

## Lesson 10 Outline

Course Number: XXXX

Course: Foundations of Critical Infrastructure Security and Resilience

University of XXXXXX

Fall/Spring Semester 20XX

### LESSON 10 TOPIC: CISR: THE INTERNATIONAL DIMENSION

#### **1. Lesson Goals/Objectives:**

- Identify and discuss the international dimensions of CISR, including global supply chain security.
- Summarize alternative approaches to CISR in use internationally, including voluntary and regulatory models.
- Identify and examine various structures and forums that are used to promote international CISR cooperation and collaboration.

#### **2. Discussion Topics:**

- What does the NIPP have to say regarding the international dimension of CISR?
- Why do we need to press for CISR outside our own borders? Who should be our principal international CISR partners? Why?
- How do global supply chain considerations factor into CISR? What are the major elements of the U.S.' *National Strategy for Global Supply Chain Security*? How can this strategy best be implemented?
- What are some of the typical approaches to CISR used outside the United States? What are their strengths and weaknesses? Are these primarily regulation driven or are voluntary approaches used? Does a "model" CISR regulatory program exist abroad?
- Is there a structure(s) through which international CISR issues can be addressed?
- Is there a national, bi-national, or multi-national CISR program that stands out as a model or best practice?
- How should multi-lateral CISR cooperation and collaboration be incentivized?
- What should constitute the major elements of a U.S. international CISR strategy? How would such a strategy best be implemented and through what mechanism?

**3. In-Class Activity:** The instructor will divide the class into two-person teams. Each team will be assigned a specific country or region of the world and will be expected to discuss that country's/regions approach to CISR with a focus on organizing structures and partnerships, regulatory frameworks, risk assessment/management approaches, and information sharing. No formal presentation is required; additional Internet research is expected.

#### **4. Required Reading:**

Lewis, Chapter 16.

Arjen Boin, Mark Rhinard, and Magnus Ekengren,  
*Institutionalizing Homeland Security Cooperation in Europe*, 2007,  
[http://citation.allacademic.com/meta/p\\_mla\\_apa\\_research\\_citation/2/1/0/1/5/pages210155/p210155-1.php](http://citation.allacademic.com/meta/p_mla_apa_research_citation/2/1/0/1/5/pages210155/p210155-1.php)

NATO Parliamentary Assembly, *The Protection of Critical Infrastructures*, 2007,  
<http://www.nato-pa.int/default.asp?SHORTCUT=1165>

Infrastructure Canada,  
*Literature Review of Methodology to Evaluate the State of Infrastructure*, August 2007,  
<http://books1.scholarsportal.info/viewdoc.html?id=25360>

Council of the European Union, *Council Directive 2008/114/EC: Identification and Designation of European Critical Infrastructure and the Assessment of the Need to Improve their Protection*,  
<http://www.euractiv.com/en/security/critical-infrastructure/article-140597>.

International CIIP Handbook (2008-2009), <https://www.hSDL.org/hslog/?q=node/4413>.

European Commission, *Protecting Europe from Large-scale Cyber attacks and Disruptions: Enhancing Preparedness, Security and Resiliency*, 2009,  
[http://europa.eu/legislation\\_summaries/information\\_society/internet/si0010\\_en.htm](http://europa.eu/legislation_summaries/information_society/internet/si0010_en.htm)

George Mason University, The Center for Infrastructure Protection and Homeland Security (CIP/HS), *The CIP Report*, 8(1), July 2009, [http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS\\_TheCIPReport\\_July2009\\_InternationalCIP1.pdf](http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS_TheCIPReport_July2009_InternationalCIP1.pdf).

George Mason University, The Center for Infrastructure Protection and Homeland Security (CIP/HS), *The CIP Report*, 8(12), June 2010, [http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS\\_TheCIPReport\\_June2010\\_InternationalCIP.pdf](http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS_TheCIPReport_June2010_InternationalCIP.pdf).

Public Safety Canada, *National Strategy for Critical Infrastructure and Action Plan for Critical Infrastructure*, 2010,  
[http://www.publicsafety.gc.ca/prg/ns/ci/\\_fl/ntnl-eng.pdf](http://www.publicsafety.gc.ca/prg/ns/ci/_fl/ntnl-eng.pdf).

U.S. Department of Homeland Security and Public Safety Canada, *Canada-United States Action Plan for Critical Infrastructure*, 2010,  
[http://www.dhs.gov/xlibrary/assets/ip\\_canada\\_us\\_action\\_plan.pdf](http://www.dhs.gov/xlibrary/assets/ip_canada_us_action_plan.pdf).

European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the

Committee of the Regions, *On Critical Information Infrastructure Protection: Achievements and Next Steps: Towards Global Cyber-Security*, March 2011, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0163:FIN:EN:PDF>.

George Mason University, The Center for Infrastructure Protection and Homeland Security (CIP/HS), *The CIP Report*, 9(12), June 2011, [http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS\\_TheCIPReport\\_June2011\\_InternationalCIP.pdf](http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS_TheCIPReport_June2011_InternationalCIP.pdf).

George Mason University, The Center for Infrastructure Protection and Homeland Security (CIP/HS), *The CIP Report*, 10(1), July 2011, [http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS\\_TheCIPReport\\_July2011\\_GlobalSupplyChain.pdf](http://tuscany.gmu.edu/centers/cip/cip.gmu.edu/wp-content/uploads/2013/06/CIPHS_TheCIPReport_July2011_GlobalSupplyChain.pdf).

National Strategy for Global Supply Chain Security, January 2012, [http://www.whitehouse.gov/sites/default/files/national\\_strategy\\_for\\_global\\_supply\\_chain\\_security.pdf](http://www.whitehouse.gov/sites/default/files/national_strategy_for_global_supply_chain_security.pdf)

”Trusted Information Sharing Network,” <http://www.tisn.gov.au/Pages/default.aspx>

“Center for the Protection of National Infrastructure,” <http://www.cpni.gov.uk/>.

“Infrastructure Canada,” [www.infrastructure.gc.ca](http://www.infrastructure.gc.ca).



# ***Foundations of Critical Infrastructure Security and Resilience***

## ***Lesson 10: The International Dimension of CSIR: Comparing National, Multi-national and Regional Models***

# Lesson 10 Outcomes/Objectives

- ▶ Identify and discuss the international dimensions of CISR, including global supply chain security.
- ▶ Summarize and discuss alternative approaches to CISR in use internationally at the nation-state, bilateral, and multilateral levels, including voluntary and regulatory models.
- ▶ Identify and examine various structures and forums that are used to promote international CISR cooperation and collaboration.

# International Issues & Vulnerabilities

- ▶ Just-in-time delivery model
- ▶ Concentrations of strategic materials
- ▶ Key single points of capability/production
- ▶ Insufficiently protected CI nodes
- ▶ 3<sup>rd</sup>/4<sup>th</sup> Tier suppliers
- ▶ War zones
- ▶ Cyber
- ▶ Vastly different CSIR regimes/models
- ▶ Economic impact of globalization -- Short term/long term effects of outsourcing in relation to CISR and national security
- ▶ International governance?

# Managing Critical Infrastructure Risk

- ▶ Key Factors (how do the following factors apply to the international CISR context?)
  - Defining the value proposition
  - Leadership/governance/organization
  - Public-private cooperation & collaboration (risk assessment, planning, information sharing, contingency response)
  - Dependencies/Interdependencies analysis
  - R&D/technological solutions
  - Resilient Design
  - Cybersecurity
  - Regulatory vs voluntary solutions
  - Incentivization

# National Strategy for Global Supply Chain Security

## ▶ **Goal 1: Promote the Efficient and Secure Movement of Goods**

- Enhance the integrity of goods as they move through the global supply chain; understand and resolve threats early in the process; improve detection/verification capabilities, and strengthen the security of physical infrastructures, conveyances and information assets, while modernizing supply chain infrastructures and processes.

## ▶ **Goal 2: Foster a Resilient Supply Chain**

- Foster a global supply chain system that is prepared for, and can withstand, evolving threats and hazards and can recover rapidly from disruptions. Prioritize efforts to mitigate systemic vulnerabilities and refine int'l plans to reconstitute the flow of commerce after disruptions.

## ▶ **Guiding principles: Approach is informed by the following guiding principles:**

- **Galvanize Int'l Action**
- **Manage Supply Chain Risk**



# In-Class Exercise

- ▶ The class will be divided into two-person teams. Each team will discuss a pre-assigned country's/region's approach to CISR with a focus on organizing structures and partnerships, regulatory frameworks, risk assessment/management approaches, and information sharing.
- ▶ Countries/Regions Assigned:
  - Canada, UK, Australia, Germany, European Union, NATO, APEC

# Discussion Questions

- ▶ What does the NIPP have to say regarding the international dimension of CISR?
- ▶ Why do we need to press for CISR outside our own borders? Who should be our principal international CISR partners? Why?
- ▶ How do global supply chain considerations factor into CISR?
- ▶ What are the major elements of the U.S.' *National Strategy for Global Supply Chain Security*? How can this strategy best be implemented?
- ▶ What are some of the typical approaches to CISR used outside the United States? What are their strengths and weaknesses? Are these primarily regulation driven or are voluntary approaches used? Does a “model” CISR regulatory program exist abroad?

# Discussion Questions

- ▶ Is there a structure(s) through which international CISR issues can be addressed?
- ▶ Is there a national, bi-national, or multi-national CISR program that stands out as a model or best practice?
- ▶ How should multi-lateral CISR cooperation and collaboration be incentivized?
- ▶ What should constitute the major elements of a U.S. international CISR strategy? How would such a strategy best be implemented and through what mechanism?