



Installation Resilience Preparing and Responding to Surprise

AT A GLANCE

WHAT IS IT?

- Installation resilience refers to the ability of a system or infrastructure to sense, anticipate, adapt and learn from events.
- Resilience is achieved by setting desired outcomes or goals for how the system will respond to challenges and taking action to ensure these outcomes are realized.

WHY DOES IT MATTER?

- Resilience ensures the DOD can operate under a changing operational environment.
- Climate readiness is military readiness – ensuring the adaptability of our forces.

WHAT IS NPS' ROLE?

- NPS faculty and students develop tools and games to train military and civilian staff how to manage infrastructure vulnerability and resilience.

POINTS OF CONTACT:

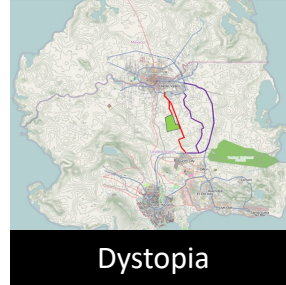
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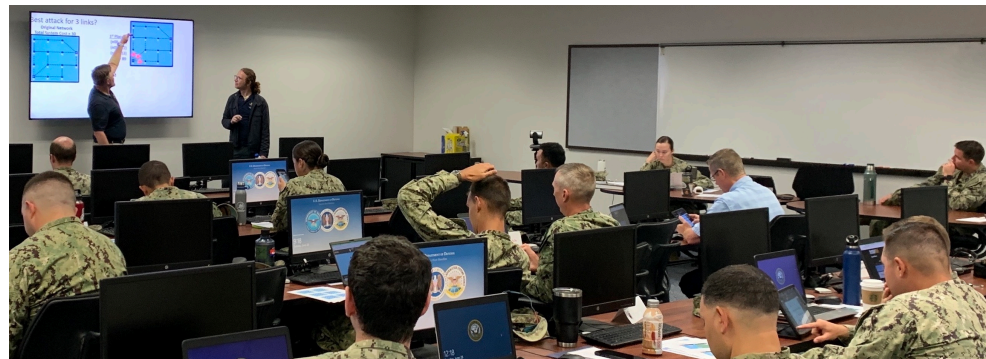


NAVSTA Newport

NPS is conducting research, education and executive training to address Installation Resilience across the Department of Defense:

Infrastructure Vulnerability and Resilience Analysis: Infrastructure vulnerability refers to weaknesses or susceptibilities within systems or networks that can be exploited, leading to potential risks, disruptions, or failures. Installation resilience is the ability of a system or infrastructure to sense, anticipate, adapt and learn from events. Resilience is achieved by setting desired outcomes for how the systems will respond to challenges and realizing these outcomes. NPS has conducted resilience assessments for installations, addressing how to deal with climate impacts, such as flooding, drought and wildfires. NPS also is investigating how other disruptions, including as Marine Corp Base Hawaii and NAVSTA Newport, impact military facilities.

Executive Training and Education: NPS outreach supports NAVFAC Civil Engineering Corps and civilian public works officers who manage climate-driven surprises and maintain mission assurance. NPS has conducted applied studies and identified vulnerabilities that inform resilience recommendations for military and civilian infrastructure systems, including electricity, fuel, water, transportation, telecommunications, and supply chains (e.g., food).



Surprise Theory: NPS contributes to the development of surprise theory through research and methods that inform training and management of critical infrastructure. Existing infrastructure is typically built and maintained to risk-based design standards in which expenditures are prioritized according to estimates of probability-weighted consequences of failure or overload. Surprise in these systems can occur when rare and extreme events challenge infrastructure with loadings that are impossible or uneconomical to protect against. Constructive adaptation to surprise can result in learning that improves system protection and performance.