

## MARINE TRANSPORTATION SYSTEM (MTS)

# Resiliency & Maritime Security Preparedness Planning



Wayne Young, Domestic Ports Division  
Office of Port and Facility Activities (CG-544)



## Resilience

### *What Does it Mean?*

- Pertains to: Systems, Infrastructure, Government, Business, Individuals
- Core Characteristics:
  - Resist
  - Absorb (including response)
  - 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 Security Requirements

### *National-Level Requirements, Direction & Policy*

- Magnuson Act of 1950/E.O. 10173, as amended/33 CFR 6
- Ports and Waterways Safety Act of 1972, as amended
- MTSA 2002
- SAFE Port Act 2006
- Various Executive Directives
- Implementing Regulations
- National Strategy for Maritime Security
- National Infrastructure Protection Plan
  - Transportation Systems Sector-Specific Plan / Maritime Transportation Annex
- National Response Framework
- *National Disaster Recovery Framework (forthcoming)*

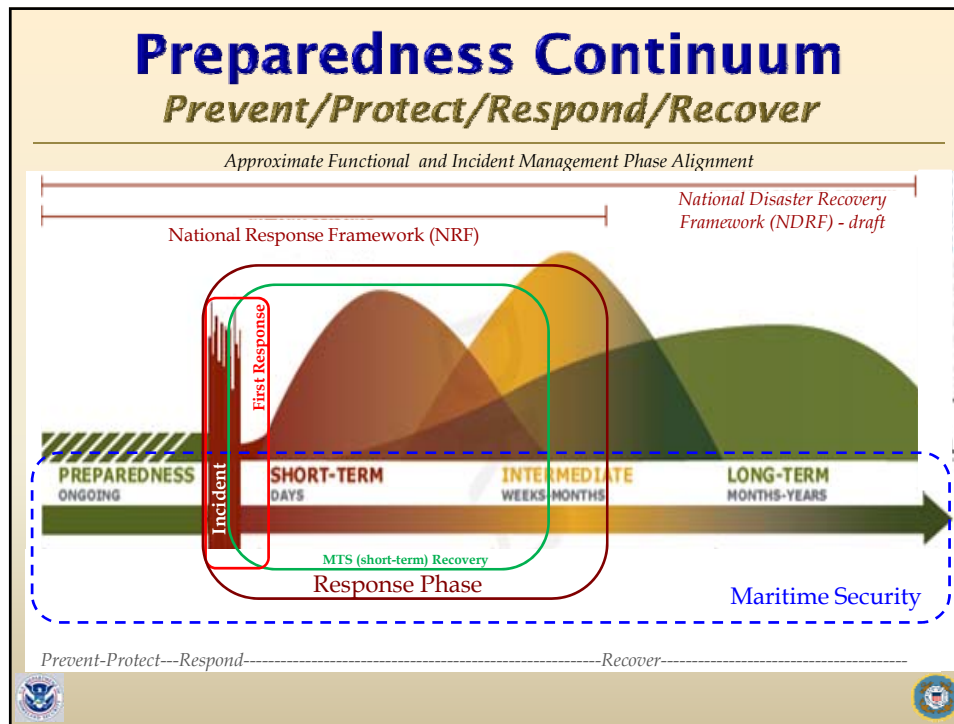


## MTS Security Requirements

### *Coast Guard Implementation*

- COMDTINST 16601.28 (Area Maritime Security Process)
- COMDTINST 16000.28 (Recovery of the Marine Transportation System for the Resumption of Commerce)
- Navigation and Vessel Inspection Circular 9-02 (Ch 3)





## Establishing MTS Resilience

### *At Each Link in the Chain*

- **Knowledge**
  - Understanding Systems, Functions, and Interdependencies
  - Understanding Roles, Responsibilities, Authorities, Capabilities
  - 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 Preparedness

### *Understanding the System*

#### Planning Considerations (Partial)

- **MTS Critical Infrastructure and Key Resources**
- **Supply Chain/Intermodal/CIKR**
  - Priorities
  - Dependencies & Interdependencies
  - MTS Infrastructure Linkages
- **Economic Risk**
- **Operational & Business Continuity Issues**



## MTS 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 Preparedness

### *Understanding the System – Economic Risk*

#### THE CHALLENGE

- **Substantial High Interest Issue**
  - Information Requests may Precede Information Availability
- **Response Phase Economic Assessment Relies on:**
  - Availability of Economic & Business Continuity Information
  - Supporting Specialized Expertise & Assessments
- **Economic Dollar Value Difficult to Correlate with:**
  - Tactical Response & Short-term Recovery Needs
  - Supply Chain Priorities, Dependencies & Interdependencies
  - Local Operating Conditions Affecting MTS Functionality



## MTS Preparedness

### *Understanding the System – Economic Risk*

#### THE PRACTICAL APPROACH

- **Develop Baseline Economic Information Pre-Incident**
- **Correlate MTS and Economic Functional Relationships**
  - Trade Patterns & Cargo Stream Criticality and Priorities (as known)
  - Local and Intermodal Operating Conditions & Priorities
  - Response & Restoration Needs, Priorities, & Activities



## MTS Preparedness

### *Understanding Roles, Responsibilities, & Authorities and Capabilities*

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• <b>Roles</b> <ul style="list-style-type: none"> <li>○ Federal</li> <li>○ State</li> <li>○ Local</li> <li>○ Tribal</li> <li>○ Territorial</li> <li>○ Non-Governmental Organization</li> <li>○ Industry</li> <li>○ Individual</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• <b>Responsibilities</b> <ul style="list-style-type: none"> <li>○ Institutional and Organizational</li> <li>○ Shared</li> </ul> </li> <li>• <b>Authorities</b> <ul style="list-style-type: none"> <li>○ Statutory</li> <li>○ Regulatory</li> <li>○ Directives</li> <li>○ Other</li> </ul> </li> <li>• <b>Capabilities</b></li> </ul> |
|---|--|



## MTS Preparedness

### *Understanding Roles, Responsibilities, & Authorities and Capabilities*

- Area Committee
- Area Maritime Security Committee
- Port Readiness Committee
- Harbor Safety Committees
- Other Port-Level Groups
  - Advisory
  - Coordination



## MTS Preparedness

### *Understanding Process & Structures*

- National Strategies and Plans
- National Incident Management System (NIMS)
- National Response Framework (NRF)
- *National Disaster Recovery Framework (NDRF – in draft)*
- **Structural Alignment for Incident Management**
  - Institutional Jurisdictions
  - Geographic Boundaries
  - Functional Systems Crossing Jurisdictions and Boundaries





## MTS Preparedness

### *Understanding Process & Structures*

---

- **Pre-Incident Preparedness**
  - Working relationships, Communications, Coordination
  - Planning/Readiness
  - Deterrence/Prevention (Safety & Anti-Terrorism)
  - Protection
- **Alerts and Warnings**
- **Response**
  - First response & follow-up response activities
  - Mobilization for recovery
  - System stabilization
- **Post-Incident MTS Recovery** (*Short-term: +/- 90 days*)
  - Facilitation of partial recovery of functions
  - Maintenance of marine safety and maritime security (deterrence/prevention/anti-terrorism activities)
- **Long-term Community Recovery**
  - Support for transition from short-term to long-term recovery
  - Operations informed by long-term recovery issues
  - Rebuild

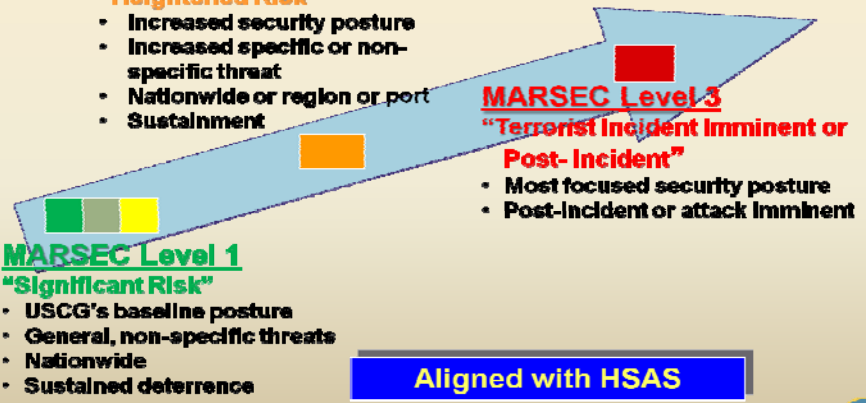



## MTS Preparedness

### *Understanding Process & Structures*

---

### Maritime Security Levels



**MARSEC Level 2**  
"Heightened Risk"

- Increased security posture
- Increased specific or non-specific threat
- Nationwide or region or port
- Sustainment



**MARSEC Level 3**  
"Terrorist Incident Imminent or Post-Incident"

- Most focused security posture
- Post-Incident or attack imminent

**MARSEC Level 1**  
"Significant Risk"

- USCG's baseline posture
- General, non-specific threats
- Nationwide
- Sustained deterrence

Aligned with HSAS



## **MTS Preparedness**

### ***Understanding Process & Structures***

Port Area Response, Mitigation & Recovery Plans and Operation Orders

- **Environmental Response**
  - Area Contingency Plans (ACP) (*community-based*)
- **Maritime Security**
  - Operation Neptune Shield (ONS) (*Coast Guard*)
  - Area Maritime Security Plan (AMSP) (*community-based*)
  - Port Readiness Plan (for strategic ports) (*community-based*)
- **Local Emergency Response Plans**
- **MTS Recovery**
  - All-Hazard MTS Recovery Procedures/Plan (*community-based*)
  - AMS Salvage Response Plan (*community-based*)



## **MTS Recovery Preparedness**

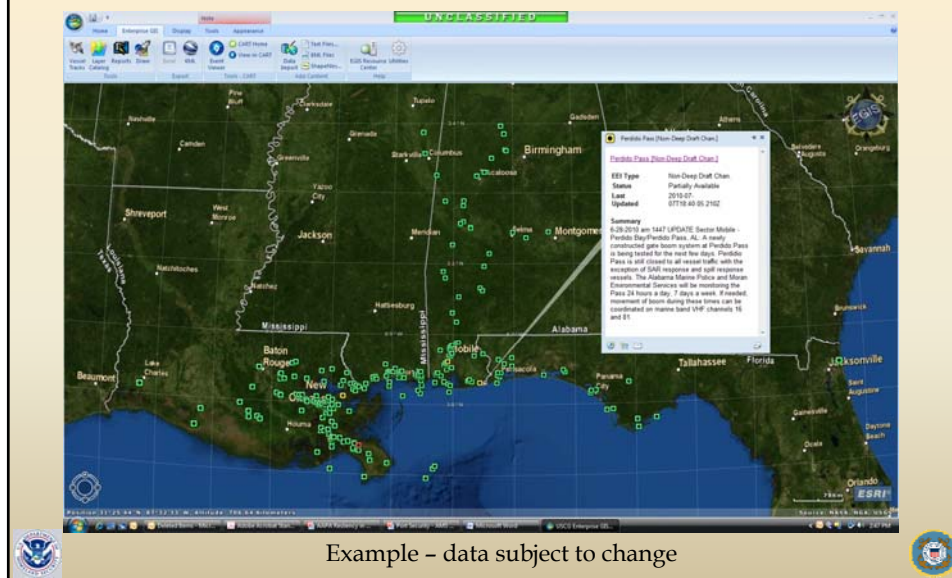
### ***Documentation and Reporting***

#### **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

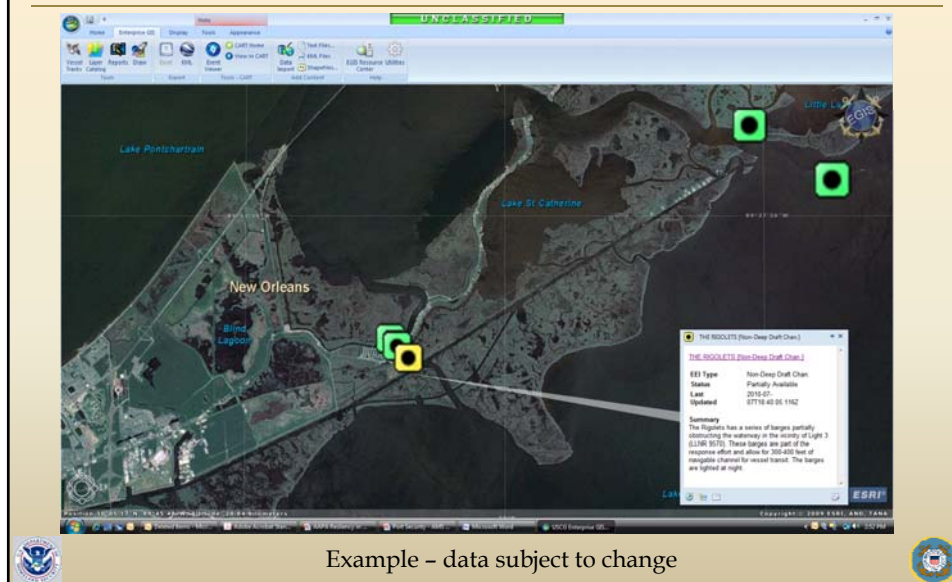


## MTS Recovery Preparedness Documentation and Reporting



Example – data subject to change

## MTS Recovery Preparedness Documentation and Reporting



Example – data subject to change

## MTS Recovery Preparedness *Documentation and Reporting*

### Tracking Vessel Decon Stations and Status



## MTS Recovery Preparedness *Documentation and Reporting*



Data as of 7-13-10: Number, location and status subject to change



## MTS Preparedness

### *Learning from Experience*



2001: 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 Preparedness

### *Learning from Exercises*

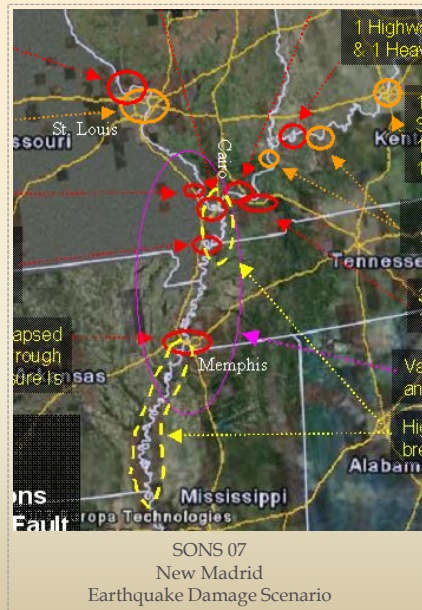


SONS 07 - MTS RU - St. Louis Venue  
Coast Guard staff & Marine Industry subject matter experts





### Waterways Management Recovery Issues - Working List



- 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
- \_\_\_\_\_?

## MTS Preparedness

### Port Security Grants

- Federal Funding Opportunities
  - Stakeholder Area Maritime Security
    - Preparedness
    - Capabilities
  - Port Stakeholder Resiliency
    - Port Resiliency Plans
    - Resiliency Improvements



## All-Hazard Incident Management *Response Phase Contingency Planning*



- **Incident Management**
  - Structures
  - Staffing
  - Communications
- **Alerts and Warning**
- **Response**
  - First Response
  - Plan Implementation Process
  - Damage & Transportation Disruption Assessments
  - MTS Recovery Unit (MTSRU) Activation
- **System Stabilization**
- **Recovery Facilitation**
- **Continuation of Prevention and Protection**
  - Marine Safety
  - Maritime Security (Anti-terrorism)



## MARINE TRANSPORTATION SYSTEM (MTS)

# All-Hazard Response Planning Issues



## All-Hazard Incident Management

### *First (Emergency) Response*

#### Notice

- Alerts and Warnings
- Unified Command
- Begin Mobilization & Prepositioning of Surge Assets Response and MTS Recovery Assets
- Situation & Preliminary Risk Assessment
- Reconstitution?
- Initiate First Response w/Steady-State Assets

#### No Notice

- Situation & Preliminary Risk Assessment
- Reconstitution?
- Alerts & Warnings
- Unified Command
- Initiate First Response or "Position" Steady-State Assets for First Response Consistent with Risk
- Begin Mobilization of Surge Response and MTS Recovery Assets



## All-Hazard Incident Management

### *Response Operations*

#### Natural or Man-Made Disaster

- **Risk Assessment**
  - Active or Secondary Threat?
  - Areas/Populations at Risk?
- **Operational Response**
  - Continue First Response by Steady-State Assets Supplemented by Surge Assets
  - Port Evacuation / Shelter-in-Place?
  - Vessel Damage Control
  - Vessel Breakaway Response
  - Marine Firefighting
  - Environmental Response
  - Marine Salvage Response
  - Law Enforcement (incl investigation, preservation of evidence)
  - Force & Resource Protection
- **Implement MTS Recovery Activities**



#### Maritime Security Incident

- **Risk Assessment**
  - Active or Secondary Threat?
  - Areas/Populations at Risk?
- **Operational Response**
  - **Counter-terrorism Operations?**
  - Force & Resource Protection
  - Law Enforcement (incl investigation, preservation of evidence)
  - Port Evacuation / Shelter-in-Place?
  - Continue or Directed First Response by Steady-State Assets Supplemented by Surge Assets
  - Vessel Damage Control
  - Marine Firefighting
  - Environmental Response
  - Marine Salvage Response
  - **Intelligence Analysis & Assessment**
- **Implement MTS Recovery Activities**



## All-Hazard Incident Management

### *MTS Recovery Planning and Implementation*

- Supplement MTS RU Planning & Technical Capability
- Plan Short-term Recovery of Partial Functionality
- Coordinate Salvage Response



## All-Hazard Incident Management

### *System Stabilization*

#### Balance Response, Recovery, Safety & Security Needs and Requirements

##### Natural or Man-Made Disaster    Maritime Security Incident

- |                                    |                                    |
|------------------------------------|------------------------------------|
| • Prevention: Marine & Port Safety | • Prevention: Anti-terrorism       |
| • Vessel Traffic Management        | • Prevention: Marine & Port Safety |
| • Prevention: Anti-terrorism       | • Vessel Traffic Management        |



*Applies Inside and Outside Incident Area(s)*





## All-Hazard Incident Management

### *Accessibility*



- Enable/Provide Legitimate Access
  - News Media
  - Recovery Workers
  - Surge & Replacement Maritime Labor
  - Contractors
  - Others



## All-Hazard Incident Management

### *Disaster Strikes*

