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Next Generation First Responder – Birmingham Shaken Fury Operational Experimentation



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BRINGING NEW SOLUTIONS TO BIRMINGHAM, ALABAMA

The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) is hosting the [Next Generation First Responder \(NGFR\)](#) – Birmingham Shaken Fury Operational Experimentation (OpEx) in August 2019 to promote first responder technology integration and support innovation and adoption of public safety technologies to make responders better protected, connected, and fully aware.

MISSION-CRITICAL TECHNOLOGY INTEGRATION

Today's first responders face dangerous, evolving threats, and are often equipped with outdated and proprietary technologies that restrict their ability to communicate between agencies at the incident scene. Responders need access to advanced, interoperable, plug-and-play technologies that can augment their existing capabilities while increasing their ability to share information.

DHS S&T is partnering with public safety agencies in the city of Birmingham and Jefferson County, Alabama, for the NGFR – Birmingham Shaken Fury OpEx. As hosts of the World Games 2021, a major international multi-sport competition, Birmingham is looking to augment their public safety capabilities. The NGFR – Birmingham Shaken Fury OpEx will help assess how advanced, integrated technologies can help better prepare responders and emergency managers for planned events, like the World Games, and no-notice events, like natural disasters.

PROTECTED, CONNECTED AND FULLY AWARE

DHS S&T launched the [NGFR Apex program](#) in 2015 to develop, adopt and integrate cutting-edge capabilities using a standards-based approach to make responders better protected, connected and fully aware. By leveraging the open standards documented in the [NGFR](#)



DHS S&T partners in Birmingham include the Fire and Rescue Service Department, who will be instrumental in evaluating HAZMAT and Search and Rescue technologies.

[Integration Handbook](#), first responders can have plug-and-play technologies to help them rapidly adapt to changing environments and evolving threats while sharing mission-critical information between all responding agencies.

During the OpEx, Birmingham-area first responders and federal partners will use integrated responder technologies to enhance their mission capabilities in a HAZMAT and Search and Rescue incident response resulting from an earthquake scenario. Together, DHS S&T and responders will evaluate how selected DHS-developed and commercial technologies integrate with existing public safety systems using open standards, and how those integrated capabilities enhance operational communications, increase operational coordination, improve responder safety and augment situational awareness.

PROVING IMPACT WITH INTEGRATION DEMONSTRATIONS

DHS S&T has held a series of NGFR Integration Demonstrations to incrementally test and evaluate interoperable technologies currently in development, and to assess how DHS-funded technologies, commercially-



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developed technologies and existing first responder systems integrate to improve response operations. These events put emerging technologies into the hands of end users in an operational setting: allowing first responder and federal stakeholders to try out new technologies before buying, giving technology developers direct feedback on how to improve their technologies, and allowing DHS S&T to test new technologies and assess their mission impact in a controlled setting.

Since 2016, these demonstrations have evolved from tabletop integrations to field exercises with partner public safety agencies, and have matured to include more commercial technologies. Our most recent events—the [NGFR – Harris County Operational Experimentation \(OpEx\)](#) in December 2018, the [NGFR PlugTest](#) in

February 2018 and the [NGFR – Grant County Technical Experiment](#) in June 2017—have all contributed to the success of the program and have proven the potential mission impacts of NGFR technologies with a variety of public safety partners.

SHAKEN FURY 2019

This event is affiliated with the Federal Emergency Management Agency's Shaken Fury 2019 exercise in June 2019, focused on a simulated major earthquake in Memphis, Tennessee, that has impacts across middle America, including into Alabama. DHS S&T is supporting Shaken Fury 2019 in many ways to help build community resilience and regional partnerships.

