

THE SIREN



A Science and Technology Directorate Newsletter for First Responders

Spring 2018

NGFR Teams up with Canada to Support Cross-Border Community Resilience



During the week of June 4, S&T and Defense Research and Development Canada Center for Security Science (DRDC CSS) travelled to San Diego, California to participate in their annual face-to-face meeting alongside the annual NIST Public Safety Communications Research Division (PSCR) Public Safety Broadband Stakeholder Meeting. The binational team also used this time to visit responders on our southern border at the Otay Mesa Border Point of Entry and the Imperial Beach Border Patrol Station, right across from Tijuana, Mexico. This visit offered in-depth insight into operational challenges that DHS border service members face each day, and explored opportunities to inform or learn from northern border experiences.

These efforts support DHS's [Northern Border Strategy](#) that establishes a clear vision to improve DHS's efforts to safeguard the Northern Border against terrorist and criminal threats, facilitate the flow of lawful cross-border trade and travel, and strengthen cross-border community resilience. Additionally, S&T signed a new technical annex that will enable S&T and DRDC CSS to experiment with artificial intelligence technologies that support better connected, protected and fully aware first responders. This experiment serves to improve cross-border community resilience, and will focus on artificial intelligence technology from NASA JPL known as [AUDREY \(Assistant for Understanding Data Through Reasoning Extraction and Synthesis\)](#).

The AUDREY experiment will take place in 2019 in Hastings County, Canada based on a paramedic emergency response scenario. This work shows how the S&T [Next Generation First Responder \(NGFR\) Apex Program](#) team has established a strong relationship with DRDC, working within a binational framework to find solutions that address common requirements to benefit both countries while leveraging collective resources and expertise.

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Video Spotlight

Child Pornography...
behind every picture
there's pain.



HSI Child Exploitation Investigation Forensics

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[DHS S&T's Prepaid Card Reader's Upgrades Make it Faster and Cheaper!](#)

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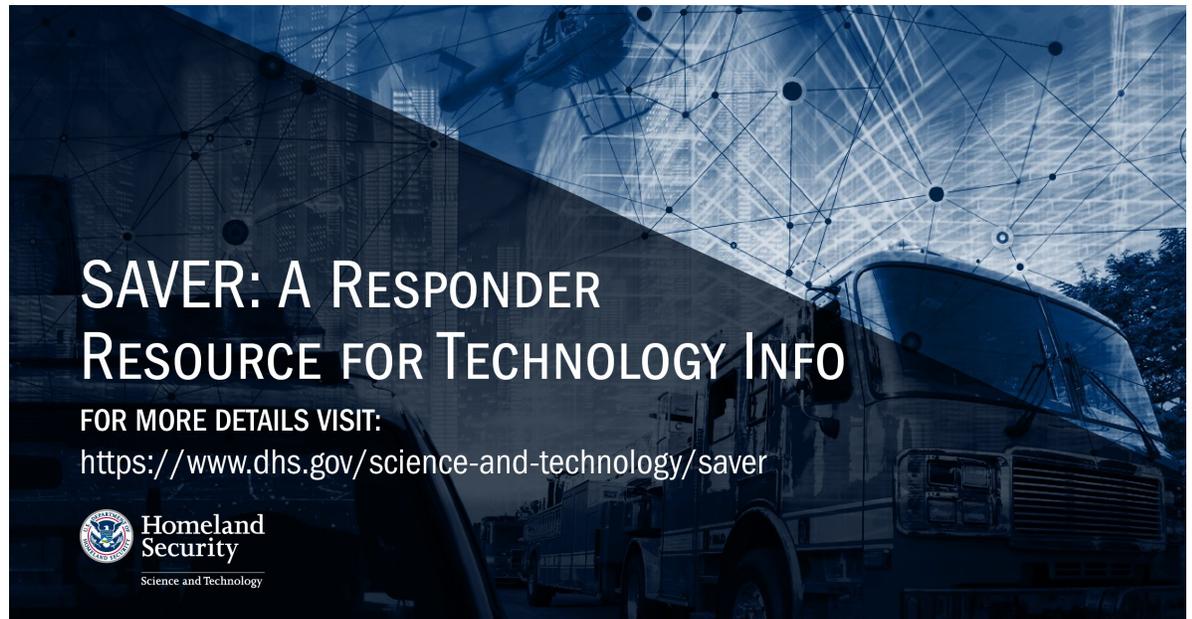
[DHS S&T and HSI Collaborate on Technologies to Save Children from Abuse and Exploitation](#)

Visit the [S&T Newsroom](#) for more Responder News!

[SAVER: A Responder Resource for Technology Info](#)

When it comes to tools and technology first responders need to do their jobs, they want to know “What equipment is available?” and “How does it perform?” SAVER’s reports help first responders answer these questions. S&T established the [System Assessment and Validation for Emergency Responders \(SAVER\) Program](#) to assist emergency responders making informed procurement decisions. Managed by S&T’s [National Urban Security Technology Laboratory](#), the SAVER Program conducts operationally oriented assessments and validations on commercial equipment and systems, and provides those results along with other relevant information to the emergency response community.

Since 2004, more than 1,000 emergency responders have participated in SAVER focus groups and assessment activities, ensuring SAVER reports are relevant and meet the operational needs of the responder community. SAVER reports are available at no cost.



There are several types of SAVER products:

- ✦ **Assessment Reports** provide the results of week-long comparative evaluations of equipment based on criteria established in a focus group of emergency responders.
- ✦ **Application Notes** provide information and recommendations on the operational usage of a specific technology.
- ✦ **Focus Group Reports** provide evaluation criteria responders consider important when making an acquisition or operational decision.
- ✦ **Handbooks** provide a reference for responders describing a technology’s capabilities and limitations, operating principles, and applications.
- ✦ **Market Survey Reports** provide a snapshot of the current commercial marketplace for a type of equipment, including technical specifications, manufacturer information and costs.
- ✦ **TechNotes** provide a short, high-level overview that answers basic questions on available technologies, what it is, what it’s used for and how it works.

“In 2018, emergency responders can anticipate focus group and assessment reports on: body armor for women; gas chromatograph mass spectrometers; less-than-lethal mitigation equipment; small unmanned aerial systems for search and rescue; tourniquets; and more,” said S&T SAVER Program Manager Brian Warner.

The complete [SAVER document library](#) is organized and searchable by the FEMA Authorized Equipment List (AEL) to make it easier to align SAVER product evaluations to the equipment types allowable in [FEMA’s Preparedness Grant Programs](#). For more information about SAVER, contact NUSTL@hq.dhs.gov.

[S&T Guidance for Your Public Safety Video Needs](#)

The use of video is increasingly valuable to first responders in their daily work as well as when responding to emergencies. Given the number of available products to choose from, and the continuously evolving nature of the technology, it can be quite challenging for a public safety agency to make an informed decision about the equipment and solutions that are best suited to their unique needs. Recognizing this, S&T's [Video Quality in Public Safety \(VQiPS\) program](#) fulfills an important role by providing unbiased information, guidance, educational resources, and support about video-related needs to the public safety community.

VQiPS presents workshops to convene representatives from across the spectrum of public safety and related agencies – emergency management, police, fire, campus security, public television, academia, industry, standards development organizations, and federal agencies – to provide a forum for sharing pressing capability gaps in the video arena to help shape solutions for addressing these challenges.



The 2018 VQiPS workshop, held May 9-10 in Albuquerque, NM, drew over 100 folks from the public safety community, including representatives from CBP, FirstNet and NIST. There were 15 interactive sessions across the two days, resulting in fruitful discussions that will help pave the way for future VQiPS efforts. These included two industry panels, which gave the participants a chance to hear about the latest in technology development.

Representatives from several universities reported on their research work focused on advancing video analytics, including development of new systems that will collect data, analyze content, and provide actionable intelligence information to first responders.

Hot topics included the [datacasting technology](#), body-worn camera research, digital forensics, UAS/UAV video use, and video use on college campuses. All of the presentations and handout materials from the event have been posted here: <http://www.cvent.com/d/btqq9l> and a report on the actual findings from this workshop will be posted here: www.dhs.gov/science-and-technology/voice-video-and-data-public-safety.

Additionally, the VQiPS Leadership held their semi-annual in-person meeting on May 8 at the Albuquerque Police Department HQ.



[New S&T Report Offers First Responders Ways to Counter False Information on Social Media](#)

Rumors, misinformation and false information on social media proliferate before, during and after disasters and emergencies. Although this information cannot be completely eliminated, first responder agencies can use various tactics and strategies to offset bad information. The newest [report](#) from S&T's [Social Media Working Group for Emergency Services and Disaster Management](#) (SMWGESDM) illustrates methods of countering false information on social media with case studies from the 2014 South Napa Earthquake, the 2016 Louisiana floods, and the 2017 Oroville Dam evacuation. Best practices for agencies, such as establishing partnerships with local media before disasters, using the Joint Information System, and setting up a centralized website to debunk bad information, are detailed and categorized in the report for agencies' use. The SMWGESDM is made up of subject matter experts who provide guidance and best practices in the field of social media and emergency management for the first responder community. They have published [eight documents](#) ranging from an introduction to social media's benefits for public safety to how agencies can leverage social media for situational awareness.



[S&T Co-Hosted the Central Florida First Responders Technology Demo Day](#)

In mid-May, S&T co-hosted the Central Florida First Responders Technology Demo Day to showcase cutting-edge technology for local first responders, industry and the academic research community, as well as Department of Defense partners. S&T partnered with the Federal Law Enforcement Training Center (FLETC), the National Center for Simulations and Team Orlando. S&T and FLETC participate in [Team Orlando](#), a collaborative alliance between the U.S. Government, industry and academia in the Central Florida area, which facilitates research and collaboration of new and innovative technologies to enhance Human Performance, Modeling and Simulation, and Training.

The event, held at the Air Force Agency for Modeling and Simulations Tech Point II in Orlando, served as an opportunity to join forces with several research and development

performers to demonstrate technologies currently in the pipeline, as well as some that are now commercially available, to gain valuable feedback from the responder community.

S&T Program Manager Darren P. Wilson, S&T's FLETC Liaison Jim Grove and S&T's Team Orlando Liaison Stephanie Okimoto participated on behalf of S&T, demonstrating technologies funded by the Directorate, such as the Pat-Down Accuracy Training Tool ([PATT](#)), Web-Based HURREVAC ([HVX](#)), and the FIND [Lost Person Locator App](#).

S&T was joined by some of its performers, including the U.S. Army Research Laboratory, Cole Engineering Services, Inc. ([EDGE Virtual Training](#)), Design Interactive (Eye-identify/[Screen ADAPT®](#)), the ERAD Group ([ERAD Prepaid Card Reader](#)), and the University of Central Florida (Incident/Unified Command Trainer).

"This was an opportunity to directly engage with customers and end users, discuss emerging threats, operational needs and requirements, and scout other innovative technologies being demonstrate," Wilson commented.

In total, 13 technologies were on hand for attendees to touch, feel, and even try on. In addition to those listed above, the technologies included: the Advanced Multi-Purpose Base Ensemble for Emergency Responders ([AMBER](#)); Assistant for Understanding Data through Reasoning, Extraction and Synthesis ([AUDREY](#)); [Expert Tracker](#); Flex Tuff HS (formerly [Improved Firefighter Structure Glove](#)); [Multifunctional Textiles for Advanced Personal Protective Equipment](#); Smoke and Particulate Resistant Structural Turnout Ensemble ([SRT](#)); and Wildland Firefighter Advanced Personal Protective System ([VLFF APPS](#)).

COL (Dr.) Daniel Irizarry of the U.S. Army, gave a key-note presentation about Translating Military Advances in Casualty Response to Law Enforcement. The collaborative event was attended by: Department of Defense representatives; Florida Fire Marshall from New Smyrna; Kissimmee Fire Department; Mt. Dora Police Department; Orange County Fire Department; the Director of the Valencia College Police Academy; West Palm Beach Emergency Management; and Winter Springs Police Department. S&T and FLETC look forward to continued collaborations with the Central Florida first responder community and Team Orlando, to further advance a thriving and innovative environment to best support homeland security enterprise training requirements in a cost-effective and efficient manner.



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