

Winter 2017-2018 Brings 40th Anniversary of the Blizzard of '78

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When the earliest flakes began flying on the morning of Wednesday, January 25, 1978, few citizens of central Indiana could have known the devastating impact that this once-in-a-generation blizzard would have on their lives, despite the warnings coming from forecasters at the National Weather Service office in Indianapolis. Even experienced weather professionals, who knew what was coming, had little idea of exactly what they would face over the next few days, as such an epic snowstorm had little equal in the climatological record for Indiana. According to retired WTHR meteorologist Bob Gregory, in an Indianapolis Monthly article on the 20th anniversary of the blizzard, "In these parts, 'blizzard' was just a word in the dictionary. That was something they got in the Northeast or the Great Plains, but not here." Gregory recalled arriving for a meeting on access to data from the new WSR-74C radar, which had been installed four months prior to the blizzard, to an office abuzz with talk of a 100-year storm and anxiety over what would surely be a vicious snowstorm. The front page of the February 3, 1978 Indianapolis Star carried a quote from an unnamed NWS forecaster, uttered about discussions on the storm 6 hours prior to the issuance of the blizzard warning. His words were simply, "we figured it would be horrible."

Indianapolis forecasters Dennis McCarthy and Hobart Reeves issued the first ever Blizzard Warning for the entire state of Indiana at 3:45 PM EST on the 25th. A heavy snow warning had been issued nearly 12 hours prior. Winds were only 12 mph at the time the warning went out, but these winds would approach 50 mph or more by midnight, and continue through the morning of the 27th. Temperatures would plummet to a low of zero during the storm, and wind chills would approach -50. Snowfall rates of nearly one half to as much one inch per hour were not in and of themselves remarkable, but the duration of the heavy snow was. Significant snowfall lasted about 31 hours at Indianapolis, and would be followed by continued cold and high winds, hampering recovery and relief efforts, and leaving much of Indiana crippled for days. In all, 15.5 inches of snow would fall at Indianapolis, which, combined with snow already on the ground, would bury the city under 20 inches of snow. In other areas, up to three feet of snow fell. The howling winds would push drifts up to as much as 20-25 feet. Visibilities would remain below one quarter mile for 25 hours.

The storm was characterized by a relatively rare merger of two distinct upper level waves, one which lifted northeast out of Texas and another which dove southeast out of Canada. A weak surface cyclone was initially located on the gulf coast, a preferential area for cold season cyclogenesis. This weak cyclone drifted northward, and came under the influence of the extraordinarily strong merged upper low, and intensified in incredible fashion. The storm itself, in meteorological circles, would come to be known as the Cleveland Superbomb, due to the pressure observed at Cleveland (958 millibars, one of the lowest ever recorded in the United States outside of a tropical cyclone), and the rapid intensification of the low. A "bomb" is defined as a surface cyclone that intensifies at a rate of 1 millibar (mb) (approximately 0.03 in. Hg) per hour for 12-24 hours. Bombs themselves are primarily coastal or maritime events, owing mainly to the

large amount of heat stored in ocean waters, even in the cool season, and the large temperature contrast present in a semi-permanent state along the coasts in the winter. As such, a bomb affecting the Midwest is a fairly rare event. As the surface low moved northward out of Mississippi and Alabama, it continued up the west side of the Appalachians into central Ohio and eastern Michigan. Between 7 PM and 10 PM EST on the evening of January 25th, the storm deepened by nearly 10 mb.

NWS staff became trapped at the office during the storm, which at the time was in the Indianapolis International Airport. Dennis McCarthy would be on station for 74 consecutive hours before returning home. Craig Edwards was on duty for 61 hours. Former hydrometeorological technicians Ed Terrell and Phil Gray were on station for a combined 100 hours, 54 and 46 hours respectively. For the 30th anniversary, Terrell recalled, "After the blowing snow started, all that could be seen looking out the fourth floor windows was a sheet of white, and it just kept up all night and the next day, and by Thursday evening it was still a whiteout. I remember thinking, 'this is never going to end.' The worst part of the storm for me was trying to get some rest in the office. I tried to sleep on three chairs pushed together, the floor, and finally on teletype boxes. You just could not get any rest." Terrell and Gray would be relieved on Friday evening, and taken home by those arriving in four wheel drive vehicles. Upon arriving home, Terrell became seriously ill, and was diagnosed with pneumonia once he finally made it to a doctor the following Monday.

The now retired Edwards recalled the assistance of Central Region radar meteorologist Carlos Garza, in town from Kansas City, who had a room at the nearby Holiday Inn. "After two days of folks sleeping in chairs and on teletype boxes," Edwards remembered, "he volunteered his room for naps and showers. I walked over in waist deep snow on Friday afternoon for a nap and a shower. While I was smart enough to bring in food for about 24 hours, I failed to bring a change of clothes," or other essentials. Edwards also recalled finding every available space in the engine compartment of his vehicle packed with snow when attempting to leave on Saturday morning.

Elsewhere across Indiana, weather service staff soldiered on throughout the storm. At the Fort Wayne office, specialist Donald Bateman was on duty for 34 hours before being relieved by Evan McColly, who arrived on snowmobile, and would not leave until 32 hours later.

At South Bend, specialists Leonard Calvert and Lou Mandryk were trapped at the office for three days. Ervin Wesley, the official in charge, obtained the services of a snowmobile to reach the office, and remained on station for 64 hours.

Evansville was the first Indiana weather service station to experience the storm. Specialists William Reilly and Ray Williams were on duty for 18 hours, observing and reporting the deteriorating conditions, before they were relieved by a nearly frozen Francis Burns. Burns had walked at least three miles from his home to reach the office.

The human drama extended far beyond the confines of National Weather Service offices across the state. Highways were clogged with stranded motorists. Throughout the Midwest, doctors and emergency personnel were forced to reach people on skis and snowmobiles. The governor sent National Guard tanks onto I-65 to remove stranded semis. A snowbank stalled a seven car Amtrak train in Putnam County. Indiana Bell was forced to halt all phone traffic but emergency calls. In Franklin, the Daily Journal published on pink paper, explaining that the color would help readers find their papers in the snow.

The late former mayor Bill Hudnut managed to get to WIBC, and then the three major networks, which delivered information round the clock, to tell residents that the blizzard had completely shut down the city and the state. At one point, local and state officials were forced by the storm's ferocity to pull police off the streets.

70 people would die during the storm.

It is sometimes difficult to believe that the weather can be that dangerous and that extreme. However, on a few occasions since, we have been reminded that blizzards can and do happen in Indiana. Be prepared before winter storms strike. Have a preparedness kit in your home, and a survival kit in your vehicle. Do not venture out when conditions are hazardous. Pay attention to forecasts and warnings from the National Weather Service, and information from the local media. Winter storms are deceptive killers. Treat them with the respect due the situation. Respecting their power may just save your life.

