## **The Columbia Daily Tribune**

## The way of the dinosaurs

Skeptics ignore climate change at our own risk.

By JAN WEAVER

Sunday, March 7, 2010

George Will, Walter Williams and Bob Roper all made climate change the focus of recent columns that appeared in the Tribune. Will and Williams quoted a BBC interview with Phil Jones of the Climate Research Unit (whose e-mails were hacked in November), and Roper covered several other skeptical arguments. It would be helpful to know the context and/or data underlying the claims these three have made. The next two paragraphs deal with Will and Williams, the remaining ones with Roper's assertions.

Both Will and Williams quoted Jones saying that if the Medieval Warm Period had been global, that would change the debate. Um, yeah. But as Jones said, there was no evidence of warming in the tropics and in the Southern Hemisphere, so warming wasn't global — so, not debate-changing, as far as I can see.

Both Will and Williams quoted Jones saying there has been no statistically significant warming in the past 15 years. But they left out the part where Jones said warming has been increasing 0.12 degree Celsius per decade and just misses being significant. However, questions about short-term trends miss the point. The IPCC never claimed we wouldn't have weather or seasons. Over a longer period, 1975 to 2009, the change has definitely been significant.

Freedom of Information (FOI) requests were stonewalled: Gavin Schmidt, a climate modeler at NASA, sums up the nature of the FOI requests. "It is clear that many of the temperature watchers are doing so in order to show that the IPCC-class models are wrong in their projections. However, the direct approach of downloading those models, running them and looking for flaws is clearly either too onerous or too boring. Even downloading the output is eschewed in favor of firing off Freedom of Information Act requests for data already publicly available — very odd." (www.realclimate.org/index.php/archives/2008/11/mountains-and-molehills/).

**Satellite temperatures showing decreases were ignored:** Initial differences between satellite readings and model predictions for tropospheric temperatures had scientists looking closely at both. Satellite data require lots of adjustments, and an incorrect adjustment to drift times produced lower temperatures than expected based on physical models of the atmosphere. The corrected satellite data now show warming like all the other climate data (www.realclimate.org/index.php/archives/2005/08/et-tu-lt/).

**Ground-based gauges were placed next to urban heat sources:** A comparison of all 1,221 U.S. weather stations used to collect data with the subset of 70 stations ranked by www.surfacestations.org as shielded from urban heat sources found no significant difference in temperature trends between the two, so there is no significant heat effect. (www.skepticalscience.com/Is-the-US-Surface-Temperature-Record-Reliable.html).

The raw data were lost: The lost raw data (from a 1990 paper) were locations of weather stations that were

used to show that urban heat effects were unimportant in causing temperature increases in eastern China. The problem is stations had moved over time, undermining a claim of no urban effect. While the integrity of the data might be questionable, at this point, 20 years later, there is plenty of other data to show there is little or no urban effect, and what exists is accounted for in data analysis of surface temperatures (www.climatechangefraud.com/climate-reports/6270-strange-case-of-moving-weather-posts-and-a-scientist-under-siege).

Only 25 percent of Russia's warmest weather stations were used (by the Hadley Center) to calculate global temperatures: I could not find any data to support this claim by the Moscow-based Institute of Economic Analysis, which is kind of a Russian Cato Institute. However, when the excluded weather station data are included, they show the same pattern of warming as the stations currently used by the Hadley Center. So there appears to be no basis to this claim.

(scienceblogs.com/deltoid/2009/12/russian\_analysis\_confirms\_20th.php)

**NASA cherry-picked Canadian weather station records to skew their data:** The reduction in sites used over time was because only a small number of sites provided continuous up-to-date temperature readings. If you compare raw data of the dropped stations to raw data of the ones that are still used, there is no significant difference in their readings. (http://www.yaleclimatemediaforum.org/2010/01/kusi-noaa-nasa/)

The IPCC included an unsupported claim that Himalayan glaciers were retreating: While the IPCC claim about Himalayan glaciers disappearing in 30 years was not supported by peer-reviewed studies in the report, peer-reviewed studies do show glaciers in the Himalayas are retreating, though not at the rate the IPCC said (Ren et al. 2006 — Annals of Glaciology 43(1):218-222; Ding et al. 2006 Annals of Glaciology; Yao et al. 2007 Artic, Antarctic and Alpine Research; Kehrwald et al. 2008 — Geophysical Research Letters).

The IPCC included an unsupported claim that Amazon forests would decline by 40 percent: Again, while the IPCC claim was not supported by specific peer-reviewed studies, there are plenty of scientific papers that do predict serious impacts on the Amazon with global warming (for example: Zhang et al. 2001 Climate Change; Betts et al. 2004 Theoretical and Applied Climatology; Malhi et al. 2008 Science).

The Environmental Protection Agency is relying on CRU and IPCC for its endangerment finding: Yes, and on research by the U.S. Global Climate Research Program and the National Research Council. The EPA's position also is consistent with the positions of these member-supported scientific societies: the National Academy of Sciences, The National Research Council, the American Association for the Advancement of Science, the American Chemical Society, the American Institute of Physics, the American Geophysical Union, the Geological Society of America, the American Meteorological Society, and the World Meteorological Organization. Even the American Association of Petroleum Geologists supports research to narrow the probabilistic effects of human-produced CO2 on global climates — which basically concedes there is an effect.

Concern about the costs of cap-and-trade legislation and increased government control of economic behavior are driving skepticism about climate change science. However, climate scientists, foresters, fisheries biologists, agronomists, ecologists, public health specialists, even insurers and re-insurers are concerned that without addressing climate change now through gradually increasing regulation of fossil fuels, we face unprecedented levels of droughts, floods, sea level rise, crop failures and climate refugees in the next century.

The adjustments currently called for will be nothing compared to the costs and controls imposed by competing for space and resources in a world shrunk by climate change.

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This article was published on page D3 of the Sunday, March 7, 2010 edition of The Columbia Daily Tribune. Click here to Subscribe.