# HSEM UPDATE

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## SAFETY TOWN WAS A SUCCESS!



The students enjoyed learning from all of the excellent instructors. This was the 1<sup>st</sup> presentation of our Safety Town. It was set up at Landmark Academy. The instructors were; the Youth Readiness Council, local volunteers, staff from; McLaren Foundation-Port Huron, St. John River District Hospital, Port Huron Public Safety, and the Burtchville Township Fire Department.

We would like to give a big THANK YOU to Landmark Academy for providing the gym and to all that participated. It was a fun day!





### Pointing to a Safer Future for First Responders

#### NASA researchers are closing in on technology that will pinpoint locations of first responders in structures.

A team of researchers may be homing in on one of the problems that continues to follow first responders — especially firefighters — when they enter larger structures to fight fires or search for victims.

The inability to locate first responders in large structures is a deadly problem that continues to plague public safety, but a viable solution could be in the offing.

The researchers, from NASA's Jet Propulsion Lab in Pasadena, Calif., are testing electromagnetic fields — quasistatic — instead of radio waves as a method for locating not only where first responders are in a building but what position they are in.

The researchers have come up with a system, Precision Outdoor and Indoor Navigation and Tracking for Emergency Responders (POINTER) that has the potential to save first responders' lives.

The lead researcher on the project, Darmindra Arumugam, said the U.S. Department of Homeland Security (DHS) Science and Technology Directorate personnel approached the lab about the research it was doing in hopes of finding a solution to the decades-old problem. DHS is funding the development.

"We were approached by DHS to look at the kinds of problems they have, which is the ability to track first responders; it's still the No. 1 problem they face," Arumugam said. "They've been conveying that to us over the last few years."

Research in this area has always focused on radio waves, not fields. Electromagnetic waves are valuable for communication purposes because they carry energy for long distances, and they do this because they couple electric and magnetic waves together.

But problems arise when these waves meet a structure, like a thick wall or underground, and tend to bounce off these structures. The bouncing is like an echo and makes it difficult to know where the subject is.

Quasistatic fields are a good replacement for the waves. Electromagnetic energy is created when the electric and magnetic waves couple. That propagates energy and creates the bouncing effect.

In quasistatic fields there is an interim distance before the electric and magnetic waves couple, and it is within this region that the fields are able to connect with the target. This target, a first responder in this case, will have in possession a small device with a magnetic field that will accept the field and invert it back outside where the transmitter is.

This will show the transmitter exactly where the first responder is and what position his or her body is in.

The technology works, but the devices used to transmit and accept the field are still too large to be practical, at about 4 inches by 4 by 9 inches.

"To this day, the ability to track and locate first responders is a No. 1 priority for disaster agencies across the country," said Greg Price, DHS First Responder Technologies Division director in a press release. It's truly a Holy Grail capacity that doesn't exist today. If the POINTER project continues along its current path, first responders will be safer in the future."

Arumugam said the researchers have demonstrated POINTER several times for DHS, including once in Washington, D.C., for Deputy Under Secretary for Science the Technology Robert Griffin in a very challenging two-story building. "The results were very good and the secretary was thrilled with the technology," he said.

"The big picture is to complete the tech-related work in the next year or two and miniaturize the devices that can be used for field testing."

As reported in Emergency Management Magazine 1/20/17

## Director Friedland recently presented at the 2017 Michigan Statewide Interoperable Communications Training Conference that was held in Traverse City, MI





Jeff Friedland co-presented with Jeff Brooks, Lambton EMS in Ontario at the conference

Jeff Friedland and Jeff Brooks from Lambton EMS in Canada co-presented on the cross border interoperability challenges. St. Clair County Central Dispatch Director Tim Conger also attended the 3 day conference that provides focused education and information about the advantages of interoperable communications, 911, evolutionary changes in interoperability and professional relationships. It is critical we stay the course in providing communication, interoperability and information sharing between public safety agencies and partners across the state and with our international border communities. In an emergency, every link in the chain is critical. We must work together and remain committed to our shared strategic vision of interoperability. This conference is a critical touchpoint for working together, exploring new technology and generating commitment to Michigan's strategic interoperable communications.

## READY CORPS PROGRAM UPDATE

Our local Ready Corps members Danielle and Teri have been hard at work coming up with projects to educate the community on preparedness. Over the last month they have been getting out into the community to spread awareness while at the same time asking what people would like to see from them. Response has been positive so far and the hope is that it will remain such as they attend future events in St. Clair County. They have been working closely alongside our own Youth Readiness Council aiding in the council's endeavors. They recently assisted with the pilot of our Safety Town, which was a great success.

Their focus has been placed on St. Clair County's ready programs. The hope is to expand the already existing Ready Neighborhoods, and create more, before their term ends in October. They will also be reaching out to local businesses and congregations to see if they can assist them in being more prepared. If interested in learning more about any of the ready programs, or in learning about being prepared yourself, you can contact Danielle and Teri at (810) 989-6045, or via email dkennedy@stclaircounty.org.

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	Survi	ival Rival	11
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	Finals April 1	Birchwood Mall	
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Or visit our website at: www.bereadystclaircounty.org

