

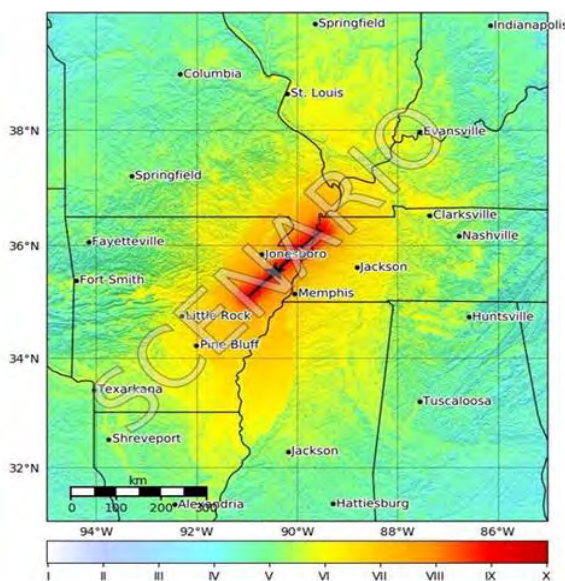
READYING THE NATION FOR CATASTROPHIC DISASTERS

In support of the Federal Emergency Management Agency (FEMA)'s 2018-2022 Strategic Plan and its vision of a prepared and resilient nation, the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) took part in FEMA's Shaken Fury exercise, from May 29 to June 7, 2019. The exercise simulated the response and recovery to a 7.7 magnitude earthquake scenario near Memphis, Tennessee.

Shaken Fury 2019 offered an excellent and unique opportunity for S&T to work across federal, state, and local governments, as well as non-governmental organizations and the private sector, to assist with the transition and adoption of technologies and new protocols.

BUILDING RESILIENCE THROUGH THE NEW MADRID EARTHQUAKE SCENARIO

The scenario offered a broad range of opportunities to build resilience to earthquakes and other associated hazards. Due to the location of the New Madrid Seismic Zone (NMSZ), an earthquake in that area has the potential to cause catastrophic damage to the critical infrastructure in the region. The map below shows the impact zone of a 6.8 magnitude earthquake that occurred in 1895.



STRENGTHENING ORGANIZATIONAL PARTNERSHIPS WITH TECHNOLOGY

DHS S&T partners with the [Central United States Earthquake Consortium](#) (CUSEC), which represents 18 states committed to building regional resilience. Together with CUSEC, S&T works alongside states and FEMA Regions to enable the transition and adoption of technologies that will:

- Improve information exchange;
- Enhance situational awareness

Enable the prioritization of resources S&T also works with local agencies to elevate communications interoperability between key emergency management organizations. This S&T activity incorporates the products from the five-year S&T [Next Generation First Responder Apex Program](#).

Additionally, S&T collaborates with several other partners, including the U.S. Department of Defense, the National Guard, the DHS Office of the Chief Information Officer, state emergency operations centers, Urban Search and Rescue leadership, and the private sector to facilitate the adoption of technologies to enhance information interoperability and sharing.

USING TECHNOLOGY TO ADVANCE THE ADOPTION OF FEMA'S SEVEN LIFELINES

S&T works with CUSEC states and FEMA Regional Operations Centers to build a foundational information-sharing infrastructure that organizations at all levels can access to gather the data needed to support critical decisions, notably those across the [FEMA seven Community Lifelines](#). FEMA defines Lifelines as sectors providing vital services designed to enable the continuous operation of critical business and government functions. Lifelines are crucial to human health and safety or economic security. The communications Lifeline directly aligns to the CUSEC and FEMA objectives for this exercise. The technologies S&T featured during Shaken Fury offer enhancements to:

- Information sharing;
- Communications interoperability;
- Search and rescue; and
- Responder equipment