Senate Commerce Committee Subcommittee on Science, Space and Competiveness 8 Dec 2015

Verbal Testimony of John R. Christy

Thank you Chairman Cruz and Ranking member Peters for this opportunity to speak about climate change.

I am John Christy, Professor of Atmospheric Science at The University of Alabama in Huntsville and Alabama's State Climatologist. I have served in many climate science capacities including as a Lead Author of the United Nation's IPCC. I along with Dr. Curry have the distinction of being two of the seven scientists targeted by Rep. Grijalva for investigation because our views differ from those of the Administration.

My research might best be described as building datasets from scratch to help us understand what the climate is doing and why it does what it does. The two main points of my verbal testimony are simple. First, the **basis** on which the popular view that human-caused climate change is dangerous does not pass simple validation tests. Secondly, the attempt to study climate change with an objective eye is thwarted by the federal funding process.

We at UAH monitor climate change for such variables as temperature. However, **no** one has a direct means to tell us **why** these long-term changes occur. Our thermometers only tell us **what** has happened, they do not tell us **why** it happened. There is no way to **prove** the "why".

To try to understand **why** the changes occur, we make claims, or hypotheses, using climate models whose equations attempt to approximate all of the important factors that affect climate. If they are accurate, we can then see how each factor, such as rising greenhouse

gases or a volcano, affects the climate and whether they could be a cause for the changes we see.

One variable, according to models, that has the largest response to extra greenhouse gases is the temperature of the bulk atmosphere - this is the layer from the surface to about 50,000 feet.

As shown in my written testimony, the models fail the simplest of validation tests – they can't reproduce what has already happened. The 102 model runs warm up this bulk layer on average by a factor of three **more** than has actually occurred in the past 37 years. Being off by a factor of three does not qualify as settled science in my view.

Why are studies like this so hard to find? It goes back to the source of federal agency funding. Today, contrarian proposals for funding that seek to rigorously test models against reality and to test how natural variations might explain the changes we see, are rarely if ever funded. This is due to the fact the panels which decide on funding are dominated by those with the establishment view that human-caused climate change is dangerous. Since there are many more proposals than funding allows, a contrarian proposal has essentially no chance of receiving funding because the panel decides by voting.

In my view, congress needs to fix this problem by directly funding Red Teams which are not part of the climate modeling industry to test the basis for the claims that human-induced climate change will be dangerous. The Congress needs objective eyes on this issue because it is such a big-ticket item that affects everyone.

It is no secret that the State of Alabama is in a desperate fight with the Federal EPA. Our elected officials understand, as do I their State Climatologist, that the regulations being established will do nothing to alter whatever the climate is going to do. In fact, even if the

United States of America disappeared today - no people, no cars, no factories - the impact would be negligible on whatever the climate does.

Alabama is fighting for our industries which are being tempted by lower costs in Mexico and China where their emissions will actually rise if they move. We are fighting for our utilities which sell over 30 percent of their electricity production to nearby states who need it. And, we are fighting for the many poor people in our state who do not need another hike in their utility rates to satisfy a regulation whose only impact will be to further drain their meager resources.

This is a time when even so-called green countries like Germany and Japan are adding to their carbon emissions by building more coal-fired power plants, while the rest of the world moves forward with affordable, carbon-based energy. To me, it is not scientifically justifiable or economically rational that this nation should establish

regulations whose only discernable consequence is an increase in economic pain visited most directly and harshly on the poorest among us. This happens when the scientific process that allegedly underpins regulations lacks objectivity and transparency. Thank you.