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## Global Warming Scare Rests On Hot Air—Literally

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*The poor location and condition of temperature monitoring stations worldwide make their data unreliable for climate modelling. Yet, the data are used. Gregory Murphy reports.*

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The national and international network of temperature-monitoring stations has been in such a bad physical state, that as far back as 1997, the United Nations group that reviewed the situation stated, “Without action to reverse this decline and develop the Global Climate Observation System, the ability to characterize climate change and variations over the next 25 years will be even less than during the past quarter century.”

Ten years later, the situation has gotten far worse. Not only are temperature-monitoring stations located in places that produce higher temperature readings (for example, on rooftops of buildings, on airport runways, or near air conditioner exhausts), but most stations are old and in disrepair. It is on this patently faulty network that the myth of “global warming” is based.

Why, if climate change is supposedly such an urgent issue, has nothing been done to improve the data-monitoring stations? Paradoxically, it is not just Al Gore and his genocidal greenie following that are to blame. The conservatives and neoconservatives of the Reagan and Bush Sr. administrations are the ones who cut the funding of NASA and NOAA (National Oceanographic and Atmospheric Administration) programs, including funds for temperature-monitoring stations. And so, while the neocons attack Al Gore and the greens for the global warming hoax, it is their budget-cutting policies that must bear responsibility for creating the conditions under which the hoax has been perpetrated.

### Getting to the Bottom of Temperature

Phil Jones of the Climate Research Unit in the United Kingdom, in 1996, came up with the “fact” that global tem-

peratures have risen 0.6° C in the past 100 years. This claim is accepted by the global warmers, members of Congress, and even the so-called skeptics, who view this degree of global warming as being reasonable. But Dr. Jones has refused to release the temperature data and station locations that he used to produce the data base that showed the 0.6° C of warming. This refusal raised questions about the conditions of the stations and where the stations were located.

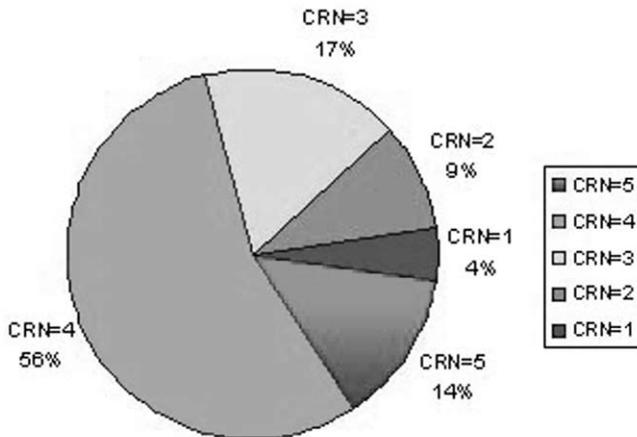
Although Jones’s initial work was funded by the U.S. Department of Energy, he has called his data and sources “proprietary,” and other scientists have been unable to obtain it, so that they cannot check his calculations. Jones actually told one inquiring scientist: “We have 25 or so years invested in the work. Why should I make the data available to you, when your aim is to try and find something wrong with it?”

In investigating Jones’s work, and looking at the problem of temperature measurement, I became aware of a group of volunteers working with Anthony Watts, an electrical engineer and meteorologist who designs weather-monitoring equipment.<sup>1</sup> Watts manages the website [www.surfacestations.org](http://www.surfacestations.org), whose mission is to create a visual database of the entire 1,221 temperature monitoring stations which make up the United States Historical Climatology Network.

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1. Anthony Watts notes that most of the stations surveyed so far have been from the East and West Coasts of the United States. He and his volunteers are currently working to complete the survey of the stations in the Midwest, and have asked that people living there go to the website and join in the fun of survey, as this could lead to more interesting results.

FIGURE 1  
**Site Quality Rating Based on 482 of 1,221  
 Stations Surveyed**



Source: Courtesy of Anthony Watts, [www.surfacestations.org](http://www.surfacestations.org)

*Of 482 U.S. temperature-monitoring stations surveyed, the Climate Reference Network found that only 13% met the criteria for use in a climate study! Only Climate Reference Network (CRN) Class 1 and Class 2 stations, which are those that do not have a heat source within 100 meters, can be used for climate studies.*



Courtesy of Warren Meyer, [www.surfacestations.org](http://www.surfacestations.org)

*This temperature station, located at the University of Arizona in Tucson, is the poster child of all badly sited stations so far surveyed. Located in a parking lot, this station has the highest temperature readings of all the 1,221 stations in the survey. Nevertheless, the station's location has been defended by the head of the Atmospheric Research Department at the University of Arizona, warmaholic Malcolm Hughes. Hughes is part of the research team, with Michael Mann and Raymond Bradley, that created the discredited IPCC "hockeystick" graph, which fraudulently purported to show that world temperatures were relatively flat for nearly 2,000 years, before amazingly shooting up in the 1990s.*

So far, the Watts group has inspected about 500 of the stations, and the results of this survey are a real eye opener. The volunteers in the Watts network have found stations that are located on rooftops, next to buildings, in parking lots, and even next to airport runways—all of which produce higher temperature results than stations located in open fields.

Watts started the survey to check the condition of the monitoring stations and equipment in what NOAA, and global warmers such as Al Gore and NASA's James Hansen, call a "high-quality temperature data set." The Watts project will create for the first time a *visual* record of the temperature-monitoring stations, with the aim of helping to improve the quality of the data in the future.

Watts is using the station-siting guidelines that have been approved by NOAA, and are currently being used to set up the new Climate Reference Network of temperature data stations in fields, and not in parking lots. The guidelines rank the stations on a scale of one to five, with Class 1 and Class 2 stations being stations that are 100 meters from a heat source and not located in shaded areas. Classes 3 and 4 are stations that have a heat source within 10 to 25 meters. Class 5 stations are those set up near a heat source, such as the U.S. Historical Climatology Network (USHCN) station at the University of Arizona in Tucson, which is in the middle of a parking lot.

Not unexpectedly, this Tucson station has the highest temperature readings of the 1,221 stations in the United States. According to Watts, only Class 1 and 2 stations are acceptable for climate temperature studies. Watts has graded the stations surveyed so far, and has found that only 13% of the 500 stations monitored to date would be acceptable for climate studies!

In a telephone interview, I asked Watts how this situation developed, noting that some of the stations have been providing data since 1880, which is when the USHCN network was first set up. Watts said that in 1983, during the Reagan Administration, the budget was cut. This happened, he said, at the same time that NOAA had decided to upgrade the temperature stations from the old thermometer in the "Stevenson Screen" (the little white box that holds the thermometer), to the new Max-Min Temperature stations, which look like a beehive on a pole. The benefit of the new type of stations would be that they could be placed according to the NOAA siting guidelines, and their automatic display

would allow remote readings from up to a quarter-mile away.

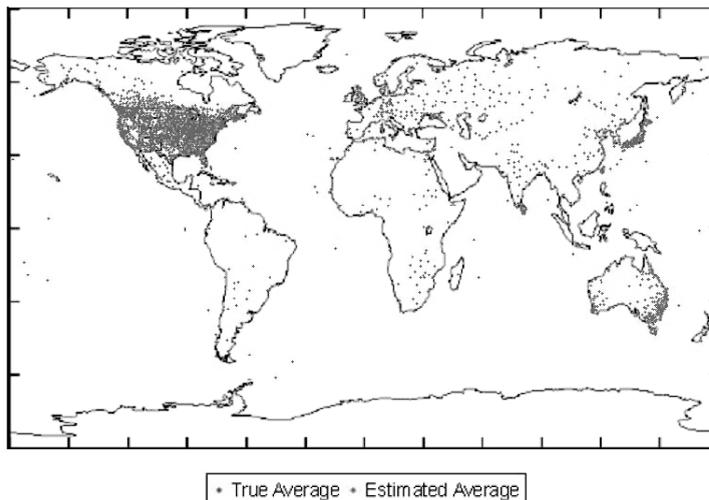
In the past, the temperature-monitoring stations were placed within a short walking distance from the National Weather Service Co-op managers', or volunteers' homes or work.

Watts said that NOAA's upgrading plan was hit by Reagan's budget cuts, and the Co-op managers were not given the funds or the cable-laying equipment needed to install the new stations. Because the Co-op managers had only a shovel to dig the cables for the new stations, most of those Watts has surveyed are right next to buildings. Watts also noted that in 1990, NOAA's budget was cut again, and at that time, NOAA was forced to close several weather service offices, and cut back on the number of Co-op managers to install and maintain the temperature network. Since 1983, Watts said, only 71% of the stations have been upgraded to the new equipment.

That is the story for the United States, but a similar story applies to temperature-monitoring stations worldwide. Ross McKittrick, an economist from the University of Guelph in Ontario, Canada, and Patrick Michaels, the former state climatologist for the Commonwealth of Virginia, coauthored a paper on the subject, published in December 2007 by *The Journal of Geophysical Research* ("Quantifying the influence of anthropogenic surface processes and inhomogeneities on gridded global climate data"). They wrote:

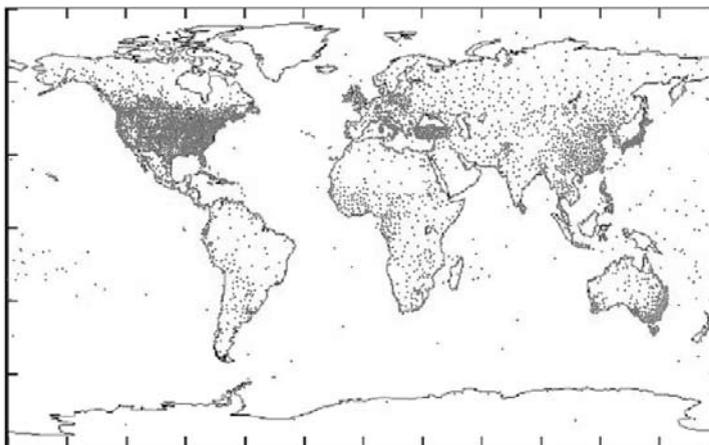
"The Global Historical Climatology Network reached a peak of 6,000 unique contributing sites in the late 1960s, but the number fell to fewer than 3,000 as of the late 1990s, with the most dramatic drop in the early 1990s when the number of stations fell by nearly half in 4 years." Michaels and McKittrick write that those 3,000 temperature-monitoring stations were shut down because of changes of government, budget cuts, or, in some cases, a lack of trained

FIGURE 2  
Temperature Station Coverage, 1925



Source: Courtesy of John Goetz, [www.climateaudit.org](http://www.climateaudit.org).

FIGURE 3  
Temperature Station Coverage, 1965



*The first in a time series showing number of temperature stations in the Global Historical Climatology Network, color coded for those where real data were used, and those where estimated data were used in climate models. This shows the stations reporting temperature in 1925, with a large percentage of the stations in the United States.*

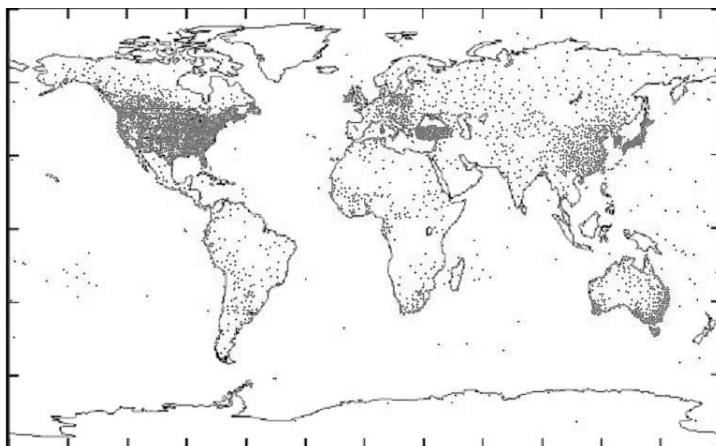
*Here are the stations reporting temperatures in 1965. There is a large increase in the number of stations added in Asia and Africa, and again the United States represents a large portion of the reporting stations. The increase in the number of stations goes hand-in-hand with the pro-science and pro-development environment of the post World War II era.*

people to maintain the stations and gather the needed data, and little or no government will to train people.

### The Urban Heat Island Effect

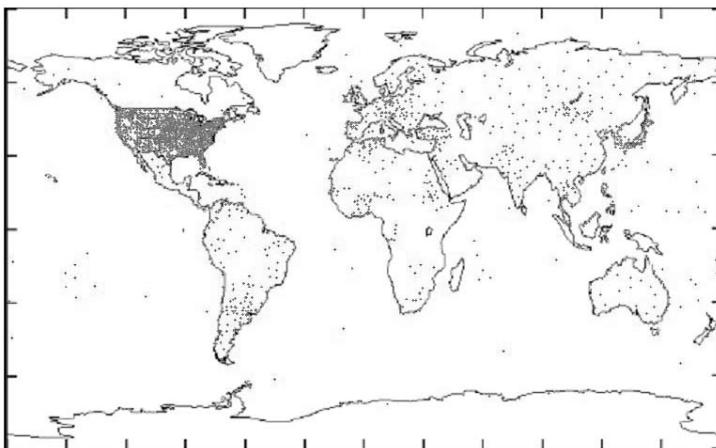
Several cases illustrated by McKittrick and Michaels highlight the fact that the Intergovernmental Panel on Climate Change (IPCC) temperature record is highly contaminated, with a large number of stations located in urban settings and heavily influenced by the "urban heat island effect." This refers to the fact that (as any city dweller can tell you) city streets and buildings retain the heat of the sunlight, and do not cool down at night as much as non-urban areas do. They also note that both James Hansen and Phil Jones define a rural station as one which includes cities up to 50,000 in population, which is

FIGURE 4  
**Temperature Station Coverage, 1985**



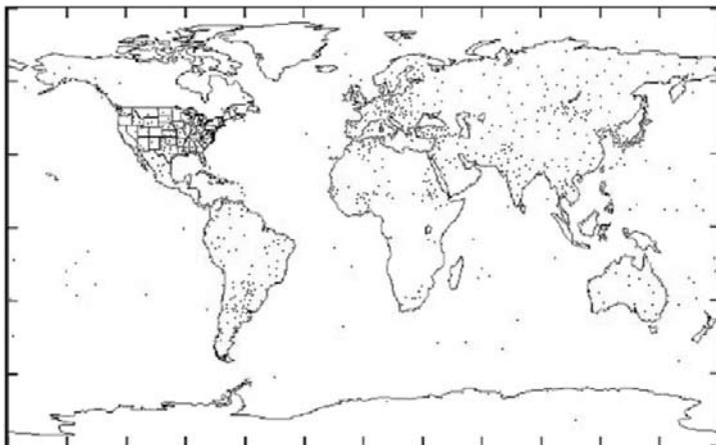
*These are the Global Historical Climatology Network stations reporting temperatures in 1985. One sees a decline in the number of stations in use, especially in Africa and parts of the Soviet Union and Asia.*

FIGURE 5  
**Temperature Station Coverage, 2005**



*There is a huge drop in the stations reporting temperatures in 2005, notably in Russia, China, Canada, and Australia. Yet, the year 2005 was called by the global warmers, “the warmest year in over a century.” But the Earth hadn’t had such sparse station coverage since the last century. Looking at this map, can you guess what the problem is, and where all those warm readings came from?*

FIGURE 6  
**Temperature Station Coverage, 2006**

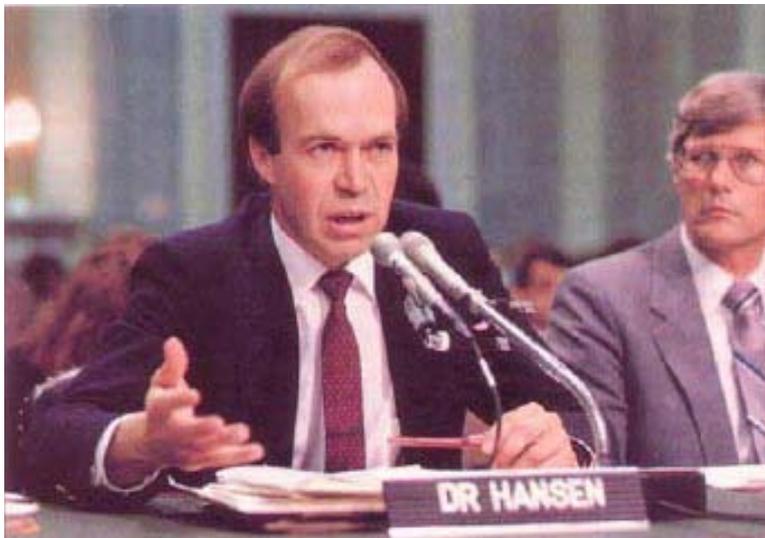


*These are the Global Historical Climatology Network stations in 2006, which produced the verdict that 2006 was the Earth’s “fifth warmest year.” This claim was pronounced from on high, by the high priest of global warming himself, Al Gore, and his science advisor, warmaholic James Hansen. As can be seen, most of the temperature data came from the United States, with most of the world barely represented.*

large enough to exhibit an urban heat island effect.

Contrary to physical observations, the IPCC believes that the urban heat island effect is only “mild,” and does not affect the overall temperature. In 2004, Michaels and McKittrick wrote a paper titled, “A test of corrections for extraneous signals in gridded surface temperature data,” in which they showed that it was not the case, as claimed, that Jones of the Climate Research Unit at the University of East Anglia, and Hansen, NASA’s chief warmaholic, had removed the effect of urban heat island from their models. Michaels and McKittrick wrote:

“It is well-established that the basic land-based weather station temperature data have been affected by local factors related to economic growth and land-use changes, but claims have been made that these effects have been removed in gridded records. This study provides evidence that the contamination has not been removed, and that it adds up to a net warming bias at the global averaged level. Consequently surface temperature data, including the IPCC gridded cell series, should not be interpreted as if they only measure climate. This study provides evidence that after controlling for land-use and other economic factors, the observed rate of temperature change is noticeably lower and could be as much as half of the current claimed warming. Hence, attempts to identify the magnitude of global ‘greenhouse’ climate signal on surface data without properly removing the extraneous biases risks exaggerating the perceived influence of atmo-



GISS

*Gore's global warming hoax was launched in earnest in 1988 with the Senate testimony of NASA's James Hansen, the nation's leading global warmer.*

entitled, "A demonstration that large-scale warming is not urban." Parker argued the case that not only was the urban heat island effect small, but that it disappears on highly windy days. Parker's paper is one of the sadder attempts at covering for the political agenda of the IPCC. As most meteorologists know, on windy days the heat island effect is simply relocated downwind. It doesn't disappear, as Parker says.

NOAA apparently does not agree with the IPCC on the urban heat island effect, because its instruction manual specifically addresses the siting of temperature stations in respect to minimizing the influence of heat island effect.

### Some Troubling History

These problems in the temperature monitoring stations have been known since at least 1997, when the Conference on the World Climate Research Programme report to the Third Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) concluded that the global capacity to observe the Earth's climate system was inadequate and deteriorating worldwide, as quoted at the beginning of this article. In answer to this UNFCCC report, the U.S. National Research Council (NRC) set up a panel in 1998 to investigate the condition of U.S. temperature stations. This panel was headed by Thomas Karl of the National Climate Data Center in Ashville, N.C., and one of the lead authors of the panel's 1999 report was NASA's James Hansen.

The NRC report strongly warned that the temperature stations in the United States were in decay: "Without immediate action to prevent the deterioration of some essential ob-

spheric CO<sub>2</sub> levels" (emphasis added).

Former California State Climatologist Jim Goodridge came to a similar conclusion after he did a study that compared the data from all of the California temperature stations to changes in land use of the past 100 years. He then extended his study to the land use changes across the United States. His conclusion: "All of the long-term temperature rise in the United States is caused by the urban heat island effect, and not CO<sub>2</sub>."

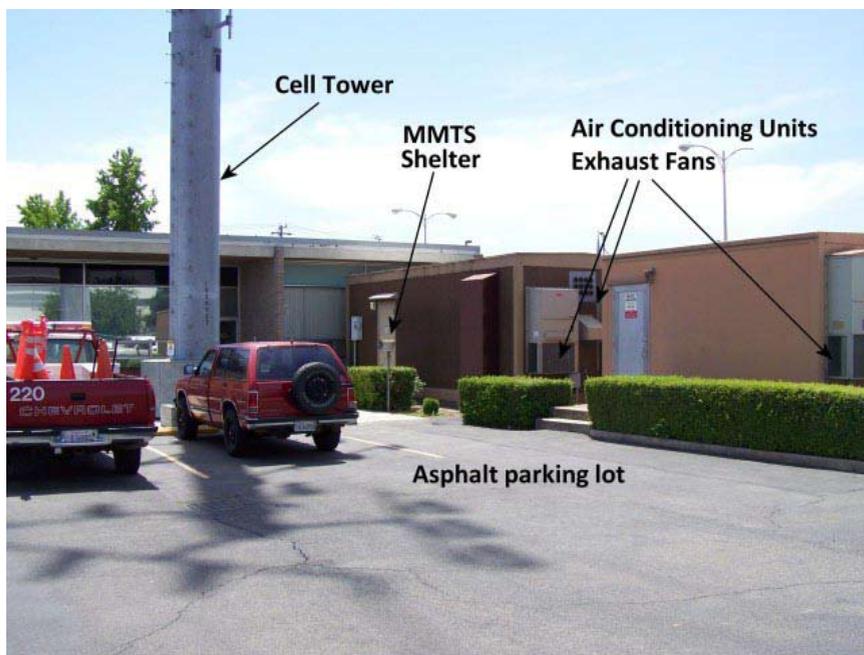
The global warmers have gone to great lengths to try to vaporize the known urban heat island effect.

David Parker of the Met Office in the United Kingdom, for example, went one step further than the IPCC, in a paper



*This is what a Class 1 station looks like. This one is in Orland, Calif., and has been in continuous service in the same location for 100 years.*

Courtesy of Anthony Watts, [www.surfacestations.org](http://www.surfacestations.org)



Courtesy of Anthony Watts, [www.surfacestations.org](http://www.surfacestations.org)

*This temperature station, at Marysville, Calif., is an example of what happens when budget cuts shut down science in the 1980s. NOAA told its National Weather Service Co-op managers to upgrade to the new Min-Max Temperature Station, which looks like a beehive on a pole. These stations could have been placed a quarter-mile away from the temperature display, which was intended to correct several of the badly sited stations. Because of NOAA's budget cuts, the Co-op managers were not given the proper equipment to install the new stations away from heat sources. Therefore many, like this one, were installed (with a shovel) next to buildings and parking lots, which make the temperature readings warmer.*

serving systems, the ability of the climate research community to provide over the next decade the objective scientific information required for informed decision making will be seriously compromised.”

The NRC panel also found that deterioration of the temperature stations was caused by budget cuts and the varying priorities among the agencies that are charged with maintenance of the observing stations. The report noted: “Climate Researchers have used existing, operational networks because they have been the best, and sometimes only, source of data available. Deficiencies in the accuracy, quality, and continuity of the records, however, still place serious limitations on the confidence that can be placed in research results.”

Thomas Karl, to his credit, acted on the recommendations of the panel and is working to set up a new Climate Reference Network to replace the decaying USHCN network. James Hansen, however, has not acted on the recommendations and still is using the old USHCN network for his models, with decreasing amounts and quality of data as stations further deteriorate. Apparently Hansen believes statistical tricks can be used to gloss over bad data.

Despite these two major reports on the decay of tem-

perature stations, no one—Republican, Democrat, or even warmaholic witnesses—brought up the issue of the temperature stations in any of the hearings in the Senate and the House of Representatives on global warming in the past year; not even any of the witnesses skeptical of global warming mentioned this in their testimony. Members of the Senate and the House of Representatives are about to vote on a wide array of climate change bills, but none of them ever thought to ask where the temperature data that show the warming came from, or what the condition is of the temperature-monitoring stations from which the data are gathered.

Given the results from the survey of the condition of the temperature monitoring stations, and the papers by Patrick Michaels and Ross McKittrick showing the fraud in the temperature, Congress should realize that Al Gore's global warming hoax is nothing but hot air, and it would do well to heed the words of Lord Christopher Monckton: “Politicians and policymakers should have the courage to do nothing about global warming, since it is not a crisis, and it would be another case of how failed policy will kill tens of millions

in the developing world.”<sup>2</sup>

## References

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- Jim Goodridge (retired California State Climatologist), unpublished manuscript (2007), “Persistence in California Weather Patterns.”

2. This is from Lord Monckton's new video called “Apolcalypse? NO!” which is being distributed by the Science and Public Policy Institute on their website, [www.demanddebate.com](http://www.demanddebate.com). The video was produced to be included in a package with the British Channel-4 video “The Great Global Warming Swindle,” to be sent to schools in the U.K. and soon in the United States.