

GIS Technology Adds State-of-the-Art Geographic Intelligence that Saves Lives, Time, and Money

City of Kearney, Nebraska



Situated in the plains of South Central Nebraska, the City of Kearney, Nebraska is a quiet farming community where life-threatening emergencies are less common. When the Buffalo County 911 Center implemented Phase II E-911 capabilities, they would soon find out about the benefits and the impact on individual lives that it would have.

The morning of September 13, 2007 was a typical morning. Everyone in the northern, rural section of Buffalo County was going about their usual morning routines. However, the routine soon became a matter of life and death as a woman driving down a minimum maintenance road lost control of her vehicle and was ejected. The vehicle landed on top of her, and she was pinned underneath, unconscious.



Nearby, a farmer was going about his usual morning duties when he spotted the overturned vehicle on the side of the road with the woman pinned underneath.

Not knowing how long the woman had been trapped, the panic-stricken farmer immediately dialed 911 and spoke to Communications Officer Deb Shafer at the Buffalo County 911 Center. Although familiar with the area, the elderly man was only able to describe his location by landmarks rather than street names.



“He referred to streets as ‘the road next to so-and-so’s farm’ and was too hysterical to otherwise describe where he was” said Shafer. “His call was plotted on the screen, though, so I was able to see exactly where he was. The area is extremely rural. We would not have been able to find where the call was coming from if we hadn’t had Phase II.”

As mobile phone use began to increase in the early 1990s, emergency service providers realized that people who dialed 911 from their cell phones were unable to accurately describe their location to the dispatcher, much like the farmer in rural Buffalo County. It was extremely difficult for dispatchers to know where calls originated. There was a need for a program that could track the origin of cell phone calls. The Federal Communications Commission (FCC) issued the Enhanced 911, or E-911 mandate, which required all wireless carriers to implement technology that would allow the caller to be located.

The City of Kearney, Nebraska utilizes Phase II GIS dispatch software from Geographic Technologies Group. Without the advanced technology of the recently added Phase II mapping tools, Shafer would not have been able to successfully identify the location of the critically injured woman.

“We hadn’t had Phase II for very long and had just added it to our rural units very recently, so it was the first time I had used the program for a rural accident,” said Shafer.

Not only was Phase II useful due to the farmer’s inability to clearly communicate the location of the accident, but the mobile AVL tools were also helpful in tracking emergency vehicles as they made their way to the scene.

“The ambulance never called to say they were en route,” said Shafer, “but I was still able to calm the farmer and let him know exactly how many miles away help was and how long it would take for them to get to the scene.”

Although it took two ambulance crews to rescue the trapped woman, her life was spared due in part to advanced mapping tools utilized by Buffalo County.

“Having our advanced Phase II compliant mapping tools really made a big difference that day,” said Shafer, “I was very pleased with everything it was able to do.”



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