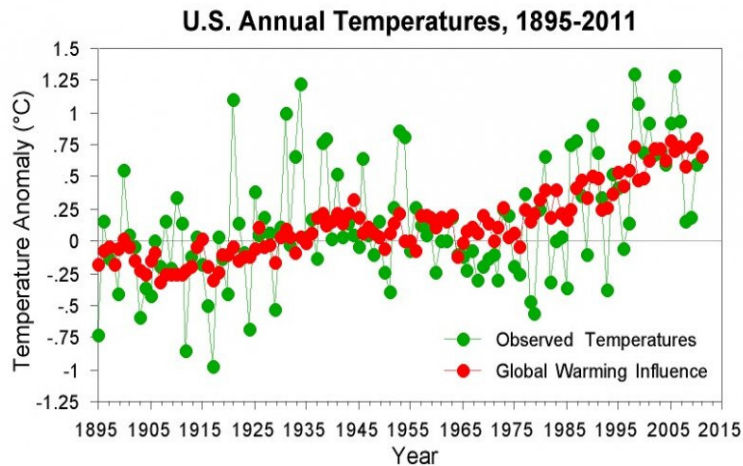
The standard measurement of drought is known as the Palmer Drought Severity Index (PDSI); it is based upon the pioneering calculations made by Wayne Palmer, a federal hydrologist, back in 1948. When the index is below -2 , that's the threshold for drought. If it's above $+2$, we are anomalously wet. The index is calculated every week for hundreds of locations around the country.

Here's the history of the PDSI back to 1895:



Some possible trouble for Obama's hypothesis: It appears the PDSI is going up, meaning the country is getting wetter.

So if, as Obama and Hansen would like us to believe, global warming is causing our droughts, a substantial portion of our national temperature increase should be related to planetary heating. That's easy to calculate with simple regression. The plot below shows both the U.S. temperature history and the portion of it that is related to global temperature changes:

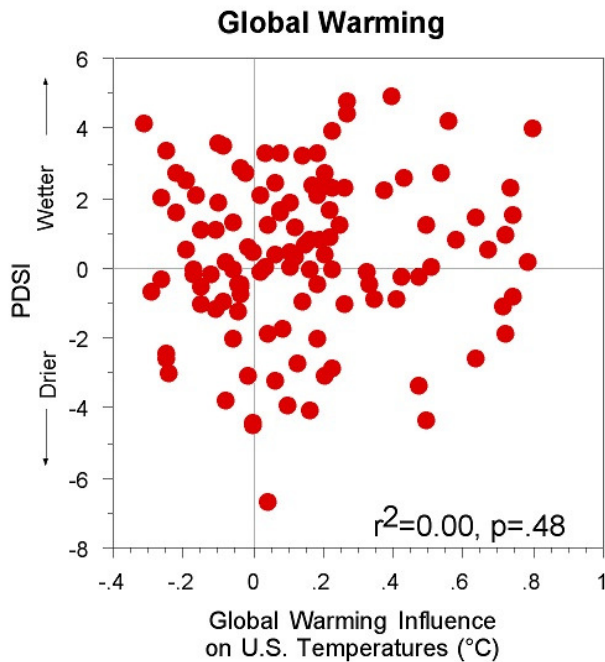


Green: U.S (lower 48) temperatures

Red: Portion of the U.S. history related to global temperatures

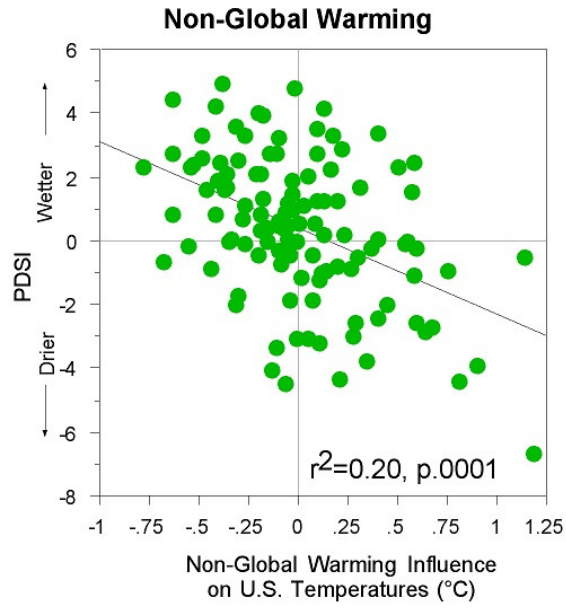
If Hansen is right, the portion of the U.S. temperature history associated with global warming should be correlated with increasing drought.

Here are the sad facts for Hansen and the president: There is no relationship whatsoever between global-warming-related U.S. temperature and drought. To wit:



Note the equation " $p = .48$ " at the bottom of the graph. This is the confidence level in support of Hansen's hypothesis. For the hypothesis not to be rejected, this level should be at .05 or lower. In fact, on the basis of the Supreme Court's 1993 decision *Daubert v. Merrell Dow*, we can say that the Court would probably label Hansen's contention as "junk science."

To make matters worse, Hansen and Obama have it exactly wrong. Suppose we look at the U.S. temperature variation that is *not* related to global warming and plot it against the PDSI. Voilà! The relationship is highly significant, at the .0001 level. In other words, anything *but* global warming is what drives U.S. drought.



When it comes to dreaded droughts, President Obama could do a lot for his climate credibility by listening to what Jim Hansen says — and proclaiming exactly the opposite.