

Planning and Responding to a Nuclear Security Incident

February 2018



**EMERGENCY &
PROTECTIVE SERVICES**

Bruce Power™

Innovation at work

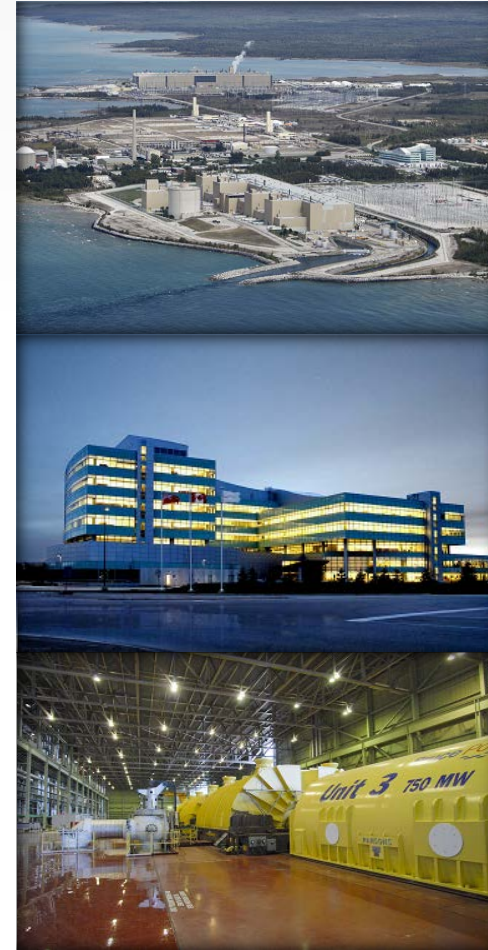
Agenda

- Overview of Bruce Power
- Planning for a Nuclear Security Incident/Crisis
 - Incident vs. Crisis
 - Incident Management Hierarchy
 - Incident Management Team
- Response to a Nuclear Security Incident/Crisis
 - Security Incident Command
 - Decision-Making



Bruce Power Overview

- Bruce Power is Canada's first private nuclear generator and the world's largest Nuclear Generating Station capable of producing 6,300 megawatts and providing over 30% of Ontario's electricity
- Bruce Power's 2,300-acre site on the shores of Lake Huron houses the Bruce A and B generating stations
- Bruce Power employs over 4200 people; up to an additional 4000 contractors
- Geographic isolation = self-sufficient community
- Emergency & Protective Services (EPS) organization combines Security, Emergency Services, Emergency Preparedness & Support



Where are we?



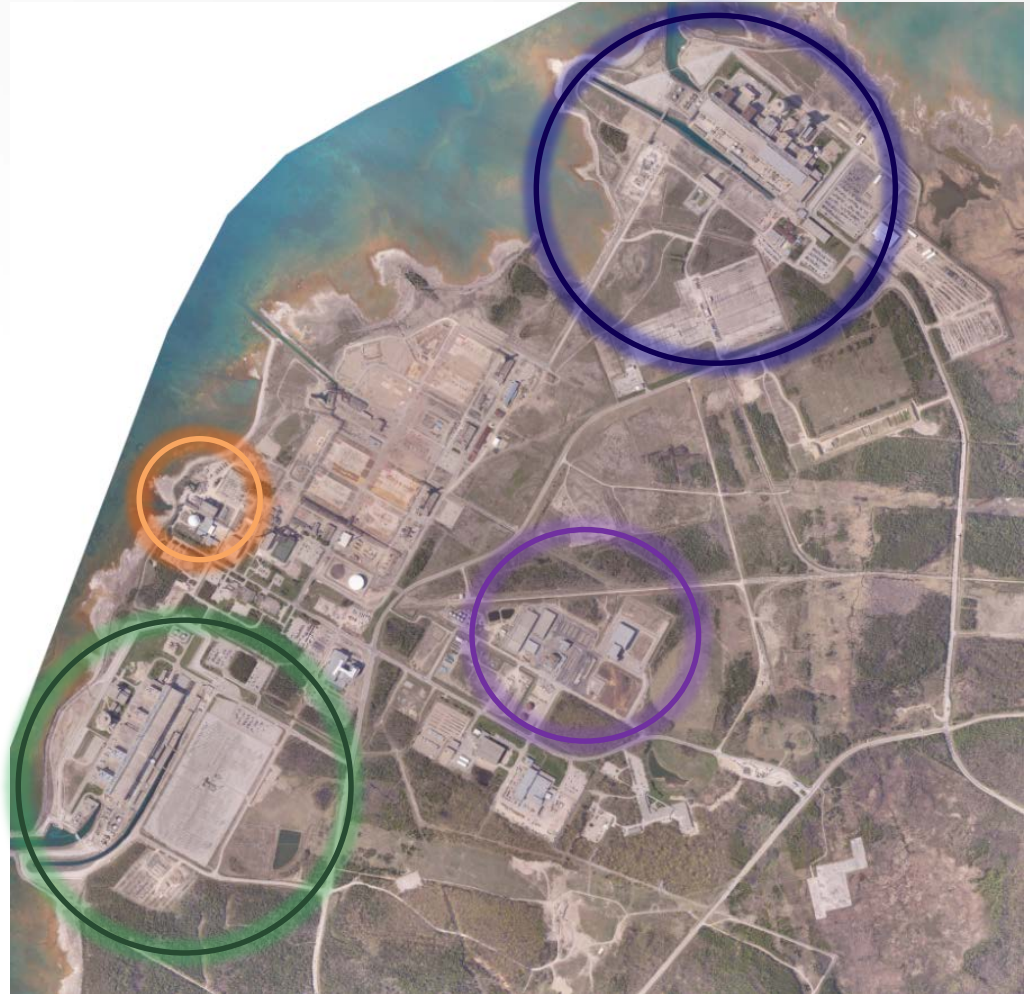
Location (cont'd)



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What are we Protecting?

- Bruce A
- Douglas Point Waste Management Facility
- Western Used Fuel Dry Storage Facility
- Bruce B



History

- *Prior to 9/11* - Security at Bruce Power was unarmed.
- *After 9/11* - the CNSC mandated that all Nuclear Generating Facilities develop and deploy armed response teams capable of responding to the identified threat.



- *March 2003* - Bruce Power NRT was fully operational. The NRT has continued to evolve its tactics and operations following the Provincial Police model.



Incident or Crisis?

■ *Natural Events*

- Severe weather
- Food emergencies
- Human health emergencies (pandemic)

■ *Human-caused Events and Accidental Hazards*

- Incidents intended to do harm to public safety and security
- Civil disorder
- War
- Bomb threats
- Terrorism
- Improvised explosive devices and improvised dispersal devices

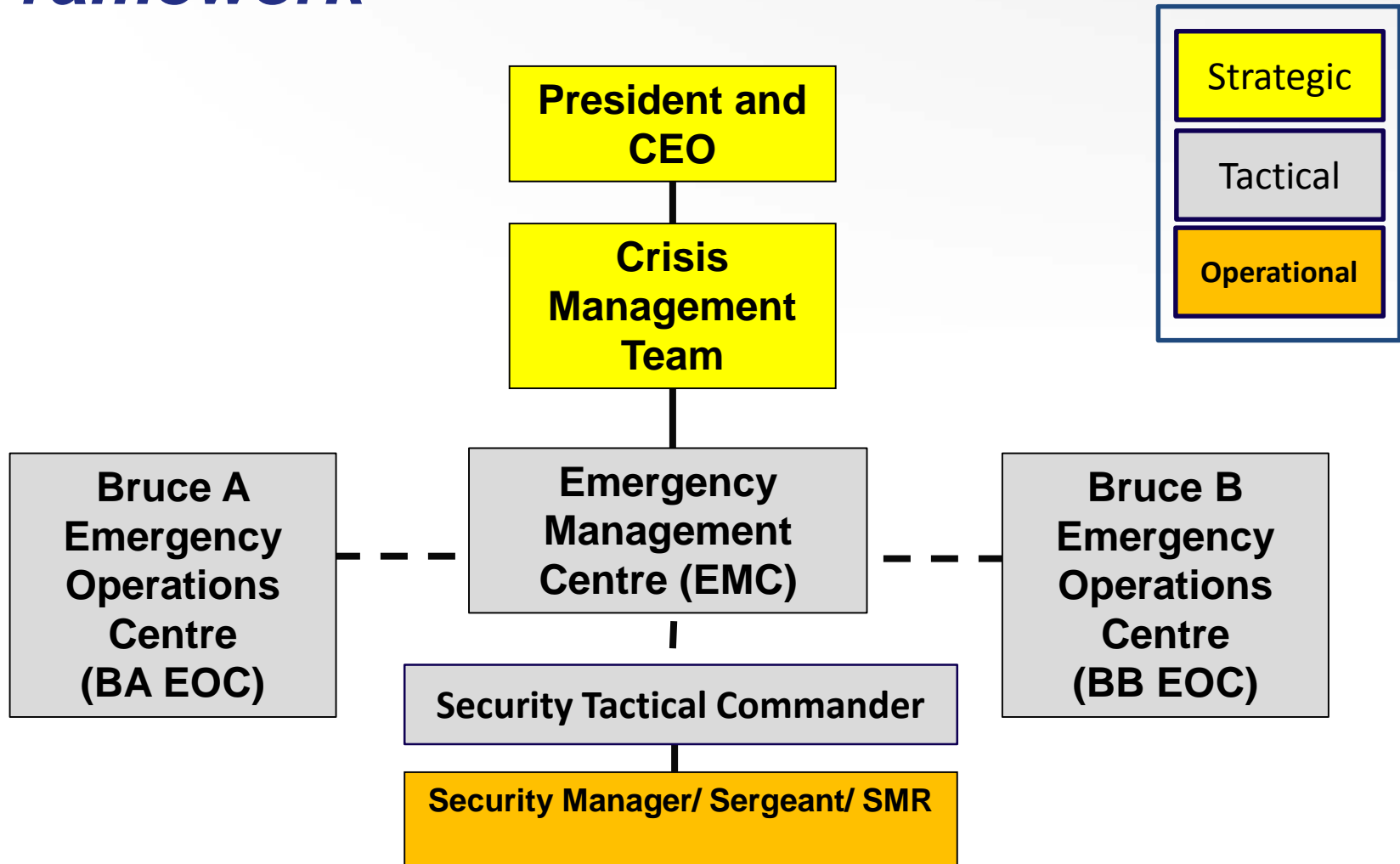


■ *Technological & Infrastructure Disruptions*

- Hazardous materials incidents
- Utility and power failures
- Transportation accidents
- Aircraft accidents
- Water supply failures
- Building or structural collapse
- Critical resource shortages
- Computer-related incidents



Incident Management - Command Framework



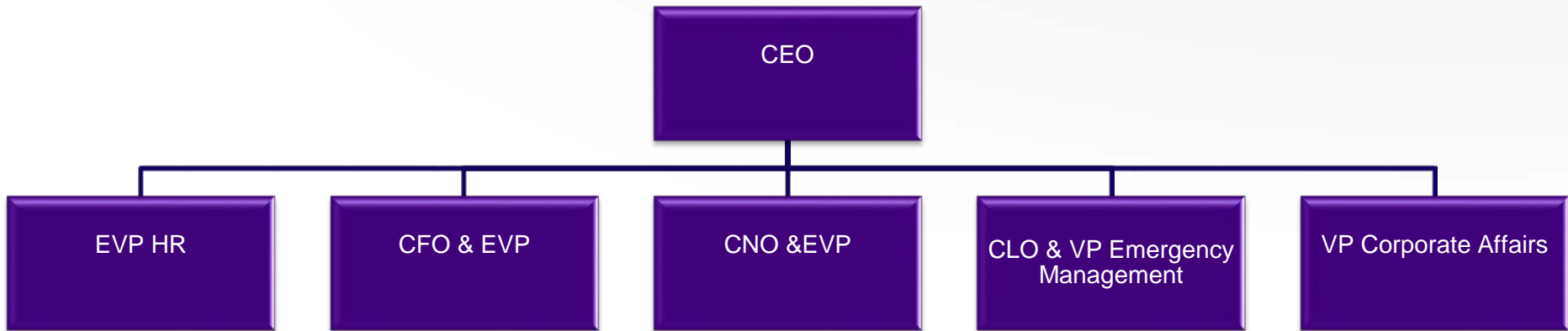
Incident vs. Crisis

Organizational Response

ERO Tactical Incident Management	EMC Strategic Crisis Leadership
React	Anticipate
Short-term	Long-term
Process	Principles
Narrow Focus	Wide Focus
Tactical	Strategic



Strategic Command (Gold) – Crisis Management Team



- Provide assistance to the entire emergency response organization by ensuring:
 - The necessary resources are made available
 - The EMC and EOC direction is followed by all Bruce Power organizations
 - “Executive” engagement at the highest levels of government and private companies occurs
- Focus on business continuity and recovery



Tactical Command (Silver) – *Emergency Management Centre (EMC)*

- The EMC is established to take control and assume overall authority of centre of site (COS) emergency response activities, provide technical support, coordinate the execution of off-site survey activities and to augment the shift response where necessary
- Support to the Bruce Power Tactical Commander or to the Ontario Provincial Police (OPP) Critical Incident Commander



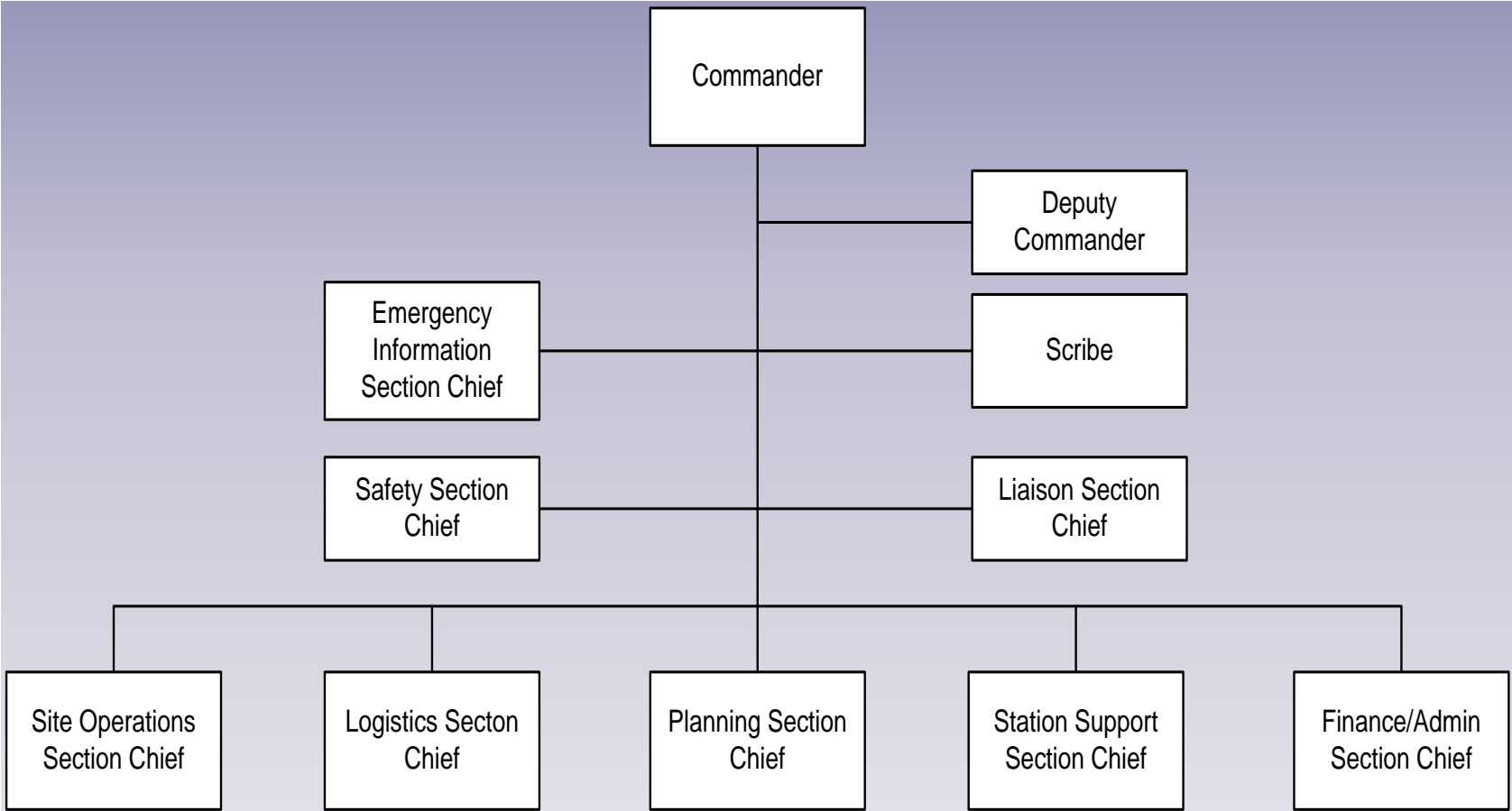
Emergency Management Center – *Incident Management Team*

EMC Resources

Communications	Site Operations
Safety Officer	Planning
Liaison Officer	Logistics
Emergency Information Officer (EIO)	Station Support
Media Officer	Technical Support



Emergency Management Centre – Command Structure



Incident / Crisis Management Plans

- Operational Response Plans
 - *Intruder & Hostage Taking; Bomb Threats; Labour Unrest / Demonstrations; Violence in the Workplace; Duress Alarms*
- Planning for Deployment of a Nuclear Response Force
 - *Tactical Deployment Plan*
 - *Arrangements with the Off-Site Response Force*
 - Ontario Provincial Police – Memorandum of Understanding
- All-Hazards Approach to Incident Management
 - *Emergency Response Organization - Emergency Response Procedures*
 - *Emergency Management Center – Incident Action Plan*
- Staff Response Plan – *Site Lock Down Procedure*



Security Incident Command

- **High Risk Security Incident**

- “Is an incident where the security of nuclear materials (Cat 1, 2 or 3) may be at risk of theft or sabotage and/or life is perceived to be at risk due to potential or actual hostile acts.”

- **Notifications**

- Once the incident has been confirmed, immediate notifications are made including:
 - Off-Site Response/OPP
 - On-call Tactical Incident Commander (at minimum Security Section Manager level)
 - On-call EMC Commander



Security Incident Command

- **Incident Response**

- Nuclear Response Team (NRT) Officers respond to the threat in accordance with the Tactical Deployment Plan
- NRT Sergeant commands NRT on-ground response
- Duty Security First Line Manager (FLM) assumes overall command and control acting as the *Incident Commander*, until relieved by the on-call *Tactical Incident Commander*
- As soon as practicable, the Duty Security FLM/IC establishes *Command Post (CP)*
- Emergency Management Center stood-up
- Ontario Provincial Police (OPP) response – handover to *Critical Incident Commander*

TACTICAL
COMMANDER

FIRST
LINE MANAGER



Off-site Response Force Arrangements – *OPP MOU*

- Bruce Power has a Memorandum of Understanding (MOU) with the OPP that details and outlines how the On-Site NRT is to interface with the Off-Site response force.
 - 2.0 - *Initial Notification of a Security Incident and the Off-Site Response Force*
 - 3.0 - *Communications*
 - 4.0 - *Impact on Operations*
 - 5.1- *Bruce Power Responsibilities*
 - 5.2 - *Bruce Power Resources*
 - 6.1- *Exercises*



Incident Management – *Tactical Command Decision-Making*

- Always on-going
- **What's changed? – Why now?**
- Confirm, confirm, confirm
- Seek input
- Make the decision
- Assess/Review results
- Be accountable



Tactical Command - Maintaining Situational Awareness - *The Boards*

- Situation
- Timelines
- Mission
- Suspects / Doves / Hostages
- IAP/MAP/AAP
- Assignments
- Notifications
- To Do
- Command Control and Communications



Decision-making - *Environment*

Uncertainty

- “Fog of War”
- Information is incomplete, outdated, distorted, exaggerated

Chaos and Complexity

- Multiple events and reports
- Need adjusted perspective and approach to sense-making and response

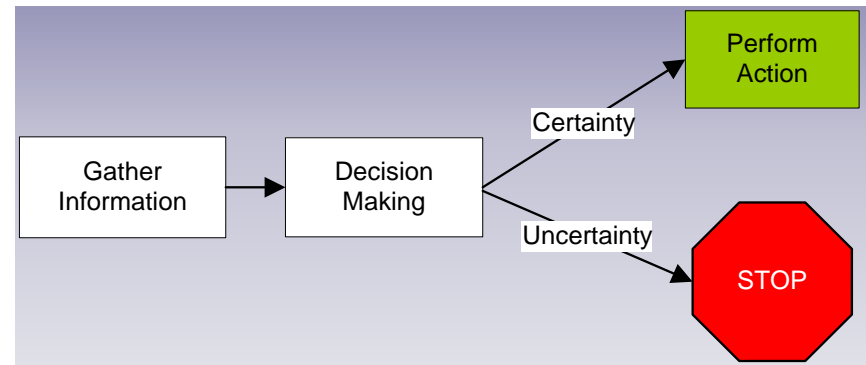
Friction

- Some personnel at their best, others worst
- Essential resources and capabilities degraded
- Unaligned operational, ethical, regulatory and corporate pressures at outset
- Friction from unaligned situational understanding: operations, corporate, regulator, others



Decision-making - Challenges

- Confusion and uncertainty
- Lack of immediate resource
- Conflicting information
- Poor communication methods
- Over-mission tasking
- Not enough think time
- Sustained operations
- Consequences of failure are drastic



Decision-making - *NATRAIDER M*

- **Notify** - Who needs to be apprised of this situation?
- **Attend the CP** - Assume C&C of the high risk security incident.
- **Take Stock** - What's going on? What's happened?
- **Resources** - What resources do you have, and which ones have been deployed to date? More resources required?
- **Assign Roles** - Do people need to have different jobs that what they are currently doing?
- **Inner and Outer Perimeter** – Inner/Outer/Frozen Zone
- **Develop your Plan** - IAP, MAP, AAPs
- **Evacuations** – Inner → Frozen → Outer
- **Redirect Traffic** - Egress routes out; supply/response routes in.
- **Media** - Who/how will they be dealt with?



Tactical Command Decision-making

– *Keys to Success*

- Ensure staff do not deviate from standard procedures
- Monitor the performance of key staff
- Provide direction in advance
- Identify potential or existing problems
- Clearly communicate a course of action
- Continually assess and reassess the situation in relation to the mission goal(s)
- Clarify expectations of all staff

**Process - Analyse - Interpret -
Disseminate!!**



Questions?

