

## Opinion

## Climate Change and Local Responses

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*My opinions are not necessarily the positions of AIAA or AIAA Houston Section. [editor2012@aiaahouston.org](mailto:editor2012@aiaahouston.org)*

Local responses include a citizen's responsibility to influence national and international leaders, institutions and cultures. With local responses in mind, I note that AIAA Houston Section's region includes Texas A&M University, the University of Houston and Rice University.

The names of 23 faculty members appear [here](#) as of May 29, 2013: "We, the faculty of the Department of Atmospheric Sciences of Texas A&M University, agree with the recent reports of the [Intergovernmental Panel on Climate Change \(IPCC\)](#) that:

1. "It is virtually certain that the climate is warming, and that it has warmed by about 0.7 deg. C over the last 100 years.
2. "It is very likely that humans are responsible for most of the recent warming.
3. "If we do nothing to reduce our emissions of greenhouse gases, future warming will likely be at least two degrees Celsius over the next century.
4. "Such a climate change brings with it a risk of serious adverse impacts on our environment and society."

A nearby AIAA Section includes the University of Texas at Austin. The same four statements appear on a web page [there](#) along with the names of 24 faculty members: "Reality of Human Influence on Global Climate: We, the members and colleagues of the Jackson School of Geosciences program in Climate Systems Science, agree with the scientific assessment pre-

sented in reports by the IPCC that... [the same four statements].

Professor Dessler of Texas A&M University stated on chart 37 from an October 2011 [presentation](#) that the number of "skeptical" climate scientists in Texas is zero.

Professor John Nielsen-Gammon of Texas A&M University's Department of Atmospheric Sciences writes the Climate Abyss blog for the Houston Chronicle. The title for his [entry](#) of May 16, 2013 blog entry is, "The Size of the C." He concludes that entry by writing, "For policy purposes, the key question is not whether global warming is happening (it is), or whether man is a major cause (we are). The key question, upon which all policy decisions hinge, is the size of the C." He presents two acronyms, potentially catastrophic Anthropogenic Global Warming (cAGW) and likely Catastrophic Anthropogenic Global Warming (CAGW).

Our next issue of Horizons will cover the AIAA Houston Section Annual Technical Symposium (ATS 2013) of Friday, May 17, 2013, at NASA / JSC Gilruth Center. We can already access charts presented by Professor Nielsen-Gammon at this [event](#).

National Public Radio (NPR) [praised](#) the Alliance for Climate Education (ACE) in a May 7, 2013 broadcast. As shown in the map, ACE works with high school students around the country, but the closest location to Houston for their current work is Dallas.

NASA's web site called [Global Climate Change](#) looks great based on my quick look today. On the web page about Effects, they define some phrases used by the IPCC: "Definitions of likelihood ranges used to express the assessed probability of occurrence: *virtually certain* >99%, *very likely* >90%, *likely* >66%. Source: *Summary for Policymakers, IPCC Synthesis report, November 2007.*"

Effects of global climate change on that NASA web page include North America, recent changes, and future trends. I conclude the cost of climate change is already very high.

The NASA web page has this quote, too: "Scientists have high confidence that global temperatures will continue to rise for decades to come, largely due to greenhouse gasses produced by human activities. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5 to 10 degrees Fahrenheit over the next century."

A great friend recently said it seems the IPCC is complaining about tiny temperature increases. The NASA web page asks and answers this question on that Effects page: "So, the Earth's average temperature has increased about 1 degree Fahrenheit during the 20th century. What's the big deal?"

I conclude this time with the NBC TV news item in the sidebar.

An NBC TV news [report](#) of March 11, 2013 (*Journey to the Bottom of the Earth*) included this quote: "We should not kid ourselves in thinking that that will not have consequences. We don't necessarily need to fear change, but it will change the world as we know it."



Above: Current locations for the high school work of the Alliance for Climate Education (ACE). Image [credit](#): ACE web site.