January 24, 2016 - WEATHER

The forecasts of this weekend's storm in the east were very accurate. However, here's why Nor'easters are so hard to forecast. From **Mental Floss**.
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For grins we include a two year old **NY Times** article on "The End of Snow."
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Indeed, six of the 10 worst have happened since 1979.

Now what is with the sudden big snows in Washington?

Blame Robert Fitzgerald Kennedy Junior, a trust fund liberal who has found fame and fortune as a global warming huckster. On September 24, 2008, he doomed Washington to record snowfalls when he wrote a column in the Los Angeles Times that said there would never be big snows in Washington again because of Exxon! ...

IBD editors opine on Al Gore's global warming racket.

Ten years ago Monday, Al Gore said we had only a decade left to save the planet from global warming. But Earth has been doing just fine. Why do we listen to this man?

While preening at the Sundance Film Festival in January 2006 during the premiere of his "An Inconvenient Truth" fib-umentary, Gore made his grand declaration. The former vice president said, in the words of the AP reporter taking down his story, that "unless drastic measures to reduce greenhouse gases are taken within the next 10 years, the world will reach a point of no return." In Gore's own words, he claimed we were in "a true planetary emergency."

Ten years later, he's probably hoping that everyone has forgotten about his categorical statement.

The terrible truth for Gore is that there is no planetary emergency. Not one of the dire predictions he and the rest of the alarmist community made has come to pass. In fact, there is plenty of evidence that they have been running a racket. Here's how we know: ...

You won't believe the waste when Swedish windmills ice up. **Power Line** post reports on the idiocy.

... The entire rationale for wind turbines is to stop global warming by reducing the amount of CO2 being returned to the atmosphere from the burning of fossil fuels.

In the attached picture, recently taken in Sweden, freezing cold weather has caused the rotor blades of a wind turbine to ice up bringing the blades to a complete stop.

To fix the "problem" a helicopter is employed (burning aviation fuel) to spray hot water (which is heated in the frigid temperatures using a truck equipped with a 260 kW oil burner) on the blades of the turbine to de-ice them.

The aviation fuel, the diesel for the truck, and the oil burned to heat the water, could produce more electricity (at the right time to meet demand) than the unfrozen wind turbine could ever produce. (Before it freezes up again).

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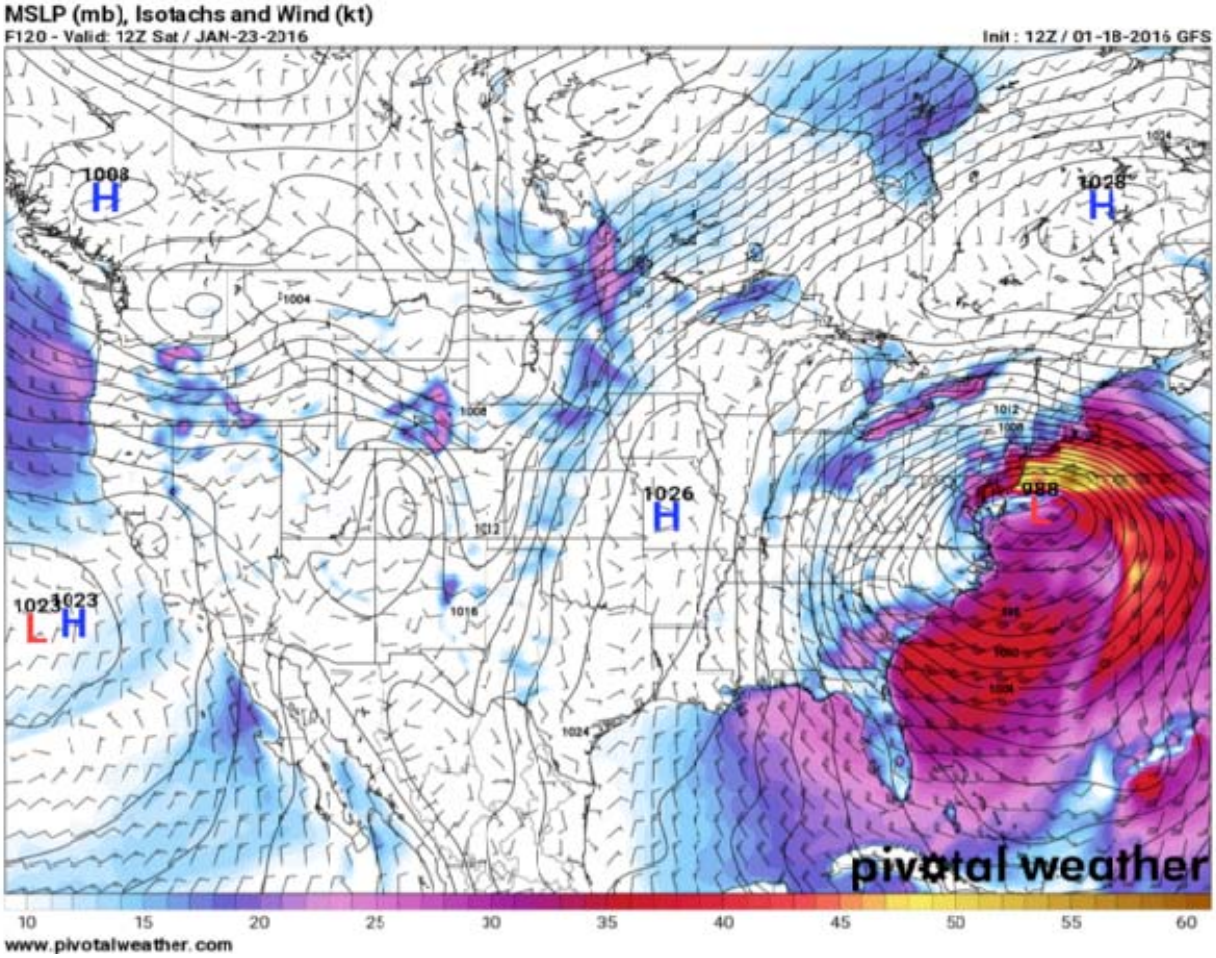
Mental Floss

Why Are Nor'easters So Hard to Forecast?

by Dennis Mersereau

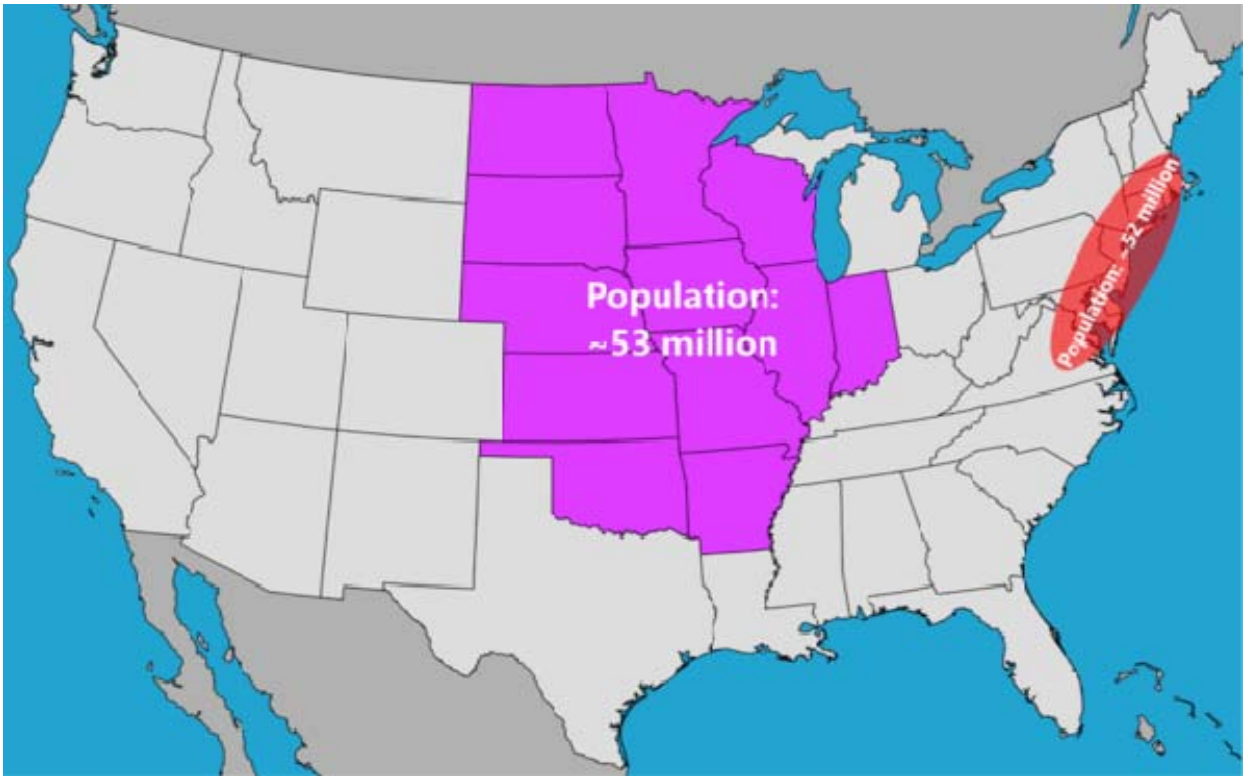
There could be a major snowstorm along the East Coast this weekend. Of course, snowstorms are common in the United States in January. But decent thumps of wintry precipitation along the East Coast always seem to be more high-maintenance than snow in other parts of the country. These systems are notoriously hard to predict more than a day or two in advance—an uncertainty that tends to drive people crazy, especially in an era when we expect (and often get) instant answers.



GFS model forecast from January 18, 2016, showing surface pressure (mb) and wind speed (kt) for January 23, 2016.

If there's one thing we humans don't like, it's uncertainty. Telephone psychics, fortune cookies, and novelty toys like the Magic 8-Ball thrive on our undying desire to know what the future holds. Political junkies live and breathe opinion polls to know what voters will decide before they cast their ballots. Sports analysts spend hours trying to predict the outcome of games that haven't yet started.

But unlike the outcome of an election or sporting event, we need to know what the weather will be like in order to live and survive. Meteorologists have it harder than these forecasters because the atmosphere is unlike humans in that we have no control over what it does. We can't directly influence a storm to move one way or another. The weather is destined to happen as it happens, and it's a meteorologist's seemingly impossible task to figure out what it's going to do long before a cloud forms.



The Northeast Megalopolis has about the same population as 12 Midwestern states combined.

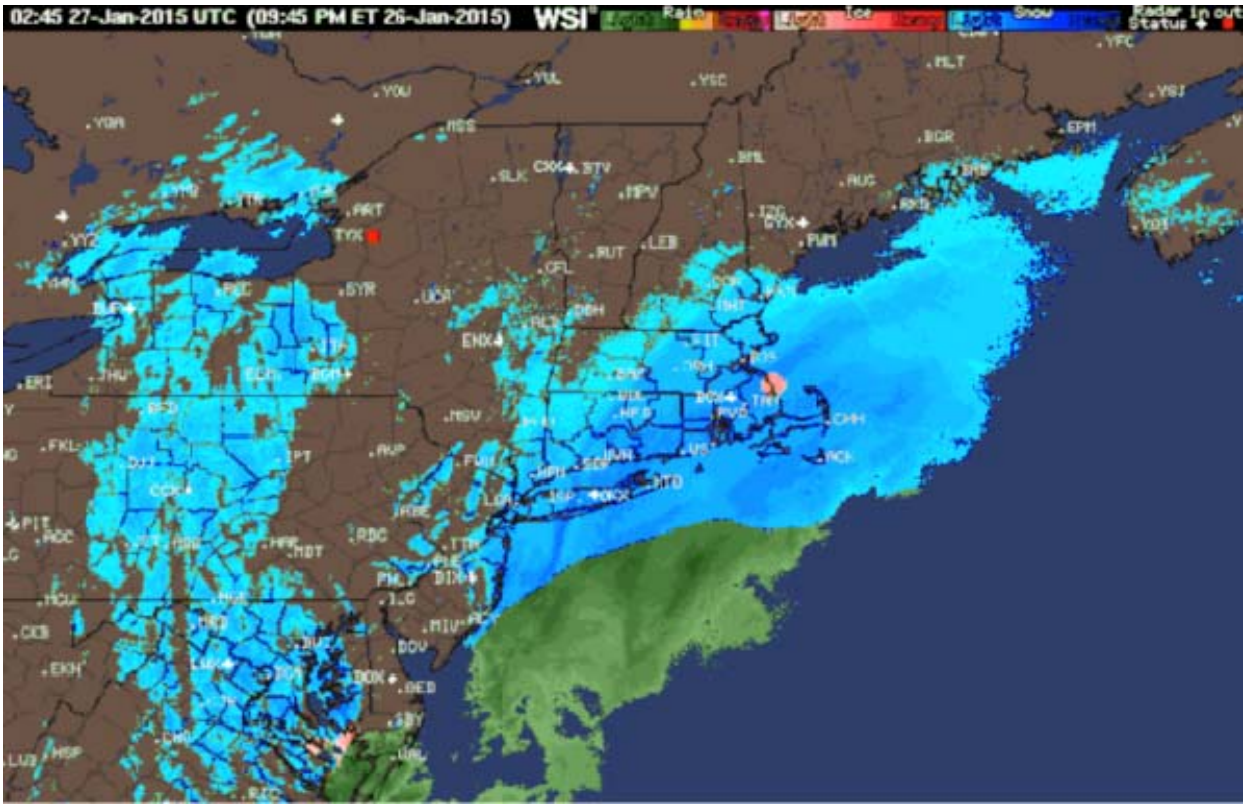
Predicting the whereabouts and actions of a snow or ice storm on the East Coast is an especially high-stakes exercise that requires an attention to science and skill. The Interstate 95 (I-95) corridor between Richmond, Virginia, and Boston, Massachusetts, is home to more than 50 million people; this strip of land, known as the Northeast Megalopolis, is home to about as many people as 12 Midwestern states combined. New York City alone has a greater population (about 8.4 million people) than 39 of the 50 states.

Given the great amount of people who live there, many of whom are packed tightly together, snow and ice that would be seen as a simple nuisance in colder and snowier places has the potential to turn into a disaster along the I-95 corridor, crippling ground and air travel, severing power to millions, and disrupting schools and businesses for a week or more. The freak-out before a storm makes this region the butt of jokes for its reaction, but whether or not the societal chaos that unfolds is justified, a lot of this anxiety stems from uncertainty, and East Coast storms are a hard nut to crack.

But why? All of the big, historic snows that live in the record books in cities like Washington D.C. and New York were produced by a unique kind of East Coast storm known as a “nor’easter,” so called because the storm produces strong northeasterly winds along the coast. Nor’easters form when the dynamics in the upper levels of the atmosphere come together just right to form a low-pressure system at the surface that eventually tracks off the coast of the Mid-Atlantic—think North Carolina and Virginia—and moves parallel to the coast as it heads toward New England and eventually Canada.

Nor’easters can grow into very powerful storms, sometimes the strength and size of a hurricane. The strong winds wrapping around the low-pressure system often drag bitterly cold air from the west and warm, moist air from the south. The varying temperatures through the storm usually lead to the whole spectrum of precipitation, including snow, sleet, freezing rain, and regular rain. The temperature gradient can be so sharp that two neighboring towns can see completely different weather conditions, with one hit by heavy snow while the other gets ice or rain.

When you have such dramatic differences in weather over such short distances, the track of the storm is everything when it comes to determining who will see the worst snow and who will see a cold rain—and this is usually where the greatest uncertainty lies. It takes a very specific path and combination of atmospheric ingredients in order to produce feet of snow along the I-95 corridor. It's challenging to determine the exact track of a low-pressure system—if you've ever followed a hurricane drawing closer to the coast, you know that the center wobbles and shifts and can sometimes go far off the track that meteorologists predicted it would follow. Nor'easters are similar in this regard. If a storm shifts a few dozen miles to the east or west, it can result in a city that expected rain to see all snow, or a city that braced for a blizzard to wake up to clear skies.



Weather radar from January 27, 2015, showing the heaviest snow staying just east of New York City.

New York City grew intimately familiar with the perils of predicting East Coast snowstorms in January 2015, when forecasters expected a powerful blizzard to bring 2 feet of snow to the Big Apple. The nor'easter tracked a few dozen miles farther out to sea than they anticipated, and most of the city ultimately got less than 10 inches of snow, while Long Island got pounded with more than 2 feet of snow.

Weather is hard. Despite the difficulty, meteorologists usually manage to predict the weather with stunning accuracy—a level of accuracy they only dreamed of just a few decades ago. We've gotten really good at figuring out what the weather will do in the future, but there are still some limits. Determining the exact track—down to the mile—of a large snowstorm with lots of variables pushing and pulling and swirling about is very hard. It's doable, but in many cases it's tough, and there's always inherent uncertainty built into even the best forecast. When your friendly neighborhood meteorologist calls for a large range of snow totals or says that they're not quite sure what could happen yet, just prepare for the worst and hope for the best.

NY Times

The End of Snow?

by Porter Fox (February 7, 2014)

Slopes were closed last month at Fichtelberg mountain in Oberwiesenthal, Germany.

OVER the next two weeks, hundreds of millions of people will watch Americans like Ted Ligety and Mikaela Shiffrin ski for gold on the downhill alpine course. Television crews will pan across epic vistas of the rugged Caucasus Mountains, draped with brilliant white ski slopes. What viewers might not see is the 16 million cubic feet of snow that was stored under insulated blankets last year to make sure those slopes remained white, or the hundreds of snow-making guns that have been running around the clock to keep them that way.

Officials canceled two Olympic test events last February in Sochi after several days of temperatures above 60 degrees Fahrenheit and a lack of snowfall had left ski trails bare and brown in spots. That situation led the climatologist Daniel Scott, a professor of global change and tourism at the University of Waterloo in Ontario, to analyze potential venues for future Winter Games. His thought was that with a rise in the average global temperature of more than 7 degrees Fahrenheit possible by 2100, there might not be that many snowy regions left in which to hold the Games. He concluded that of the 19 cities that have hosted the Winter Olympics, as few as 10 might be cold enough by midcentury to host them again. By 2100, that number shrinks to 6.

The planet has warmed 1.4 degrees Fahrenheit since the 1800s, and as a result, snow is melting. In the last 47 years, a million square miles of spring snow cover has disappeared from the Northern Hemisphere. Europe has lost half of its Alpine glacial ice since the 1850s, and if climate change is not reined in, two-thirds of European ski resorts will be likely to close by 2100.

The same could happen in the United States, where in the Northeast, more than half of the 103 ski resorts may no longer be viable in 30 years because of warmer winters. As far for the Western part of the country, it will lose an estimated 25 to 100 percent of its snowpack by 2100

if greenhouse gas emissions are not curtailed — reducing the snowpack in Park City, Utah, to zero and relegating skiing to the top quarter of Ajax Mountain in Aspen.

The facts are straightforward: The planet is getting hotter. Snow melts above 32 degrees Fahrenheit. The Alps are warming two to three times faster than the worldwide average, possibly because of global circulation patterns. Since 1970, the rate of winter warming per decade in the United States has been triple the rate of the previous 75 years, with the strongest trends in the Northern regions of the country. Nine of the 10 hottest years on record have occurred since 2000, and this winter is already looking to be one of the driest on record — with California at just 12 percent of its average snowpack in January, and the Pacific Northwest at around 50 percent.

To a skier, snowboarder or anyone who has spent time in the mountains, the idea of brown peaks in midwinter is surreal. Poets write of the grace and beauty by which snowflakes descend and transform a landscape. Powder hounds follow the 100-odd storms that track across the United States every winter, then drive for hours to float down a mountainside in the waist-deep “cold smoke” that the storms leave behind.

The snow I learned to ski on in northern Maine was more blue than white, and usually spewed from snow-making guns instead of the sky. I didn’t like skiing at first. It was cold. And uncomfortable.

Artificial snow-making has become the stopgap defense against the early effects of climate change.

Then, when I was 12, the mystical confluence of vectors that constitute a ski turn aligned, and I was hooked. I scrubbed toilets at my father's boatyard on Mount Desert Island in high school so I could afford a ski pass and sold season passes in college at Mad River Glen in Vermont to get a free pass for myself. After graduating, I moved to Jackson Hole, Wyo., for the skiing. Four years later, Powder magazine hired me, and I've been an editor there ever since.

My bosses were generous enough to send me to five continents over the last 15 years, with skis in tow. I've skied the lightest snow on earth on the northern Japanese island of Hokkaido, where icy fronts spin off the Siberian plains and dump 10 feet of powder in a matter of days. In the high peaks of Bulgaria and Morocco, I slid through snow stained pink by grains of Saharan sand that the crystals formed around.

In Baja, Mexico, I skied a sliver of hardpack snow at 10,000 feet on Picacho del Diablo, sandwiched between the Sea of Cortez and the Pacific Ocean. A few years later, a crew of skiers and I journeyed to the whipsaw Taurus Mountains in southern Turkey to ski steep couloirs alongside caves where troglodytes lived thousands of years ago.

At every range I traveled to, I noticed a brotherhood among mountain folk: Say you're headed into the hills, and the doors open. So it has been a surprise to see the winter sports community, as one of the first populations to witness effects of climate change in its own backyard, not reacting more vigorously and swiftly to reverse the fate we are writing for ourselves.

It's easy to blame the big oil companies and the billions of dollars they spend on influencing the media and popular opinion. But the real reason is a lack of knowledge. I know, because I, too, was ignorant until I began researching the issue for a book on the future of snow.

I was floored by how much snow had already disappeared from the planet, not to mention how much was predicted to melt in my lifetime. The ski season in parts of British Columbia is four to five weeks shorter than it was 50 years ago, and in eastern Canada, the season is predicted to drop to less than two months by midcentury. At Lake Tahoe, spring now arrives two and a half weeks earlier, and some computer models predict that the Pacific Northwest will receive 40 to 70 percent less snow by 2050. If greenhouse gas emissions continue to rise — they grew 41 percent between 1990 and 2008 — then snowfall, winter and skiing will no longer exist as we know them by the end of the century.

The effect on the ski industry has already been significant. Between 1999 and 2010, low snowfall years cost the industry $1 billion and up to 27,000 jobs. Oregon took the biggest hit out West, with 31 percent fewer skier visits during low snow years. Next was Washington at 28 percent, Utah at 14 percent and Colorado at 7.7 percent.

Much of these environmental data come from a 2012 report, "Climate Impacts on the Winter Tourism Economy in the United States," by two University of New Hampshire researchers, Elizabeth Burakowski and Matthew Magnusson. The paper was commissioned by the Natural Resources Defense Council and a start-up advocacy group called Protect Our Winters. The professional snowboarder Jeremy Jones started that group, known as POW, in 2007 when he realized that many of the slopes he had once ridden no longer held snow. It has since become the leading voice for those fighting to save winter, largely because few others are doing anything about it.

The National Ski Area Association has reacted with relatively ineffective campaigns like Sustainable Slopes and the Climate Challenge, while policies at ski resorts range from aggressively green to indifferent. Somewhere in between lie the majority of American ski areas,

which are struggling to make ends meet while pushing recycling, car-pooling, carbon offsets and awareness campaigns to show they care.

The truth is, it is too late for all of that. Greening the ski industry is commendable, but it isn't nearly enough. Nothing besides a national policy shift on how we create and consume energy will keep our mountains white in the winter — and slow global warming to a safe level.

This is no longer a scientific debate. It is scientific fact. The greatest fear of most climate scientists is continued complacency that leads to a series of natural climatic feedbacks — like the melting of the methane-rich permafrost of Arctic Canada.

Artificial snow-making now helps to cover 88 percent of American ski resorts, and has become the stopgap measure to defend against the early effects of climate change. Snow-making requires a tremendous amount of electricity and water, though, so it's unlikely that snow guns will be our savior. In the Alps, snow-making uses more water in the winter than the entire city of Vienna, about 500,000 gallons of water per acre. Ski areas like Vail, Keystone, Breckenridge and Arapahoe Basin seed clouds with silver iodide to make it snow, but that won't help much when it gets warmer. When it does, whatever the clouds bring will fall as rain.

With several dry winters back to back, the ski industry is waking up. Last spring, 108 ski resorts, along with 40 major companies, signed the Climate Declaration, urging federal policy makers to take action on climate change. A few weeks later, President Obama announced his Climate Action Plan, stating, "Mountain communities worry about what smaller snowpacks will mean for tourism — and then, families at the bottom of the mountains wonder what it will mean for their drinking water."

It was a big step forward for skiers and the country. And it led people to ask me, "Why save skiing when there are more pressing consequences of climate change to worry about?" The answer is, this is not about skiing. It is about snow, a vital component of earth's climate system and water cycle. When it disappears, what follows is a dangerous chain reaction of catastrophes like forest fires, drought, mountain pine beetle infestation, degraded river habitat, loss of hydroelectric power, dried-up aquifers and shifting weather patterns. Not to mention that more than a billion people around the world — including about 70 million in the western United States — rely on snowmelt for their fresh water supply.

I remember watching my first Winter Olympics in 1980. We were on a family ski trip at Copper Mountain in Colorado, where my brother and I skied the first powder run of our lives. It was on a gentle slope just off one of the main trails. We wiggled down the hill in chaotic rapture then skied the run again and again. The snow was soft and the turns effortless. You don't have to be a skier to feel nostalgia for those whitewashed days — or to see the writing on the wall.

Porter Fox is the features editor at Powder magazine and the author of "Deep: The Story of Skiing and the Future of Snow."

Don Surber

DC suffers the "Curse of Robert F. Kennedy Junior"

The fourth blizzard in six years is about to hit Washington, D.C., if the bureaucrats at the National Weather Station are correct.

If 15 or more inches of snow pile up in the nation's capital, the blizzard will rank in the top 10 of blizzards ever recorded in Washington, stretching back to 1850.

Three of the top 10 blizzards occurred in this century!

Indeed, six of the 10 worst have happened since 1979.

Now what is with the sudden big snows in Washington?

Blame Robert Fitzgerald Kennedy Junior, a trust fund liberal who has found fame and fortune as a global warming huckster. On September 24, 2008, he doomed Washington to record snowfalls when he wrote a column in the Los Angeles Times that said there would never be big snows in Washington again because of Exxon!

"In Virginia, the weather also has changed dramatically. Recently arrived residents in the northern suburbs, accustomed to today's anemic winters, might find it astonishing to learn that there were once ski runs on Ballantrae Hill in McLean, with a rope tow and local ski club. Snow is so scarce today that most Virginia children probably don't own a sled. But neighbors came to our home at Hickory Hill nearly every winter weekend to ride saucers and Flexible Flyers.

In those days, I recall my uncle, President Kennedy, standing erect as he rode a toboggan in his top coat, never faltering until he slid into the boxwood at the bottom of the hill. Once, my father, Atty. Gen. Robert Kennedy, brought a delegation of visiting Eskimos home from the Justice Department for lunch at our house. They spent the afternoon building a great igloo in the deep snow in our backyard. My brothers and sisters played in the structure for several weeks before it began to melt. On weekend afternoons, we commonly joined hundreds of Georgetown residents for ice skating on Washington's C&O Canal, which these days rarely freezes enough to safely skate.

Meanwhile, Exxon Mobil and its carbon cronies continue to pour money into think tanks whose purpose is to deceive the American public into believing that global warming is a fantasy."

Since the Los Angeles Times published that column, Washington has suffered two of its 10 worst blizzards. At any rate this would be the fourth snowstorm of 10 inches or more to hit Washington since RFK Jr. wrote that. In its history, Washington has had only 25 such snowstorms.

Maybe now they should call their NBA team the Washington Blizzards.

IBD - Editorial

Five Ways We Know Al Gore's Been Running A Global Warming Racket

Fraud: Ten years ago Monday, Al Gore said we had only a decade left to save the planet from global warming. But Earth has been doing just fine. Why do we listen to this man?

While preening at the Sundance Film Festival in January 2006 during the premiere of his "An Inconvenient Truth" fib-umentary, Gore made his grand declaration. The former vice president said, in the words of the AP reporter taking down his story, that "unless drastic measures to reduce greenhouse gases are taken within the next 10 years, the world will reach a point of no return." In Gore's own words, he claimed we were in "a true planetary emergency."

Ten years later, he's probably hoping that everyone has forgotten about his categorical statement.

The terrible truth for Gore is that there is no planetary emergency. Not one of the dire predictions he and the rest of the alarmist community made has come to pass. In fact, there is plenty of evidence that they have been running a racket. Here's how we know:

One, Earth hasn't warmed in nearly 20 years. Yes, 2015 supposedly "smashed" the previous temperature record. But actually it was the third-warmest year on record — or maybe "not even close to the hottest year on record," says James Taylor of the Heartland Institute.

The global average temperature, a devilish thing to determine anyway, depends on what temperature readings are being used and who is "adjusting" the data to fit their political purposes. The scientific community cannot be trusted to provide honest numbers. And 2015 was, after all, an El Nino year. Higher temperatures, with no link to man's activities, were expected.

Two, predictions that climate change — the rebranding of "global warming" when it turned out that predicted warming wasn't happening — would cause catastrophic weather damage haven't panned out.

German insurance giant Munich Re says losses from natural disasters were lower in 2015 than in 2014 and lowest since 2009. The facts are sharply at odds with Gore's 2012 claim that "dirty weather" caused by "dirty fossil fuel" has created "extreme weather" that "is happening all over the world with increasing frequency."

Three, despite all the self-congratulatory international conferences and pseudo-agreements, the world has done nothing to "fight global warming."

He cannot claim that his deadline has been extended because some governments have forced their citizens to cut carbon dioxide emissions. CO_2 levels keep climbing and now exceed 401 parts per million in the atmosphere. It is simply not the dangerous greenhouse gas we've repeatedly been told it is.

Four, in the mid- to late-2000s, Gore repeatedly predicted that an ice-free Arctic Ocean was coming soon. But as usual, his fortune-telling was wrong. By 2014, Arctic ice had grown thicker and covered a greater area than it did when he made his prediction.

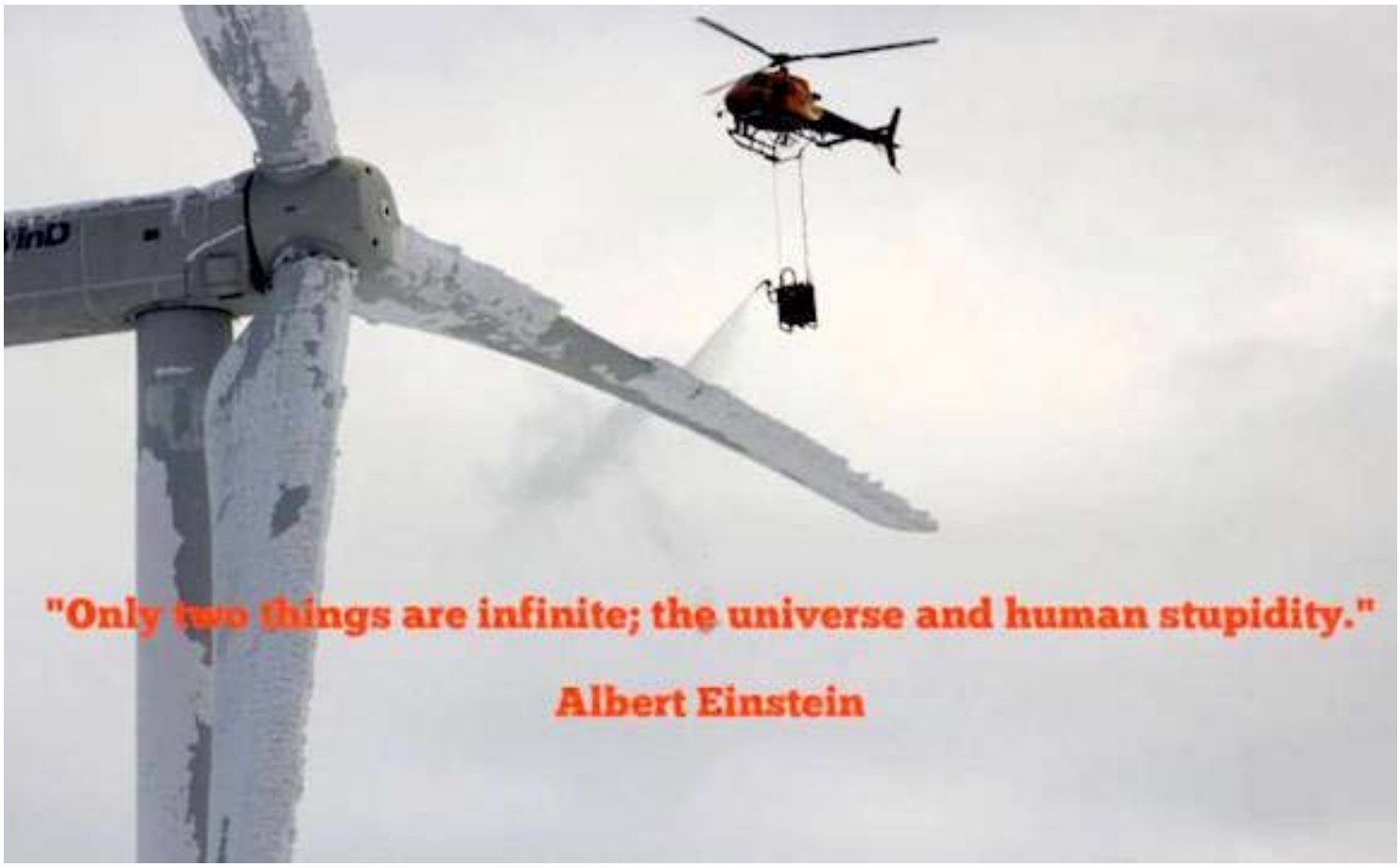
Five, Gore's movie, which somehow won an Oscar, was found by a British judge to contain nine errors. The judge said it could not be shown to students unless it included a notice pointing out the errors.

Gore will never apologize for peddling deceit, never admit he was wrong. Best thing to do is ignore him.

Power Line
Let It Snow, Let It Snow…

The East Coast has been hit with a pretty major snow storm. For some reason, this is international news. To be fair, 25 inches of snow is quite a bit, although less than the Great Halloween Blizzard that struck the Twin Cities in 1991. I can tell I am getting old, reminiscing about great snowfalls of the past!

But we are living in the era of Global Warming, so weather news has taken on a whole new dimension. Watts Up With That? notes Craig Kelly's Facebook post on wind power in Sweden. It turns out that wind power doesn't work well under wintry conditions:



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The attached picture is a metaphor of the complete insanity of the climate change debate.

In decades to come this one photo alone with sum up an era of stupidity, when rational thought, logic and commonsense was abandoned and immense wealth and resources needlessly sacrificed.

Immense wealth and resources are indeed being sacrificed, but not exactly needlessly. A great deal of money is being made, and a great deal of power is being transferred to the world’s governments. Which is the principal point of global warming alarmism.