



Photo courtesy of ODF Optronics

NEWSLETTER

The Newsletter of the First Responder Technologies Program

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To contact R-Tech
Email: RTech@DHS.gov

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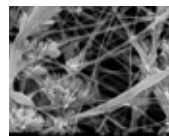
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This Newsletter discusses technologies of interest to first responders that have received funding, in part, from the Federal government. Mention of these technologies should not be construed as an endorsement of either the technology, or the entity producing it, by the Federal government.

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THE BIG PICTURE

Wireless Communications System Helps Team Members Share Information

First responders on the scene of an emergency rely on shared information to form a “common operating picture.” This ensures all responders correctly understand the mission priorities and the realities of the situation which may impact responders’ ability to safely and effectively mitigate the incident. In an increasingly electronic world, the variety of devices on which responders receive and transmit critical, real-time information can make collaboration and communication difficult.



Photo courtesy of Drakontas LLC

With project funding from the Defense Advanced Research Projects Agency (DARPA), Drakontas LLC developed DragonForce, a situational awareness tool that allows first responders to communicate using both text and graphical data. The software application framework was first developed for military operations overseas before being deployed in public safety field trials through the U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. Tactical field teams tested the software to ensure it achieved multi-agency requirements and that the devices could be operated intuitively by first responders.

More than a voice communications device, DragonForce is also a visual tool. It has a collaborative white board for sharing drawings and images, sensor and database information that link a number of platforms, and a global positioning system (GPS) tracking tool that will show the position of every team member using the software.

“If a SWAT team is responding to a barricaded subject or hostage incident, they can easily upload building floor plans via the mobile command

center, distribute them immediately to field personnel, and mark where each team member is to be positioned to ensure the safest and most effective response to that situation,” said Drakontas’ Michael Mitkus. “Everyone sees the common operating picture in real-time.”

DragonForce also employs shared imagery and data, which allows command staff to send out a mug shot of the suspect. This feature has led to a number of arrests on the campus of Drexel University in Philadelphia, which equipped its Public Safety personnel with DragonForce in 2005. The tool set also includes a camera for taking and sharing pictures on-scene.

Chief Charles Korman, of the New Kensington, Pennsylvania Police Department, used a number of the features during field tests in a mock school-shooting scenario in December 2007. “We used the floor plan of the school with the white boarding tool to direct and position officers,” Korman said. The high school had security cameras in hallways and classrooms, which the SWAT team was able to view in the field using DragonForce. “By using a local command post, we were able to tap into the live feed of the video cameras and take still shots of the suspects from the video to send to all the officers,” Korman added.

DragonForce also has a “quick-text” application, which allows more than twenty pre-typed messages to be recalled and sent as needed. Responders can pre-load standard phrases, graphical tools, and icons which can be selected from a drop down box to share the information quickly with other responders.

DragonForce is hardware and software agnostic, meaning users do not have to have a wireless network set up in advance. First responders can rapidly set up a secure,

(The Big Picture continued)

disruption-tolerant network using a BreadCrumb wireless network. A BreadCrumb network employs small, self-configuring, battery-operated wireless network nodes that link to nearby nodes automatically to form a robust wireless network. The nodes can be carried into an area by first responders and dropped to form a trail (much like the proverbial trail of breadcrumbs) that supports secure wireless network connectivity.

Drakontas is now in the middle of a major effort to put DragonForce onto cell phones, including Treo and Blackberry smart phones, and other everyday communications devices. Many of the software's features (e.g., text messaging) are available on other platforms, so most people know how to

use them, but the devices are not typically interoperable. DragonForce integrates the different data collection devices, such as sensors, cameras, and monitors into one information space, so that it is more interoperable than existing data and hardware streams. "One of the things we pride ourselves on is the intuitiveness of the interface, and we find training a new customer only takes 10 to 15 minutes," said James Sim, Drakontas' President and Chief Operating Officer.

For more information on DragonForce visit www.drakontas.com/products.html

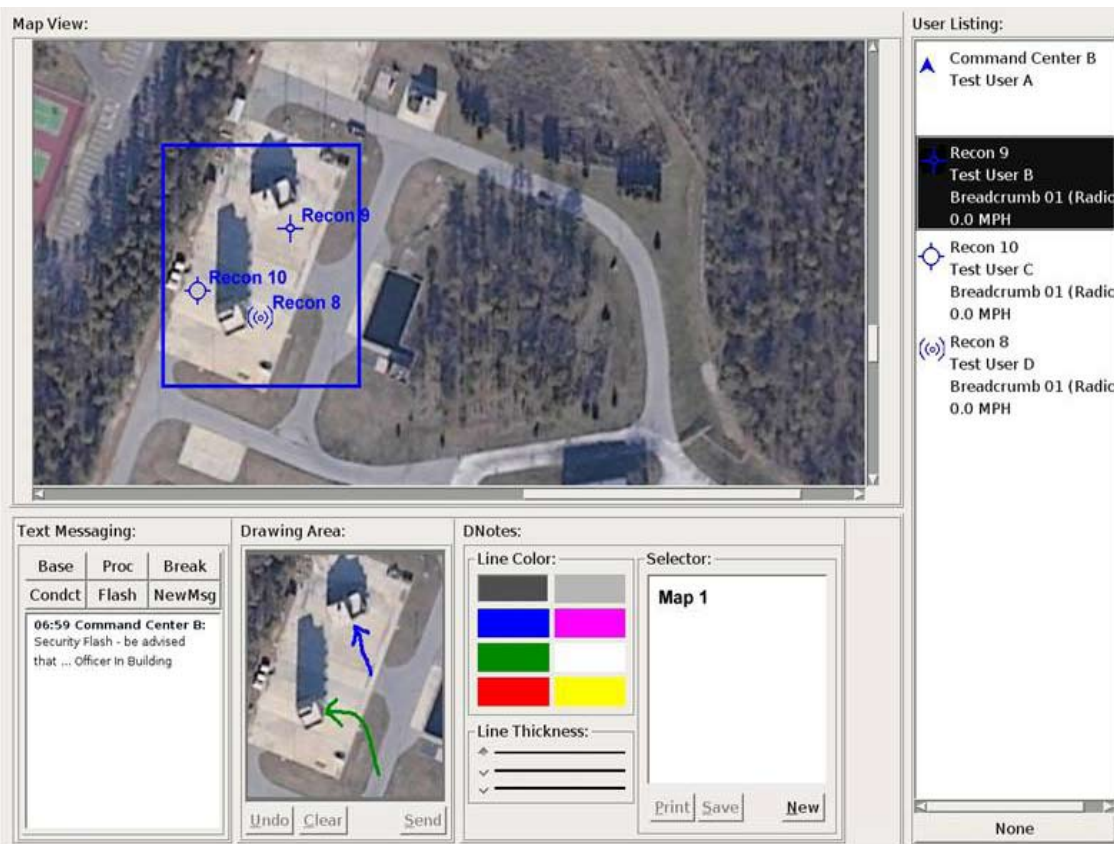


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