

ERT Systems LLC has system to track firefighters at scene of an emergency

Posted by [Tina Reed | The Ann Arbor News](#) June 02, 2008 22:33PM

Categories: [Breaking News](#), [Business News Update](#)



Eliyahu Gurfinkel | The Ann Arbor

NewsBrett Moyer of ERT Systems of Ann Arbor assembles a portable tracking unit for the Ann Arbor Fire Department on Monday afternoon. The device allows incident commanders to keep track of firefighters on the scene of a blaze.

Dennis Carmichael had just spoken in Detroit about his inventory-tracking technology for auto suppliers a few years ago when a fire department commander approached him with an idea.

"If we can track inventory like this, why can't we track people on a fire scene?" said the commander, John Ellis.

It was the beginning of a partnership between Carmichael and Ellis to form the Ann Arbor company [ERT Systems LLC](#).

Reporter Tina Reed can be reached at 734-994-6843 or treed@annarbornews.com.

Using Carmichael's technology, which closely resembled the tracking tags used to prevent retail theft, and Ellis' software background, they created a system that could quickly account for large groups of firefighters in the chaos of an emergency.

They called the system the OnSite ERT, which stands for "Emergency Resource Tracking." It relies on a collection of lunchbox-sized devices that can be set down around the scene of a fire to create electronic zones. When emergency responders wearing radio frequency identification cards enter or leave those zones, that information is automatically sent to a central laptop being monitored by the commander in charge.



Eliyahu Gurfinkel | The Ann Arbor News Portable tracking units for the Ann Arbor Fire

Department, made by ERT Systems.

The technology can sense approximately where the tag wearer is within a zone and can also alert a commander if a firefighter has stopped moving - possibly indicating whether that person needs help.

Some of the common accountability systems used by fire departments require firefighters to write down where they are or hang an ID tag near the staging area, Ellis said. But in a fast-changing situation like a fire, during which firefighters from different departments might be moving from the burning structure to the resting area and back, it's important to have a system to easily account for where everyone is, he said.

In his experience, Ellis said, fire departments routinely failed to track firefighters well enough using manual accountability systems.

"The way it was working was, departments would show up and forget to bring the ID tags or they might not turn them in or if they did, they'd just be sitting in a big pile so someone would have to get around to counting them. No one was doing a good job at tracking."

Last year, the company began selling units to Michigan fire departments. This week, the [Ann Arbor Fire Department](#) plans to begin implementing the system. Its system, which includes three reader units, 100 ID cards and accompanying software, would typically sell for about \$30,000, Carmichael said.

The department plans to have the system fully implemented by this fall. If it's successful, it might be adopted by other local fire departments, said Assistant Fire Chief Ed Dziubinski.

"Firefighter accountability is very big for us," Dziubinski said. "Over the past few years, with a drawing down of the number of people who are on the scene because of resources, we've had a few near misses with guys getting trapped."

Reviews of those fires raised questions about how well the tag system accounted for firefighters at fire scenes. The department began looking at other options, he said.

By going to the OnSite ERT system, the Ann Arbor department hopes to not only increase safety, but save the resources of needing an extra person just to account for everyone out in the field, Dziubinski said.

ERT Systems is one of several companies that have created tracking devices for firefighter safety; others rely on bar-coding systems or use radio frequency ID cards.

Carmichael said his system's edge is in how closely it can indicate a tag wearer in its vicinity, and its hands-off nature.

"It works without firefighters needing to take any direct action," Carmichael said. "They just show up to do their job and we can keep our eye on them."