Comments on Yesterday's paean to Global Warming
February 19, 2013
Dr. Richard Keen
Meteorologist Emeritus
University of Colorado, Boulder

It's like playing whac-a-mole. After every major storm or unusual (or even slightly interesting) weather event, some non-investigative reporter gets hold of the usual suspects to write an article about how it's all due to global warming.

Then it's up to knowledgeable folk like Joe D'Aleo, Anthony Watts, Bill Gray, James Taylor, Steve Goddard, and many, many others to write a data-based rebuttal to "whac" the nonsense back down into its hole. But then, as in the game, it always pops up again. Today I'll draw the short straw and try to whac the mole back down once more.

The article in question is a piece by Seth Borenstein (again) of AP (again) titled "Climate contradiction: Less snow, more blizzards" (again). Borenstein talked to Michael Oppenheimer, Mark Serreze, and other "leading federal and university climate scientists" (again). If you really want to read it, it's at http://hosted.ap.org/dynamic/stories/U/US_SCI_SNOW_GLOBAL_WARMING?SITE=AP&SECTION=HOME&TEMPLATE=DEFAULT&CTIME=2013-02-18-11-33-15

But you might find the annotated version more rewarding: http://icecap.us/index.php/go/joes-blog/no_surprise_psuedo_scientists_now_blame_blizzards_on_warming/

Borenstein's story starts off with a valid point:
"With scant snowfall and barren ski slopes in parts of the Midwest and Northeast the past couple (1 ½) of years, some scientists have pointed to global warming as the culprit.
"Then when a whopper of a blizzard smacked the Northeast with more than 2 feet of snow in some places earlier this month, some of the same people again blamed global warming.

"How can that be? It's been a joke among skeptics, pointing to what seems to be a brazen contradiction."

So far, so good. It IS a brazen contradiction. So what do the global warming apologists say?

Borenstein continues,

"But the answer lies in atmospheric physics. A warmer atmosphere can hold, and dump, more moisture, snow experts say." So they're saying that since a warmer atmosphere can "hold" more moisture (technically quite incorrect in itself), there's more moisture to produce more snow. How much moisture is there? At -10C, aka 14F, each kilogram of air can "hold" (as they say) a maximum of 3.8 grams of water vapor. If all that condenses out as snow, you'll get 1.8 grams of snow from that kilogram of air rising in a Low or along a front. That would likely be a cold, fluffy snow. Warm the air up to 0C (32F), and the water content of the air doubles to 3.8 grams. Then the same storm will produce twice as much snow, or at least twice as heavy a snow (since the warmer snow won't be as fluffy). Most big snow storms occur with temperatures close to the freezing point.

Now let's kick in some global warming and raise the temperature to +10C (50F). The water content doubles again to 7.6 grams, so the snow storms will again produce twice as much snow.
What? You say it can't snow at 50 degrees F???? Well, then you know more physics that these “snow experts”!

The biggest snow storms occur at temperatures near freezing, and warming CANNOT make them any bigger because of two corollaries of a well-known physical law:

1. The freezing point of water is 0C (32F), and ice or snow cannot form above this temperature.
2. Short of a presidential executive order, the freezing point cannot be raised to allow for more moisture to be available.
Like the speed of light, it’s not just a good idea, it’s the law, and it clearly states that warmer cannot equal more extreme snow.
Now, the AGW apologists will gin and jerry their models to violate these physical laws, but one can also make pigs fly on a computer.
http://www.youtube.com/watch?v=49wJAkz8X1M

Onwards....

"The United States has been walloped by twice as many of the most extreme snowstorms in the past 50 years than in the previous 60 years, according to an upcoming study..." Well, you can look at the same data and draw different conclusions.

May I refer you to a piece I wrote for the Science & Public Policy Institute, "ARE HUGE NORTHEAST SNOW STORMS DUE TO GLOBAL WARMING?", at

http://scienceandpublicpolicy.org/images/stories/papers/reprint/ne_storms.pdf Simple plots of winter temperature and snowfall data for Philadelphia snow two obvious things:

1. Colder winters have more snow and more big snow storms, in contradiction to the warming hypothesis. This would be obvious to most folk, but the warmers have a way for denying the obvious with clever theories.

2. Over the past 125 years there has been little or no trend in either winter temperatures or snowfall.

Less obvious, but apparent in closer scrutiny of the charts, is a small 60-year cycle in snow and temperature. These correspond well with the "Atlantic Multi-Decadal Oscillation" (AMO), a huge oceanic cycle enveloping the entire Atlantic Ocean from the equator to Iceland. Joe D'Aleo has written extensively on this; just go to ICECAP.us, Wattsupwiththat.com, or other honest climate websites and do a search for combinations of "snow", "AMO", and the AMO's Pacific cousin, "PDO".

You can check this article, "Reliving the 1950s (and 1890s): the 60 year cycle" at
http://icecap.us/index.php/go/joes-blog/reliving_the_1950s_and_1890s_the_60_year_cycle/

Although I was raised in Philadelphia, and was present for the regional climate shift from hurricanes in the 1950s to the cold snowy winters of the 60s (due to the AMO, of course), I realize not everybody considers the city the center of the universe. Expanding to the entire Northeast, NOAA's "Northeast Snowfall Impact Scale (NESIS)" also shows no overall change in the snow climate of the northeastern U.S. Read all about it at "Big Snows: Northeast U.S. and Colorado"
http://icecap.us/index.php/go/joes-blog/big_snows_northeast_us_and_colorado/

The Colorado part of that article has the same end point: giant stormsin Colorado are not increasing or decreasing; out in the Rockies it's all el Niño.

More at:
"Thirty years in the Bull's-eye: a climatology of meter-class snow storms in the Front Range foothills"
http://hydrosciences.colorado.edu/symposium/abstract_details_archive.php?abstract_id=155

Now movin' on up to the South Side, Borenstein asks us to "take Chicago" (please!), which, along with the Northeast, has "been hit with historic storms in recent years". The 2011 Blizzard was certainly impressive, with 21.2 inches of snow containing 1.57 inches of water equivalent. Not bad, but officially, it was a bit shy of 1967's "Big Snow" (they didn't use excessive superlatives like "superstorm", "megastorm", or "storm of the century" back then; "Big" was sufficient) which dumped 23.0 inches. More importantly, the water content of the storm was 2.40 inches, 53 percent greater than the recent blizzard. It would take 6C, or 11F, of global warming to produce that much more moisture, according to the warmers. Indeed, the Big Snow was warmer than the 2011 version, with temperatures close to freezing during the snow. Two days earlier Chicago enjoyed a record maximum of 65 degrees and the Midwest suffered its largest January tornado outbreak on record. One of the 32 tornadoes was a F3 monster in Wisconsin, the northernmost wintertime tornado in US history. I had moved to Chicago by then (follow the snow, I say), and although the '67 storm fit perfectly the warming scenario now espoused by Serreze, Oppenheimer, and the like, I don't recall anyone linking it to Global Warming 46 years ago. Not even Mayor Daley. Extreme weather is not new. Read more about these wild storms at:
http://www.crh.noaa.gov/lot/?n=2011blizzard
http://www.crh.noaa.gov/lot/?n=67blizzard
http://www.crh.noaa.gov/dvn/?n=01241967_tornadooutbreak
http://www.crh.noaa.gov/lsx/?n=jan241967tornado
http://en.wikipedia.org/wiki/1967_St._Louis_Tornado_Outbreak

There's more nonsense in Borenstein's article, but frankly, neither the taxpayer, the canola oil companies, or the Rockefellers pay me enough to spend all night refuting it all. Actually, they pay me nothing.

The AGW gang summarize their apologetics by claiming they knew it all along."when Serreze, Oppenheimer and others look at the last few years of less snow overall, punctuated by big storms, they say this is what they are expecting in the future.

"It fits the pattern that we expect to unfold," Oppenheimer said. "Ten [unnamed] climate scientists say the idea of less snow and more blizzards makes sense: A warmer world is likely to decrease the overall amount of snow falling each year and shrink snow season."

They'd have a point if they had said this five or ten years ago,

before the recent round of big eastern storms. But they said no such thing. The last IPCC report claimed snowfall would decrease, and made no mention of larger storms. In 2000, Oppenheimer himself lamented his daughter's unused sled and that "the pleasures of sledding and snowball fights are as out-of-date as hoop-rolling".
http://hauntingthelibrary.wordpress.com/2011/01/01/new-york-times-2000-sledding-and-snowball-fights-are-as-out-of-date-as-hoop-rolling/

Now Oppenheimer & Co. are trying to explain their way out of their dead wrong assessment without admitting the sad truth - that Global Warming, like Barney, is a dinosaur from their imaginations. And we - you - the taxpayer - are paying the AGW gang to cover their errors.

As for the changing climate "What has been will be again, what has been done will be done again; there is nothing new under the sun"-- Ecclesiastes 1:9 NIV

And the climatologists,
"It is error alone which needs the support of government. Truth can stand by itself."
--Thomas Jefferson: Notes on Virginia, 1782