

# Tucson City Communications: Technology TRIUMPHS

By Sherry L. Baranek, Senior Editor

This call center combines the very latest in 9-1-1 technology with abundant education to ensure public safety.

**T**UCSON CITY COMMUNICATIONS (TUCSON, AZ)—A PIONEER when it comes to utilizing the very latest in 9-1-1 technology—began operations back in 1976 when 9-1-1 was installed in the City of Tucson. It takes 83 employees to provide E9-1-1 services to a 683 square-mile area, which includes the City of Tucson and five districts.

Specifically, the center operates as both a primary PSAP for the City of Tucson and a secondary PSAP for fire/medical dispatching. According to communications administrator Anita Velasco, the primary PSAP answers all incoming 9-1-1 calls for Tucson and then transfers them to the appropriate agency, while the secondary PSAP dispatches the Tucson Fire Department, which services the city limits of Tucson. The center also dispatches five county fire districts: Northwest, Golder Ranch, Avra Valley, Picture Rocks and Three Points.

The center also boasts a series of firsts—a testament to the fact that they are aggressively pursuing cutting-edge 9-1-1 technologies.

- January 1985: the first E9-1-1 in the Mountain Bell seven-state region.
- October 1996: contracted with Qwest to provide 9-1-1 services to its two large primary PSAPs on redundant fiber—protecting the centers from failure due to cable cuts. PSAPs were established as full backup with each center carrying 9-1-1 trunks for the other PSAP.
- February 2000: the first carrier to provide Phase I services in Arizona's Pima County. The facility now has fully implemented eight carriers. It was the first Phase I implementation in Arizona.
- May 2004: requested delivery of Phase II data, another first in the state.

## Humble Beginnings

Tucson City Communications occupied the same facility for nine years before it moved to a new one in January 1985, when E9-1-1

was implemented. Then, in 2001, the facility was expanded again and occupied 7,625 square feet. “We are currently looking for a new facility as we have now outgrown the floor space for both positions and equipment,” Velasco notes.

The center's employees are broken down into the following departments: 20 emergency 9-1-1 operators, 53 public safety dispatchers, eight public safety communications supervisors, a communications coordinator and a communications superintendent. According to Velasco, the 9-1-1 operators, public safety dispatchers and floor supervisors work four 10-hour shifts a week, and operators and dispatchers bid on shifts by seniority. Generally, several employees come on and go off duty every two hours.

## Technology Trends

The center currently uses a Plant Vesta system with Mapstar manufactured by Plant Equipment, Inc. (Temecula, CA)—which develops, manufactures, integrates and supports solutions for critical call center environments. “In Pima County we have centralized as many database functions as possible,” Velasco explains. “The City of Tucson performs the 9-1-1 database function. The 10 other PSAPs provide feedback anytime problems are uncovered.

“For the mapping portion of our system, we decided to use a Plant Equipment Enterprise solution,” she continues. “Since it is critical for the maps and the 9-1-1 street file to mirror each other, the same workgroup that provides the 9-1-1 MSAG support works with the GIS maps. We are currently in the process of reconciling the street guide with the GIS data and creating the ESN and cellular tower layers. Maps are published at the central location and pushed out to all PSAPs in the county.”

The center has also established an enterprise MIS system, which is called Plant MagIC. “Once again—from the central location—we are able to pull countywide data from the other 9-1-1 systems,” Velasco emphasizes. “This is very helpful for budgetary purposes, and tracking growth. Pima County is funded through a statewide telecommunications fund, and countywide data is very helpful at the state level when making budgetary projections.”

## Maintaining a Workforce

Over the years, Tucson City Communications has encountered the challenges that accompany meeting the needs of a rapidly growing area with an ever-increasing call load. In addition, the center has increased the number of fire districts for which it provides dispatch services from one to five. Thus, it faces the serious issue of



Photo courtesy of Tucson City Communications.

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retaining a fully staffed center of completely trained employees. Communications Superintendent Jim Merten elaborates. "It currently takes us about nine months to train a new employee to the extent that he or she can work on their own at every dispatch position. That fact—combined with normal attrition—seems to keep us perpetually understaffed.

"In order to deal with this, we have recently started using one testing program to administer to applicants in hopes of being able to better recognize aptitudes and talents that they may possess that are helpful or necessary in order to perform the work of a dispatcher," Merten continues. "We also will continue to look at any other aids that may be available to help us in attracting and hiring people who are suited to this special line of work."

The human resources department offers a variety of classes to keep its employees at the top of their game. "Personal growth, writing, stress management and computer skills are some of the classes offered," Velasco comments. "Our HR department also has full curriculum in supervisory basics and a career development program called Foundations for Leadership.

"Since it is so difficult to send communications center staff to technical training, we decided to establish a quarterly program here in Tucson," she continues. "We worked with the other agencies in Pima County and established the Southern Arizona Training Conference. Pima County is the largest county in southern Arizona, so we extended invitations to the five smaller counties surrounding Pima. The training is one day and is offered at no charge. The sessions include discussions on 9-1-1 call routing/network, the master street address guide, wireless Phase I and II, GIS, PSAP liability and customer service."

So far, the center has held two sessions that were very well attended and the feedback was very positive. "We are offering the same session on July 28 and will again on October 27," Velasco notes. "We will change the sessions in January of 2005. By the close of 2004, we anticipate we will have trained approximately 240 dispatchers and supervisors." She adds that the center tries to focus the training on how the dispatcher will use the technology.

**Crucial Communications**

Tucson City Communications welcomes input from its employees. "We try to ask for suggestions or ideas when bringing in new technologies or implementing new procedures," Merten states. "We recently remodeled our dispatch floor due to the installation of new workstations. Along the way, we queried the dispatchers for suggestions for different configurations and placement of equipment and went with what the majority wanted. Consequently, the dispatchers work in an environment they had a part in creating.

"It is also crucial that management be cognizant of the related stresses to dispatching and offer alternatives for dealing with it," he continues. "For example, we work with our employees when time off is requested and have several dispatchers who are trained in critical incident stress management (CISM)."

To recruit new employees, HR representatives attend career fairs and distribute brochures explaining the job responsibilities of a public safety dispatcher. Additionally, when a vacancy arises, they advertise in the local newspaper. "Our hiring process includes testing for aptitude, listening skills, knowledge of local geography and the required skills needed to successfully perform the duties of the job," Merten explains, "specifically, multi-tasking skills and the ability to retain and recall policies and procedures under time constraints."

Currently, the center is working on expanding its continuing education program. "Our new program would include quarterly tests offered on laptops so the dispatcher could take it during low call periods, which would decrease overtime hours," he says. "In addition to testing, we would like to offer classes taught by fire and medical personnel relating to the dispatcher's job responsibilities."

As 17th century writer/poet Francis Bacon once said, "Knowledge is power" and Tucson City Communications takes these words to heart as it combines technology and education into a successful formula for serving its citizens and making their safety a priority. **ENPM**

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