

Seattle Post-Intelligencer

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911 now pinpoints some cell phone callers

Thursday, April 24, 2003

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On a computer screen near 911 call-taker Monica Kirby, a map pops up displaying the location of a man calling from a cell phone.

Until recently, the only thing Kirby, with the Washington State Patrol, would see was a featureless map and a wedge showing the service area of the cell phone tower routing the call.

But yesterday, King County officials showed off a new tool called Enhanced 911, or E-911, which allows authorities to pinpoint the exact location of a cell phone, and the caller holding it.

Kirby saw right away where the man was calling from, down to the street he was on, and routed his call to the right police department.

King County is the first in the state to offer the service for cell phone users, said Marlys Davis, program manager of King County's E-911 system.

"Everyone is working toward this, but it's a very complicated system," she said.

The Federal Communications Commission set a 2005 deadline for wireless companies to have the service, which duplicates the service available to users of traditional telephones.

The first phase of the service went online in King County last year and for the first time, 911 call takers were able to see the phone number of the cellular user and view maps that provided a rough idea of where the caller was.

It helped, but there were problems, particularly in situations where the caller couldn't give the location.

"It can be frustrating when they have no clue even what city they're in," Kirby said.

The second phase of the service, which provides a more accurate location for the caller, went into effect within the past month, Davis said.

"We're very excited about this new technology," she said.

The new system is far from perfect, however. Depending on the type of technology employed, FCC regulations require that the location be accurate to within a range of 50 to 300 meters, Davis said.

Some calls have been located to within 15 meters, she said, while others were off by half a mile.

"It definitely isn't perfect," Davis said. "The best thing still is for the caller to tell us where they are."

Kirby said she's already had at least one caller who benefited from the new technology.

A woman who was unable to speak freely called 911, and because Kirby could see the street where the cell phone call originated, she was able to dispatch police to the scene.

"It does help," Kirby said.

There are about 1 million cell phone users in King County, Davis said, and they place about 750,000 calls to 911 annually. That number represents more than 40 percent of all the 911 calls in the county.

Of the seven wireless phone companies in the county, four provide the E-911 service: T-Mobile, Verizon, Qwest and AT&T. The other companies, Nextel, Sprint and Cingular, are set to offer the service within the next few weeks, Davis said.

The service requires governments and the wireless companies to work together.

In King County, cell phone customers pay a monthly tax that goes to help finance upgrades in computers and software that allow the system to work, Davis said. The E-911 system for cell phone users has an annual budget of \$10 million, she said.

"This service is very costly to provide," Davis said.

PHONE OPTIONS

- Cellular phone users in King County who expect to take advantage of a new service allowing 911 dispatchers to find them in an emergency may have to buy new phones, depending on the technology their wireless service providers have decided to use.
- Wireless companies have two different approaches to take: outfitting cell phones with a global positioning system or upgrading cell phone towers to allow more-accurate tracking.
- In King County, T-Mobile and AT&T have taken the cell tower approach. Tim Wong with T-Mobile said his company decided on improving cell towers to reach more customers faster than having them switch phones to new ones with GPS devices installed. This also will allow customers to use their existing phones, AT&T representative Dan Youmans said.
- Verizon and Qwest, two other service providers in King County, opted to outfit their phones with GPS devices.
- Qwest spokesman Michael Dunne said the company offers two types of GPS phones, one costing \$270 and the other selling for \$79.
- It is unclear which systems the remaining three wireless service providers in King County -- Nextel, Sprint and Cingular -- will use.

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