

## Big Snow Storms are Weather, Not Climate

*By Art Horn, Meteorologist*

Recently sometimes liberal, sometimes conservative Bill O'Reilly posed this [question](#), "Why has southern New York turned into the Tundra?" Of course Bill was being funny when he asked that. Tundra is located in the Arctic, mountainous areas and Antarctica. It has very few trees, in many areas none and under its surface there is permafrost, the ground a few inches down is permanently frozen. Actually the Tundra has very little snowfall and is really a cold desert in many parts of the world with 6 inches or less of annual precipitation. So if you think the Tundra is covered in 10 feet of snow you would be wrong.

Self proclaimed climate expert Al Gore responded to Bill's question saying "In fact, scientists have been warning for at least two decades that global warming could make snowstorms more severe." He went on to say "A rise in global temperature can cause all kinds of havoc ranging from hotter dry spells to colder winters, along with increasingly violent storms, flooding, forest fires (from global warming?) and loss of endangered species."

Funny how Gore never mentioned that global warming would cause more severe snow storms or colder winters in his 2006 movie "An Inconvenient Truth." Not once in the movie was there any indication that global warming would cause anything other than higher temperatures, melting ice, shorter and less cold winters and less snowfall. His answer to Bill is clearly an attempt to cover his tracks.

Are snowstorms really getting more severe? No. History is replete with massive snowstorms decades and centuries ago. Chicago's biggest snowstorm was from January 26<sup>th</sup> to the 27<sup>th</sup> 1967 with 23.0 inches, not the most recent storm. The [Blizzard of March 11<sup>th</sup> to the 14<sup>th</sup> 1888](#) dumped an incredible 50 inches of snow on Connecticut! Can you imagine what the media would say if that happened today? In the late winter of 1717 a series of 4 storms from late February to early March buried parts of New England in 10 to 15 feet of snow! And you thought 3 feet was something unusual.

There is a fundamental problem with Al Gore and others who believe that global warming is causing bigger snow storms and every other severe weather event around the world. That problem is that they have no appreciation for the massive natural variability of everyday weather. They are confusing weather with climate. Weather is what we wake up to and deal with every day. But weather also operates on weekly, monthly and yearly time scales. If we had a hot summer last year that was not climate, it was weather. If we had a big snowstorm a few weeks ago that was weather, not climate. If December was record cold that was weather, not climate. A hurricane that struck 5 years ago was not climate, it was weather. Oh and by the way Al, a forest fire is not caused by global warming. Also, the earth's interior does not have a temperature of several million degrees as he said on late night TV last year.

Climate is the average of the weather over a longer, rather arbitrary time period. Typically climatologists like to use 30 year time periods to take an average of the weather and then call it climate. Climate trends can be inferred from shorter time periods like 15 to 20 years but the standard is 30 years.

The average temperature of the earth, as inferred from our 160 years of thermometer measurements has increased about 1 degree Fahrenheit since those readings began. Historically this is not a big number, not even close. Data from ice cores in Greenland show us that over the last 10,000 years temperature has varied by 6 degrees Fahrenheit, far more than the rise of the last 160 years. In fact the average monthly global temperature of the earth can vary by 1 degree or more in just one year! This means that in just one year we can experience all of the average global warming that has taken 160 years to accumulate. What does that mean? It tells us that from day to day, week to week and year to year the variability of THE WEATHER can be massive and have nothing to do with the long term climate trend. If a baseball player hits 500 for the week with 7 home runs and knocks in 20 runs does that mean he will be in the hall of fame at the end of his career? Of course not, it's his long term performance (his baseball climate history) that will determine that. In the same light big snow storms or floods or heat waves or any other extreme weather event is not an indication of what the long term climate is doing or will do, it's just weather.

The [Climate Research Unit](#) at the University of East Anglia has temperature records dating back to 1850. Although the data is somewhat tainted due to very questionable "adjustments" that have been made, we can still roust out details of the large month to month and year to year temperature variability. One of the most striking examples of just how much the monthly average temperature can change in a short time was in the middle 1940s. From early 1945 to late 1946 the earth's average monthly temperature fell 1.6 degrees Fahrenheit. That is one and a half times the total "global warming" of the last 160 years in a one year period! More recently the satellite derived temperature data showed a remarkable rise from of 1.7 degrees Fahrenheit from May of 1997 to March of 1998. In a little less than one year the temperature variation dwarfed all the average global warming of the last 160 years. This dramatic temperature rise was due to a dominant El Nino in the Pacific Ocean. The very warm water along equator warmed the entire planet just as El Nino's always do to one degree or another. The warmth from the El Nino peaked in spring of 1998 and a La Nina developed, cooling the waters. In response to this cooler water the earth's temperature plunged 1.8 degrees from May of 1998 to February of 2000, a drop nearly double all the average temperature rise in the last 160 years in a little less than two years!

Recently NOAA declared that 2010 tied 2005 as the [warmest year on record](#). "On record" is the period of time the earth's temperature has been measured with thermometers, since 1880 for NOAA. The attempt was to make this sound like global warming had something to do with it since NOAA is firmly in the camp of global warming alarmists. But look at what's happened to the average global temperature since last April. In the 9 months since then the [temperature](#) has crashed 1 degree as of the end of January 2011. In just 9 months we wiped out all the global warming of the last 160 years! No, of course that's not true at

all. And that's my point. The big drop since April is the weather. The rise of the last 160 years is climate.

So what does that all have to do with Al Gore and climate alarmists and global warming making cold weather and snowstorms? What is says is that the year to year and even month to month variability of weather is so large that it can be double the average temperature rise of the last 160 years. It tells us that we could have the same weather experienced in March of 1888 today, tomorrow or next month or next year. Last winter Washington DC had 55.9 inches of snow. That total broke the record of 54.4 inches set in the winter of 1898/99, a record that stood for 111 winters. Many said hurricane Katrina was the worst hurricane in United States history but the Galveston hurricane of September 1900 killed 8,000 people. In England the [winter of 1249](#) was a remarkable example of just how extreme the weather can be, 762 years ago. "Last winter there was so pleasant, sweet and warm that people fancied the season was changed. There was no snow or frost the whole winter. Folks threw off their cloaks and went in the thinnest, lightest summer dress." Now that's extreme. If that took place today the howls of terror from the global warming alarmists would be heard from here to eternity!

Extreme weather will come and go with all its amazing variety and social impacts, it always has and always will. The answer to Bill's question is perhaps best addressed by Mark Twain. He said in 1876 "Now, as to the size of the weather in New England - lengthways, I mean. It is utterly disproportioned to the size of that little country. Half the time, when it is packed as full as it can stick, you will see that New England weather sticking out beyond the edges and projecting around hundreds and hundreds of miles over the neighboring states (New York). She can't hold a tenth part of her weather. You can see cracks all about, where she has strained herself trying to do it." That about says it all Bill.