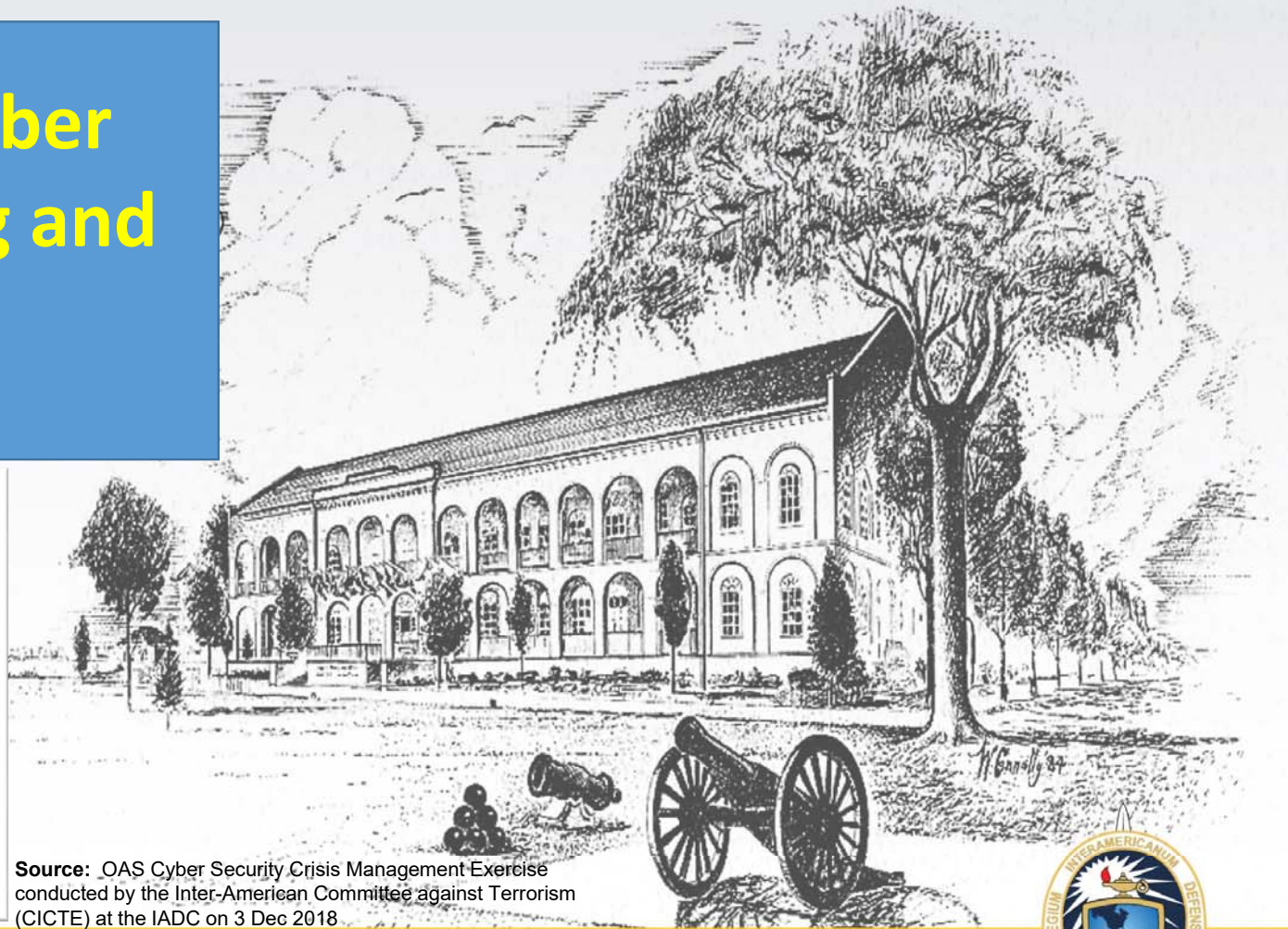


Advances in Cyber Defense Training and Education

May 2019



Source: OAS Cyber Security Crisis Management Exercise conducted by the Inter-American Committee against Terrorism (CICTE) at the IADC on 3 Dec 2018



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The Challenge Presented by Critical Infrastructure

Definition: Assets that are essential for the functioning of a society and economy

The Problem: Both the public and the government rely on infrastructure that it doesn't own/control

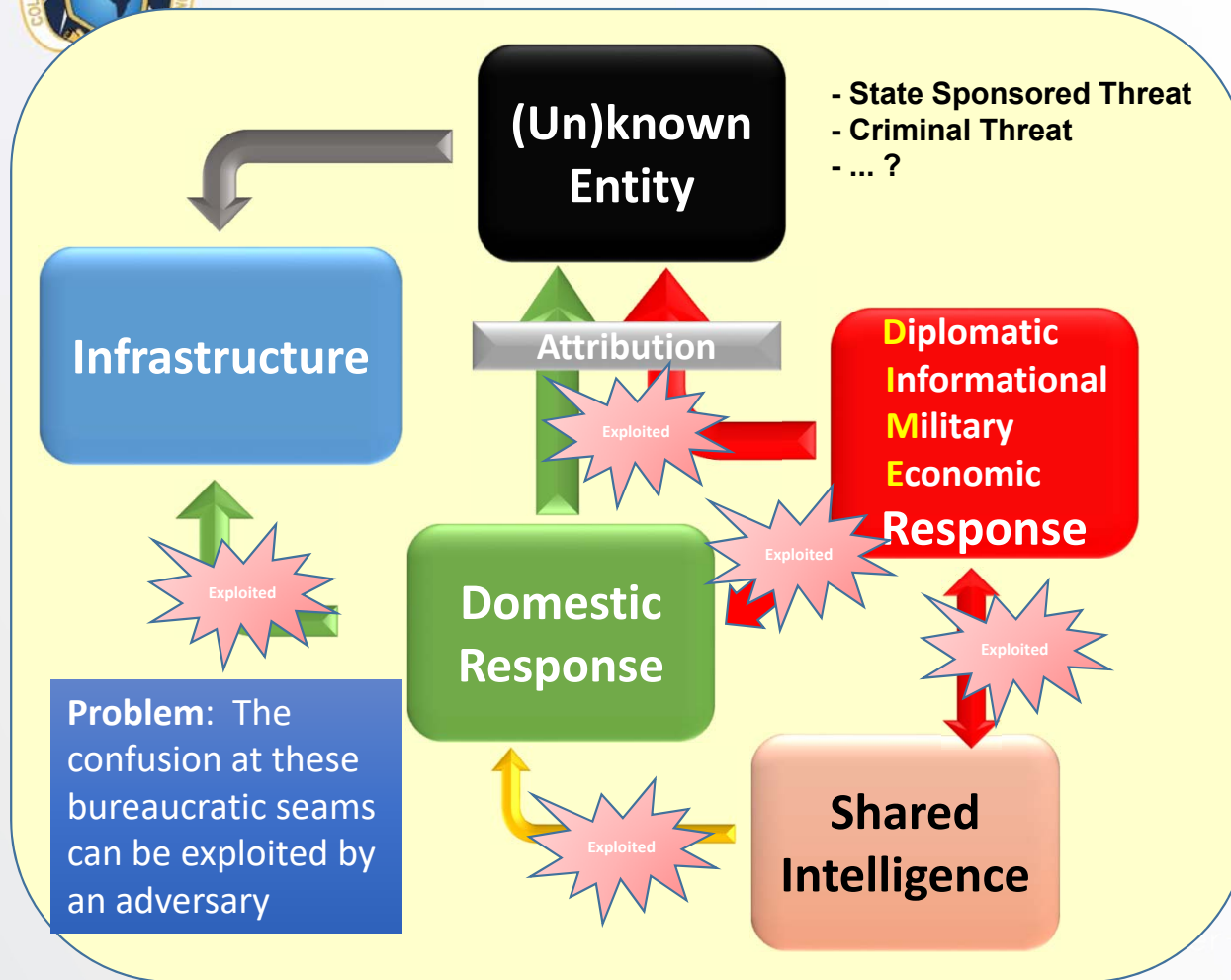
**COMPLEX
ENVIRONMENT**



Source: PPD-21 – Critical Infrastructure Security and Resilience (Feb 12, 2013)
<https://www.dhs.gov/critical-infrastructure-sectors>



A Complex Environment With a Complex Response



Different Authorities:

- DIME (external)
- Law Enforcement (domestic)
- National Guard? (domestic)

To Defend Critical Infrastructure in the Cyber Domain, we MUST

- Work Together
- Use all Authorities
- Coordinate and Integrate efforts



Advances in Cyber Defense Training and Education

Training: The act of inculcating specific skills in a person.

Education: The of gaining theoretical knowledge.

Types of Training

Individual	Home
	Workplace
Collective	General Unit Defensive Training
	Exercises



Effective Collective Cyber Defense Exercises

1. Identify the Correct Participants

- Civilian Entities
- Military Entities
- Commercial Entities

2. Determine the Correct Design

- Unclassified exercise
- Involve Stakeholders

3. Achieve the Overarching Solution

- Apply all authorities toward a common objective

The Need: Perfect the collaborative application of stakeholder authorities in critical infrastructure incidents

The Result: Achieve both training and education