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International Radiological Security Awareness and Response – WINS Breakout Session

Office of Radiological Security
March 2024

Global Material Security

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Breakout Session

Developing Security Systems With Response in Mind

DETECT

Prompt Detection and Reliable Notification

DELAY

Extended Adversary Task Time

RESPOND

Timely, Aware, Equipped, and Trained Response

Objectives

- Understanding and defining the threat
- Discuss the importance of communications
- Identify response characteristics
- Discuss the importance of response plans

Defining the Threat – What are we protecting against?

Why is defining the threat so important?

- Design Basis Threat (DBT)
- Establishes minimum standards for site security equipment, operations, training, and policy/procedures to effectively combat an adversary threat.
- Provides key threat information necessary to institute appropriate countermeasures and a more well-equipped response.

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IAEA – Design Basis Threat

A DBT describes the capabilities of potential insider and external adversaries who might attempt unauthorized removal of nuclear and other radioactive material or sabotage. The operator's physical protection system is designed and evaluated on the basis of the DBT.

To conduct a national nuclear security threat assessment, the competent authorities collect and analyze intelligence and other threat information from open sources, past nuclear security events, other security events and other sources

The analysis should consider whether specific adversary capabilities are relevant to potential targets.

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Threat Spectrum

- **Insiders**
  - Any individual with authorized and unescorted access to radiological facilities, materials, and/or transport who might attempt unauthorized removal or sabotage, or aiding an outsider to do so
- **Outsiders**
  - Terrorists (high-level threat)
    - Homegrown Violent Extremist (HVE)
    - Lone Wolf or organized group
  - Criminals (moderate-level threat)
  - Protestors (low- to high-level threat)
    - Demonstrators
    - Activists
    - Extremists

How to Define the Threat

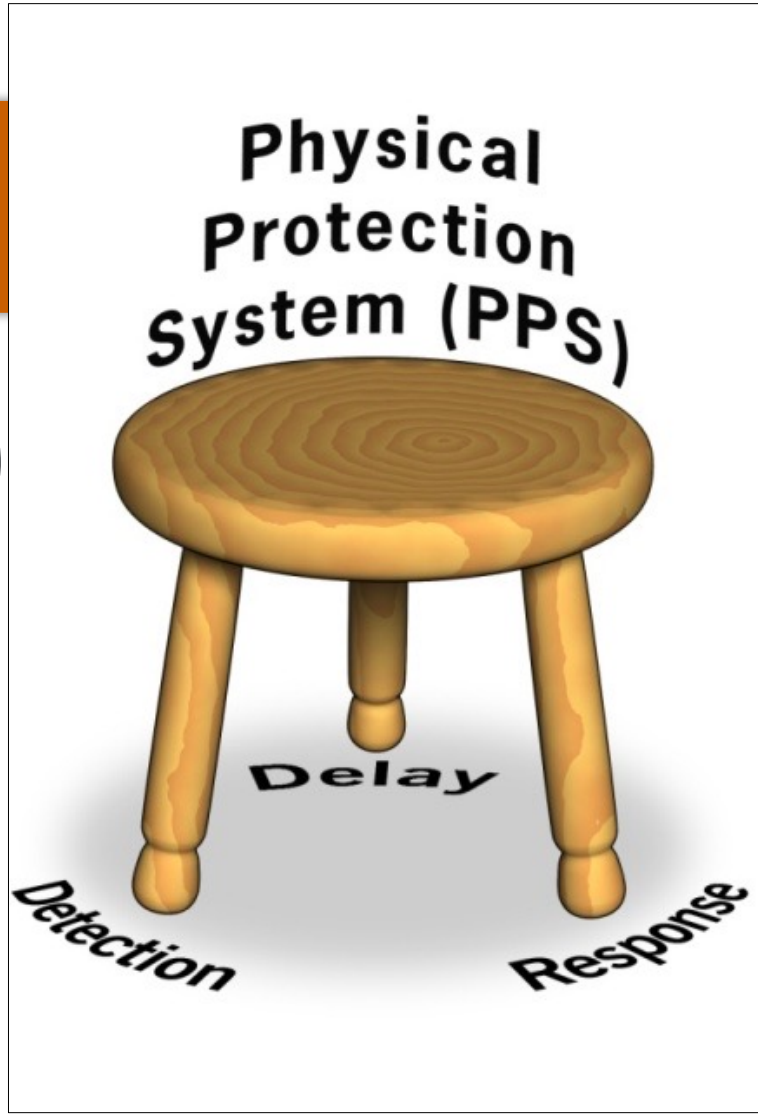
Information that should be considered

- How many adversaries are you protecting against?
  - Team size including outsiders and insiders if applicable.
- What capabilities could the adversaries have?
  - Weapons, explosives, tools, tactics, vehicles, etc.
- Is an insider part of the adversary capabilities?
  - If so, what would they be able to provide?
- Use of relevant and credible threat information

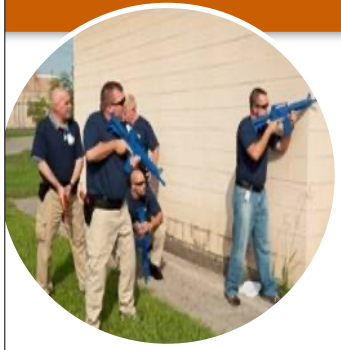
Functions of a Physical Protection System (PPS)

DETECT

Prompt detection and reliable notification



RESPOND



Timely, aware, equipped, and trained in site response

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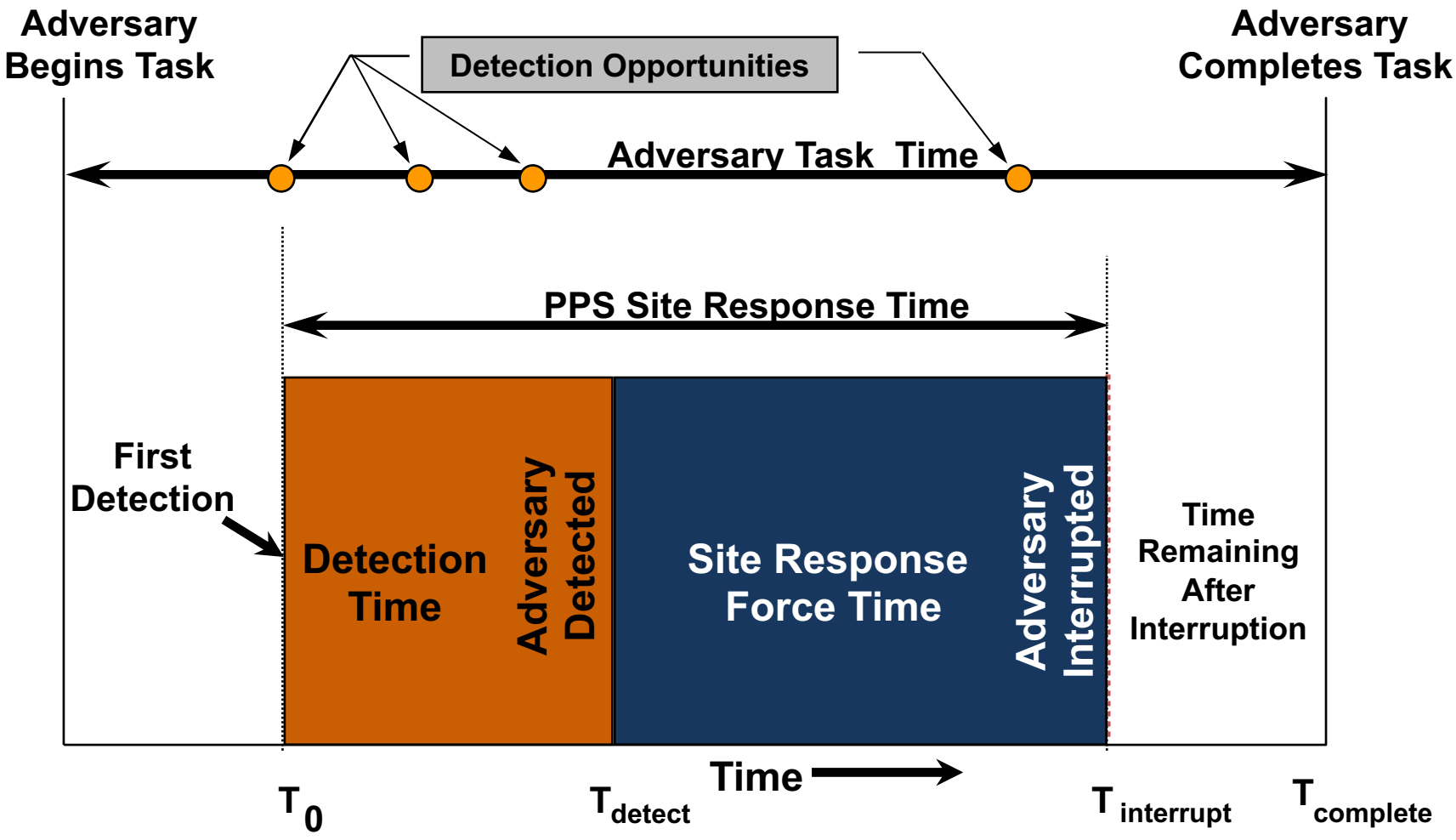
Adversary and PPS Timeline



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Communications

Communications play a vital role in providing critical, accurate, and timely information to responders

Responders need to understand the nature of the call and the significance for an appropriate response

Success or failure depends on the transmission of the right information during a stressful emergency

All the critical information necessary to protect the safety and lives of the public and responders and mitigate the threat needs to be relayed

Dispatch

- Flag location
- Does the incident involve radiological material?
  - Nefarious intent or accidental
  - Location of device and material
  - Type and amount
  - Is material still on-site?
- Call priority
- Response Plan
- Notifications and Contact Numbers
- Training for dispatchers

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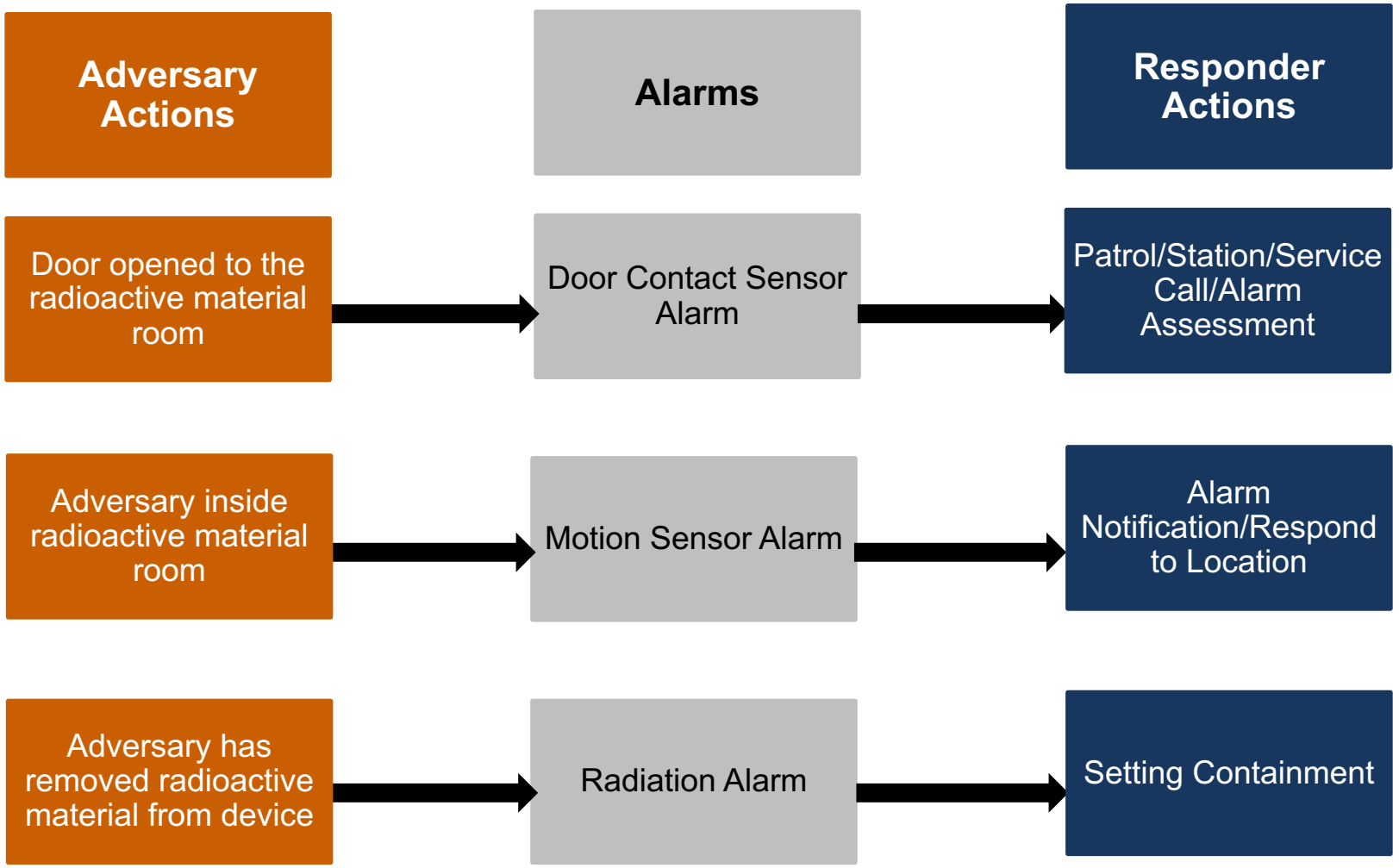
Sequence of Alarms



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Response Considerations

Primary Response

- Guard force
- Radiation Safety Officer

Secondary Response

- Law Enforcement
- Specialized Units

Tertiary Response

- Province & Federal Support
  - Logistical Support
  - Regulator Notification/Support
  - Consequence Management
  - National Response Plan Activation

Response Considerations

- Response to an incident of this nature typically requires immediate action and rapid deployment
  - What is your Agency's policy?
- These are NOT typical "burglar or theft" alarm calls.
- An attack to one of these sites, targeted to a device indicates a potential significant threat to life.
- The call should be prioritized and dispatched accordingly (per agency policy).

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Factors Impacting Response Effectiveness

Preparation

- Policy/Procedures
- Response Plans
- Training
- Exercise

Capabilities

- Weaponry
- Personal protection equipment (PPE)
- Communication Equipment
  - Radios
  - Cellphones
  - SMS

Deployment

- Number of responders
- Timely response
- Effective containment

Site Response Planning

- Purpose of target folder and site response plans
  - Deliver critical information on a common document
  - Provides actions needed by site and response force
  - Allows for interagency collaboration
  - Emphasizes facility walk down

Target Folder and Site Response Planning

- Information included in a response plan
  - Facility Information
    - Types of material, site capabilities, equipment, operations, maps, photos of devices, etc.
  - Monitoring and Notification Processes
  - Response Information
    - Capabilities, roles, responsibilities, critical tasks, etc.
  - Command and Control
    - Notifications, communications, incident management, etc.

Breakout Session Activity

- Break out into groups to discuss information that should be contained in a section of a response plan.
- Discussions are not precedent setting; consider different approaches and information a facility and response agency will need for an effective response.
- After discussing in your group, choose one person from each group to give a brief overview to the rest of the attendees.

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Breakout Session Presentations

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Thank You

Contact Information

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