

MARINE TRANSPORTATION SYSTEM (MTS) RECOVERY

State of Practice & Research Needs



CG-544

Office of Port and Facility Activities



Resilience

What Does it Mean?

- Pertains to: Systems, Infrastructure, Government, Business, Individuals
- Core Characteristics:
 - Resist
 - Absorb
 - Recover from
 - Adapt to
- Applies for an adverse occurrence that may:
 - cause harm, destruction, or loss of national significance
 - Impair capacity of an organization to:
 - recognize threats and hazards
 - make adjustments that improve future protection efforts and risk reduction measures.



MTS Recovery Requirements

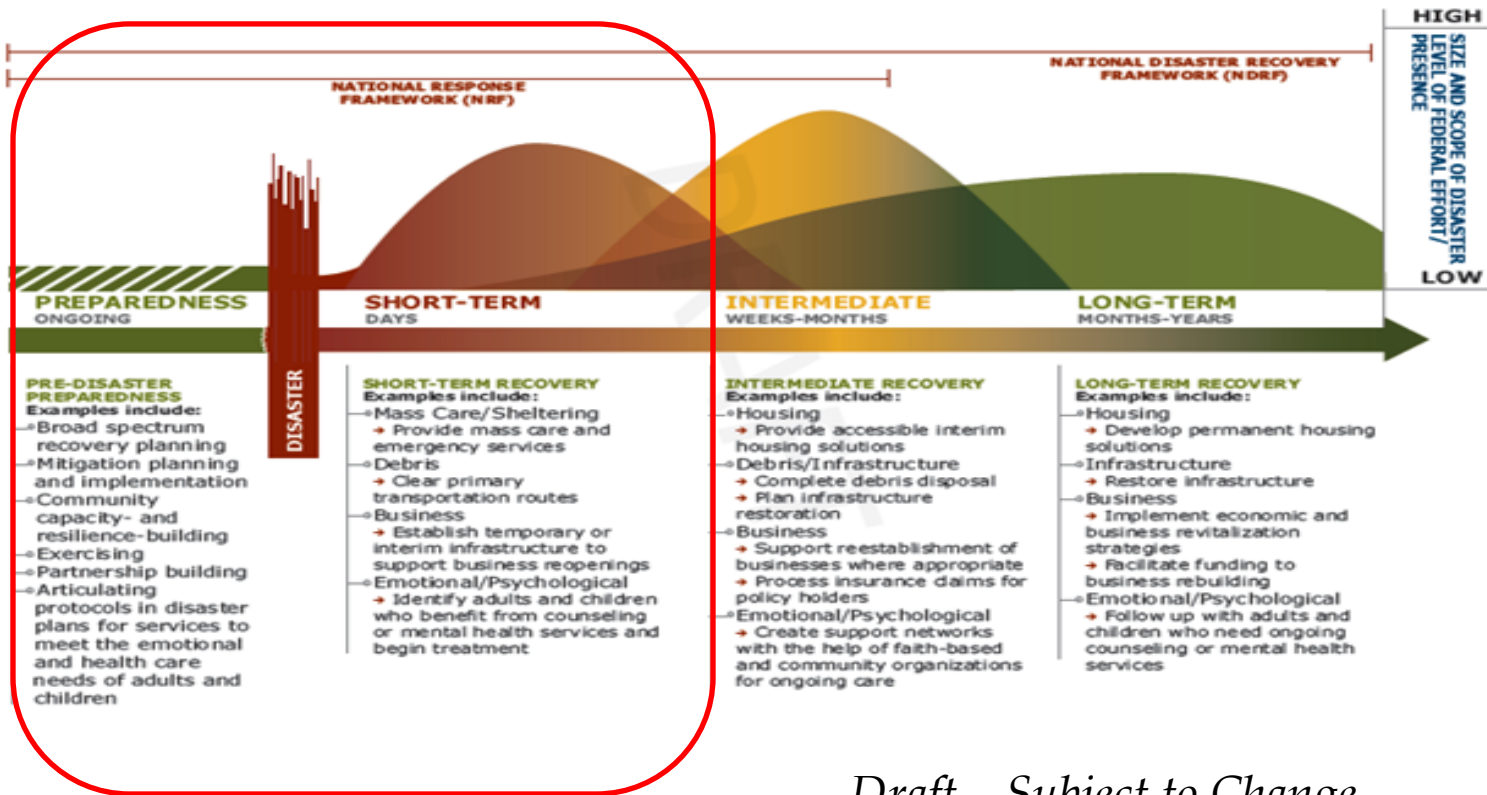
National-Level Direction & Policy

- MTSA 2002 (National and Area Maritime Transportation Security Plans)
- SAFE Port Act 2006
 - DHS Strategy to Enhance International Supply Chain Security
 - Global Supply Chain Security Plan (in progress)
 - Area Maritime Security Salvage Response Plans
 - CBP-USCG Joint Protocols for the Expeditious Resumption of Trade
- 33 CFR 103 - AMS Plans and Content (incl MTS Recovery & Salvage Response)
- National Strategy for Maritime Security
- National Infrastructure Protection Plan
 - Transportation Systems Sector-Specific Plan & Maritime Transportation Annex
- National Response Framework (Short-term recovery)
- National Disaster Recovery Framework (forthcoming)



Recovery Continuum

FIGURE 2. RECOVERY CONTINUUM – DESCRIPTION OF ACTIVITIES BY PHASE



Draft – Subject to Change

PURPOSE OF THE FRAMEWORK
1 2 3 4 5 6 7 8 9 10 11 12 13

This recovery continuum describes overlapping recovery activities by phase.

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National Disaster Recovery Framework



MTS Recovery Preparedness

Always Ready Begins Pre-Incident



Pre-Incident

Natural or
Man-Made Disaster



Maritime Security
Incident

Establishing MTS Resilience

At Each Link in the Chain

- Knowledge
 - Understanding Systems, Functions, and Interdependencies
 - Understanding Roles, Responsibilities and Authorities
 - Understanding Process and Structures
- Designing/ Building Resilient Structures & Capabilities
 - Infrastructure, Equipment, Hardware
 - System Functionality
 - Plans, Procedures, Relationships
 - Resources
 - Emergency Capability
 - Reserve Capacity
 - Restore/Rebuild Capability
- Tests/Rehearsals/ After-Action Measures



MTS Recovery

Understanding the System

- COMDTINST 16000.28 (Recovery of the Marine Transportation System for the Resumption of Commerce)
 - Marine Transportation System Recovery Units (MTSRU)
 - Essential Elements of Information (EEI)
 - Documentation and Reporting



MTS Recovery Preparedness

Understanding the System

Essential Elements of Information (EEI)

Aids to Navigation	High Capacity Passenger Vessels/Ferries
Deep Draft Channels	Small Passenger Vessels
Non-Deep Draft Channels	Gaming Vessels
Locks	Barge Traffic
Vessel Salvage/Wreck Removal	Barge Fleeting Areas
Oil Pollution Incidents	Offshore Platforms
Hazardous Materials Incidents	Offshore Platforms (Top 100 Producers)
Bridges	Offshore Production
Bulk Liquid Facilities	Offshore Renewable Energy Installations
Container Cargo Facilities	Mobile Offshore Drilling Units
Vessels in queue	Monitoring Systems
Non-Containerized Cargo Facilities	Shipyards



MTS Recovery Preparedness

Understanding Roles, Responsibilities, & Authorities

- **Roles**

- Federal
- State
- Local
- Tribal
- Territorial
- Non-Governmental Organization
- Industry
- Individual

- **Responsibilities**

- Institutional and Organizational
- Shared

- **Authorities**

- Statutory
- Regulatory
- Directives
- Other



MTS Recovery Preparedness

Understanding Process & Structures

- **Pre-Incident**
 - Planning/Preparedness
 - Deterrence/Prevention (Safety & Anti-Terrorism)
 - Protection
- **Response**
 - Mobilize for recovery
- **Post-Incident MTS Recovery** (*Short-term: +/- 90 days*)
 - System stabilization
 - Facilitate partial recovery of functions
 - Maintain marine safety and maritime security
(deterrence/prevention/anti-terrorism activities)
- **Long-term Community Recovery**
 - Support transition from short-term to long-term recovery
 - Operations informed by long-term recovery issues
 - Rebuild



MTS Recovery Preparedness Planning

Port Area Mitigation and Recovery Plans

- **Environmental Response** - Area Contingency Plans
- **Maritime Security** - AMS Plan
 - Plan Content per 33 CFR 103
 - Planning Guidance per NVIC 16601.28
 - AMS Assessment
 - Description & Characterization of AMS Area
 - MTS Recovery Procedures
 - AMS Salvage Response Plan
- **MTS Recovery** - All-Hazard MTS Recovery Procedures / Plan
 - Planning Guidance per NVIC 16000.28
 - Essential elements of Information
 - Marine Transportation System Recovery Units
- **Port Resiliency Plans**
 - Port Security Grant planning products



MTS Recovery Preparedness

Documentation and Reporting

Common Assessment Reporting Tool (CART)

- Database Repository for MTS Baseline Data (Essential Elements of Information - EEI)
- Incident-Specific Files (Actual Events, Exercises)
- Generate Reports & Trend Lines
- Storage for Past Incident Documentation



MTS Recovery Preparedness

Port Security Grants to Stakeholders

- PS Grants Support Area Maritime Security
- Funding Potential for Stakeholder Improvement of Resiliency



MTS Recovery Preparedness

Learning from Experience



2004: 911 Terrorist Attack



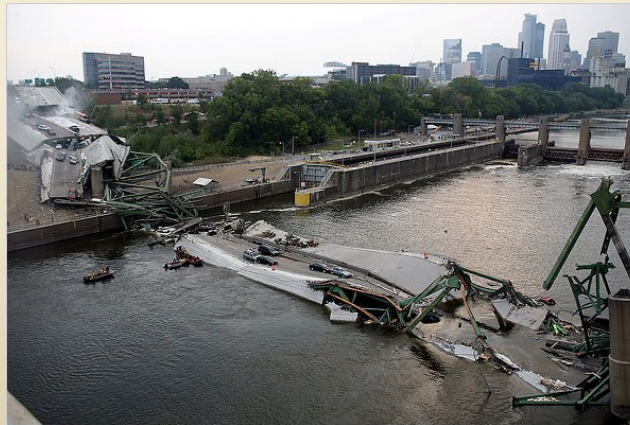
2005: Hurricane Katrina



2006: Lake Charles Oil Spill



2006: Cook Inlet Grounding



2007: I-35 Collapse



2010: BP Oil Spill



Potential for Large-Scale Transportation & Associated Supply Chain Disruptions



MTS Recovery Preparedness

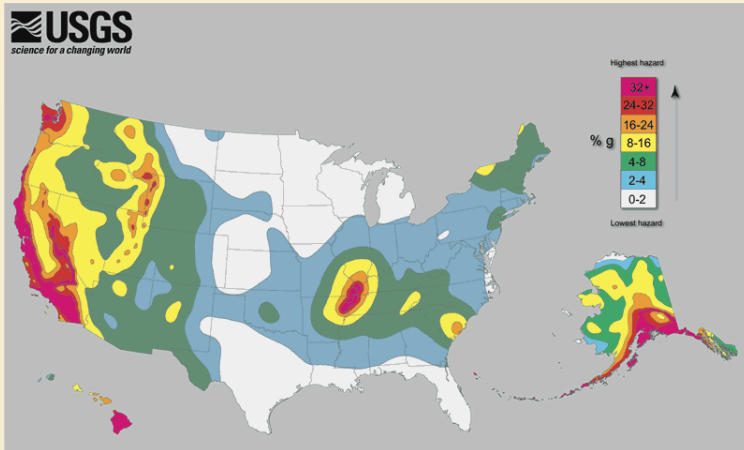
Learning from Exercises



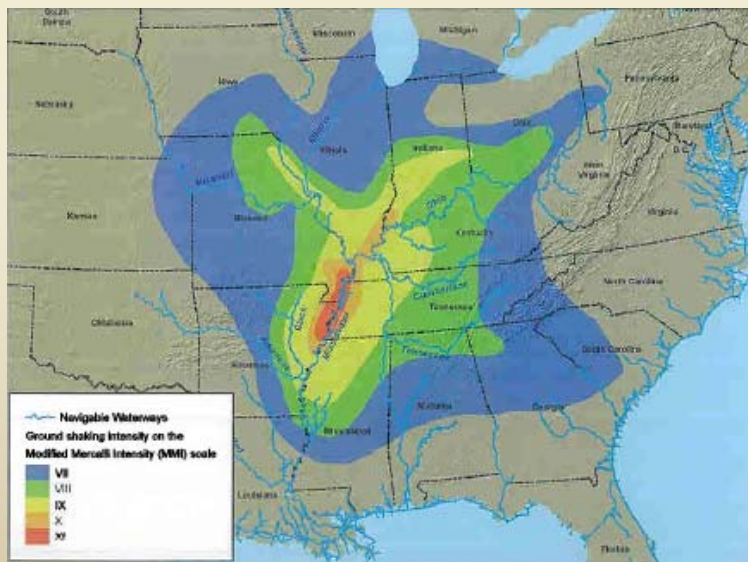
SONS 07 - MTS RU - St. Louis Venue
Coast Guard staff & Marine Industry subject matter experts

New Madrid Seismic Zone (NMSZ)

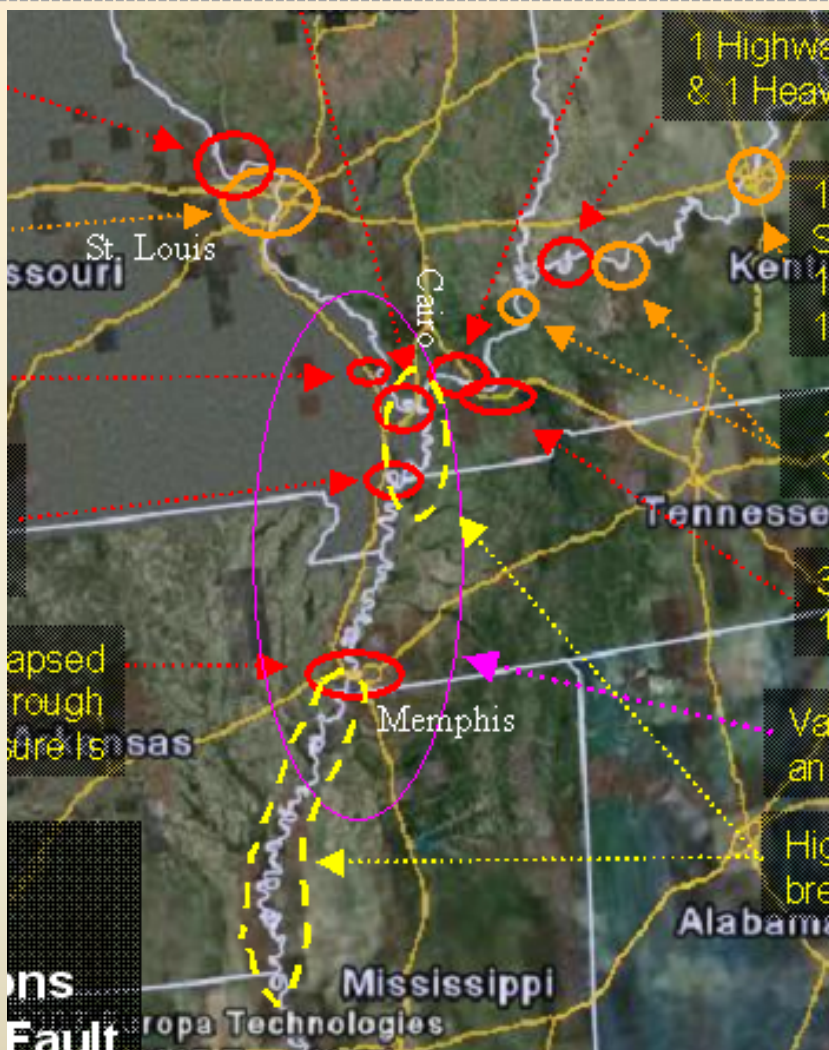
Western Rivers MTS Recovery



- NMSZ historically active
- Three 8.0+/- earthquakes in 2 months (1811-1812)
- 6.3 earthquake (1843) - AR
- 6.6 earthquake (1895) - MS
- NMSZ underlies Western Rivers system



Waterways Management Recovery Issues - Working List



SONS 07

New Madrid

Earthquake Damage Scenario

- Reconstitution
 - Operating Resources and Capabilities
 - Labor
- **Operational Continuity & Business Continuity**
- Communications
- Force Protection/Recovery Resource Security
- Damage ID, Surveys, Assessments
 - Channels
 - Locks and Dams
 - Bridges
 - Aids to Navigation
 - Fleeting Areas
 - Facilities
 - Levees
 - Maritime Critical Infrastructure
 - Other CI/KR
- Breakaways
- Salvage Response
 - Obstructions to Navigation
 - Marine Debris
- **Supply Chain Disruption**
 - Logistic and Supply
 - Commerce
- **Economic Effects (“functional”)**
- Port/Area Maritime Security
- **Supporting Infrastructure** (e.g., electrical service)
- Repair and Construction Criteria
- _____?

Institutional, Infrastructure & Supply Chain Issues

- Operational & Business Continuity
- Post-Incident Changes to CIKR Risk Profiles
- Multiple Jurisdictions Affected
- Structural Non-alignment for Incident Management
 - Institutional Jurisdictions
 - Geographic Boundaries
 - Functional Systems Crossing Jurisdictions and Boundaries
- Supply Chain Intermodal & CIKR Dependencies & Interdependencies
- Transportation & Associated Economic Disruptions – Local, Regional, National, International
- Competing Demands for Available Resources



All-Hazard Incident Management

Disaster Strikes



MTS Recovery

The Future

- Improve Resumption of Trade Protocols:
 - Develop Labor Support Group
- Improve Short-term Recovery Plans and Procedures
- Improve Short-term Recovery Capabilities:
 - Identify Core and Specialty Professional Competencies and Training Needs
 - Provide for Professional Development of MTS Recovery Cadre
 - Identify, Disseminate, Institutionalize Best Practices
- **Improve Understanding of CIKR Infrastructure & Supply Chain:**
 - Dependencies
 - Interdependencies
- **Develop Economic Values Pre-incident**
- Improve Tools and Job Aids

