

CAPTURING CRITICAL MISSION VULNERABILITIES TO EXTREME EVENTS ACROSS INTERDEPENDENT SOCIAL & PHYSICAL INFRASTRUCTURE

The increasing pace of extreme weather events degrades national security and community resilience, but the full impacts are challenging to determine. Cascading threats affect military readiness and critical functions through networks of vulnerabilities across traditionally stove-piped sectors and domains.

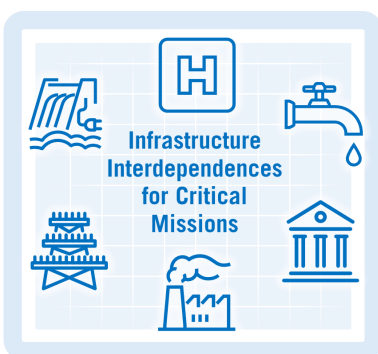
The breadth of vulnerabilities and impacts across social and physical infrastructure need to be understood to improve resilience.

MITRE's research takes a complex systems and mission-focused approach. Our researchers are building a suite of models and decision-support analytics to enable resilience planners and disaster response efforts to prioritize impactful interventions with limited funding.

One example is focused on building modeling architectures that quantitatively capture the inter-dependencies among a variety of critical physical and social infrastructure. Doing this in a scalable manner that preserves, as much as possible, the level of fidelity contained in rigorous and validated models is the goal – and also the challenge.

This effort, like most of MITRE's research, is mission-focused. The question at issue is: How do we maintain critical missions or functions in the face of climate-related and other extreme events?

For information about MITRE's complex systems resilience expertise and capabilities, contact climate@mitre.org or energy@mitre.org.



If the base is resilient and the community is not, the base is still screwed, and we need to do something about it.”

Hon. John Conger, Making Military Bases and Their Communities More Resilient, EESI March 1, 2019

MITRE's mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government to tackle challenges to the safety, stability, and well-being of our nation.

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