

On the COVER

Lessons from Leon

Laura Cavanaugh

THE STORM

On Tuesday, January 28, 2014, winter storm Leon brought snow, ice, and subfreezing temperatures to the typically temperate Southeastern United States. In spite of advance warnings of severe weather, the sprawling 28-county Atlanta metroplex, home to approximately 5.5 million people, was completely paralyzed by the storm, which left only 2.5 inches of snow. Within hours of the initial snowfall, major roadways were at a standstill, as millions of motorists battled worsening driving conditions. Days would pass before the disaster was resolved, after having left a vast number of individuals stranded in frightening and dangerous situations. A review of the events that led to and defined this metropolitan catastrophe reminds us, that even predicted disasters are never fully anticipated, and they expose vulnerabilities that warrant attention before the next occurrence.

As early as Sunday, January 26, the National Weather Service began issuing a hazardous weather outlook across most of Georgia, including the Atlanta area, warning of possible sleet and snow accumulation on Tuesday. By 4:00 AM Tuesday morning, the forecast was upgraded to a winter storm warning for all of metropolitan Atlanta. National and local meteorologists predicted snowfall to begin midmorning and advised residents to travel only in an emergency.

This advice, however, went largely unheeded. Relying on predictions of a clear morning, residents of metropolitan Atlanta almost universally decided to proceed with business as usual, confident that they could beat the storm by heading home before conditions became dangerous. Unfortunately, conditions became dangerous more rapidly than anticipated. During a narrow 2-hour period after the snowfall began, schools, government agencies, and businesses all announced closures, sending workers home en masse and forcing parents to rush to pick up their children at school.

Because only a small area of the Atlanta metroplex is serviced by a limited rail system, the vast majority of commuters rely exclusively on the use of roads for transportation. Therefore, the announced closings meant that millions of drivers would be entering the roadways simultaneously. A CNN broadcast estimated that 5 million people were on Atlanta-area roads at once.

THE RESPONSE

During this mass exodus, temperatures fell quickly to well below freezing, and the snow continued to fall. Congestion on the untreated roadways briefly melted snow, which quickly froze into sheets of ice. Numerous trucks jack-knifed, blocking metro-area roads. Vehicles lost traction and became stuck on the ice, or were spun off of roads into ditches. Rescue vehicles and salt trucks were unable to gain access to the roadways. Traffic became completely gridlocked, stranding millions of people in their vehicles in subfreezing temperatures.

By the time a state of emergency was declared was declared at 5:28 PM Tuesday evening, Atlanta's roads were filled with vehicles stranded in the storm. According to the Associated Press, 10 000 children in the Atlanta area spent the night in schools through Wednesday evening, and 239 children spent the night on trapped school buses. On Tuesday evening, more than 900 traffic accidents were reported in the Atlanta area. Between Tuesday night and Wednesday morning, the Georgia State Patrol reported 1460 traffic accidents, with an associated 175 injuries. Thousands of motorists were forced to spend the night and much of the following day in their vehicles, many without food, water, adequate protective clothing, or ample fuel.

THE AFTERMATH

The National Guard was able to distribute some food, water, and blankets using off-road vehicles. In addition, many people reported on individuals distributing available food and drinks, strangers

taking people into their homes, store managers offering refuge, physicians volunteering emergency service, and many others offering assistance to stranded drivers. Even a Facebook page dedicated to offering relief (Stranded Motorists Help Jan 28 2014) was posted during the crisis, and quickly drew more than 10 000 followers.

By Wednesday evening, more than 24 hours after the gridlock, most people had finally managed to reach home, although stranded cars still lined roadways in and around Atlanta into Friday morning. Considering the number of people experiencing hazardous roads and dangerous environmental conditions, consequences were less severe than they could have been. Two fatal accidents were reported, and 1 baby was delivered safely on the roadside. However, the emotional toll was high. There were parents separated from children, or stranded in cars with children and having to seek assistance from strangers. Thousands of motorists did not know when they would be able to find shelter, or food and water. All over Atlanta, people worried helplessly about loved ones stuck on the road. The potential for injury and even death was great. How the situation might have been prevented or better managed on public and individual levels must be considered.

LESSONS LEARNED

It is unrealistic for a region that experiences severe winter weather every few years to be as prepared as northern cities, with adequate training and equipment to pretreat roads. However, communication and clear demarcations of responsibility should have been available and could have greatly improved the management of this and any other emergency situation. Having millions of people at risk in one of America's major metropolitan cities requires an evaluation of who is and should be responsible for making closure and road safety decisions, and how those decisions can be effectively communicated and implemented.

This frightening event also highlights the danger of so many people relying on a single mode of transportation. Any disaster that compromises the use of roadways could similarly threaten the safety of millions of people. Changes should be sought to lighten the burden and sole reliance on Atlanta roadways and provide alternate means of facilitating emergency aid. For example, in the event of potential threats that could compromise roadways, more effective use of technology that enables people to work and use online learning at home could help. Taking advantage of widespread smartphone usage to communicate during disaster situations could also facilitate crisis management. Also, consideration should be given to the security benefits of a more expansive rail system. Such a system could have significantly improved Atlanta's ability to cope with storm Leon, possibly transforming the complete paralysis of traffic into an inconvenient slowdown.

For the area's residents, this catastrophe profoundly demonstrates that even in the midst of urban development and surrounded by people willing to help, one can quickly fall victim to severe conditions. People must be prepared to keep themselves safe through a crisis situation. Drivers have to remain aware of weather conditions; keep a day's supply of water and a blanket in the car; have gas tanks full whenever severe weather is reported; and maintain a charged mobile phone whenever possible. No one should rely on public services and authorities for protection without participating in self-preparedness. The randomness that defines disasters ensures that rescues will be equally unpredictable.