Using Exercises to Make Communities More Resilient

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Director of Exercises, NUARI
• 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**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
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<tr>
<td>The Center for Infrastructure Assurance and Security (CIAS)</td>
<td>Multidisciplinary education and development of operation capabilities in the areas of infrastructure assurance and security.</td>
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<tr>
<td>Texas A&amp;M Engineering Extension Service (TEEX)</td>
<td>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.</td>
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<tr>
<td>University of Memphis Center for Information Assurance (CfIA)</td>
<td>Research, training, and career development for information assurance professions and students alike by organizing community events, special purposes conferences, and vendor-specific training programs.</td>
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<td>Norwich University Applied Research Institutes (NUARI)</td>
<td>Conduct rapid research, develop and deploy needed technologies, and address related policy and technology issues to enhance a national capability for preparedness and response.</td>
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<td>The Cyberterrorism Defense Initiative (CDI)</td>
<td>Counter-cyberterrorism training developed for technical personnel who monitor and protect our nation’s critical cyber infrastructure.</td>
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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.
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 3rd 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
Discussion | Questions

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