

Southeast Texas Steps Up to Phase II

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Deployment of Phase II service in Southeast Texas will greatly enhance call takers' ability to provide emergency assistance when and where it is needed.

SOUTH EAST TEXAS REGIONAL PLANNING Commission (SETRPC) 9-1-1 Emergency Communications recently implemented Phase II wireless location technology, becoming the second of only two Councils of Government in Texas to implement this life-saving technology. With the completion of implementation in June, Sprint (Overland Park, KS) became the first wireless carrier in Southeast Texas to meet the Federal Communications Commission's E9-1-1 mandates.

The Southeast Texas region, which includes Hardin, Jefferson and Orange counties and the major cities of Beaumont, Port Arthur and Orange, serves a population of approximately 385,000 residents. In 2002, the twelve PSAPs in the region answered more than 271,300 9-1-1 calls. Like other areas across the country, wireless phone use in Southeast Texas is continuing to increase. Thirty-nine percent, or 104,546 calls, were placed from wireless phones. Two of the twelve PSAPs receive more wireless 9-1-1 calls than wireline calls. Interstate 10, one of the major east/west corridors through Texas, passes through the heart of the Southeast Texas region. Traveling motorists increasingly use their wireless phones to report accidents and other emergency situations.

"Implementing location technology for wireless callers has been a top priority," says Pete De La Cruz, Director of Emergency Communications for Southeast Texas. "We are excited to be able to provide this level of life-saving technology to our citizens." Sprint's deployment of Phase II service in Southeast Texas will greatly enhance the call taker's ability to provide emergency assistance when and where it is needed.

Sooner Would Have Been Better

If location technology had been in place earlier this year, the victim of a domestic dispute may have been located. The Orange County Sheriff's Office received a call from a wireless phone; however, the line was disconnected before the dispatcher could determine the situation. Upon calling the phone back, the dispatcher heard the terrifying screams of a woman in the background. When asked if there was an emergency, the man who answered the phone denied anyone needed help and disconnected the call. Many attempts were made to reestablish contact but to no avail. With no location information, the dispatcher spent several hours attempting to locate the caller. Not only does the lack of wireless location information make it difficult, if not impossible, to determine where emergency assistance is needed, it also can increase dispatcher stress and cause the professionals answering these calls to question if they did everything possible to provide assistance to the caller.

On November 28, 2002, Orange County dispatcher Brandi Hilyar answered a call from a seven-year-old child who was in a car on the side of the road with his mother and a small baby. His mother had passed out in the front seat and he did not know where they were. Since it was dark outside, the young boy could not tell anything about his surroundings. Dispatcher Hilyar remained on the line with the child for about thirty minutes trying to





Orange Police Department dispatcher Tami Estes dispatches units to an emergency.

determine the location. She instructed the deputies to drive around the area with their lights flashing and sirens on hoping the child would see the lights or that she would be able to hear the siren over the phone. The mother finally woke up, but disconnected the line before officers were able to locate the vehicle.

Communications Supervisor Laura Moore has to reassure Dispatcher Hilyar every now and then that she did all that she could to find the boy's location. "It isn't a matter of letting a caller down, it's a matter of having the right technology to locate these callers," says Moore. "We receive a large number of calls from women late at night whose vehicles have broken down on Interstate 10. They are unfamiliar with the area, do not know where they are and may not be close to any visible landmarks. I am excited that our area has implemented Phase II with Sprint. It will definitely help determine where emergency assistance is needed. Hopefully other carriers will begin implementing Phase II in our area in the near future."

Eliminating Interference

While location technology is vital in life-threatening situations, it has other benefits for 9-1-1 call centers as well. In a three-hour period on July 23, 2003, the Hardin County Sheriff's Office received 137 wireless 9-1-1 calls from a single phone. Because location technology had not been implemented for that wireless carrier, the dispatcher had no way of determining where the caller was. Upon contacting the wireless network operations center, it was determined that the calls were coming from a prepaid phone. The records for the purchase of that phone had a false name and social security number. The dispatchers can only hope that this caller will not put others' lives in jeopardy by tying up 9-1-1 trunks with more obscene calls. If Phase II had been implemented for this carrier, officers may have been able to find the caller.

SETRPC has been preparing for Phase II since 2000 when the original AT&T (New York, NY) Call Stalker equipment was replaced with Plant Equipment (Temecula, CA) MAARS View and VESTA systems. The computer-integrated solution provides the capability of processing ten- and twenty-digit automatic number identification (ANI), and X and Y coordinates from the wireless service provider. Orion MapStar was added to the PSAP equipment in 2002 to plot the location of the caller graphically.

All Sprint PCS phones sold in Southeast Texas after January

1, 2003, contain GPS chips and are able to provide specific location information to the PSAPs. Sprint's handset-based GPS solution from Qualcomm (San Diego, CA), which features wireless-assisted GPS from SnapTrack (San Jose, CA), is proving to be quite accurate in locating wireless callers. Although Sprint completed its portion of the testing in June, the 9-1-1 network has been making test calls almost daily checking the accuracy of the wireless location information. "We have been quite impressed with the degree of accuracy in which these calls are being located," says De La Cruz.

Sprint is the only wireless service provider in Southeast Texas to be providing Phase II service. "We would like to move forward with implementation with other carriers," says De La Cruz.

Challenges

While many of the emergency communications districts operating in Texas have been quickly moving forward with Phase II implementations, the State program, which is managed by the Commission on State Emergency Communications and comprised of mainly rural areas administered by the twenty-four Councils of Government, has faced greater challenges in moving forward with this technology.

Like many other states and communities across the country, the Texas state 9-1-1 program has been faced with funding issues affecting the implementation of Phase II. In 1997, the Texas Legislature passed a law requiring wireless phone users to pay a \$0.50-per-month 9-1-1 service fee to be used for wireless implementation—both Phase I and Phase II. The legislature made changes to the law in 1999 that required all locally generated 9-1-1 funds to be remitted to the state and held in the general treasury as dedicated funds subject to legislative appropriation. From that point forward, the Councils of Government, which administer the regional 9-1-1 programs, have not received all of the funds collected within their regions. The balance of 9-1-1 revenue not appropriated remains in a dedicated 9-1-1 account in the treasury. In the last four years, that amount has grown to more than \$50 million. SETRPC is hopeful that, in the future, funding will be made available to the Councils of Government for continued implementation of Phase II.

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