**PAESTA Podcast Series – You asked, We Answered!**

**Episode 9 – What was The Great Blizzard of 1888 and how did it impact Pennsylvania?**

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Imagine you are a child playing in the recess yard or an adult going to work. The weather is fine and everything seems normal. Then the next day temperatures drop and a blizzard hits your town and takes over 400 lives. This is what happened to the civilians living in March of 1888. The Great Blizzard of 1888 started on March 11 and ended on March 14. [1] To this day it’s one of the deadliest and snowiest storms recorded in the United States. Becky Oskin from Livescience.com ranks the Great Blizzard of 1888 amongst the worst blizzards in U.S. history. [2] Ranking at number ten, Oskin reports more than 400 deaths and 200 ships sank because of fierce winds. The Blizzard of 1888 was unusual because the temperatures ranged from mid 50s to 70s that week. This storm was unpredictable because there was not an outbreak of cold air across eastern United States and the center of the storm made a counterclockwise loop off the coast of southern New England. The low-pressure center eventually went out to sea, instead of moving along the usual southwest to northeast path that most winter storms follow. History.com explains the beginning of the storm as, “On March 10, temperatures in the Northeast hovered in the mid-50s. But on March 11, cold Arctic air from Canada collided with Gulf air from the south and temperatures plunged. Rain turned to snow and winds reached hurricane-strength levels. By midnight on March 11, gusts were recorded at 85 miles per hour in New York City. Along with heavy snow, there was a complete whiteout in the city when the residents awoke the next morning.” [3]

The Blizzard of 1888 struck Pennsylvania and the entire east coast from Maine to Maryland. [4] In Pennsylvania 20-50 inches of snow are recorded for the three-day cyclone. [5] Snowdrifts were around twenty feet tall and were nearly impossible to dig out. Many people were stranded on trains, in their homes, or buried beneath the snowfall. After this storm, an impression was left on Pennsylvania and the rest of the east coast. Daily News staff writer Rose DeWolf says this storm was significant in marking, “The beginning of urban American’s dependence on such inventions as electricity, telephone communication, central heating systems, and mass transit.”

Paul Kocin writes in his book “Snowstorms and Blizzards” that when people think of snow they think of their childhood, but on other occasions snow can be a natural disaster with high personal, social, and economic costs. [6] He states the definition of blizzard as any storm accompanied by high winds, low temperatures and reduced visibilities due to falling snow. He discussed that most people did not know how to treat the roads or railroad systems, which lead to human and economic consequences of such disasters.

To simulate the Blizzard of 1888, Michaelis & Lackmann from American Geophysical Union Publications provides innovative data and methods by simulating air measurements through a 21st century Reanalysis (20CR), a pioneering global reanalysis data set that reconstructs the state of the atmosphere prior to the availability of radiosonde observations. [7] In addition, the Weather Research and Forecasting used model version 3.2.1 to simulate the Blizzard of ’88. It also created a cycle, which tracks storms and snowfall. In conclusion, the team finds data from using innovative technology to simulate the storm of ’88. By simulating the storm, scientists have a better understanding of how the Blizzard occurred and its effects.

##### In addition to the effects on land, along the Atlantic coast hundreds of boats sunk due to the high winds and heavy waves. Lifelong American Naval Officer Edward Everett Hayden was an inventor and meteorologist who co-founded the National Geographic Society who saw a different perspective during the Atlantic storm on March 11, 1888. [8] Hayden watched as hundreds of boats sunk beneath the waves from the high winds.

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##### The newspaper Lancaster Daily Intelligencer writes an article that explains the emotions of civilians and the disastrous effects this blizzard caused for people residing in Lancaster, PA. [9] It describes how telegraph companies, railroad workers, street wires, hotels, and mailmen suffered from the storm. It sheds light on how civilians felt shut-in from the world because they were unprepared for the storm, but they could not stop the storm even if they were prepared because the magnitude and density of the storm was so great.

##### Weather.com posted a video describing the 1888 Blizzard as a weather disaster that is unparalleled to any other storm in eastern United States. [10] It showed a virtual map of how the storm moved up the coast including dates and specific times. At the end, weather.com explained that the storm cost 25 million dollars in 1880 currency for repairs.

##### To this day, the Great Blizzard affects our society and the way we try to predict and prepare for storms. In Pennsylvania, subway systems were created as part of the aftermath, which most civilians still use as a means for transportation. In New York City, a similar determination was made about the trains, and within 10 years, construction began on an underground subway system that is still in use. This disastrous blizzard also changed means of communication in Pennsylvania by understanding the dangers of above ground telegraph, water and gas lines. After the dangers and destruction of these means of communication were destroyed, the lines were put below ground. Although families, business, and cities have been affected by the Great Blizzard in March of 1888, we are benefiting from this storm today because subway systems and communication equipment have been invented.

*(This audio file was recorded Erin Dolan on April 12, 2016)*

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