



Is climate alarmist consensus about to shatter?

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On November 10, 1942, after British and Commonwealth forces defeated the Germans and Italians at the Second Battle of El Alamein, Winston Churchill told the British Parliament, “Now this is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning.”

In *The Hinge of Fate*, volume 3 of his marvelous 6-volume history of World War II, he reflected, “It may almost be said, ‘Before Alamein we never had a victory. After Alamein we never had a defeat’.”

The publication of Nicholas Lewis and Judith Curry’s newest paper in *The Journal of Climate* reminds me of that. The two authors for years have focused much of their work on figuring out how much warming should come from adding carbon dioxide to the atmosphere. In this paper they conclude that it’s at least 30% and probably 50% less than climate alarmists have claimed for the last forty years.

In fact, there are reasons to think the alarmists’ error is even greater than 50 percent. And if that is true, then all the reasons for drastic policies to cut carbon dioxide emissions—by replacing coal, oil and natural gas with wind and solar as dominant energy sources—simply disappear. Here’s another important point.

For the last 15 years or more, at least until a year or two ago, it would have been inconceivable that *The Journal of Climate* would publish their article. That this staunch defender of climate alarmist “consensus science” does so now could mean the alarmist dam has cracked, the water’s pouring through, and the crack will spread until the whole dam collapses.

Is this the beginning of the end of climate alarmists’ hold on climate science and policy, or the end of the beginning? Is it the Second Battle of El Alamein, or is it D-Day? I don’t know, but it is certainly significant. It may well be that henceforth the voices of reason and moderation will never suffer a defeat.

Shattered Consensus: The True State of Global Warming was edited 13 years ago by climatologist Patrick J. Michaels, then Research Professor of Environmental Sciences at the

University of Virginia and the State Climatologist of Virginia; now Senior Fellow in Environmental Studies at the Cato Institute. Its title was at best premature.

The greatly exaggerated “consensus”—that unchecked human emissions of carbon dioxide and other “greenhouse” gases would cause potentially catastrophic global warming—wasn’t shattered then, and it hasn’t shattered since then. At least, that’s the case if the word “shattered” means what happens when you drop a piece of fine crystal on a granite counter top: instantaneous disintegration into tiny shards.

However, although premature and perhaps a bit hyperbolic, the title might have been prophetic.

From 1979 (when the National Academy of Sciences published “Carbon Dioxide and Climate: A Scientific Assessment”) until 2013 (when the Intergovernmental Panel on Climate Change published its “5th Assessment Report” or AR5), “establishment” climate-change scientists claimed that—if the concentration of carbon dioxide (or its equivalent in other “greenhouse” gases) doubled—global average surface temperature would rise by 1.5, Å4.5 degrees C, with a “best estimate” of about 3 degrees. (That’s 2.7, Å8.1 degrees F, with a “best” of 5.4 degrees F.)

But late in the first decade of this century, spurred partly by the atmosphere’s failure to warm as rapidly as the “consensus” predicted, various studies began challenging that conclusion, saying “equilibrium climate sensitivity” (ECS) was lower than claimed. As the Cornwall Alliance reported four years ago:

“The IPCC estimates climate sensitivity at 1.5°C to 4.5°C, but that estimate is based on computer climate models that failed to predict the *absence of warming* since 1995 and predicted, on average, four times as much warming as actually occurred from 1979 to the present. It is therefore not credible. Newer, observationally based estimates have ranges like 0.3°C to 1.0°C (NIPCC 2013a, p. 7) or 1.25°C to 3.0°C—with a best estimate of 1.75°C (Lewis and Crok 2013, p. 9). Further, “No empirical evidence exists to support the assertion that a planetary warming of 2°C would be net ecologically or economically damaging” (NIPCC 2013a, p. 10).” [Abbreviated references are identified here.]

However, most of the lower estimates of equilibrium climate sensitivity were published in places that are not controlled by “consensus” scientists and thus were written off or ignored.

Now, though, a journal dead center in the “consensus”—the American Meteorological Society’s *Journal of Climate*—has accepted a new paper, “The impact of recent forcing and ocean heat uptake data on estimates of climate sensitivity,” by Nicholas Lewis and Judith Curry. It concludes that ECS is very likely just 50-70% as high as the “consensus” range. (Lewis is an independent climate science researcher in the UK. Curry was Professor and Chair of the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology and now is President of the Climate Forecast Applications Network.)

Here’s how Lewis and Curry summarize their findings in their abstract, with the takeaways emphasized:

“Energy budget estimates of equilibrium climate sensitivity (ECS) and transient climate response (TCR) [increase in global average surface temperature at time of doubling of atmospheric CO₂ concentration, i.e., 70 years assuming 1% per annum increase in concentration] are derived based on the best estimates and uncertainty ranges for forcing provided in the IPCC Fifth Assessment Scientific Report (AR5).

“Recent revisions to greenhouse gas forcing and post-1990 ozone and aerosol forcing estimates are incorporated and the forcing data extended from 2011 to 2016. Reflecting recent evidence against strong aerosol forcing, its AR5 uncertainty lower bound is increased slightly. *Using a 1869-1882 base period and a 2007-2016 final period, which are well-matched for volcanic activity and influence from internal variability, medians are derived for ECS of 1.50 K (5-95%: 1.05-2.45 K) and for TCR of 1.20 K (5-95%: 0.9—1.7 K).* These estimates both have *much lower upper bounds than those from a predecessor study using AR5 data ending in 2011.*

“Using infilled, globally-complete temperature data gives slightly higher estimates; a median of 1.66 K for ECS (5-95%: 1.15-2.7 K) and 1.33 K for TCR (5-95%: 1.0-1.90 K). These ECS estimates reflect climate feedbacks over the historical period, assumed time-invariant.

“Allowing for possible time-varying climate feedbacks increases the median ECS estimate to 1.76 K (5-95%: 1.2-3.1 K), using infilled temperature data. Possible biases from non-unit forcing efficacy, temperature estimation issues and variability in sea-surface temperature change patterns are examined and found to be minor when using globally-complete temperature data. These results imply that *high ECS and TCR values derived from a majority of CMIP5 climate models are inconsistent with observed warming during the historical period.*

A press release from the Global Warming Policy Forum quoted Lewis as saying, “Our results imply that, for any future emissions scenario, future warming is likely to be substantially lower than the central computer model-simulated level projected by the IPCC, and highly unlikely to exceed that level.”

Veteran environmental science writer Ronald Bailey commented on the new paper in *Reason*, saying: “How much lower? Their median ECS estimate of 1.66°C (5-95% uncertainty range: 1.15-2.7°C) is derived using globally complete temperature data. The comparable estimate for 31 current generation computer climate simulation models cited by the IPCC is 3.1°C. In other words, *the models are running almost two times hotter* than the analysis of historical data suggests that future temperatures will be.

“In addition, the high-end estimate of Lewis and Curry’s uncertainty range is 1.8°C below the IPCC’s high-end estimate.” [emphasis added]

Cornwall Alliance Senior Fellow Dr. Roy W. Spencer (Principal Research Scientist in Climatology at the University of Alabama-Huntsville and U.S. Science Team Leader for NASA’s satellite global temperature monitoring program) commented on the paper. Even Lewis and Curry’s figures make several assumptions that are at best unknown and quite likely false. He noted:

“I’d like to additionally emphasize overlooked (and possibly unquantifiable) uncertainties: (1) the assumption in studies like this that *the climate system was in energy balance in the late 1800s* in terms of deep ocean temperatures; and (2) that we know the *change* in radiative forcing that has occurred since the late 1800s, which would mean we would have to know the extent to which the system was in energy balance back then.

“We have no good reason to assume the climate system is ever in energy balance, although it is constantly readjusting to seek that balance. For example, the historical temperature (and proxy) record suggests the climate system was still emerging from the Little Ice Age in the late 1800s. The oceans are a nonlinear dynamical system, capable of their own unforced chaotic changes on century to millennial time scales, that can in turn alter atmospheric circulation patterns, thus clouds, thus the global energy balance. For some reason, modelers sweep this possibility under the rug (partly because they don’t know how to model unknowns).

“But just because we don’t know the extent to which this has occurred in the past doesn’t mean we can go ahead and assume it never occurs.

“Or at least if modelers assume it doesn’t occur, they should state that up front.

“If indeed some of the warming since the late 1800s was natural, the ECS would be even lower.”

With regard to that last sentence, Spencer’s University of Alabama research colleague Dr. John Christy and co-authors Dr. Joseph D’Aleo and Dr. James Wallace published a paper in the fall of 2016 (revised in the spring of 2017). It argued that *solar, volcanic and ocean current variations are sufficient to explain all the global warming over the period of allegedly anthropogenic warming*, leaving no global warming to blame on carbon dioxide.

At the very least, this suggests that indeed “some of the warming since the late 1800s was natural”—which means the ECS would be even lower than Lewis and Curry’s estimate.

All of this has important policy implications.

Wisely or not, the global community agreed in the 2015 Paris climate accords to try to limit global warming to at most 2 C degrees—preferably 1.5 degrees—above pre-Industrial (pre-1850) levels.

If Lewis and Curry are right, and the warming effect of CO₂ is only 50-70% of what the “consensus” has said, cuts in CO₂ emissions need not be as drastic as previously thought. That’s good news for the billions of people living in poverty and without affordable, reliable electricity. Their hope for electricity is seriously compromised by efforts to impose a rapid transition from abundant, affordable, reliable fossil fuels to diffuse, expensive, unreliable wind and solar (and other renewable) as chief electricity sources.

Moreover, if Spencer (like many others who agree with him) is right that the assumptions behind ECS calculations are themselves mistaken... and Christy (like many others who agree with him) is right that some or all of the modern warming has been naturally driven—then ECS is even lower than Lewis and Curry thought. That would mean there is even less justification for the

punitive, job-killing, poverty-prolonging energy policies sought by the “climate consensus” community.

Regardless, we’re coming closer and closer to fulfilling the prophecy in Michaels’ 2005 book. The alarmist “consensus” on anthropogenic global warming is about to be shattered—or at least eroded and driven into a clear minority status.