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**United States Government Accountability Office**
**Washington, DC 20548**

April 6, 2012

The Honorable John D. Rockefeller, IV
Chairman
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable John L. Mica
Chairman
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Frank A. LoBiondo
Chairman, Subcommittee on Coast Guard and Maritime Transportation
Committee on Transportation and Infrastructure
House of Representatives

Subject: *Maritime Security: Coast Guard Efforts to Address Port Recovery and Salvage Response*

According to the Department of Homeland Security (DHS), ports, waterways, and vessels are part of an economic engine handling more than $700 billion in merchandise annually, and a major disruption to this system could have a widespread impact on global shipping, international trade, and the global economy. As the lead federal agency for the Marine Transportation System (MTS), the U.S. Coast Guard is responsible for facilitating the recovery of the MTS following a significant transportation disruption, such as a security incident or natural disaster, and working with maritime stakeholders for the expeditious resumption of trade.[1] Area Maritime Security (AMS) Plans, which are developed by the Coast Guard with input from applicable governmental and private entities, serve as the primary means to identify and coordinate Coast Guard procedures related to prevention, protection, and security response, as well as facilitation of MTS recovery. In the aftermath of Hurricane Katrina, the Coast Guard conducted efforts to identify additional recovery-related elements and incorporate them within its AMS Plans to help ensure a consistent approach to MTS recovery and trade resumption. In addition, the Security and Accountability for Every Port Act of 2006 (SAFE Port Act) required that AMS Plans include a Salvage Response Plan to ensure that waterways are cleared and port commerce is reestablished as efficiently and quickly as possible following a transportation security incident (TSI), among other things.[2] These additional recovery and salvage elements were to be included within the

[1] The MTS is a network of maritime operations interfacing with shoreside operations at intermodal connections and is part of global supply chains or domestic commercial operations. The various operations within the MTS network have components that include vessels; port facilities; waterways and waterway infrastructure; railroads; bridges; highways; tunnels; intermodal physical, cyber, and human connections; and users.
[2] Pub. L. No. 109-347, § 101, 120 Stat. 1184, 1187-88 (2006) (codified at 46 U.S.C. § 70103(b)(2)(G)). A TSI is a security incident resulting in a significant loss of life, environmental damage, transportation system disruption, or economic disruption in a particular area. 46 U.S.C. § 70101(6).

2009 updates of the AMS Plans. Further, the Coast Guard Authorization Act of 2010 called for AMS Plans to establish response and recovery protocols to prepare for, respond to, mitigate against, and recover from a TSI.[3] To facilitate these updates, the Coast Guard revised available planning guidance, which includes a template for use in developing applicable recovery and salvage response content.

Given the importance of ensuring that the Coast Guard has incorporated these recovery-related elements as directed, you asked us to determine the extent to which the Coast Guard has revised AMS plans to facilitate recovery of the MTS as called for by legislation and Coast Guard guidance. In addition, as discussed with your offices, we are also continuing to assess the extent to which federal entities are working with maritime stakeholders to enhance the resiliency of port-related infrastructure. We anticipate reporting the results of this work in the summer of 2012.

To address our audit objective for this report, we reviewed the seven Coast Guard AMS Plans for the DHS-designated Group I port areas—those determined to be the highest risk—to assess whether they included provisions regarding recovery and salvage as required by law.[4] Further, we compared the recovery and salvage sections of those plans with guidance and criteria issued by Coast Guard headquarters to determine the extent to which this guidance was reflected in the AMS Plans. We selected these locations because their status as Group I port areas heightens the likelihood of a TSI and importance of planning for recovery of the MTS after a transportation disruption.[5] We also obtained additional information regarding the Coast Guard's plan review and approval process to determine the extent to which all AMS plans were reported to include applicable recovery and salvage response components.[6] To determine the key recovery-related elements for summarizing our plan review, we reviewed available Coast Guard planning guidance and applicable Commandant Instructions for discussion of principal recovery entities and operational processes.[7] Our characterization of these elements was further corroborated through interviews with Coast Guard headquarters officials.

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[3] Pub. L No. 111-281, § 826, 124 Stat. 2905, 3004 (2010) (codified at 46 U.S.C. § 70103(b)(2)(E)). The plans are to be consistent with the National Maritime Transportation Security Plan and the protocols for the resumption of trade required by the SAFE Port Act.

[4] To promote a regional approach to port security, DHS aggregates individual ports into "port areas" for grant funding purposes. DHS determines the level of risk faced by U.S. port areas and then assigns those port areas to one of three groups based on that risk. There are seven Group I port areas in the United States—Delaware Bay (which includes Philadelphia, Pennsylvania; Trenton, New Jersey; Wilmington, Delaware; and other ports in the region); Houston-Galveston, Texas; Los Angeles-Long Beach, California; New Orleans, Louisiana (which includes Baton Rouge and other ports); New York, New York and New Jersey; Puget Sound (which includes Seattle, Olympia, Tacoma, and other ports in Washington); and San Francisco Bay, California (which also includes Oakland and other ports in California).

[5] The term ''transportation disruption'' indicates any significant delay, interruption, or stoppage in the flow of trade caused by a natural disaster, heightened threat level, an act of terrorism, as well as any TSI. 6 U.S.C § 901(16).

[6] AMS Plans are developed for each of the 43 individual Captain of the Port zones—specific port areas geographically defined in 33 C.F.R. part 3. The Captain of the Port is the Coast Guard officer designated by the Coast Guard Commandant to enforce, within his or her respective area, port safety, security, and maritime environmental protection regulations, including, without limitation, regulations for the protection and security of vessels, harbors, and waterfront facilities. These port zones generally correspond to the 35 Coast Guard Sectors (field-based operational units responsible for executing the agency's missions within their areas of responsibility). However, separate AMS plans have also been developed for six Marine Safety Units—which represent distinct areas (zones) within those sectors—as well as the Gulf of Mexico, and the Commonwealth of the Northern Mariana Islands.

[7] Coast Guard, Commandant Instruction 16000.28, *Recovery of the Marine Transportation System for Resumption of Commerce (*Feb. 18, 2008); Navigation and Vessel Inspection Circular 09-02, Change 3, *Guidelines for Development of Area Maritime Security Committees and Area Maritime Security Plans Required for U.S. Ports* (Apr. 29, 2008); and Commandant Instruction 16601.28, *Area Maritime Security Plan Development*

We supplemented our plan review by conducting interviews with Coast Guard officials from each of the seven sectors responsible for the Group I port areas to discuss their process for developing and updating AMS Plans, as well as coordination of recovery planning with industry stakeholders. We also interviewed additional maritime stakeholders (e.g., port officials, vessel and facility operators, and marine exchanges) in two selected Group I ports to determine their roles in working with the Coast Guard to plan for recovery of the MTS following a transportation disruption. We selected these two ports, in part, because they represent varied coastal environments and waterways, a range of potential natural disasters, and are overseen by two different Coast Guard command entities. Though these stakeholders' views do not represent all key maritime stakeholders in these or other ports, they provide valuable insights into collaborative port recovery efforts.

We conducted this performance audit from August 2011 to April 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

## Results in Brief

Each of the seven Coast Guard AMS Plans that we reviewed has incorporated key recovery and salvage response planning elements as called for by legislation and Coast Guard guidance. Using a template provided by Coast Guard headquarters to help guide AMS Plan development, each AMS Plan included an applicable section addressing procedures to facilitate recovery of the MTS following a TSI. While some variation exists regarding the level of detail provided and the inclusion of additional recovery-related appendices, each of the seven plans identified key recovery components and applicable operational processes as called for by Coast Guard guidance documents. These components include procedures for establishing a Marine Transportation System Recovery Unit (MTSRU) to work with stakeholders and provide guidance to the Incident Command;[8] procedures for gathering and updating Essential Elements of Information (EEIs) to provide status updates on key port assets and operations; and identification of general recovery priorities to help guide decision making. In addition, each AMS Plan also included a Salvage Response Plan to provide a coordination framework for salvage activities and identify available equipment and other resources that may be necessary to support the clearing of waterways to enable resumption of port commerce. Although our plan review was limited to seven high-risk port areas, the Coast Guard provided documentation indicating that all 43 AMS Plans have been approved as meeting all applicable content requirements, including recovery and salvage response elements.

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*Process* (Apr. 29, 2008). According to headquarters officials, the Coast Guard is in the process of updating policy directives and guidance to align with the evolution of national recovery and resiliency policy. These revisions are expected to be completed within the year; however, officials do not expect this policy alignment to necessitate significant changes in the MTS recovery regime at the field level.

[8] The Incident Command System is a standardized, all-hazards, incident management approach used at all levels of government to help ensure a coordinated response among various jurisdictions and functional agencies, both public and private. The Coast Guard Captain of the Port would normally serve as the Incident Commander during a localized port incident within his/her area of responsibility.

## Background

### Legal Framework

Much of today's current port security framework was set in place by the Maritime Transportation Security Act (MTSA) of 2002.[9] Among other requirements, MTSA directed the Coast Guard to develop Area Maritime Security Plans—to be updated every 5 years—for ports throughout the nation.[10] These plans are to, among other things, describe the area and infrastructure covered by the plan and how the plan is integrated with other area maritime security plans.[11] MTSA also called for development of the National Maritime Transportation Security Plan that included procedures for restoration of domestic cargo flow following a TSI.

The importance of recovery planning was reiterated in Homeland Security Presidential Directive-13, which called for the development of a National Strategy for Maritime Security to include a Maritime Infrastructure Recovery Plan (MIRP). In response to this directive, DHS released the MIRP—one of eight implementation plans designed to support the National Strategy for Maritime Security—in April 2006 to establish a comprehensive approach for recovery from a TSI.[12] The MIRP contains recommendations for MTS recovery management and provides mechanisms for national, regional, and local decision makers to set priorities for redirecting commerce, a primary means of restoring domestic cargo flow. Among other things, the MIRP also provided guidance to inform the development of recovery aspects of Coast Guard AMS Plans.

The nation's port security framework was further refined through the enactment of the SAFE Port Act in October 2006.[13] The SAFE Port Act created and codified certain port security programs and initiatives, and amended some of the original provisions of MTSA. In the area of Coast Guard port recovery planning efforts, the SAFE Port act required the development of protocols for resumption of trade following a TSI,[14] as well as Salvage Response Plans to be developed and incorporated within AMS plans.[15] These Salvage Response Plans are to identify salvage equipment capable of restoring operational trade capacity, and to ensure that waterways are cleared and the flow of commerce through U.S. ports is reestablished as efficiently and quickly as possible after a maritime TSI. The Coast Guard Authorization Act of 2010 further reinforced the need for recovery planning and required AMS Plans to establish response and recovery protocols to prepare for, respond to, mitigate against, and recover from a TSI.[16] (See encl. I for a summary timeline of key legislative provisions and Coast Guard documents developed to address recovery of the MTS).

### AMS Plans and Committees

In response to legislative requirements and applicable DHS guidance, the Coast Guard—in partnership with maritime stakeholders—has prepared AMS Plans for each of its 43

[9] Pub. L. No. 107-295, 116 Stat. 2064 (2002).
[10] 46 U.S.C. § 70103(b).
[11] 46 U.S.C. § 70103(b)(2)(B), (C).
[12] The National Strategy for Maritime Security and its eight underlying plans were developed to meet the requirements set forth in HSPD-13 as well as the National Maritime Transportation Security Plan called for in MTSA. See 46 U.S.C. § 70103(a).
[13] Pub. L. No. 109-347, 120 Stat. 1884 (2006).
[14] 6 U.S.C. § 942.
[15] 46 U.S.C. § 70103(b)(2)(G).
[16] 46 U.S.C. § 70103(b)(2)(E). The plans are to be consistent with the National Maritime Transportation Security Plan and the protocols for the resumption of trade required by the SAFE Port Act.

designated Captain of the Port zones.[17] Coast Guard guidance states that AMS Plans provide "coordinated security measures and procedures to deter and/or respond to TSIs and other security events." They are also to serve as coordinating plans for joint deterrence within the AMS community and provide linkages to other emergency response plans. As of April 2008, AMS Plans are also to provide for facilitation of the recovery of the MTS from TSIs, and must include a salvage response component. To assist field staff in preparing and maintaining their individual AMS Plans, Coast Guard headquarters developed a plan template to promote standardization between plans and help ensure that required sections can be easily located. All AMS Plans are subject to review and approval through the Coast Guard chain of command, which includes verification of plan content requirements using a detailed checklist. Coast Guard guidance denotes that the template is intended to ensure that AMS Plans meet all MTSA and SAFE Port Act requirements. However, the guidance allows for individual plan variation and discretionary use of appendices to address the unique characteristics of each Captain of the Port zone, as well as the development of more specific information outside the scope of the AMS Plan.

In addition to the AMS Plans, each Captain of the Port is responsible for establishing and maintaining an AMS Committee that is to advise on the development of these AMS Plans, among other responsibilities. AMS Committees are also tasked with planning and coordinating security procedures and providing subject matter expertise to the Captain of the Port, and are required to meet at least annually or when requested by a majority of members. Coast Guard guidance states that AMS Committees are to contain a number of different port stakeholders and governmental entities charged with regulation and enforcement of the MTS. A combination of federal (e.g., Coast Guard, Army Corps of Engineers, Customs and Border Protection), state, local, territorial, and tribal (e.g., law enforcement, transportation, and environmental agencies), as well as private sector entities (e.g., vessel agents, terminal operators, and marine exchanges) may be represented within each port's AMS Committee.

**All Coast Guard AMS Plans Reviewed Include Elements to Address Recovery of the Marine Transportation System**

Overall, each of the AMS Plans that we reviewed addresses recovery and salvage response, as required by law, and incorporates the specific recovery and salvage response elements, as described in Coast Guard planning guidance. These plan elements include discussion of the roles and responsibilities related to the establishment of the MTSRU in preparing for, responding to, and recovering from a TSI; gathering of EEIs from industry partners regarding the status of key maritime assets and operations, such as bridges and waterfront facilities; identification of recovery priorities; and plans for salvage of assets following a TSI. Although we limited the scope of our plan review to seven high-risk port areas, the Coast Guard provided documentation indicating that all 43 AMS Plans were updated to include applicable recovery and salvage response elements.

Among the plans we reviewed, six of the seven plans incorporate recovery elements as a separate Recovery Annex, with varying levels of detail also incorporated into the main body of the AMS Plan. The remaining plan (New York/New Jersey) uses the recovery section of the AMS Plan as its main source of recovery information, with its Recovery Annex serving to

[17] Although the law requires AMS Plans to specifically address potential TSIs, officials at Coast Guard headquarters noted that the AMS plans are compatible with efforts to address all-hazards.

exclusively discuss gathering of the EEIs identified. See table 1 for a summary of key recovery elements addressed in selected AMS Plans.

**Table 1: Summary of Recovery Elements Contained Within Area Maritime Security (AMS) Plans for Selected Port Areas**

| Elements of recovery | Present in all AMS Plans? | Additional/notable information provided |
|---|---|---|
| Marine Transportation System Recovery Unit (MTSRU) Information:<br>• Procedures for establishing unit<br>• Roles in information gathering and providing guidance to the Incident Command<br>• Communication with stakeholders |  | • Two plans provide particularly robust details regarding topics such as conducting post-incident assessments, identifying port area needs, and checklists for key items needed to support MTSRU functions.<br>• Two port areas leverage existing collaborative bodies to support MTSRU information-sharing functions during a TSI. |
| Procedures for gathering Essential Elements of Information (EEI):<br>• Discuss importance of developing pre-incident baseline data<br>• Obtaining and updating data during a TSI<br>• Providing guidance for EEI development and/or references to other guidance |  | • Five plans provide a template or instructions for determining applicable EEIs to gather, in some cases providing details on specific EEIs within the port area.[a]<br>• All plans provided guidance or references to external guidance to be used in EEI development. |
| Recovery Priorities:<br>• General priorities for port area recovery |  | • Five plans include slight modifications to Coast Guard HQ-defined priorities to reflect unique conditions in their port areas. |
| Salvage Response Plans:<br>• Defining the roles and responsibilities of federal, state, and local partners<br>• Defining recovery-specific tasks to identify salvage response needs<br>• Identifying local marine salvage providers for use when needed |  | • Details were generally very consistent between individual plans.<br>• One plan outlines specific tasks for the senior salvage officer following a TSI. |

Source: GAO analysis of selected Coast Guard AMS Plans.
[a] Of the other two plans, one provides guidance on the roles and responsibilities of an EEI work group for developing and cataloging EEIs in their data system. The other plan states that EEIs are kept and maintained separately within the Coast Guard and made available when needed following an incident.

## MTSRU Information

Each of the seven AMS Plans we reviewed discusses the role and importance of a MTSRU as suggested by Coast Guard guidance. A MTSRU is a collection of personnel—typically led by the Coast Guard and augmented by federal, state, local, and private maritime industry partners—established during a TSI to provide support to the Incident Command. Coast Guard guidance states that the complex nature of simultaneous response and MTS recovery actions following a TSI requires assistance from specially qualified Coast Guard and external personnel, hence the MTSRU concept. The MTSRU function is responsible for tracking and reporting on the status of the MTS, understanding critical recovery pathways, recommending courses of action, providing stakeholders with a venue for input to the local response organization, and providing the Incident Command with recommended priorities for MTS recovery.[18] AMS Plan guidance stresses the need to establish a MTSRU as quickly

[18] The MTSRU is activated within the planning section of the Incident Command System.

as possible during a TSI. Coast Guard guidance recommends that AMS Plans address and contain procedures for the following items related to MTSRUs:

- establishing a MTSRU as soon as possible after a TSI;
- gathering information and providing recovery recommendations to the Incident Command; and
- addressing the importance of communication and coordination with key stakeholders (other governmental entities and industry partners) during a TSI.

Each of the seven AMS Plans addresses the procedures listed above. For example, all plans present information on the role of MTSRU participants in reaching out to port stakeholders to gather critical information on the status of port operations. The plans we reviewed incorporate these elements in varying degrees of detail. Two plans, for example, provided particularly robust details covering efforts such as conducting post-incident assessments and identifying port area needs, and contained checklists for items needed to support MTSRU functions. For example, the Recovery Annex to the Delaware Bay AMS Plan discusses the general roles of the MTSRU at a high level, such as MTSRU responsibilities in working with stakeholders to conduct a post-incident assessment, identifying post-incident needs related to national security, critical infrastructure and key resources, and the economy, as well as information needed to support a recovery assessment, among other elements. Additionally, the Delaware Bay Recovery Annex contains a separate appendix entitled “MTSRU Guidelines.” This document provides detailed information divided into the following topics:

- Major Accomplishments (key deliverables for which the MTSRU is responsible);
- Responsibilities;
- References;
- Go-Kit Materials (suggested supplies/materials for the MTSRU to function for 24-48 hours);
- Composition of the MTSRU (suggested federal, state, local, and industry representation);
- Interrelationships (how key participants of the MTSRU will need to interact with other partners, what they will need to obtain and share); and
- Sequence of Activities (helpful details, information on the types of reports/products that will need to be prepared, and information on demobilizing the MTSRU).

In practice, the specific roles and responsibilities of a MTSRU can vary by port area, as some port areas are able to leverage the information-sharing abilities of established collaborative bodies to support decision making. For instance, the Houston plan provides for establishing a MTSRU as more of a coordinating body of Coast Guard personnel that serve primarily to gather and disseminate information, such as EEIs, within the Coast Guard. The MTSRU, in this case, would work closely with a Port Coordination Team of industry stakeholders, while the Port Coordination Team acts as an advisory group to the Incident Command and “performs many of the functions normally associated with the MTSRU in other ports.” According to port security specialists in Sector Houston, the Port Coordination Team is a long-established unit that works together during transportation disruptions (such as hurricanes or port closures due to heavy fog) to provide recommendations for action to the Captain of the Port. Sector New Orleans has adopted a very similar approach. Sector New Orleans officials report that their Port Coordination Team has allowed the Coast Guard to form successful relationships with federal, state, local, and private industry port stakeholders. Officials from Coast Guard headquarters added that in response to a

transportation disruption, the concept of collaboration and information sharing with port stakeholders is of key importance, and using such established mechanisms for gathering and sharing information—in conjunction with the MTSRU's role in information sharing—can be an effective approach. Industry partners that we spoke with in the New Orleans area confirmed that they have established a collaborative relationship with the Coast Guard Sector through the Port Coordination Team construct, as well as through AMS Committee meetings.

Essential Elements of Information (EEIs)

Each of the seven AMS Plans we reviewed contains information on the need to gather EEIs to inform recovery and restoration activities in accordance with Coast Guard guidance, in varying degrees of detail. AMS Plan guidance highlights the importance of gathering and disseminating EEIs. EEIs consist of quantitative and objective information used by the Coast Guard to complete status reports during a TSI. EEIs can include specific information about assets and waterways within a port area, such as the location of aids to navigation and bridges, waterway depths, and key products handled by waterfront facilities. The Coast Guard develops EEI baseline information to provide sectors and districts with pre-incident information on MTS critical infrastructure and interdependencies.[19] Post-incident EEI reporting allows the Coast Guard to monitor the status of the MTS and provides information to better facilitate MTS recovery and commerce resumption. Coast Guard guidance stresses that the following items should be addressed in AMS Plans:

- importance of developing pre-incident baseline data in preparation for a TSI;
- obtaining and updating current EEI data to inform decision making during a TSI; and
- guidance for developing specific EEIs and/or references to other EEI-related guidance.

All plans contain details stemming from the guidance above, particularly regarding the role of the Coast Guard in gathering and updating EEI data, and/or references to other guidance available for preparing EEIs, while five of the plans include a template or instructions for EEI data gathering. The New York/New Jersey AMS Plan is one that contains many details in terms of EEI information; specifically, the plan includes a separate Recovery Annex that is focused on the gathering of EEIs. The annex discusses the MTSRU's role in gathering EEIs, and provides instructions for completing the EEI templates. The plan then provides EEI templates and applicable instructions for completing them, including details in five EEI asset categories (waterways and navigation systems, port area-critical infrastructure, port area-vessels, offshore energy, and monitoring systems).

In addition, the Delaware Bay Recovery Annex provides extensive EEI detail on assets in each of four categories (waterways and navigation systems; port area critical infrastructure; port area vessels; and monitoring systems). As an example, under *Waterways and Navigation Systems: Aids to Navigation*, the document provides baseline data on the number of these types of assets by geographic region throughout the area of responsibility. Then, for each of these assets, additional data are provided: name and location, position (longitude and latitude), characteristic, height, range, structure (description of appearance), and remarks. As another example, under *Port Area Critical Infrastructure: Container Cargo Facilities*, columns are provided for gathering information on facility name; waterway;

[19] Coast Guard districts are field-based commands that oversee sector operations. There are nine Coast Guard districts throughout the continental United States, Alaska, and Hawaii.

location (latitude/longitude); average daily number of cargo containers off-loaded from vessels; average daily number of cargo containers loaded onto vessels; importance, criticality, or uniqueness of cargo; average number of daily vessel arrivals; and vessel/facility limitations. While this type of information can be helpful in ascertaining the condition of certain assets during a TSI, several Coast Guard Sector officials we spoke with identified limitations regarding the level of baseline data that can be developed. These limitations were attributed to the difficulty in gathering these data on an ongoing basis due to industry concerns over the sensitivity or proprietary nature of some data. For example, officials with Sector New Orleans stated that while industry partners are generally amenable to sharing such EEIs (e.g., backup capabilities in the event of a port shutdown) as a security incident unfolds, they have been hesitant to provide such information in advance. However, Coast Guard officials reiterated that they were not concerned about being unable to obtain data or industry being unwilling to provide data in conjunction with a TSI, given the cooperative information-sharing relationships established with industry partners. Port stakeholders that we interviewed in New Orleans, as well as Seattle, confirmed that the Coast Guard has worked to facilitate sharing of such critical information during a TSI.

Recovery Priorities

Each of the seven AMS Plans that we reviewed incorporates Coast Guard guidance on recovery priorities. AMS Plan guidance states that recovery of the MTS is to be coordinated between the Coast Guard Captain of the Port and other government and private entities. The guidance also provides general priorities for waterway/port area recovery, which are intended to be used as an initial planning guide and adjusted as needed for individual port areas, as follows:

1. major transportation routes needed for first response and emergency services including evacuation routes, tunnels, bridges, and key waterways;
2. main shipping channels critical for homeland security and homeland defense operations;
3. port areas and channels critical for military traffic or out-loads;
4. main shipping channels critical to major commercial operations;
5. other critical maritime infrastructure, operations, and structures critical to operation of the port/waterway identified by the AMS Assessment;
6. secondary bridges and tunnels;
7. secondary commercial waterways; and
8. public/recreational waterways.

Overall, each of the seven AMS Plans incorporates these priorities. Five of the plans adopted slight modifications of the priorities, as permitted in Coast Guard guidance. For example, one plan (New York/New Jersey) combines the second and third priorities from the guidance above and elevates them to the top priority, while also removing the fifth priority above. Coast Guard Sector officials stated that this change was made to reflect the unique characteristics and needs of the port area. Another plan (Houston-Galveston) merged the second and third priorities listed above and did not include the fifth. In addition, the Delaware Bay plan includes the eight priorities listed above and also added in a top priority that the Captain of the Port will support all federal, state, and local efforts to (1) eliminate immediate threats to life, public health, or safety; (2) eliminate immediate threats of significant damage to the MTS; and (3) ensure the economic recovery of the affected areas.

Each of the seven port areas we focused on have also supported the development of Portwide Risk Mitigation Plans—a requirement when applying for funding from FEMA's Port Security Grant Program—that, in some cases, may facilitate the identification of recovery priorities within a port area.[20] The primary goal of a Portwide Risk Mitigation Plan is to provide a mechanism to port stakeholders for considering an entire port system strategically as a whole, and to identify and execute a series of actions designed to effectively mitigate risks to the system's maritime critical infrastructure.[21] As one example, in April 2009, the AMS Committee in one port area issued a *Strategic Risk Management / Mitigation and Trade Resumption / Resiliency Plan.* This plan identified the key strategic functions provided by the port area's maritime community, such as materials transportation and petroleum supply, among others. The plan also included an assessment of existing risk to those functions, ranked them by strategic priority, and identified initiatives intended to mitigate that risk.[22] According to Coast Guard officials and port stakeholders, this process helped to inform the local maritime community of potential recovery priorities as well as risk mitigation opportunities.

Salvage Response Plans

Each of the seven AMS Plans we reviewed contains a Salvage Response Plan as called for in the SAFE Port Act and the Coast Guard's AMS Plan guidance. Specifically, the SAFE Port Act mandated that AMS Plans are to include salvage response plans to identify salvage equipment capable of restoring operational trade capacity and to ensure that the waterways are cleared and the flow of commerce through U.S. ports is reestablished as quickly and efficiently as possible after a maritime TSI.[23] The Coast Guard developed guidance for its AMS Plans to ensure that these and other elements of salvage response are addressed. Overall, there is little variation among the Salvage Response Plans we reviewed, as they are all closely aligned with the Coast Guard guidance.

[20] The Port Security Grant Program exists to provide funding to the nation's highest risk port areas to support increased portwide risk management; to enhance domain awareness; to train and exercise; to expand port recovery and resiliency capabilities; and to further capabilities to prevent, detect, respond to, and recover from attacks involving improvised explosive devices and other nonconventional weapons. For more information on our recent review of DHS's Port Security Grant Program, see GAO, *Port Security Grant Program: Risk Model, Grant Management, and Effectiveness Measures Could Be Strengthened*, GAO-12-47 (Washington, D.C.: Nov. 17, 2011).

[21] As such, the Portwide Risk Mitigation Plans can shed light on the overall resiliency—the ability to resist, absorb, recover from, or successfully adapt to adversity or a change in conditions—of the port areas in question.

[22] Risk was determined using a standard risk-based decision-making model, with risk as a function of consequence, threat, and vulnerability. DHS defines consequence as the effect of an event, incident, or occurrence, reflecting the level, duration, and nature of the resulting loss; threat as a natural or man-made occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property; and vulnerability as a physical feature or attribute that renders an entity open to exploitation or susceptible to a given hazard.

[23] 46 U.S.C. § 70103(b)(2)(G).

The key stated objectives of the Salvage Response Plan in AMS Plan guidance are as follows:

1. To provide a coordinated salvage response framework to ensure that waterways are cleared and the ability of the MTS to support the resumption of the flow of commerce through U.S. ports is reestablished as efficiently and quickly as possible following a TSI or other transportation disruption.[24]
2. To identify locally available salvage equipment capable of supporting the restoration of operational trade capacity within the MTS.

Some of key salvage response elements called for in AMS Plan guidance are:

- defining the roles and responsibilities of federal, state, and local partners;
- defining recovery-specific tasks to identify salvage response needs; and
- identifying local marine salvage providers for use when needed.

Overall, each of the seven AMS Plans reviewed has addressed the key provisions called for in Coast Guard guidance, as stated above. For example, each AMS Plan includes a separate Appendix to the Salvage Response Plan containing names and contact information for local salvage companies to be used. One Salvage Response Plan that we reviewed also contains additional detail outlining specific tasks for the Coast Guard senior salvage officer to perform in providing and obtaining information during a damage and impact assessment, to include:

- inventory of vessels and obstructions to be salvaged,
- establishment of priorities for clearance, and
- determination of the general technique and type of equipment to be used.

## Agency Comments

On March 29, 2012, DHS provided written comments on a draft version of this report, which are reproduced in full in enclosure II. DHS generally concurred with the findings contained in the report, noting the positive recognition of actions taken by the U.S. Coast Guard to facilitate recovery of the MTS.

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We are sending copies of this report to the Secretary of Homeland Security, applicable congressional committees, and other interested parties. This report will also be available at no charge on GAO's website at http://www.gao.gov.

[24] The U.S. Army Corps of Engineers holds the primary federal responsibility for maintaining the navigability of federal channels—such as ensuring removal of an obstruction creating a hazard to navigation—in domestic ports and waterways. In the event of threatened or actual pollution incidents in the coastal zone, this responsibility falls to the Coast Guard.

If you or your staffs have any questions about this report, please contact me at (202) 512-9610 or caldwells@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. John Mortin, Dawn Hoff, Ryan Lambert, Adam Couvillion, Jessica Orr, Tracey King, and Michele Fejfar made key contributions to this report.

Stephen L. Caldwell
Director, Homeland Security and Justice

Enclosures – 2

## Enclosure I: Summary of Key Legislative Provisions and Associated Actions Related to Recovery of the Marine Transportation System

The following table represents a summary timeline and description of relevant provisions in key legislation (in bold) related to recovery of the Marine Transportation System (MTS) and salvage response following a transportation security incident (TSI). Also included are applicable presidential directives and associated documents developed by the Coast Guard to address these provisions and other recovery-related efforts.

**Table 2: Summary Timeline and Description of Relevant Provisions in Key Legislation, Presidential Directives, and Associated Agency Documents.**

| Regulation/ Document | Description |
|---|---|
| **Maritime Transportation Security Act of 2002** (November, 2002) | Required the development of Area Maritime Security (AMS) Plans and a National Maritime Transportation Security Plan that includes a plan for ensuring that the flow of cargo through U.S. ports is reestablished as efficiently and quickly as possible after a TSI.[a] |
| Homeland Security Presidential Directive13 (HSPD-13) (December, 2004) | HSPD-13 called for development of a National Strategy for Maritime Security, which include component plans such as a Maritime Infrastructure Recovery Plan. |
| Maritime Infrastructure Recovery Plan (MIRP) (April, 2006) | The MIRP contains procedures for MTS recovery management and provides mechanisms for national, regional, and local decision makers to set priorities for redirecting commerce, a primary means of restoring domestic cargo flow. Among other things, the MIRP also provided guidance to be used in development of recovery aspects of Coast Guard AMS Plans. |
| **Security and Accountability for Every Port Act (SAFE Port Act)** (October, 2006) | Required that AMS Plans include a salvage response plan to ensure resumption of commerce flow after a TSI and identify salvage equipment for restoring operational capacity. [b] |
| Coast Guard Strategy for Maritime Safety, Security, and Stewardship (January, 2007) | Establishes six strategic priorities for the Coast Guard, including "Developing a national capacity for MTS recovery." In developing this capacity the Coast Guard will, among other things:<br>• Develop recovery policies, plans, and procedures at the national, regional, and local levels. |
| Recovery of the Marine Transportation System for Resumption of Commerce--Commandant Instruction 16000.28 (February, 2008) | Provides guidance to facilitate recovery on the MTS following a significant disruption and defines Coast Guard roles and responsibilities for MTS recovery.<br>• Established Coast Guard organizational elements to address MTS recovery.<br>• Describes procedures for communications with MTS stakeholders and to help ensure coordination between the Coast Guard, federal agencies and private sector for MTS recovery and trade resumption.<br>• Implements the MIRP for the Coast Guard and provides integrated planning for MTS recovery. |

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| Customs and Border Protection (CBP)/Coast Guard Joint Protocols for the Expeditious Recovery of Trade<br>(February, 2008) | Developed to establish national-level processes by which the Coast Guard, CBP, and other federal agencies will:<br>• Provide a forum for joint intergovernmental and private sector dialogues to identify and act on important issues to facilitate rapid MTS recovery and resumption of commerce.<br>• Assist senior-level decision makers by providing a process to collect and disseminate information to understand the status of the national MTS and to facilitate joint decision making.<br>• Assist senior-level decision makers by providing recommendations for national-level priorities for recovery of the MTS and trade resumption, including cargo/vessel priorities. |
| Guidelines for Development of AMS Committees and AMS Plans Required for U.S. Ports, Navigation and Vessel Inspection Circular (NVIC) 09-02, Change 3.<br>(April, 2008) | Revised AMS Plan template to include recovery and salvage response sections which include, among other things, the role and importance of essential elements of information and the Marine Transportation System Recovery Unit in recovery planning. |
| **Coast Guard Authorization Act of 2010**<br>(October, 2010) | Required AMS Plans to establish response and recovery protocols to prepare for, respond to, mitigate against, and recover from a TSI. [c] |

Source: GAO.
Notes:
[a] 46 U.S.C. § 70103.
[b] 46 U.S.C. § 70103(b)(2)(G).
[c] 46 U.S.C. § 70103(b)(2)(E).

## Enclosure II: Comments from the Department of Homeland Security


March 29, 2012

Stephen L. Caldwell
Director, Homeland Security and Justice
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Re: Draft Report GAO-12-494R, "MARITIME SECURITY: Coast Guard Efforts to Address Port Recovery and Salvage Response"

Dear Mr. Caldwell:

Thank you for the opportunity to review and comment on this draft report. The U.S. Department of Homeland Security (DHS) appreciates the U.S. Government Accountability Office's (GAO's) work in planning and conducting its review and issuing this report.

The Department is pleased to note GAO's positive recognition of actions the U.S. Coast Guard (USCG) has taken as the lead federal agency for the Maritime Transportation System (MTS) to facilitate the recovery of the MTS following a significant transportation disruption and its work with the maritime stakeholders to ensure the expeditious resumption of trade. For example, as noted in the report, all seven of the USCG Area Maritime Security Plans that GAO reviewed for high risk port areas contained the key recovery and salvage response planning elements required by law and USCG guidance. We also noted the report does not contain any recommendations.

DHS remains committed to working with its partners throughout all levels of government, law enforcement, private industry, and the public to ensure the safety, security, and resilience of our Nation. Again, thank you for the opportunity to review and comment on this draft report. We look forward to working with you on future Homeland Security issues.

Sincerely,

Jim H. Crumpacker
Director
Departmental GAO-OIG Liaison Office

(440993)