



Canadian Nuclear  
Safety Commission

Commission canadienne  
de sûreté nucléaire

# ***Best Practices for Nuclear Guard Force Recruitment, Training, Deployment and Exercises: Perspective from the Canadian Regulator***

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# Outline



- Welcome
- Some context and perspective
- Challenges and the Canadian response
- The Canadian nuclear response force program
- Concluding remarks



## The World is changing...

- ...requiring a multi-dimensional safety and security response...
- ...informed and enabled (amongst other things) by people, technology and procedures.

# A Ten Year Perspective



## Crises

- 9/11
- Anthrax Letters
- Tsunamis 2004
- Earthquakes (Haiti, Kashmir, China ...)

## Multipliers

- Globalization of S&T
- Climate Change
- Resource Shortages
- Global Recession
- Critical Infrastructure

**Anecdotal  
evidence that the  
pace of change is  
accelerating ...**

## Technology

- Cyber Crime/Terrorism
- Navigation Warfare
- IEDs
- Biotechnology Dual-Use

## Wars

- Afghanistan
- Iraq
- Sudan/Darfur
- Israel-Hamas
- Russia-Georgia
- The Balkans

## Threats

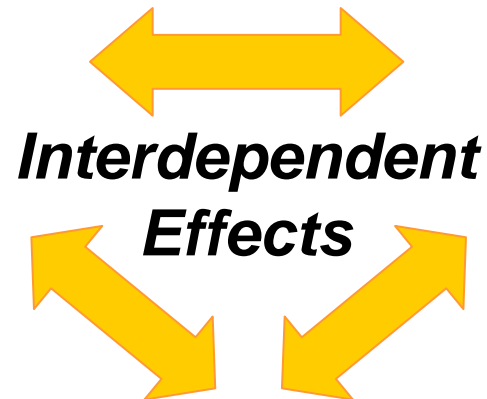
- Failed/Failing States
- Global Terrorism
- Radicalization
- Pandemics
- WMD Proliferation
- Food Safety

# Security: A 21<sup>st</sup> Century Perspective



## National/Societal Attributes

Sovereignty  
Health  
Critical Infrastructure  
Environment  
Economy  
Ideology  
Institutions



## Threats

Inter-State Conflict  
Terrorism  
Radicalization  
Crime  
Natural Disasters  
Accidents

## Threat Multipliers

Climate Change  
Energy Security  
Strategic Resource Scarcity  
Financial Crisis  
Globalization of S&T

# Complex Challenges



- Range of conflicts, actors, interdependencies, fractures, asymmetries
- Humans are in the system – they make choices in response to change and to create change - part of creating the future
- Multidisciplinary in nature
- The very unpredictability of complex systems forces a change in how we think about the future
- Blurring of the safety-security boundary

# ***Nuclear Facilities - How Robust Nuclear Security is Ensured in Canada***



## **Security of personnel**

- Enhanced screening techniques

## **Systems security**

- Cyber security design
- Vulnerability assessments

## **Physical security**

- Robust, dynamic site security measures

***All supported by an integrated security intelligence capability.***

# ***Nuclear Facilities Security Measures – A Risk Graded Approach***



- Integrated security intelligence gathering and dissemination
- Response plans and exercises
- Supervisory awareness program – identification and detection of insider threats
- Alarm systems, surveillance, and communications
- Threat assessment capabilities

# ***Nuclear Facilities Security Measures – A Risk Graded Approach***



- Access control with biometric verification
- Screening protocols for visitors, vehicles and packages (weapons or explosives)
- Forced vehicle entry protective measures
- Armed on-site nuclear response forces
- Medical, physical and psychological fitness certification for nuclear security personnel

# Enhanced Protected Area Security



**Upgraded Barriers**



**Biometrics**

# PA Vehicle Penetration Barriers



# *Marine Barriers*



# Enhanced Screening for Weapons and Explosives



# Armed On-site Nuclear Response Forces and the Performance Testing Program



# Benchmarking – Validate Training



- Licensees setup the Canadian Nuclear Security Officer Challenge
- Annual competition where nuclear security personnel compete against one another in high stress events



# Benchmarking – Validate Training



- US SWAT National Championship
- US – DOE Security Protection Officer Team Competition (SPOTC)
- Ontario Tactical Advisory Body (OTAB) SWAT Round-up
- Canadian Law Enforcement Games



# *Concluding Remarks*



- The world is changing
- Our responsibility to ensure the protection of NPPs and other high risk nuclear facilities remains



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