Why I Have My Doubts About "Global Warming" and "Climate Change"

By

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For the past few decades, there has been much alarmist talk by "climatologists" who claim that the world is getting warmer and we're all gonna die. (Yes, we are all gonna die, regardless of whether or not there is any change in climate.) They point to a (slight) increase in the average recorded temperatures around the globe as proof of their theory then advance more theories based on computer models advocating that the rate of warming is increasing and when it reaches certain levels in 20-50 years all kinds of things are going to happen, all bad. Personally, I have my doubts.

Let me mention that while I'm not a meteorologist, I know something about the weather. As a professional pilot with over 16,000 hours in the air, I was required to have more than a basic knowledge of weather as it pertains to aviation (all weather does) and was tested on that knowledge at various times during my career. I was required by Federal Aviation regulations to check the current observations at my destination and along my route and to check the weather forecast for my destination to determine whether I needed an alternate and the weather there if I did. I was also required to be familiar with the winds aloft along my route as well as possible weather that might be adverse to my flight. I needed to know temperatures to compute aircraft performance. Consequently, I learned a lot more about weather than the average person will ever know, such as how high-speed winter winds known as the "jet stream" bring extremely cold weather down from the Arctic and push storms along their southern reaches. I've also been on this earth for seventy years and in that time I've been no changes in the climate at all; winter is still winter, spring is spring, summer is summer and fall is fall. There have been dry years, wet years, storms with flooding, snowstorms, hurricanes and tropical storms, sub-zero temperatures and exceptionally hot temperatures, all in my lifetime. In fact, the hottest temperatures ever recorded in the US, except for a period in the 1930s, were in the 1950s when I was a child.

The theory of global warming was first advanced by Jim Hansen, a physicist and astronomer who worked for NASA as head of the organization's Goddard Institute for Space Studies.¹ Hansen concluded that the earth was warming while studying weather observations at various locations around the globe using meteorological observations from 1880-1985. He concluded that average temperatures can be calculated using those observations even though most stations are located in the northern hemisphere (particularly in Europe and the United States.)² Instead of using actual temperatures, he and those who accepted his theories used averages, meaning they used the average temperature for a twenty-four hour period rather than the highest and lowest actual temperatures recorded that day. Not only that, his model, which is still used today by the GISS, does not use actual recorded temperatures but uses anomalies from a base period from 1950-1980 for its calculated records.³ In 1998, the information was updated and the methodology was changed in 2001 to compensate for temperatures in populated areas based on satellite observations of nighttime lights.⁴ Climatologists have noted that temperatures in North America are actually cooler than the rest of the world and that there has been cooling rather than warming in many locations. However, their conclusion

¹ The Goddard Institute for Space Studies, commonly referred to as the GISS, was established in 1961 to do research in support of the NASA's Goddard Space Flight Center in Washington, DC in support of the new American space program.

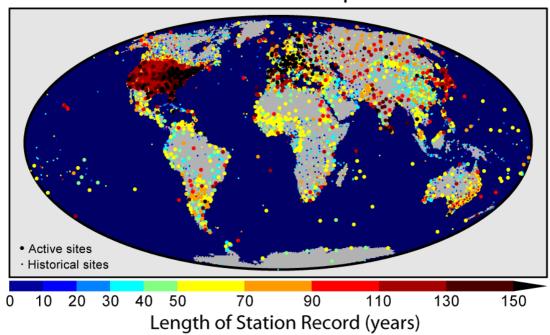
² One of the first flaws in the theories is that there were very few meteorological stations around the globe prior to the 1930s and the expansion of aviation.

³ An anomaly is a deviation from an established "normal."

⁴ The change was made to compensate for the effect of electricity and heating in urban areas called "urban heat islands" on local temperatures. This change was evidently the introduction of a factor into the equation used to calculate global temperatures.

is suspect because there are far fewer weather reporting stations outside of urban areas outside of the United States (where most reporting stations are in or in close proximity to urban areas.) The following graphic shows the locations of weather stations around the world whose records are maintained by the Global Historical Climatology Network. By far, the vast majority are located in the United States with only a handful in Antarctica, none of which have been there for more than seventy years. The longest historical records are also in Europe, the United States and Japan; the longest weather record is for a station in Berlin, Germany. As the graphic below depicts, weather stations are found primarily in heavily populated areas. Some are at airports but many are located on colleges and universities. Few stations are located outside of such areas.

Global Climate Network Temperature Stations



Hansen retired from NASA in 2013 and became involved in political lobbying on behalf of "climate change" theorists. He currently heads the Program on Climate Science, Awareness and Solutions at Columbia University and advocates for government involvement in efforts to halt "climate change". Hansen is criticized by other scientists both for his theories and for his frequent exaggerations of ramifications should they prove to be correct. His political views have become radical – he has proposed that oil company CEOs be placed on trial for "misleading the public about climate change" (because they don't accept his theories. Hansen's theories weren't accepted by other scientists and meteorologists either. In the early 1990s, I participated in a seminar conducted by a NOAA atmospheric researcher. He told the group that the idea of the so-called "greenhouse effect" put forth by Hansen was preposterous, that the evidence did not support it.)

Hansen's ideas caught on with the young, particularly those born since 1970 and who grew up during a period when temperatures were slightly warmer than usual. They weren't around to experience the hot temperatures of the 1950s or the unusually cold temperatures of the 1960s-70s. They have been taught at every level of school by teachers and professors who adopted left wing Progressivism in the 1960s and who link "global warming" and "climate change" to the civil rights movement, feminism and the antiwar movement during the Vietnam War and the peace movement that followed it. It is no accident that Jim Hansen is heavily involved in left-wing politics. Nor is it a surprise that the main moneyman pushing the theory of "climate change" is a left-wing Democrat, Tom Steyer, a wealthy New York city native who now lives in California whose wealth comes from hedge funds and banking. Steyer is heavily involved in Democratic Party politics, having served in the political campaigns of Democratic presidential candidates

dating back to Walter Mondale. Although he made millions in the coal industry, he has since turned to "environmentalism" and contributes much of his wealth to support political candidates who push "climate change". Steyer is just one of a number of political progressives who have made "combating climate change" a major political issue (although most Americans don't consider it so.) Another leading advocate of "climate change" is Joseph J. Romm, who founded the "Climate Progress" web site as part of the far left web site "Think Progress." Romm served in the Clinton Administration in the Department of Energy where he was 'acting assistant director" for a time and is heavily involved in left wing politics, particularly as an advocate of government action to "do something about climate change." Steyer and Romm have heavily influenced Democratic Party leaders.

The problem with the theory of "global warming" is that temperatures have not been following the predictions made by models. Although Hansen claims that the earth's warmest was in 1998, the actual warmest temperatures ever recorded on earth were in the 1900-1930s time period, with the highest temperature ever recorded occurring on July 10, 1913 when the temperature reached 134 degrees Fahrenheit.⁵ (The Death Valley record was actually bestowed in 2012 by the World Meteorological Organization after it concluded the previously held record of 136 degrees recorded in Libya in 1922 was invalid.) The highest temperatures since then in Death Valley occurred in 1998, 2005 and 2007 when they reached 129F. The coldest temperature ever recorded was -128F at Vostuk Station in Antarctica on July 21, 1983. However, Vostuk Station is at over 11,000 feet elevation (Death Valley is at -283 feet) which must be taken into account. 6 Scientists have calculated temperatures of -135F in Antarctica based on information from satellites but since they're calculations rather than observations, they don't qualify as a record. The 1930s were also a time of abnormally high temperatures, particularly in North America. In West Tennessee where I grew up, the highest temperature ever recorded was 113 degrees in Perryville on August 13, 1930. It is also the record for the state of Tennessee. Perryville is 36 miles south of where I grew up. On that same day, 110F was recorded in Milan near where my family lived. The warmest temperatures recorded since then in Milan (105F) were in the 1950s (as were some of the coldest (-23F.) Similarly, the community where I now live in Texas also reached its next highest temperatures during the 1950s-60s although the highest (105F) was in 2000 when an abnormally hot spell of weather caused over a week of temperatures above 100. Since then, the temperatures have rarely reached the century mark although daily summertime temperatures in the 90s are common.

Using averages to state that new records were achieved leads to false conclusions, in part because average temperature records weren't compiled before Hansen came up with his theories. For example, the National Weather Service determined that this past February was the "coldest on record" in the Houston, Texas area where I live. However, I have a recording thermometer that shows both the current temperature and the highs and lows for a 24-hour period. The lowest temperature I ever saw in February was 30 degrees and it was only for a brief period just before sunrise. In the past, I have seen temperatures as low as 18 degrees. Their determination that it was the coldest February on record is because there were more days when the average temperature was "cold" even though the actual temperatures were well above typical low temperatures for the region. For example, we had a lot of days when the temperature remained in the 30s although it remained above freezing on all but a couple of days when it dropped to 31 briefly in the morning. In fact, I still have producing tomato vines in my garden that I planted last summer and I only had to cover them three times when the temperatures were forecast to drop below freezing. The average low for Houston in January is 45F and 49F for February. We had a period during both months when temperatures remained

⁵ Hansen's claims are based on average temperatures, not on the actual temperatures of air masses as recorded at the hottest part of the day. For example, if the lowest temperature in Death Valley on the day the thermometer reached 134 was 88 degrees, the average for the day would be 111. If the high was 122 and the low was 100 on a particular day, the average temperature would be the same.

 $^{^{6}}$ The standard lapse rate is 2F per 1,000 feet above sea level. However, Antarctica has a nonstandard atmosphere.

in the upper 30s for several days at a time rather than rising into the 50s and 60s as they normally do. The record low for Houston is 10F in January 1949. The record high for Houston is 106F in 1962.

When it comes to "climate change", "climate change" activists are on a slippery slope, which isn't surprising since that is what the word "climate" actually means. It is derived from an old French word for slope, and was originally applied to weather conditions along a slope running in either direction from the Equator to the two poles. "Climate change" activists cause confusion by claiming that "climate" and "weather" are not the same when, in fact, they are. The only difference is that "weather" is the conditions at a particular time while, in climatology, "climate" is an average of weather conditions – temperature, precipitation and wind – over a specified period. "Climate change" advocates use a period of thirty years but this determination is an arbitrary figure of recent origin. Undoubtedly, those who adhere to "climate change" theories chose this span because it makes their theory more believable since weather conditions in the northern hemisphere were both colder and hotter 50-60 years ago in the 1950s-60s then they were thirty years ago in the 1980s-90s when the field was in its infancy. In reality, climate measurements can be for any period, ranging from mere seconds to millennia. "Climate" can also be used to describe the temperature and humidity inside a building or a vehicle. For example, thermostats in modern heating systems are often described as "climate controls." Both "climate" and "environmental" are used to describe temperature controls on airplanes.

A major issue with the theory of "climate change" is that there is no global climate. Instead, there are numerous different climates all over the globe, many of which are very localized, although climate is generally seen to change with latitude due to the angle of the sun. For example, one valley in a mountainous area may have an entirely different climate from the valley on the other side of the ridge that divides them. The difference is due to wind currents and exposure to sunlight. I live in Texas, where there are several different climates due to different atmospheric conditions, terrain and proximity to water, specifically the Gulf of Mexico. One of my favorite places is the Texas Big Bend and Big Bend National Park. The park sits in the Chihuahuan Desert, which is typically hot and dry, but the climate in the Chisos Mountains inside the park is characterized by thunderstorms nearly every day during the summer. It's common to wake up in the morning to clear, blue Texas skies, then to watch a tiny white cloud appear over the mountains and grow into a massive thunderstorm that dumps several inches of rain on the mountains and foothills and turns the hot, arid desert into a plethora of color as blooms burst out on plants and cactus after the rain passes. Dry ditches that look like they haven't had rain in decades turn into raging torrents, just as they had done the day before when another thunderstorm turned the desert into a garden that had disappeared by the following morning. The climate in the Chisos is different from the surrounding desert even though there is nothing separating them. The difference is that upslope conditions in the mountains causes moisture to rise and develop into thunderstorms. There is a difference in the climate where we live south of Houston and the climate on the north side of town. In the Gulf coastal plain where we live, there is not a single pine tree but starting roughly along I-10 some twenty miles to the north, pines are the predominant tree while we have live oaks and pecans. Many of the trees where we live are covered with Spanish moss but you don't see it north of Houston. This is due to the different climates. We see temperatures below freezing in winter infrequently while temperatures in the 20s are common north of I-10. The people north of Houston often see sleet and freezing rain but such conditions are less frequent in our neck of the woods.⁸ The difference is due to latitude.

Latitude is a geographical measurement of the earth's surface in relation to the equator with each degree of latitude separated by 60 miles. East and west measurements are called longitude. Regions around the world between the Polar Regions and the tropics are called the "temperate zone" and it is within it that

⁷ Modern "climatologists" have come up with their own definitions, adding atmospheric particle count and humidity.

⁸ There have been two significant snow storms since we bought our house in Fort Bend County, the first on Christmas Eve, 2004 when we got about two inches while there was heavier snow closer to the coast and the second on December 4, 2009 when a freak storm put down over four inches in a swath that went right over our house.

most of the world's population lives, for obvious reasons; Polar Regions are characterized by extreme cold while the tropics are hot and humid. The climate within the temperate zone is generally the same with four seasons, although the closer to either edge of the zone determines their length and conditions. For example, Boston, Massachusetts and Houston, Texas are both in the temperate zone and have four seasons, but winter in Boston is characterized by cold and snow while Houston's winter weather is generally mild. Conversely, Boston has generally pleasant summers while Houston's summers are warm and humid. Houston is at 30 degrees N while Boston is at roughly 42N. London, England lies between 51N and 52N, which makes it much further north than even Boston. However, its climate is affected by its proximity to the North Sea and the English Channel. Boston is also affected by the Atlantic Ocean, with temperatures to the west being colder. Generally speaking, the further away from the Equator, the cooler the climate, although there are exceptions due to local conditions. For example, desert regions of the world are caused by local conditions rather than proximity to the Equator.

"Climate change" adherents point to recent hurricanes and winter storms as "proof" of "climate change" when, in fact, such storms have been common in the North Atlantic for centuries just as typhoons are common in the Pacific. In 2012 when the remnants of Hurricane Sandy, which had been downgraded to a subtropical storm by the time it reached shore, struck the New Jersey shore and New York City, true believers, including President Barack Obama, lost no time in blaming the storm on "climate change". In fact, tropical cyclones are common along the Jersey Shore and have been since long before the first Europeans came to North America. Eighteen known storms were deadly. Although some believe that Sandy hit the United States as a hurricane, it was actually losing strength and had been downgraded to a subtropical storm before it came ashore. The highest sustained winds reported in the United States from the storm were only 61 knots, three knots below hurricane-force winds. Those winds were reported in New York City and were no doubt strengthened by the venturi effect due to buildings. The highest winds at the point of impact were 55 knots with one report of 59 knots in northern New Jersey. 10 Sandy was one of the most destructive storms ever, but the damage in the United States was due to water, not wind, and was increased due to the high population density and property values in the areas impacted by the storm. 11 Yet "climate change" advocates lost no time in blaming the storm on "climate change", claiming that the intensity of the storm (it had actually lost most of its strength by the time it reached the East Coast) were due to waters warmed due to "global warming." In reality, the storm's final intensification was due to its collision with a strong frontal system coming from the west, which turned Sandy from a tropical storm into an extratropical system. The only thing truly unusual about Superstorm Sandy is that it occurred later in the year than most hurricanes, although it occurred more than a month before the official end of hurricane season.

Something else happened in 2014-15; average temperatures in much of North America were considerable cooler than in Europe and Asia. A possible explanation for this may be that there are far more temperature reporting stations in the United States than there are anywhere else in the world and the combined results are thus more accurate. Temperatures in rural and suburban areas are typically several degrees cooler than in urban areas for a simple reason – there is less artificial and natural heating. Urban areas are characterized by the use of energy for everything from heating and cooling of buildings to lighting. Urban areas are also heavily paved, and pavement reflects the sun's rays and increases temperatures while soil, grass and trees absorbs the sun's rays. There can be considerable variations in temperatures between a metropolitan area and a rural or suburban area only a few miles away. In fact, there can be a considerable difference by only a few feet. As a pilot, I noted that the temperature on the runway as measured by our

⁹ A venturi is a narrowing passage between two larger passages that speed up air and liquids. They also have a cooling effect.

 $^{^{10}}$ Possible winds of 70 Knots at landfall are estimated but no winds approaching that velocity were recorded.

¹¹ The maximum storm surge was less than ten feet.

¹² The high on any day where I live is often several degrees higher in Houston than it is at our house.

outside air temperature gages was often several degrees warmer than the temperature reported by the tower due to the effect of pavement. Temperature is important to pilots, especially hot ones, because temperature is one of the three factors that affect aircraft performance. The other two factors are weight and altitude. Altitude corrected for temperature is known as "density altitude" which may be several hundred feet higher than the actual altitude on a hot day. This raises another issue.

Performance data for an airplane is computed based on what the temperature is RIGHT AT THE TIME OF TAKEOFF! It is not based on the average temperature at that location for that day. If the average temperature for the day is 80 degrees and the pilot computes his data based on that but the actual temperature at the time of takeoff is 95 degrees, he is going to be in big trouble if he loses an engine if his airplane is at maximum gross weight for an 80-degree day.¹³ It is at actual temperatures that things began to happen in nature and in physics. For example, water freezes at 0 Centigrade (32F) and boils at 100 C (212F). It doesn't matter what the average temperature is. If the ACTUAL temperature doesn't drop to the freezing mark or below, water is not going to freeze. (If the atmospheric temperature on earth ever reaches 100C, no one will be here to observe it.) Nature is affected by actual temperatures, not averages. For example, tomato plants cease producing when nighttime temperatures drop below 75F because the blooms will be affected. Other plants will be killed if temperatures drop to the freezing point. Incidentally, the coldest part of the day is just before dawn. A "killing frost" requires below freezing temperatures for several hours.

There is something about "science" that needs to be considered, and that is who is paying those who study the climate. Until the second half of the Twentieth Century in the United States (where the majority of "climate scientists" are from) so-called higher education was only available to those who had the funds to pay for it. Since the mid-1960s and the introduction of Pell Grants and government-sponsored student loans, a college education has become available to just about anyone of average intelligence. Science as we know it today originated in Europe, particularly in England where men from the upper classes speculated about the world around them. Many were academics who were themselves members of the upper class or had been educated on scholarships and grants. Many were members of the clergy or came from clergical families. The academics were faculty members at schools supported by the Church of England. Although some scientists today are employed in industry, most "climatologists" are employed by government and/or are faculty members at universities and are funded to a large extent by government grants, thus they have a personal stake in the perceived results of their research. A scientist who determines that everything is status quo isn't going to be able to attract grants to fund his research except from organizations and industries (such as oil companies) that don't accept climate change theories. On the other hand, alarmists who advocate that the world is getting hotter and we're all gonna die unless we do something about it seek to convince Congress to appropriate funds to support their research and to obtain grants from non-government sources, sources that often have a political interest in their theories. This is especially true of scientists involved in political activism.

A recent poll has been touted as evidence that there is a consensus among scientists regarding global warming and climate change. However this is misleading since the poll, like all polls, asked leading questions:

This study was done in order to address the broader question of public opinion versus scientific opinion. It asked two questions, one about whether temperature is increasing, and one about whether or not human activity is contributing to any change. Here are the results:

Question #1: When compared with pre-1800s levels, do you think that mean global temperatures have generally risen, fallen, or remained relatively constant?

¹³ Performance data is computed only for multiengine airplanes and is based on the loss of an engine during the takeoff roll. The outcome for a single-engine airplane is foreordained. Density altitude is important for single-engine airplanes only as long as the engine is running and will determine whether or not the airplane can reach enough speed to get off of the ground on the available runway.

About 90% of all the scientists and 97% of the climate scientists said temperatures had risen. Question #2: Do you think human activity is a significant contributing factor in changing mean global temperatures?

About 82% of all the scientists and 97% climate scientists agreed that human activity is a significant contributing factor.

The anonymous poll sought the opinion of the most complete list of earth scientists they could find, contacting more than 10,200 experts at universities and government labs around the world listed in the 2007 edition of the American Geological Institute's Directory of Geoscience Departments. The 2-minute, two-question poll had 3146 responses (30.7% of those polled). Approximately 90% of the scientists who responded were from the U.S., and about 90% held a Ph.D. degree. Of these scientists, 5% were climate scientists who published more than 50% of all their peer-reviewed publications in the past five years on the subject of climate change.

There is a major problem with using the results of this poll to show a "consensus among 97% of scientists." For one thing, barely 30% of those invited to take the poll even bothered to respond. Of those who responded, only 5% were current "climate scientists." Furthermore, nearly all of those who responded (90%) were from the United States. This is hardly a consensus. The poll is used as "proof" under the assumption that those who failed to respond would have answered the two questions in the same manner. Who knows? The nearly 70% who didn't respond may have refused to participate because they thought the questions were misleading and the poll was ridiculous. There is a huge difference between saying "97% of all THE scientists who responded" and "97% of scientists." Yet researchers from the University of Chicago somehow concluded that the poll showed that "those most knowledgeable" on the subject of climate change agree and politicians in the Democratic party, including Barak Obama, have been using the "97% of scientists" claim as evidence of a scientific consensus that climate change is real and that it's caused by human activity. Incidentally, the same paper concluded that the 53% of Americans who don't agree with the climate change proponents do so "due to lack of knowledge." If anyone wants to read the study, it's available at http://tigger.uic.edu/~pdoran/012009_Doran_final.pdf. Personally, I suspect that if the study indicates anything, it's that products of modern universities are lacking in the ability to reason. Instead, they have been programmed to think in a certain way, basing their reasoning on what they have been taught rather than what they have concluded as a result of their natural intelligence and observation.

I have tried in vain to discover any origins for climatology that aren't from the latter part of the Twentieth Century. Those who have attempted to document such a field point to conclusions reached by men and of science of the past who studied some aspects of the earth that are now taken to be climate-related – such as the Gulf Stream in the Atlantic Ocean – whose connection to climate is somewhat dubious. It wasn't until World War II that a virtual army of young men and women with academic backgrounds in physics and mathematics were trained by the US military as meteorologists. Many remained in the field with the National Weather Service after the war while others became academics. Still, it wasn't until the 1970-90s that a "climatology" field of study was established, thus "climatology" and "climate scientist" are both of recent origin. Furthermore, many, if not all, of the young men and women who chose to enter the field did so because they had already been exposed as children to the theory that the world climate is changing through a plethora of children's books, and by organizations such as "save the whales" and were motivated to enter it so they could "do something." http://www.aip.org/history/climate/climogy.htm. In short, they are adherents to a religion, the religion of "climate change."