

How do the February 2010 blizzards stack up?

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Now that we've weathered two big blizzards back-to-back and piled up immense amounts of snow just how bad was it? How do the two blizzards of February 2010 compare with historic snowstorms and frigid winters of the past?

February 5-6, 9-10 2010: The 'Snowmageddon' storm as referred to by President Obama was the biggest snowstorm in 88 years or since January 28, 1922 the Knickerbocker Snowstorm. The 'Snowmageddon' storm was the 2nd, 3rd, and even 4th significant winter storm for some parts of the Mid-Atlantic States during the 2010 winter season.

Fortunately, the record allowing comparison is fairly comprehensive. There are written records about extreme weather in Maryland since before the Revolutionary War. Much of what we know about the early storms is contained in private journals because official recordkeeping didn't begin until after the Civil War.

The National Weather Service has collected reams of information on historic storms in the state and has posted it in an extensive article by Barbara McNaught Watson on its Web site under the heading "Maryland Winters: Snow, Wind, Ice, and Cold."

What follows are excerpts with an emphasis on the Eastern Shore. In 1772 both George Washington and Thomas Jefferson wrote in their journals about a storm that dumped up to 36 inches of snow on Jan. 27 and 28. It reportedly kept people from traveling for up to two weeks.

It got so cold in the winter of 1779-1780 that large portions of the Bay froze solid, making it possible for people to walk and pull sleighs and loaded vehicles across the ice between Kent Island and Annapolis. How cold was it in January and February 1852? It was so cold that ice prevented a ferry connecting the Philadelphia, Wilmington and Baltimore Railroad from running across the mouth of the Susquehanna River near Havre de Grace. The river froze so solid that a track was built on the ice and rail cars were pulled across by ropes and horse-drawn sleighs.

The snowstorm of March 20-21, 1867, blew through Delmarva and left up to 32 inches in places in just 16 hours. Another March storm, known as

"The Blizzard of '88" or the "White Hurricane" ripped through the state with temperatures in the single digits. Winds produced some of the lowest tides on record in the Bay and along the state's Atlantic coast and an entire island was inundated.

An unusual late season storm struck from April 10-12, 1894, and left 24 inches on the ground in Princess Anne and sent the mercury there plummeting to 10 below zero. A foot of snow fell on Cambridge on Dec. 10, 1904, and the temperature in Easton fell to minus-three degrees.

A cold wave on Jan. 13-14, 1912, brought extremely cold temperatures to several Eastern Shore towns: 10 below in Sudlersville; 7 below in Chestertown; 5 below in Cambridge; 11 below in Denton; and 4 below in Salisbury and Princess Anne.

A nor'easter on April 3, 1915, is in the record books as the biggest late season snow storm on Delmarva. It dumped 15 inches in a line between Sudlersville and Dover, Del., Salisbury had ten inches.

One of the longest cold snaps on record occurred in December 1917 and January 1918 when large parts of the Bay and its tributaries froze solid and just about all shipping came to a halt. The Upper Shore received nearly two feet of snow during that stretch.

Jan. 28, 1928, saw between 10 and 18 inches of snow fall on the Upper Eastern Shore. On Jan. 22 and 23, 1935, there was so much ice that more than a thousand utility poles were knocked down on the Eastern Shore.

Another deep freeze in February 1936 stopped ship traffic because the ice was so extensive over practically the entire Bay. The late Chesapeake Bay steamboat captain Edward Eaton recalled that nothing moved on the Bay for 30 days and when vessels finally did begin moving they found that the ice had moved just about every buoy and channel marker off station, making navigation a nightmare.

Queen Anne's, Talbot and Caroline counties got up to 10 inches of snow on Nov. 24-25, 1938. Nearly 20 years later, a severe nor'easter ravaged the region from Feb. 15-17, 1958, leaving a foot of snow on the Upper Shore. Easton reported eight-foot drifts.

Another big nor'easter came through less than a month later, during which 13 inches fell on Denton.

January 1977 was described as the coldest on the East Coast since colonial times and large expanses of the Bay were frozen solid. It was during this cold stretch that ice caused the Sharp's Point Lighthouse to lean from the vertical, a position in which it remains today.

The 1990s brought some harsh winter weather to the region. There was a series of storms in February 1994 that produced snow, sleet, and freezing rain in Queen Anne's, Caroline and Talbot counties. Extensive damage to trees was reported on the Shore.

Caroline and Dorchester counties got two feet of snow during a blitz of bad weather between Jan. 7 and 13, 1996, and during February 1996, there were four snowstorms on Delmarva in five weeks, making it the snowiest season of the century in the area. The Upper Shore piled up between 38 and 42 inches.

And who could forget the President's Day Blizzard of Feb. 15 to 18, 2003, when between 20 and 22 inches fell on the area? Among other things, the weight of the snow in that one caused a portion of the roof to cave in at the old Chesapeake Bay Model Building at Matapeake.

The following questions were answered by meteorologists
Barbara McNaught Watson and Al Peterlin.

Q: How do blizzards form?

A: A blizzard is a snowstorm with very strong winds. A very strong low-pressure system followed by a very strong high-pressure system during the winter months can result in a blizzard — windy and snowing as the low passes, and then the strong winds after the low that moves snow around on the ground about. In the summer we complain, "it's not the heat, it's the humidity." In the winter, it's not the cold, it's the wind. (Al Peterlin)

Q: Where does it snow the most in the United States?

A: According to the snow booklet by Nolan Doesken and Arthur Judson, the Paradise Weather Station near Mt. Rainier in Washington State, elevation 5,427 feet, is the snowiest reporting station in the United States. It averages 700 inches of snowfall on 127 days with measurable snowfall annually. (Al Peterlin)

Q: What causes a Nor'easter and how often do they occur?

A: Nor'easters usually form anytime from September through April. They are called "Nor'easters" because of the strong northeast winds. A Nor'easter is an intense low-pressure area. The winds blow around the low in a counterclockwise direction. These storms are unique from those that hit elsewhere in the US because they are closely tied to the warm Gulf Stream waters off our East Coast. These warm waters help to fuel the storms development and bring us all of that rain or in some cases, a lot of snow. A Nor'easter develops along the Southeast or Mid-Atlantic coast upon interacting with the Gulf Stream and then often moves north up the coastline into New England. Some of these storms are quite intense and can cause damage like that of a weak hurricane. While every storm is a little different and affects different portions of the coast, it is not uncommon to see a half dozen nor'easters through the fall into early spring, with two really intense ones. (Barbara McNaught Watson)