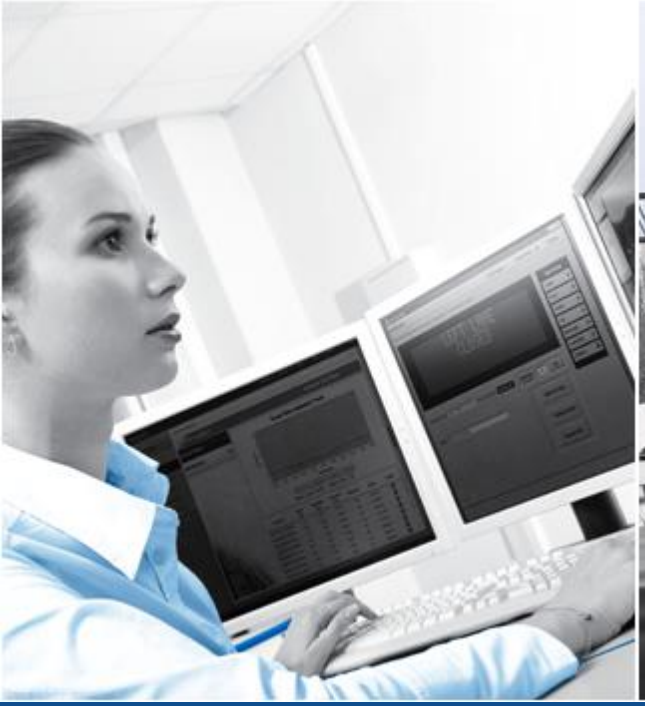


BRIDGING THE GAP BETWEEN EMERGENCY MANAGEMENT AND TRANSPORTATION

Sheena Connolly

Open Roads Consulting

Your Perspective on Transportation

1. What's your perspective on transportation? (e.g. experience, use, incidents)

2. Why is an understanding of transportation important?

Sheena Connolly

M.S. in Emergency Management & Homeland Security with a focus in Transportation Security from Mass Maritime Academy

10 Years in transportation industry

Member of several industry groups

User of transportation - aviation, marine, highway and transit systems

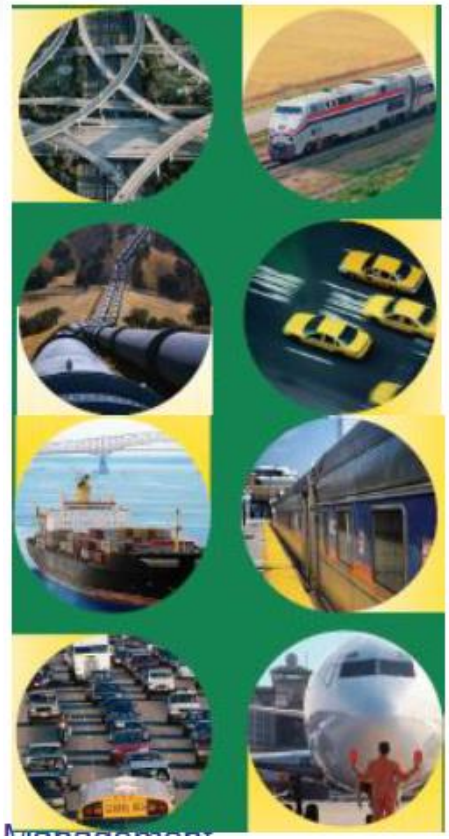
It's Exciting!

Introduction

- The overall goal of transportation agencies from state to federal level is to move people and goods efficiently, safely and to keep them moving.
- This presentation will provide a high level understanding and importance of emergency management as it pertains to the transportation industry and transportation security.

Holistic Transportation Approach
Our System is Multi-modal

- Transit
- Railroads
- Aviation
- Marine
- Pipeline
- Highway
- Intermodal



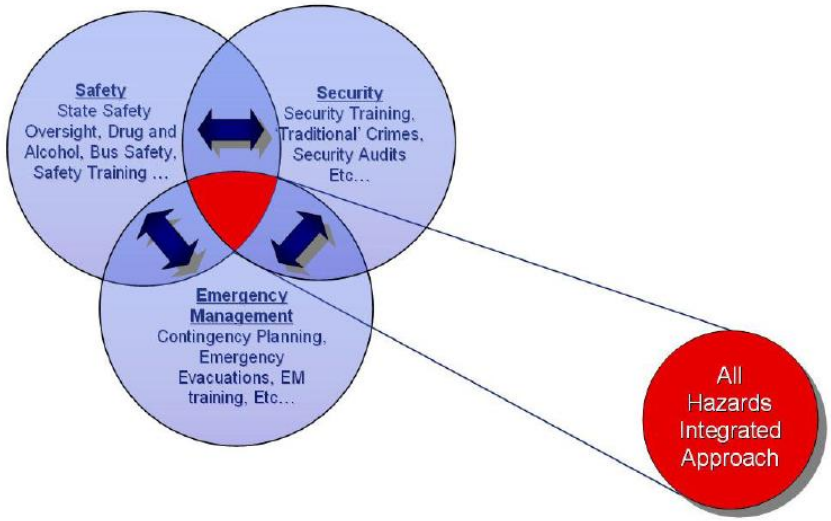
Importance of Transportation

- A Major Part of Our Economy
- A Major Part of Our Personal Finances
- Creates jobs
- An Enormous Infrastructure to Monitor and Protect

Emergency Management

- **Comprehensive Emergency Management (CEM):**

  An integrated approach to the management of emergency programs and activities for all four emergency phases (Planning, Mitigation, Response, and Recovery), for all types of emergencies and disasters (natural, man-made, and attack), and for all levels of government and the private sector.



Comprehensive Emergency Management

- A comprehensive CEM addresses all hazards through the four phases:
  - Mitigation (including prevention)
  - Preparedness
  - Response
  - Recovery
- ICS is used for response and recovery phases as well as for preparedness pre-planning activities.

Understanding Risks

Is this a risk?

Understanding Transportation Threats & Vulnerabilities

Vandalism, fare evasion & other crimes on transit

- Smuggling and cargo theft
- Attacks on passenger-carrying vehicles
  - Aircraft - Subways
  - Buses - Cruise Ships
  - Trains - Automobiles
- Attacks using transportation vehicles
- Attacks on transportation terminals and infrastructure
- Attacks on cargo shipments (hijacking, piracy)
- Attacks using cargo and mail shipments
- Attacks on transportation control and information systems and communications networks

Roles in Emergency Response

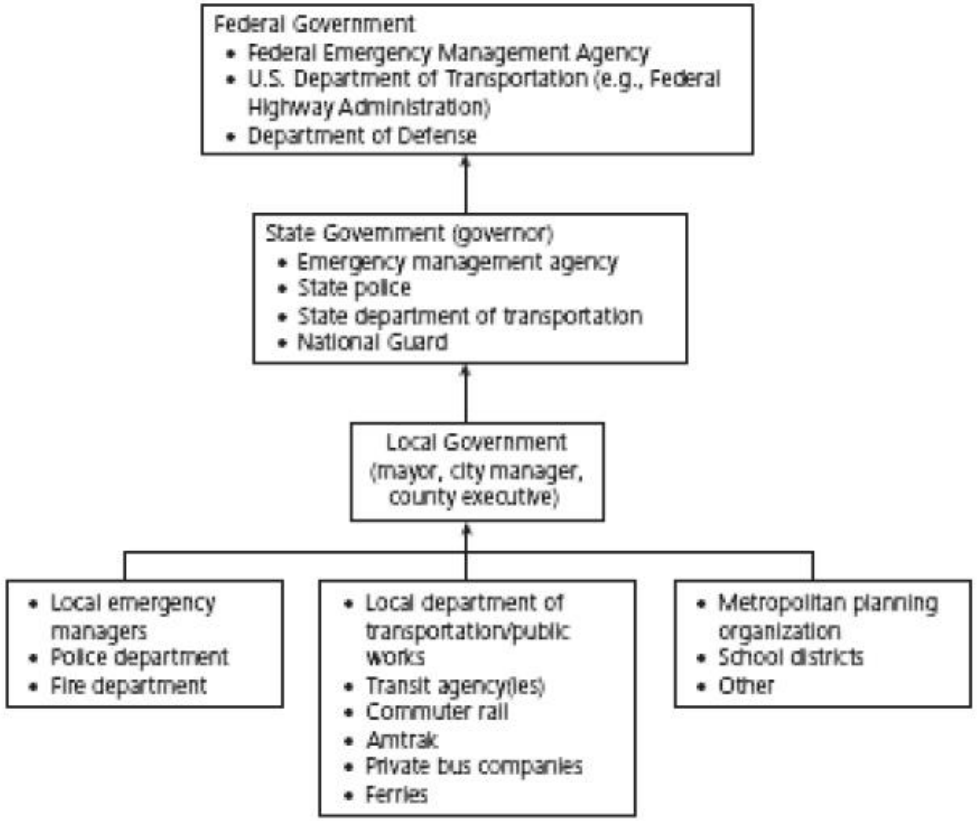


FIGURE 2-3

Bottom-up chain of responsibility for emergency management and evacuation and main responders in a major emergency.

Source: TRB SR 294, Role of Transit in Emergency Evacuations

Minnesota I-35W Bridge Collapse Case Study

Impact of I-35W Bridge Collapse

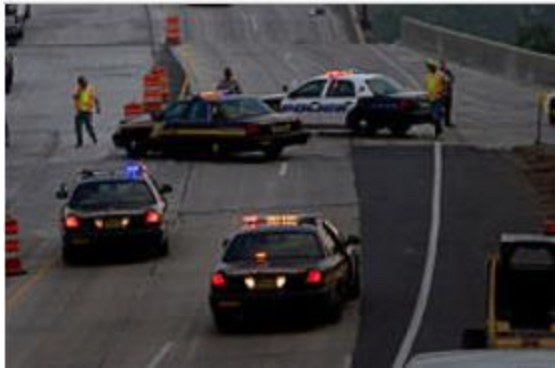
- **The collapse of the I-35W Bridge impacted:**
  - People
  - Economy
  - Environment
  - Transportation means
    - Marine
    - Rail
    - Highway
    - Bicycle and pedestrian
- **140,000 cars per day to downtown Minneapolis and University of Minnesota**
- **Estimated economic losses of $17M in 2007 and $43M in 2008**

I-35W Case Study

- How well did they respond?
- What helped their preparedness?
- How well did they recover and rebuild?
- How did technology help?
- Are they prepared for a security event?

Support From Enhanced Emergency Response System

Local Police



Media

Local Fire Rescue

US Navy Divers

MNDOT

FBI evidence team

TOC's & Emergency Management

New I-35W St. Anthony Falls Bridge:
Restored to a More Robust Level

Embedded sensors

I-35W Conclusions

Transportation Security Management Major Points – The Challenge

- Our system is multi-modal and global
- Goal of the National Transportation System is to move people and goods efficiently, and keep them moving
- It's a tough business, facing major challenges
- Safety is always the top priority and "security" is necessary to ensure "safety"
- Operators must consider other priorities, i.e. throughput, rapid restoration, customer convenience and privacy, etc.
- The transportation system can be a target or part of response
- Threats are continuously changing and now include cyber threats

Key Points

1. Regional security and EM strategies should be multimodal, multi-agency; planning, preparation, relationships and partnerships are critical
2. A risk-based approach will help prioritize security investments
3. An all-hazards approach can produce multiple benefits and maximize ROI
4. The openness of the system, the diversity of threats and the lack of completely effective mitigation measures require a layered approach
5. Federal grants are a key source of funding
6. Security strategies should integrate policies, procedures, training and technologies
7. Employee, customer and public awareness/vigilance are important
8. ITS and technologies that improve situational awareness can improve protection, response, recovery and resilience
9. Technologies should be implemented as part of an integrated enterprise architecture
10. Recovery and restoration after an incident are opportunities to improve to more robust levels

Questions

Contact Information

Sheena C. Connolly

Project Manager/Emergency Management & Homeland Security Specialist

+1(603)505-1446

sheena.connolly@openroadsconsulting.com