

DHS Science and Technology Directorate

2017 First Responder Electronic Jamming Exercise

The Jamming Threat

Jamming communications systems—including GPS, radio and wireless systems—poses a threat to law enforcement and public safety across the country. The likelihood of jamming exacerbating a disaster grows each day as illegal jammers become more prevalent in the United States. Jammers interfere with public safety communications and may leave responders without vital communications and critical situational awareness. Proliferation of jamming devices may delay emergency response times, escalate hazardous situations, facilitate illicit activities, or result in loss of life. For more information and to see examples of jammers, please see the 2015 U.S. Department of Homeland Security (DHS) – Federal Communications Commission Bulletin: [Cellular, GPS, Wi-Fi and other Signal Jammers](#).

The DHS Science and Technology Directorate (S&T) is resolute in making first responders safer and more aware of jamming and its potential impact to their communications, safety and ability to execute their mission. S&T is combatting jamming threats by evaluating the threat, developing and testing mitigation technologies, working with public safety agencies to update training procedures, and raising awareness of jamming threats and characteristics.

Accomplishments to Date

As a first step, S&T hosted the 2016 First Responder Electronic Jamming Exercise, a multi-agency operational exercise at White Sands Missile Range, in New Mexico, last July. Its purpose was to assess the impact of jamming on public safety communications systems and mission response, and identify gaps in tactics, techniques and procedures (TTPs).

The exercise also sought to better understand how jamming affects these systems and how responders can recognize and react to jamming. During the exercise, DHS was able to assess the impact of different types of jammers on various radio, cellular, satellite communications and GPS systems. This threat could impact law enforcement and public safety organizations across the country.

A final analysis of the data was published in a consolidated after action report outlining results of the exercise, lessons learned, training recommendations and mitigation strategies for first responders. The 2016 exercise and report is a vital step toward shaping the DHS strategic direction for countering electronic jamming threats. To request a copy of the after action report, please contact Jamming.Exercise@hq.dhs.gov.



Identify, Locate and Mitigate Jamming

S&T continues to research jamming mitigation technologies and TTPs to better prepare federal law enforcement and public safety agencies to address jamming threats. From July 16-22, S&T will hold the 2017 First Responder Electronic Jamming Exercise at the U.S. Department of Energy's Idaho National Laboratory. During the event, S&T will build off of the findings from the 2016 exercise by assessing the effectiveness of jamming identification, localization and mitigation technologies and TTPs. Each technology and TTP will be carefully tested in a variety of jamming environments to quantify how effectively they improve the performance of public safety communications and mission response. S&T and other participants will authenticate the successful technologies and TTPs in a mission-focused context through a multi-part operational exercise.

To make the 2017 First Responder Electronic Jamming Exercise successful, S&T is inviting federal, state, local and tribal law enforcement and public safety organizations, as well as representatives from academia and industry, to participate in the event. Participating tactical and observational teams will gain valuable exposure to jamming environments in a controlled and approved test environment, which will better prepare them to face real-world jamming incidents, develop solutions and help make our nation more resilient to jamming attacks. Results from the 2017 exercise will be used to develop comprehensive recommendations for federal, state and local law enforcement and public safety organizations to help them recognize, respond to, report and resolve jamming incidents. S&T's goal is that every first responder be aware of and prepared for jamming threats.



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