



# Using Exercises to Make Communities More Resilient

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Norwich University Applied Research Institutes

- Norwich University Applied Research Institutes (NUARI) studies and identifies solutions to critical national security issues driven by our mission to enable a resilient society through rapid research, development, and education in cybersecurity, defense technologies, and information warfare.
- We are a 501(c)(3) non-profit corporation and have been a global leader for more than a decade in developing cyber war gaming, distributed learning technology, distributed simulation technology, critical infrastructure exercises, and cybersecurity curriculum.
- We are partially funded by the U.S. Department of Homeland Security and the U.S. Department of Defense.
- NUARI is co-located with Norwich University in Northfield, VT, and shares their ideals of academic excellence, innovation, and service to the country.

# Introductions

- Who is in the audience, by show of hands:
  - Critical Infrastructure folks
  - Government
  - Emergency Management
  - Faculty
  - Students
  - Others

**NUARI is a proud member of the**

**National Cybersecurity  
Preparedness Consortium**



**More info: <https://nationalcpc.org>**

# NCPC Competencies

<b>The Center for Infrastructure Assurance and Security (CIAS)</b>	Multidisciplinary education and development of operation capabilities in the areas of infrastructure assurance and security.
<b>Texas A&amp;M Engineering Extension Service (TEEX)</b>	Enhance the capabilities of emergency responders and local officials to prepare for, respond to, and recover from natural events, man-made accidents, or terrorist attacks.
<b>University of Memphis Center for Information Assurance (CfIA)</b>	Research, training, and career development for information assurance professions and students alike by organizing community events, special purposes conferences, and vendor-specific training programs.
<b>Norwich University Applied Research Institutes (NUARI)</b>	Conduct rapid research, develop and deploy needed technologies, and address related policy and technology issues to enhance a national capability for preparedness and response.
<b>The Cyberterrorism Defense Initiative (CDI)</b>	Counter-cyberterrorism training developed for technical personnel who monitor and protect our nation's critical cyber infrastructure.

# What is AWR-432?

- Draft NCPC course for FEMA
- Uses NLE-24 concepts to teach Including cyber in exercises
- Based on decades of experience and... not reinventing the wheel.

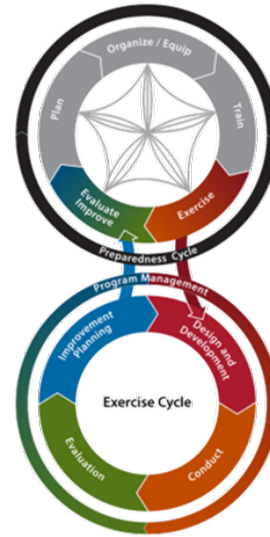


Figure 2.1: Integrated Preparedness and Exercise Cycle

## Integrating Cyber Hazard Response into Exercise Planning

AWR-432  
Module # 2

### Discussion and Operations Based Exercises

**Progressive Approach**

Discussion-based exercises are the first step in the progressive approach to exercises

## HSEEP High level Overview

### Homeland Security Exercise and Evaluation Program (HSEEP)

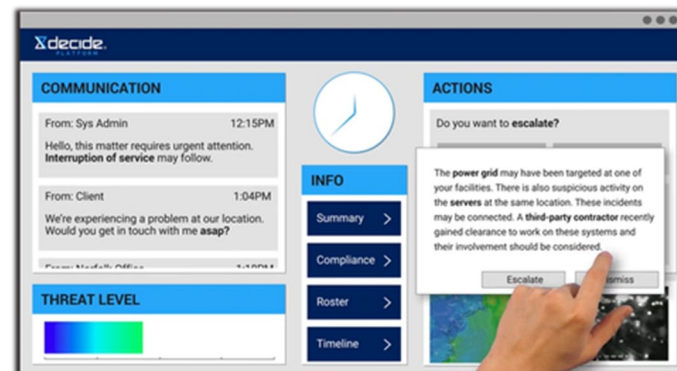
JANUARY 2020  
Homeland Security

# Our Exercises in the past few years

- Over 150 exercises
- Mostly in energy, transportation and higher education
- Involving communities, state, critical infrastructure owner/operators and associations (e.g. NRECA, APPA)

# DECIDE® Platform Capabilities

- A web-based platform that is used to help facilitate exercises in a virtual and distributed manner
- Validate decision making during any type of scenario or threat
- Improve strategic communications with key stakeholders, and with 3<sup>rd</sup> Party Vendors
- Improve incident response plans and understand better recovery times
- The ability to test, assess, & retest more often
- Automatic data capture of exercise events and player actions
- Real-time performance assessment
- Allows participants to validate operational readiness and execute roles/responsibilities





# Why Exercises? Why Cyber?

- Role (of exercises)

- low-risk environment

- familiarize personnel with roles and responsibilities

- foster meaningful interaction and communication

- assess and validate plans, policies, procedures, and capabilities

- identify strengths and areas for improvement

- address priorities

- evaluate progress towards preparedness goals

- Purpose

“The Homeland Security Exercise and Evaluation Program (HSEEP) provides a set of fundamental principles for exercise programs, as well as a common approach to program management, design and development, conduct, evaluation, and improvement planning.”  
–HSEEP, January 2020

# Discussion: Risks to Incorporation

- Topics to Consider:
  - Lack of a Champion
  - Navel Gazing
  - Culture
  - Capability
  - Programs

## Project Sponsor vs. Project Champion

*"A project sponsor is a formal role that provides resources and guidance to team members. By contrast, a project champion is an informal role that provides team members with inspirational and motivational support, as well as serves as an advocate for the project to ensure stakeholders are satisfied."*

*(source: <https://www.smartsheet.com/>)*

navel-gazing

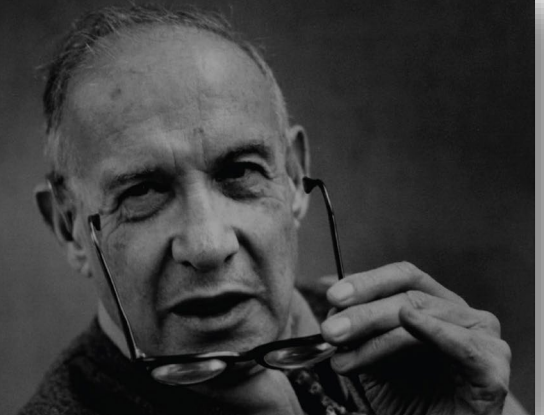
noun

*"self-indulgent or excessive contemplation of oneself or a single issue, at the expense of a wider view."*

*(source: Oxford Languages)*

"Culture eats  
**strategy**  
for breakfast."

*-Peter Drucker*



# Why does Tom say Cyber-Physical isn't really a new thing...

- Cyber IS physical. Period. Full stop. Always has been. (really, try using one without some device for entry... go ahead. I'll wait)
- What is new is our understanding that plugging random devices into our networks may lead to not-so-random outcomes.
- Oh, and cameras are really just subsidized sensors

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# Discussion | Questions

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