Questions: contact *NCMBC.US or Denny Lewis, North Carolina Defense Technology Transition Office (DEFTECH), NCMBC, Research Triangle Area*
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*See attached BAA for instructions. Go to links below to get complete explanations of what DHS is looking for in each topic area. You will see that the topics are fairly broad and allow for various approaches. White papers cannot exceed a total number of 10 single-sided pages with the following stipulations (see attached, page 11). I am available to discuss your ideas and to review your white papers. Denny*

News Release: DHS S&T Seeks Partners for First Responder Technology R&D

**Washington D.C.** – The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) invites industry, academia, laboratories, and the innovation community to submit white papers related to 12 first responder technology funding opportunities. The new Broad Agency Announcement (BAA) solicitation (BAA 18-02 Call 0001) will remain open until May 1st, 2019.

"We want to help first responders of all disciplines do their job more safely and effectively," said Milt Nenneman, program manager in DHS S&T's Operations and Requirements Analysis Division. "Each of the following topic areas represent technology needs identified by responders themselves, and we are seeking the best partners to turn these needs into solutions."

DHS S&T is seeking proposals for the topic areas:

- **Detection of moving or stationary individuals through walls**—will give responders a safe advantage as they search for suspects trying to conceal themselves or victims of human trafficking hidden in false rooms.
- **Real-time indoor visualization in low-visibility fire environments**—will increase situational awareness by allowing responders to clearly and quickly distinguish outlines and edges of walls, doors, and large pieces of furniture in a smoky super-heated environment.
- **Gunshot detection, localization, alerting, and recording**—will arm law enforcement with an indoor/outdoor detection system that is portable, records incident information and has a mechanism to relay real-time data via phones, tablets, computers or computer-aided dispatch.
- **Three-dimensional X-ray imaging for bomb technicians**—will rapidly generate and export 3D X-ray images of the inside of suspicious containers to determine precise details about potential threats, such as improvised explosive devices, that may not be detected using radio-frequency technologies.
- **Data upload mechanism for sharing floor plans and site safety data**—will enable responders to quickly tap into building layouts upon entry by accessing and translating digital floor plans and key site safety data. This solution will complement DHS S&T responder location and tracking technologies currently in development, such as POINTER.
- **GPS tracker and biometric monitor for detainees**— offer real-time location tracking and physiological monitoring of detainees in federal detention facilities. The system

should be customizable, have mapping capabilities, improve facilities' operational effectiveness, and provide responders with critical data to prevent, mitigate, or respond to detainee health issues.

- **Hazardous crowd dynamics detection**—leverage analytics to give responders in public spaces predictive insights to identify precursor behaviors that might lead to dangerous situations in crowds. This technology will detect adverse behavior displayed by individuals or groups of people (crowds), including unsafe crowd speeds, density pressures, directions and other high risk behaviors that are synonymous with hazardous situations.
- **Improved communications in high loss environments**—will allow responders to activate cellular and radio amplification technology in areas of degraded communication, such as subway tunnels, rural communities, areas affected by disaster, as well as large sporting or cultural events.
- **Real-time electronic data sharing**—will enable emergency management to map out incident scenarios, track the location and progress of first responder teams on the ground, digitally distribute incident command decision-making tools, and store incident data with strict access controls.
- **Responder early identification**—provides geolocation tracking of responders at emergency scenes so they are constantly aware of each other's presence and whereabouts. This increased situational awareness will allow command to better allocate resources, reduce redundancies and limit friendly fire incidents.
- **Robotic stereoscopic system**—will allow bomb technicians to more effectively assess hazardous devices by having multiple robot-mounted camera placement options, operating the cameras from a safe standoff distance, transmitting real-time 3D video imagery and accessing comprehensive recording and playback capabilities.
- **Video and sensor data reduction**—will filter the influx of video and sensor feeds to limit extraneous information, providing decision-makers with only mission-critical data during incidents and in after-action reporting.

Interested partners are encouraged to visit the BAA solicitation on FedBizOpps.gov for more information about each of the topics and details on submitting white papers. The solicitation deadline is May 1, 2019.

For more information about additional ways to work with DHS S&T, visit https://www.dhs.gov/science-and-technology/business-opportunities.