

MISSION: STRENGTHENING COMMUNITY RESPONSE TO EMERGENCIES

The Department of Homeland Security (DHS) Science and Technology Directorate's (S&T) First Responder Capabilities (FRC) program provides technical assistance and develops innovative solutions to the most pressing challenges faced during day-to-day and large-scale emergencies in order to strengthen the abilities of our communities to protect the homeland and respond to disasters.

CHALLENGE: MEETING THE NEEDS OF FIRST RESPONDERS

First responders at the federal, state, and local level are on the front lines of providing support to their communities, responding to an evolving spectrum of natural and human-made threats including pandemics, weather-related natural disasters, mass civil disturbances and riots, and terror events. Emergency preparedness and response communities require a broad range of capabilities to respond effectively to critical incidents in this dynamic environment. The S&T FRC program actively engages and partners with first responders and the emergency preparedness and response community across the homeland security enterprise to understand, identify, validate, and prioritize emerging capability needs to ensure that technology development and transition are based on the needs of the emergency response community.

MISSION IMPACT

The FRC program is strengthening the abilities of first responders and the nation to prevent emergencies and to mitigate their impact when they do occur. Tools from this program are also being used to rescue the victims of child sex trafficking and to seize criminal funds.

RECENT ACCOMPLISHMENTS

- *Gunshot Detection System* – developed a mobile gunshot detection system providing responders real-time information on shooting incidents. This reduces response times and increases the situational awareness and safety of the responders.
- *Digitized Floor Plans* - developed a software to help first responders know the layout of a building before entering. This enables better response planning.



PROGRAM SCOPE; PROVIDING THE TECHNOLOGIES, TOOLS, AND STANDARDS

The FRC program pursues the fulfillment of priority needs through the use of existing and emerging technologies, knowledge products, and standards across the following focus areas:

- *First Responder Technologies* – rapid technology solutions addressing high-priority first responder capability gaps.
- *Personal Protective Equipment* – technologies providing protection and mitigating the risk of serious injuries and/or illness associated with exposure to hazards in the operational environment.
- *Public Safety Communications* – solutions to achieve efficiencies, interoperability, and compatibility for critical communications and information sharing.
- *Radiological/Nuclear Response and Recovery* – improved capabilities for response, characterization, and remediation of radiological/nuclear incidents.
- *Response and Defeat Operations Support* – tools and techniques to neutralize improvised explosives devices.
- *Training and Performance Optimization* – research-based, cutting-edge training methods and innovative technologies that deliver the skills and flexibility required of responders to respond under a variety of conditions.

STAKEHOLDERS

- Traditional first responders including fire service, emergency medical services, law enforcement, emergency management, and emergency communications; and
- Secondary support agencies, such as hazardous material, or HAZMAT, responders and the U.S. National Guard.