

## **Time to stop discussing an issue decided**

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Recently, a commentary, “The global warming-hurricane connection is not conclusive,” by Willie Soon and Sallie Baliunas, made the rounds in opinion pages. It was the latest in a line authored by Drs. Soon and Baliunas on behalf of TechCentral Station and other organizations funded by ExxonMobil and involved in a nationwide effort to confuse the public about the realities of global warming.

Climate science, like the weather forecasting that is its most short-term and local cousin, is indeed imprecise—it works in probabilities and relative likelihoods rather than absolute certainties. Considering all of the available observational evidence and theoretical analysis, there is a worldwide consensus among leading scientists and experts from more than 150 countries that the Earth’s atmosphere and surface waters are warming. There is also consensus that human activities, particularly the combustion of coal, oil, and natural gas, are the primary cause of this unprecedented change.

There is also scientific consensus that warmer ocean waters, and the moister air that this creates, will produce more intense ocean cyclones, commonly known as hurricanes and typhoons. A new study from the U. S. Commerce Department's Geophysical Fluid Dynamics Laboratory in Princeton, N.J indicates that, by the 2080s, seas warmed by rising atmospheric concentrations of heat-trapping greenhouse gases could cause a typical hurricane to intensify about an extra half step on the five-step scale of destructive power. The study, based on supercomputer modeling, with a model similar to the national hurricane prediction model, also found that rainfall up to 60 miles from the core would be nearly 20 percent more intense.

While the recent spate of strong hurricanes may be due to a sort of cyclic warming of Caribbean waters, what Soon and Baliunas fail to note is that, over time, global warming of ocean waters will create an even warmer starting point for this currently acknowledged storm cycle, very likely producing still stronger storms.

Even the Bush Administration, in its 2002 report on climate change, acknowledges this, noting that “Warming is likely to alter coastal weather and could affect the intensity, frequency, and extent of severe storms.” (p.103); “...Coastal communities will be at greater risk of storm surges, especially in the southeastern United States.”(p. 82); and “Hurricanes that do develop are likely to have higher wind speeds and produce more rainfall.” (p. 101).

More intense hurricanes, coupled with increasing populations in coastal regions, spells real trouble in terms of economic costs, public health costs, and emergency management, especially because sea level is also rising due to human induced climate change. This fact is not lost on the world’s largest insurance companies, which predict annual losses of \$150 billion annually within the next 10 years from “climate change-driven natural disasters.”

As likely as we are to be vulnerable to global warming in a variety of ways, from stronger storms and flooding, to drought and crop failures, to famine and major population disruptions, we already know we are at serious risk for public health problems from air pollution and economic disruption as a result of dwindling and threatened oil supplies. For example, a new study from the University of New Hampshire found that poor *outdoor* air quality had a significant negative effect on productivity at a variety of workplaces, from a manufacturing plant to hospitals (Imagine the effect on the patients!).

We are going to have to derive and use our energy differently in the future to save the environment and our way of life. We need to do this fairly rapidly for reasons of national security, economic vitality, public health, and to reduce our very likely vulnerability to the increasingly evident impacts of global warming.

All of the disinformation, posturing, and attempts to create confusion are only delaying the necessary and the obvious, and constitute an unethical disservice to us all. The time to argue over our degree of risk is over. The time to recognize the risk is multifaceted and serious – the time for action – has come.