

DEPARTMENT OF HOMELAND SECURITY

Office of Inspector General

United States Coast Guard's Management of the Marine Casualty Investigations Program



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Homeland Security

Preface

The Department of Homeland Security (DHS) Office of Inspector General (OIG) was established by the Homeland Security Act of 2002 (*Public Law 107-296*) by amendment to the Inspector General Act of 1978. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the department.

This report addresses a congressional request from the Committee on Transportation and Infrastructure, U.S. House of Representatives, and the Committee on Commerce, Science and Transportation, U.S. Senate, regarding the United States Coast Guard's management of the marine casualty investigations program. It is based on interviews with employees and officials of relevant agencies and institutions, direct observations, and a review of applicable documents.

The recommendations herein have been developed to the best knowledge available to our office, and have been discussed in draft with those responsible for implementation. It is our hope that this report will result in more effective, efficient, and economical operations. We express our appreciation to all of those who contributed to the preparation of this report.

A handwritten signature in black ink that reads "Richard L. Skinner".

Richard L. Skinner
Inspector General

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Abbreviations

1988 Standard	June 1988 Marine Casualty Investigation Standard
Basic Course	Basic Marine Investigator Course
Coast Guard	United States Coast Guard
CFR	Code of Federal Regulations
DHS	Department of Homeland Security
FY	Fiscal Year
OIG	Office of Inspector General
Marine Board	Marine Board of Investigation
MISLE	Marine Information for Safety and Law Enforcement
NTSB	National Transportation Safety Board

OIG

*Department of Homeland Security
Office of Inspector General*

Executive Summary

This report provides our response to a joint request from the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate on the United States Coast Guard's management of the marine casualty investigations program. The Committees requested that we audit the extent to which marine casualty investigations and reports result in information and recommendations that prevent or minimize the effect of similar casualties.

Although the Coast Guard's marine casualty investigations program has resulted in numerous safety alerts and recommendations designed to prevent similar casualties, the program is hindered by unqualified personnel conducting marine casualty investigations; investigations conducted at inappropriate levels, and ineffective management of a substantial backlog of investigations needing review and closure. Because of these management shortfalls, the Coast Guard may not be able to determine the causal factors of accidents and may miss opportunities to issue safety alerts or recommendations that could prevent or minimize similar casualties. To address these shortfalls, in September 2007, the Coast Guard issued a plan to enhance its marine safety program. Many of the actions of this plan are similar to the recommendations in our report.

To improve the management and accountability of the marine casualty investigations program, we are making eight recommendations to the Commandant, United States Coast Guard, including:

- Developing and implementing a plan to increase the number of qualified marine casualty investigators, including hiring civilians; and
- Implementing quality control procedures to ensure marine casualty investigations are conducted at the recommended levels.

The Coast Guard agreed to seven of the recommendations, but did not concur with our recommendation to revise the August 2007 marine casualty investigation qualification standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors. The Coast Guard's comments to our report are incorporated into the body of this report, as appropriate, and are included in their entirety as Appendix B.

Background

The United States Coast Guard has been responsible for conducting marine casualty investigations for over 60 years. The marine casualty investigation program presently resides in the Coast Guard's Prevention Directorate, employing approximately 150 uniformed and civilian staff nation-wide.

According to the Coast Guard's Marine Safety Manual, the objective of the marine casualty program is to obtain information for the prevention of similar casualties, 'as far as practicable. According to 46 Code of Federal Regulations (CFR) § 4.07-1, the investigations of marine casualties and accidents and determinations made are for the purpose of taking appropriate measures to promote safety of life and property at sea, and are not intended to fix civil or criminal responsibility. Based upon information gathered during an investigation, the Coast Guard may take corrective actions, such as instituting standards for safety and recommending marine safety legislation.

Further, according to 46 CFR § 4.05-1, upon the occurrence of a marine casualty and immediately after addressing resultant safety concerns, the owner, agent, master, operator, or person in charge of a vessel, shall notify the Coast Guard whenever the vessel is involved in-

- (1) An unintended grounding, or an unintended strike of (allision with) a bridge;
- (2) An intended grounding, or intended strike of a bridge, that creates a hazard to navigation, the environment, or the safety of a vessel, or that meets any criterion in paragraphs (3) through (8);
- (3) A loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel;
- (4) An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure of or damage to fixed fire-extinguishing systems, lifesaving equipment, auxiliary power-generating equipment, or bilge-pumping systems;
- (5) A loss of life;
- (6) An injury that requires professional medical treatment (treatment beyond first aid) and, if the person is engaged or employed on board a vessel in commercial service, that renders the individual unfit to perform his or her routine duties;
- (7) An occurrence causing property damage in excess of \$25,000, including the cost of labor and material to restore the property to

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- its condition before the occurrence, but not including the cost of salvage, cleaning, gas-freeing, drydocking, or demurrage; or
- (8) An occurrence involving significant harm to the environment [§ 4.03-65].

Types of Marine Casualty Investigations

The Coast Guard defines the following levels of marine casualty investigations:

- Preliminary investigations are initial investigative efforts of casualties to determine whether to assign a case as a data collection activity, an informal investigation, or a formal investigation, depending on the severity and value to marine safety. If a case is not assigned, it remains a preliminary investigation.
- Data collection activity investigations do not require any significant investigative effort, and usually consist only of collecting basic factual information and entering it into the Coast Guard's Marine Information for Safety and Law Enforcement (MISLE) database for future reference and analysis. Only minimum follow-up to verify accuracy and completeness of the data collected should be conducted, as necessary.
- Informal investigations are less exhaustive than formal investigations, but include the determination and reporting on the causes of a casualty. This is the minimum level of investigative effort required to initiate enforcement actions. Some of the criteria for an informal investigation include casualties in which property damage exceeds \$100,000 but is less than \$1 million, any collision or allision resulting in property damage exceeding \$25,000, and a medium discharge of oil, i.e., between 1,000 and 10,000 gallons to inland waterways and between 10,000 and 100,000 gallons to coastal waters.
- Formal investigations are reserved for the more serious or significant incidents in which the most investigative value can be gained. Some of the criteria for conducting a formal investigation include two or more deaths, property damage exceeding \$1 million, and a major discharge of oil, i.e., more than 10,000 gallons to inland waterways and over 100,000 gallons to coastal waters.

In addition, the Commandant of the Coast Guard may convene a Marine Board of Investigation (Marine Board) as a result of preliminary evidence, recommendation by a District Commander, or information from any other source, when it appears that a marine casualty is of such magnitude or

significance that a detailed formal investigation will promote safety of life and property at sea and serve the public interest. The decision to convene a Marine Board is influenced primarily by the lesson to be derived from the casualty. When the information to be derived has considerable significance or indicates a problem within a class of vessels or areas of technical importance, convening a Marine Board helps ensure that every aspect of the case will be probed. Additionally, widespread or intense public interest may warrant the formalities of a Marine Board.

The Coast Guard has conducted 282 Marine Boards since 1947. The Coast Guard is currently convening a Marine Board for the March 23, 2008, sinking of a fish processing vessel, the Alaska Ranger, which resulted in the tragic loss of four lives and one missing and presumed dead. Previously, the last Marine Board was convened in April 2001 when the Arctic Rose sank in the Bering Sea, with one person dead and 14 missing and presumed dead. Coast Guard officials stated the decline in convening Marine Boards is primarily due to the extensive amount of resources needed to support them.

Coast Guard's Investigative Efforts

In the past few years, the Coast Guard has conducted thousands of investigations of a wide variety of marine incidents, including injured persons, deaths, and damaged vessels and property. Table 1 is an extract from the Coast Guard's MISLE database categorizing the 15,327 marine casualties that occurred during the period January 1, 2003, through October 31, 2006. As shown, on the next page, 93% of the Coast Guard's investigations conducted during this period were at the preliminary or data collection activity level.

Level Of Investigation	2003	2004	2005	Through October 31, 2006	Total Investigations	% of Investigative Effort
Preliminary	201	69	44	0	314	2
Data Collection Activity	3,529	3,623	3,617	3,178	13,947	91
Informal	311	166	184	392	1,053	7
Formal	2	2	4	5	13	0
Grand Totals	4,043	3,860	3,849	3,575	15,327	100

Source: Coast Guard's MISLE Database

Based on the total investigations illustrated in Table 1, the Coast Guard issued 396 recommendations to mariners, industry, and to other Coast Guard components. The Coast Guard issues safety alerts for general operations, cargo operations, engineering, navigation equipment, safety equipment, and local waterways and industries.

Table 2 is an extract from the Coast Guard's MISLE database outlining the types and property damage costs of marine casualties. The large increase in property damage costs in 2005 was primarily due to Hurricane Katrina.

Table 2: Types of Marine Casualties that Occurred During the Period January 1, 2003, through October 31, 2006				
Type of Casualty	2003	2004	2005	Through October 31, 2006
Number of Injured	850	733	684	859
Number of Missing	16	34	18	11
Number of Deaths	190	175	169	158
Number of Damaged Vessels	1,791	1,771	1,661	1,494
Total Property Damage	\$193,543,494	\$215,153,568	\$809,840,431	\$109,125,089

Source: Coast Guard's MISLE Database

National Transportation Safety Board

The National Transportation Safety Board (NTSB) is an independent federal agency charged by the Congress to investigate civil aviation accidents and significant accidents involving railways and waterways. The NTSB investigates major marine casualties on navigable waters of the United States involving U.S. merchant vessels in international waters and collisions involving U.S. public and nonpublic vessels. In addition, NTSB investigates selected marine casualties, including those of a recurring nature. The NTSB does not assign fault or determine liabilities, but is focused on promoting safety and preventing similar casualties.

Outside of the United States, there are foreign government agencies that perform functions similar to those of the NTSB. The United Kingdom's Marine Accident Investigation Branch, Australian Transportation Safety Board, and Transportation Safety Board of Canada focus on maritime safety and do not assign fault or determine civil or criminal liabilities. Like the NTSB, these organizations do not have enforcement powers. On average, each of these agencies conducted 18 marine casualty investigations per year,

while the Coast Guard conducts an average of 266 informal/formal casualty investigations per year. According to Coast Guard officials, having both enforcement powers and responsibility for assigning fault does not prevent the Coast Guard from determining the causal factors of marine casualties and making recommendations for improvement.

Coast Guard's Marine Casualty Budget

Table 3, below, illustrates the funding for the marine casualty investigations program. Funding, like the total number of annual investigations conducted, has remained relatively consistent since fiscal year (FY) 2005.

Table 3: Marine Casualty Investigations Program Obligation Activity FYs 2005 to 2008			
2005	2006	2007	2008
Actual	Actual	Enacted	Request
\$31,600,000	\$32,200,000	\$36,000,000	\$35,300,000

Source: Coast Guard

Results of Audit

The Coast Guard's marine casualty investigations program has been hindered by:

- Less than fully qualified personnel conducting investigations;
- Investigations conducted improperly; and
- A substantial backlog of investigations, which headquarters closed without appropriate review.

As a result, the Coast Guard may not be able to determine the causal factors of accidents and, therefore, prevent or minimize the effects of similar casualties. In September 2007, the Coast Guard issued a plan to enhance its marine safety program. Many of the actions of this plan are similar to the recommendations in our report.

Qualifications of Marine Casualty Investigators

Based on the Coast Guard's June 1988 marine casualty investigation standard (1988 standard), 68% of investigators in our sample were not qualified to conduct marine casualty investigations.¹

Qualifications for Marine Casualty Investigators Not Fully Met

The Coast Guard's 1988 standard required a combination of experience, investigative tasks, and training for an investigator to be qualified. Specifically, to be considered prequalified for the marine casualty investigations program, personnel had to be:

- Qualified as a Hull Inspector or Machinery Inspector, and a Small Vessel Inspector, all of which are responsible for checking the maintenance and capability of vessels, **OR**
- Trained in Port Operations as:
 - o A Boarding Officer, responsible for verifying the legitimacy of those on board and vessel systems;
 - o A Facility Inspector, responsible for verifying the safety of waterfront assets, such as oil and natural gas buildings; and
 - o A Harbor Safety Officer, responsible for conducting patrols and enforcing safety zones.

The 1988 standard also required that personnel satisfactorily (1) initiate a marine casualty investigation, (2) conduct a marine casualty investigation, (3) prepare a written investigative report, (4) prepare marine investigation products, (5) conduct a boating accident investigation, and (6) assure Privacy Act and Freedom of Information Act requirements are maintained during and after the investigation. In addition, personnel were to satisfactorily complete the Basic Marine Investigator Course (Basic Course). Once these tasks and training were completed, the commanding officer certified that the qualification standards had been met.

Based on our site visits, 15 of the 22 (68%) marine casualty investigators reviewed were not qualified under the 1988 standard. Five of the 15 did not attend the required Basic Course. Table 4, on the next page, illustrates the

¹ According to the Coast Guard's Office of Investigations and Casualty Analysis, the standard for determining who is qualified to conduct marine casualty investigations was the 1988 standard. The Coast Guard issued a revised standard in August 2007.

results of our testing of marine casualty investigator prequalifications and basic training attendance. As the worst case scenario, investigators 15, 16, 19, and 21 did not meet any of the requisite qualifications, nor did they attend the Basic Course.

Conversely, 7 personnel met the prequalification standards by either fulfilling all Port Operations requirements or through a combination of inspector qualifications. For example, investigator 1 met the prequalification standard because the investigator was qualified as a Boarding Officer, Facility Inspector, and Harbor Safety Officer. Investigator 3 also met the prequalification standard because the investigator was qualified as a Machinery Inspector and a Small Vessel Inspector.

Table 4: Summary of Marine Casualty Prequalification and Course Attendance								
#	Marine Casualty Investigator – Prequalification						Met Prequals Yes/No	Attended Basic Course
	Or		And	All				
	Hull Inspector	Machinery Inspector	Small Vessel Inspector	Boarding Officer	Facility Inspector	Harbor Safety Officer		
1	No	No	Yes	Yes	Yes	Yes	Yes	Yes
2	No	No	Yes	Yes	Yes	Yes	Yes	No
3	No	Yes	Yes	No	No	No	Yes	Yes
4	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
5	No	Yes	Yes	No	No	No	Yes	Yes
6	Yes	No	Yes	No	No	Yes	Yes	Yes
7	Yes	No	No	Yes	Yes	Yes	Yes	Yes
8	No	No	Yes	No	No	No	No	Waived
9	No	No	Yes	Yes	No	Yes	No	Yes
10	No	No	Yes	Yes	No	No	No	Yes
11	No	No	No	No	No	No	No	Yes
12	No	No	No	No	No	No	No	Yes
13	No	No	No	No	No	No	No	Yes
14	No	No	Yes	Yes	Yes	No	No	Yes
15	No	No	No	No	No	No	No	No
16	No	No	No	No	No	No	No	No
17	No	No	No	No	No	No	No	Yes
18	Yes	No	No	No	No	Yes	No	No
19	No	No	No	No	No	No	No	No
20	No	No	No	No	No	No	No	Yes
21	No	No	No	No	No	No	No	No
22	Yes	Yes	No	No	No	No	No	Yes
							Yes- 7	Yes - 15
							No- 15	No- 6
								Waived -1

Source: DHS OIG analysis, based on Coast Guard data

Although our testing represented approximately 15% of all marine casualty investigators, Coast Guard officials stated that the results reflect the qualifications problem facing the marine casualty investigation program nation-wide.

Coast Guard Sector personnel also did not always follow the 1988 standard. Instead, they developed their own local standards for determining who was prequalified and qualified to be a marine casualty investigator. For example, Sector Hampton Roads marine casualty investigators did not use the 1988 standard, but developed and used a training and qualifications program

checklist that required knowledge of local industry, waterways, and jurisdictions, as well as interviewing techniques, MISLE, and chemical testing. Additionally, Sector New York did not use the 1988 standard. Instead, it developed a training and qualifications program checklist based on the one used in Sector Hampton Roads. Neither Sector Hampton Roads nor Sector New York received approval from Coast Guard headquarters to use local standards. Such diverse application of the 1988 standard contributed to inconsistency in investigator qualifications across the Coast Guard.

In August 2007, the Coast Guard issued a revised standard, which both added to and detracted from the qualifications for marine casualty investigators. The Coast Guard added to the standards by updating the tasks that an investigator must perform to qualify for the position. Those tasks include preparing for an investigation, initiating an investigation, generating an incident timeline, conducting causal analysis, conducting human error analysis, drawing and recording conclusions, developing safety recommendations/alerts, recommending enforcement actions, and completing the Basic Course.

The August 2007 standard also removed the prequalification requirement of a Hull or Machinery and Small Vessel Inspector, which, in essence, lowered the standard. Coast Guard personnel stated knowledge in these specialty areas is essential to the ability of investigators to correctly identify the causes of marine casualties and issue appropriate safety alerts and recommendations. Removing this standard may affect the qualifications and capabilities of Coast Guard marine casualty investigators. When investigators do not have the experience or ability to determine that a hull failure or loss of propulsion are possible causes of a marine casualty, they may not be able to issue the appropriate safety alerts or recommendations to possibly prevent or minimize the effect of similar casualties in the future.

By way of contrast, the United Kingdom's Marine Accident Investigation Branch, Australian Transport Safety Bureau, and Transportation Safety Board of Canada all require their investigators to be Master Mariners or Chief Engineers with several years of experience. Although these foreign entities have had difficulty recruiting individuals who meet the experience requirements, officials from the entities indicated that such standards help ensure that marine casualty investigations are conducted by qualified investigators.

Management Controls to Ensure Qualified Investigators

The Coast Guard has not effectively managed and controlled aspects of the marine casualty investigation program to ensure that it obtains and develops qualified investigators. The difficulty in assigning qualified investigators can

be attributed to competing Coast Guard priorities and a limited number of experienced personnel. This makes it difficult to ensure that all investigator positions are filled with qualified staff. Specifically, headquarters assignment officials select personnel to fill sector investigator positions from a pool of available candidates. There are a limited number of candidates from which to draw.

The Coast Guard has not established a clear and desirable career path for investigators, which can further impede recruitment efforts. At the Sectors, commanders have the discretion to assign experienced and qualified investigators to meet higher priority mission needs, leaving less trained and qualified personnel to perform investigative duties. Given competing mission demands, there is no assurance that an investigator will perform investigative work. Instead, investigators may be called upon to work in areas such as inspections or facilities, outside of their specialty area. For example, a tour in the Prevention Directorate could mean yearly rotations across specialty areas, such as waterways management and drug and alcohol testing. Given the lack of a career path and the unpredictable nature of investigation assignments, potential Coast Guard candidates also may not want to become investigators. Hull and Machinery Inspectors told us that promotion to the position of marine casualty investigator would not advance their careers.

Additionally, according to Coast Guard personnel, tour of duty rotations hinder investigators in acquiring the experience needed for career development. The agency's uniformed investigators generally are not in their positions for more than a single, three-year tour of duty in the same location. The forced rotations preclude the investigators from acquiring the extensive knowledge of local waterways and industries that experienced casualty investigators have told us is needed to be an effective investigator.

In contrast, civilian marine casualty investigators are not subject to the three-year tour of duty rotation standard. Over time, they can gain a greater knowledge of specialties such as local waterways and industries or experience in enforcing maritime regulations to enhance their qualifications. Of the 22 marine casualty investigators that we reviewed, one was a civilian. In FY 2007, the Coast Guard reported there were six civilians serving as full time marine casualty investigators.

Prior Reports on Marine Casualty Investigations

Unqualified marine casualty investigators are not a new issue. Coast Guard studies in the mid 1990s of various aspects of the marine casualty program also identified problems with marine casualty investigator qualifications:

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- The Coast Guard Research and Development Center report, *U.S. Coast Guard Marine Casualty Investigation and Reporting: Analysis and Recommendations for Improvement*, August 1994, included recommendations for organizational change, such as encouraging specialization in investigations and using civilian investigators to help increase the numbers and qualifications of marine casualty investigators.
 - The Coast Guard's *Report on the Quality Action Team on Marine Safety Investigation*, January 1995, included recommendations for maximizing staff utilization and updating the marine casualty investigation process.

The Coast Guard has implemented a number of these study recommendations, resulting in improvements to the program. For example, as defined in the G-MOA Policy Letter 1-00, the Coast Guard instituted the levels of investigation. In addition, the Coast Guard now requires investigators to complete causal analysis training. However, more needs to be done. The Coast Guard has not focused on addressing recommendations related to investigator qualifications. Until it does, unqualified personnel may continue to conduct marine casualty investigations, inhibiting the ability of the Coast Guard to identify causes and make appropriate recommendations for preventing or minimizing similar casualties.

Marine Casualty Investigations

The Coast Guard did not always conduct marine casualty investigations according to its own policies. Due to the September 11, 2001, terrorist attacks and to promote consistency and free staff resources for other duties, the Coast Guard permitted formal marine casualty investigations to be conducted at the informal level, not to be downgraded further, and informal investigations to be conducted at the data collection activity level, not to be downgraded further. This initiative became known within the Coast Guard as the "9/11 downgrade."

In September 2002, the Coast Guard issued a policy letter that superseded the "9/11 downgrade" and returned the investigative levels to the pre-September 11, 2001 levels. (See Appendix D for the Coast Guard's G-MOA Policy Letter 2-02.) However, the Coast Guard headquarters did not effectively communicate to the Sectors that the "9/11 downgrade" was rescinded. Some Sectors did not stop the "9/11 downgrades" until mid-2006, four years later.

Our review of marine casualty investigations from five Coast Guard locations throughout the United States showed that 53% of the investigations in our sample were conducted at a lower level than recommended by Coast Guard guidance. For example, the Coast Guard conducted eight investigations at the data collection activity level, two levels below the formal level recommended by the guidance. Specifically,

- A barge carrying construction equipment capsized and sank; the owners reported \$12 million in damages.
- A barge under tow ran aground causing \$1.5 million in damages to the vessel, and also resulted in the discharge of approximately 10,000 gallons of gasoline into a river. The marine casualty investigators referred the incident for enforcement action because of the discharge.

According to the Coast Guard's G-MOA Policy Letter 2-02 and based on the dollar values in both incidents and the discharge of gasoline in the second incident, the Coast Guard should have conducted an investigation to identify the causal factors of the casualty. Further, a formal investigation of the second incident would have been useful in providing the evidence needed to support a judge's decision in an enforcement action. Coast Guard officials stated that Sector commands made the decision to conduct the investigations at two levels below the prescribed level. The Sector commands have the leeway to conduct investigations at other than the recommended level. However, to maintain control over the program, the Sector commands should document departures from Coast Guard guidance.

As summarized in Table 5, on the next page, 48 marine casualty investigations were conducted at the incorrect level pursuant to the "9/11 downgrade."

Table 5: Summary Judgmental Samples of Marine Casualty Investigations

Sample Size (All Locations)	Number of Locations Tested	Sample Type	Improper Downgrades				Total Incorrect Level	% of Error
			Preliminary That Should Have Been Data Collection Activity	Data Collection Activity That Should Have Been Informal	Data Collection Activity That Should Have Been Formal	Informal that Should Have Been Formal		
145	5	Not stopping 9/11 downgrade	0	40	6	2	48	33%
		All other	1	23	2	3	29	20%
		Totals	1	63	8	5	77	53%

Source: DHS OIG analysis, based on Coast Guard data

We also analyzed an extract from the Coast Guard’s MISLE database of 15,327 marine casualties that occurred during the period of January 1, 2003, through October 31, 2006. Using the Coast Guard’s G-MOA Policy Letter 2-02 as guidance, and based on the extracted data, we identified:

- 134 marine casualties that should have been investigated at the formal level but were not, including 55 conducted two levels below at the data collection activity level. For example, a fishing vessel capsized and sank, resulting in 2 deaths, 1 missing, 1 injured, and total property damage of \$945,000. In addition there were enforcement action referrals. Despite the seriousness of the marine casualty with two deaths and high dollar value damage, the investigation was conducted as a data collection activity, which may not include steps to identify the causes of the marine casualty.
- 952 marine casualties that should have been investigated at the informal level, but were not. For example, a vessel allided with a rig, resulting in four injuries to persons on board the vessel and \$825,000 in property damage. The Coast Guard also made a referral for enforcement action. This was investigated at the data collection activity level, which may not be sufficient to support an enforcement action.
- 169 marine casualties that should have been investigated at the data collection activity level or higher, but were not. For example, a vessel

struck a platform, causing \$275,000 in property damage. This preliminary investigation should have been conducted two levels higher at the informal level. The preliminary investigation does not include steps to identify causal factors.

These investigations were not conducted at recommended levels for varying reasons. For example, some Coast Guard Sectors did stop the "9111 downgrade" until mid-2006 because of communication problems from Coast Guard headquarters regarding issuance of the G-MOA Policy Letter 2-02. According to Coast Guard officials, there were also conflicting interpretations of how to apply the Coast Guard's G-MOA Policy Letter 2-02. For example, according to the policy letter, loss of propulsion should be investigated at the informal level. However, some marine casualty investigators defined loss of propulsion as lost propulsion from one engine even though there might be multiple engines, whereas others defined loss of propulsion as when a vessel cannot remain underway.

Further, some marine casualty investigators relied on the Coast Guard's outdated Marine Safety Manual for investigation guidance, which also created confusion. The Coast Guard has not substantially updated its Marine Safety Manual since February 1989. As such, the manual does not include the investigation levels defined in G-MOA Policy Letter 2-02, nor does it refer to MISLE. In November 2004, the Coast Guard issued a Draft Marine Safety Manual for comment and review to ultimately update the February 1989 version. Since this update has not been finalized and approved to supersede the February 1989 version, marine casualty investigators are not certain which manual is the authoritative guidance for conducting marine casualty investigations.

As a result of formal and informal investigations conducted at the lower data collection activity level, causal factors were not always determined. Without such determinations, the Coast Guard may have lost the opportunity to issue safety recommendations or alerts to prevent or minimize the effect of similar casualties occurring again.

Backlog of Marine Casualty Investigations

Coast Guard headquarters is not timely in reviewing or closing marine casualty investigation reports. On November 9, 2006, Coast Guard headquarters had a backlog of 4,240 investigations, of which 2,466 (58%) were open and had been awaiting review and closure for more than six months. However, one Coast Guard headquarters staff member was responsible for reviewing and closing all of the investigations. This staff member estimated that, at best, she could devote 50% of her time to this function. Assigning this

significant workload to one person is not sufficient and contributes even further to creating a backlog in marine casualty investigations.

To reduce the backlog, the Coast Guard resorted to a mass closure of investigations without the proper headquarters review. Specifically, on September 29, 2006, Coast Guard headquarters closed 3,848 investigations that it deemed "low risk" based on the criteria that the casualty:

- Occurred in calendar years 2002-2004;
- Involved no fatalities or missing persons;
- Involved injuries to fewer than six persons;
- Involved total dollar damages of less than \$250,000;
- Involved less than 100 gallons of oil spilled; and
- Involved no total losses of vessels.

Included in the September 29, 2006, closure project were 194 informal investigations and 1 formal investigation. Although the Coast Guard deemed them low risk, some investigations merited reviews because they involved serious incidents requiring causal analysis. Enforcement actions also may have resulted from these investigations.

Further, closing investigations without thorough review resulted in lost opportunities to identify errors input to the MISLE database. The MISLE data can support trend analysis and studies that may result in recommendations and safety alerts. Likely, no one will go back to check for errors or make corrections to those included in the mass closure project. In our testing of 145 marine casualty investigations, we identified 43 (30%) that contained at least one MISLE data error. The Coast Guard corrected the errors, such as incident dates, numbers of persons at risk, and levels of investigation, that we brought to their attention. With a thorough review at headquarters, the number of errors could be further reduced. Assigning more staff to manage the investigation review and closure process would also help.

Recommendations

To improve the management and accountability of the marine casualty investigations program, we recommend that the Commandant, United States Coast Guard:

1. Develop and implement a plan to increase the number of qualified marine casualty investigators, including hiring civilian marine casualty investigators, and improving the career path for marine casualty investigators.

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2. Evaluate re-instituting the four-year tour of duty for active duty marine casualty investigators and ensure that they complete the entire tour of duty as a marine casualty investigator.
 3. Develop and implement a plan to ensure attendance at the basic and advanced courses for those qualified to attend.
 4. Revise the August 2007 marine casualty investigation qualification standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors.
 5. Implement quality controls to ensure that marine casualty investigations are conducted at the recommended levels; consistent information is gathered; and causal factors are determined when appropriate.
 6. Review and revise the criteria for the levels of marine casualty investigations, make any appropriate changes to reduce or eliminate conflicting interpretations, and ensure criteria are consistently applied throughout the Coast Guard.
 7. Finalize and issue the Marine Safety Manual.
 8. Reorganize the headquarters review and closure process to include sufficient staff responsible for reviewing and closing marine casualty investigations, and ensure that the review and closure process is completed in a timely and effective manner.

Management Comments and OIG Analysis

The Coast Guard agreed to seven of the recommendations, but it did not concur with our recommendation to revise the August 2007 marine casualty investigation qualification standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors. We consider this recommendation unresolved until the standard has been revised. Four of the recommendations will remain open until details and documentation are provided on actions taken so that we can determine whether these actions adequately address the substance of our findings and recommendations.

Management Comments to Recommendation #1:

The Coast Guard concurred with our recommendation and stated that it is seeking to increase both field investigating officers and marine investigations staff support personnel. Consistent with the Coast Guard's efforts to enhance its marine safety program, the FY 2009 President's Budget includes a request for 276 additional Coast Guard marine safety personnel. Of the 276 positions

in this request, 221 will be marine inspectors and investigators, 28 positions are for program management and training, and 27 positions are for support.

OIG Analysis

We agree with the actions the Coast Guard has taken to address the intent of our recommendation. However, the recommendation will remain open until the Coast Guard provides us with documentation that specifically details actions taken to ensure that the number of qualified marine casualty investigators is increased and the career path for marine casualty investigators is improved. The documentation should include annual reporting requirements and the identity of organizational entities responsible for the implementation.

Management Comments to Recommendation #2:

The Coast Guard concurred with our recommendation and stated that it has issued Coast Guard-wide guidance directing field units to ensure personnel remain in their original assigned position for their entire tour, and will continue to enforce a four-year tour of duty as broadly as possible.

OIG Analysis

The Coast Guard has been responsive to our recommendation by enforcing a four-year tour of duty as broadly as possible and ensuring personnel complete their entire tour in their assigned position. We consider the recommendation closed.

Management Comments to Recommendation #3:

The Coast Guard concurred with our recommendation and stated that priority to attend the basic and advanced courses is given to individuals who are assigned to investigating officer positions and conducting investigations.

OIG Analysis

The Coast Guard has been responsive to our recommendation in developing and implementing a plan to ensure attendance at the basic and advanced courses for those qualified to attend. We consider the recommendation closed.

Management Comments to Recommendation #4:

The Coast Guard did not concur with our recommendation and stated the prequalification as a hull, machinery, or small vessel inspector is required to attend the basic marine investigator course. In addition, the Coast Guard stated that anyone of these inspection qualifications provides the basic knowledge needed to begin investigator officer training.

OIG Analysis

We maintain that the Coast Guard should revise its marine casualty investigation qualifications standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors because the August 2007 guidance removed the prequalification requirement which, in essence, lowered the standard. We consider this recommendation unresolved until the standard has been revised. Coast Guard personnel stated that knowledge in these specialty areas is essential to the ability of investigators to correctly identify the causes of marine casualties and issue appropriate safety alerts and recommendations. In addition, based on our site visits, 15 of the 22 (68%) marine casualty investigators reviewed were not qualified under the June 1988 marine casualty investigation qualification standard. Ten of the 15 attended the required basic marine investigator course.

Management Comments to Recommendation #5:

The Coast Guard concurred with our recommendation and stated that it delineated quality control measures, outlining suggested levels of effort and types of investigations in the updated edition of the Marine Safety Manual, promulgated on April 24, 2008. In addition, the Coast Guard stated that its headquarters staff review investigation activities prior to closure to ensure compliance with policy.

OIG Analysis

We agree with the actions the Coast Guard has taken to address the intent of our recommendation. However, the recommendation will remain open until the Coast Guard provides us with documentation that specifically details actions taken to ensure that marine casualty investigations are conducted at the proper levels, that consistent information is gathered, and that causal factors are determined when appropriate. The documentation should also include annual reporting requirements and identify the organizational entities responsible for implementing these corrective actions.

Management Comments to Recommendation #6:

The Coast Guard concurred with our recommendation and stated that it established clear and sufficient criteria for the levels of marine casualty investigations in the updated edition of the Marine Safety Manual, promulgated on April 24, 2008. In addition, the Coast Guard stated that it ensures consistent application of the criteria through courses at Training Center Yorktown, periodic training at various units, and informal postings on its web portal.

OIG Analysis

We agree with the actions the Coast Guard has taken to address the intent of our recommendation. However, the recommendation will remain open until

the Coast Guard provides us with documentation that specifically details actions taken to ensure that the criteria for the levels of marine casualty investigations are reviewed and revised, any appropriate changes to reduce or eliminate conflicting interpretations are made, and the criteria are consistently applied throughout the Coast Guard. The documentation should include annual reporting requirements and identify the organizational entities responsible for implementing these corrective actions.

Management Comments to Recommendation #7:

The Coast Guard concurred with our recommendation and stated that it issued an updated edition of the Marine Safety Manual on April 24, 2008.

OIG Analysis

The Coast Guard has been responsive to our recommendation in finalizing and issuing the Marine Safety Manual. We consider the recommendation closed.

Management Comments to Recommendation #8:

The Coast Guard concurred with our recommendation and stated that sufficient resources need to be in place to review and close marine casualty investigations in a timely and effective manner.

OIG Analysis

We agree with the actions the Coast Guard has taken to address the intent of our recommendation. However, the recommendation will remain open until the Coast Guard provides us with documentation that specifically details actions taken to ensure that Coast Guard headquarters assigns sufficient staff to manage the investigation review and closure process and timely review and close marine casualty investigation reports. The documentation should also include annual reporting requirements and identify the organizational entities responsible for implementing the corrective actions.

Appendix A

Purpose, Scope, and Methodology

Our audit was performed in response to a congressional request from the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science and Transportation of the Senate regarding the Coast Guard's management of its marine casualty investigations program. Our objective was to determine the extent to which marine casualty investigations and reports resulted in information and recommendations that prevent or minimize the effect of similar casualties.

We reviewed Coast Guard documentation and manuals related to marine casualty investigations, including the Coast Guard's G-MOA Policy Letters 1-00, 2-02, 2-04 and 6-02.

In addition to conducting fieldwork in Washington, D.C., we also made site visits to five Coast Guard locations: Sector St. Petersburg, Florida; Sector Portland, Oregon; Sector Hampton Roads, Virginia; Sector New Orleans, Louisiana; and Sector New York, New York.

We also interviewed officials from the Coast Guard, the NTSB, Gulf Coast Mariners Association, and the Towing Vessel Safety Advisory Committee. We communicated with officials from the United Kingdom's Marine Accident Investigation Branch, the Australian Transport Safety Bureau, and the Transportation Safety Board of Canada.

We analyzed an extract of the MISLE database of 15,327 marine casualties and related enforcement actions to determine the optimal sampling methodology. We determined our sampling based on those Coast Guard Districts with the highest percentage of informal and formal investigations. From these Districts, we identified the following Sectors with the highest percentage of informal and formal investigations: Sector St. Petersburg, Florida; Sector Portland, Oregon; Sector Hampton Roads, Virginia; and Sector New Orleans, Louisiana. We randomly selected 100 investigations from those four Sectors. In addition, we judgmentally selected five investigations from each of the four Sectors. Further, we judgmentally selected 25 data collection activity investigations from the District with the highest incidence of these investigations and selected the Sector within the District with the highest incidence of these investigations, which was Sector New York, New York.

We relied on an extract from the Coast Guard's MISLE database on 15,327 marine casualties that occurred during the period January 1, 2003, through October 31, 2006. Although we identified some data input errors as discussed

Appendix A
Purpose, Scope, and Methodology

in the body of the report, we concluded that the data was sufficiently reliable to be used to support our audit findings.

We conducted our audit between November 2006 and April 2008 under the authority of the Inspector General Act of 1978, as amended, and according to generally accepted government auditing standards.

We would like to extend our appreciation to the Coast Guard for the cooperation and courtesies extended to our staff during this review.

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U.S. Department of
Homeland Security
United States
Coast Guard



Commandant
United States Coast Guard

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MEMORANDUM

MAY - 2 2008

From: R.J. Papp, Jr., VADM
Chief of Staff, U.S. Coast Guard

Reply to: CG-823
Attn of: Mark Allen Kulwicki
372-3533

To: Inspector General

Subj: DHS OIG REPORT: "UNITED STATES COAST GUARD'S MANAGEMENT OF
THE MARINE CASUALTY INVESTIGATIONS PROGRAM"

Ref: (a) 010 Draft Report

1. This letter transmits our proposed response to the Office of Inspector General (OIG) draft report findings and recommendations contained in reference (a).
2. Please contact Mark Kulwicki at (202)-372-3533, if you have any questions.

#

Enclosures: (1) U.S. Coast Guard Response to OIG Audit

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UNITED STATES COAST GUARD STATEMENT ON INSPECTOR GENERAL REPORT

TITLE: "UNITED STATES COAST GUARD'S MANAGEMENT OF THE MARINE CASUALTY INVESTIGATIONS PROGRAM" (Draft Report dated April 28, 2008)

The United States Coast Guard generally concurs with the orG's recommendations included in this report and appreciates the efforts ofDHS OIG in documenting areas for improvement. We are currently taking actions to address these recommendations. The Coast Guard provides the following comments in response to the findings of the report. They are **organized** under five sections: introduction, recommendation and responses, supplemental comments, technical comments, and editorial comments.

RECOMMENDATIONS AND RESPONSES

Recommendation #1: Develop and implement a plan to increase the number of qualified marine casualty investigators, including hiring civilian marine casualty investigators, and improving the career path for marine casualty investigators.

Concur. The Coast Guard is seeking to increase both field Investigating Officers (IOs) and marine investigations staff support personnel. We are taking into account current staffing levels and increasing demand for services in our planning efforts. These efforts are part of a broad plan to improve marine safety which is attached as Enclosure I.

On September 25, 2007, the Coast Guard delivered this plan (Enclosure I) to Congress to outline efforts to enhance the Marine Safety Program. Our plan provides a vision and multi-year roadmap for improving the effectiveness, consistency, and responsiveness of the Coast Guard Marine Safety program to promote safe, secure, and environmentally sound maritime commerce. The Coast Guard will reinvigorate industry partnerships, improve mariner credentialing services, bolster inspector and investigator capacity, improve technical competencies, and expand rulemaking capability to ensure that we meet current and future industry needs.

Consistent with this plan, the Fiscal Year 2009 President's Budget includes a request for 276 additional Coast Guard Marine Safety personnel. Of the 276 positions in this request, 221 will be marine inspectors and investigators, 28 positions are for program management and training, and 27 positions are for support. There are currently 552 marine inspectors and investigators in the field at Coast Guard units. Therefore, the additional 221 personnel added to the field represent a 40% growth in the existing number of marine inspectors and investigators. These personnel will begin to increase our capacity to perform both vessel inspections and casualty investigations.

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Recommendation #2: Evaluate re-instituting the four-year tour of duty for active duty marine casualty investigators and ensure that they complete the entire tour of duty as a marine casualty investigator.

Concur. A return to a four-year tour would provide additional time and training opportunities to develop a strong knowledge base for investigating officers. We also agree that assigned personnel should complete their entire tour in their assigned billet. The Coast Guard Personnel Command recently issued Coast Guard-wide guidance directing field units to ensure personnel remain in their original billet assignment, and will continue to enforce a four-year tour of duty as broadly as possible.

Recommendation #3: Develop and implement a plan to ensure attendance at the basic and advanced courses for those qualified to attend.

Concur. Priority is given to individuals who are assigned to Investigating Officer billets and conducting investigations. This was recently re-emphasized in a directive from Coast Guard Headquarters to field units (Enclosure 2).

Recommendation #4: Revise the August 2007 marine casualty investigation qualification standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors.

Do not concur. Prequalification as a hull, machinery, or small vessel inspector is required to attend the basic marine investigator course. Anyone of these inspection qualifications provides the basic knowledge needed to begin investigating officer training. On April 24, 2008, the Coast Guard's Assistant Commandant for Marine Safety, Security, and Stewardship, sent Coast Guard-wide guidance to reiterate and emphasize the importance of policies currently in place that strive to ensure the integrity of the Marine Casualty Investigations program (Enclosure 2). This message states the importance of proper training and upholds core competencies and prerequisites for becoming a qualified Marine Casualty Inspector. We are working to ensure billets are staffed in the field with a corps of well-trained, certified, and experienced Marine Casualty Investigators.

Recommendation #5: Implement quality controls to ensure marine casualty investigations are conducted at the proper levels to make certain that consistent information is gathered and that causal factors are determined when appropriate.

Concur. However, quality control measures are already delineated in Chapter A5 of the Marine Safety Manual Vol. V, Commandant Instruction M16200.10A. The Marine Safety Manual outlines suggested levels of effort and types of investigations. Quality control also exists within the MISLE database that requires specific data entries based on the level of investigation. For example, if an informal level of investigation is selected, MISLE requires that Causal Analysis be entered. Policy in the MISLE Process Guide also requires at least one level of review of an investigation prior to forwarding to Coast Guard Headquarters. Coast Guard Headquarters staff

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reviews investigation activities prior to closure to ensure compliance with policy. These quality control measures will be enhanced by additional personnel.

Recommendation #6: Review and revise the criteria for the levels of marine casualty investigations, make any appropriate changes to reduce or eliminate conflicting interpretations, and ensure criteria are consistently applied throughout the Coast Guard.

Concur. We believe the criteria for the levels of marine casualty investigations established in the Marine Safety Manual Vol. V are clear and sufficient. We ensure consistent application through courses at Training Center Yorktown, periodic training at various units, and informal postings on our web portal. However, we agree there is room for improvement in applying the criteria consistently and are committed to reviewing and revising all criteria.

Recommendation #7: Finalize and issue the Marine Safety Manual.

Concur. An updated edition of the Marine Safety Manual (MSM) was promulgated on 24 April 2008 as Commandant Instruction M16200.IOA.

Recommendation #8: Reorganize the Headquarter review and closure process to include sufficient staff responsible for reviewing and closing marine casualty investigations, and ensure that the review and closure process is completed in a timely and effective manner.

Concur. We agree there needs to be sufficient resources in place to review and close marine casualty investigations in a timely and effective manner.

Encl (1): Marine Safety Improvement Plan
(2): ALCOAST 241806 Z APR 2008

Executive Summary

"Enhancing the Coast Guard Marine Safety Program" 25 September 2007

Background. The Coast Guard ensures the **safety** of maritime transportation and commerce through a layered, interwoven system of authorities, compliance, collaboration, enforcement and public dialogue. We have been a **leader** in promoting global maritime safety, security, and environmental protection. Notwithstanding, the maritime industry is experiencing unprecedented complexity and growth, while **also** facing **increased** risk from transnational threats. **These dynamics** lead to a greater demand for Coast Guard Marine Safety **services** and call for a renewed **focus** on this core Coast Guard **mission**.

Way Ahead. While we have taken **steps** to improve this **system**, we acknowledge much more must be done. I am directing the development of a strategy that provides a vision and roadmap for improving the effectiveness, consistency, and **responsiveness** of the Coast Guard Marine Safety program to promote safe, secure, and environmentally sound maritime commerce. The Coast Guard will reinvigorate **industry** partnerships, improve mariner credentialing services, bolster inspector and investigator capacity, improve technical competencies, and **expand** rulemaking capability to ensure that we meet current and future industry needs. The Coast Guard will develop metrics to continually assess our progress towards achieving Marine Safety goals and objectives.

This strategy, to be developed in consultation with industry partners, will include the following decisive actions (some of which are underway) to improve Marine Safety mission effectiveness:

Improve the Coast Guard's Marine Safety **Capacity** and Performance

- o Increase marine inspector and investigator capacity.
- o Strengthen marine inspection and investigation consistency through addition of civilian positions.
- o Increase accessions from U.S. Merchant Marine Academy and maritime **institutions**.
- o Strengthen Marine Safety career paths.
- o **Expand** professional Marine Safety training and education.
- o **Expand** opportunities for maritime industry training.
- o Enhance engineering capacity for plan review, policy and standards **development**.

Enhance Service Delivery to Mariners and Industry Customers

- o Establish Centers of Excellence.
- o Improve information technology systems.
- o Increase rulemaking capacity to meet regulatory implementation.
- o Improve credentialing **through** greater efficiency, transparency and capacity.

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Expand Outreach and Advisory **Mechanisms** for Industry and Communities

- o Establish Assistant Commandant for Marine Safety, Security, and Stewardship.
- o Establish a national council of maritime advisors for the Commandant.
- o Exercise leadership at international, national, regional, state, and local safety, security, and environmental committees.

We **are** confident these courses of action will result in needed improvements, although many require additional planning to ensure proper implementation and efficacy. A more thorough review of resource requirements is needed before developing specific timelines and milestones.

“Enhancing the Coast Guard Marine Safety Program”

Current state. The Coast Guard's Marine Safety program is responsible for ensuring the safe operation and navigation of some 20,000 U.S. and foreign-flagged vessels. We conduct over 70,000 domestic vessel inspections and 10,000 port state control examinations each year to safeguard maritime commerce, international trade and supply chain security. We also conduct 14,000 casualty, suspension and revocation, and civil penalty cases annually to leverage lessons-learned and prevent future maritime tragedies. These missions are accomplished by a cadre of approximately 1,000 uniformed and civilian inspectors, investigators and port state control officers stationed domestically and around the world. They are carried out through a shared commitment with industry to facilitate safe, secure, and environmentally sound marine transportation.

Discussion. The Coast Guard's responsibility to improve Marine Safety service delivery is time-critical given growth trends in the maritime industry and increase in demand for Marine Safety services. Industry growth and increased complexity over the last 10 years outpaced commensurate growth in the Coast Guard Marine Safety program, resulting in a performance gap. For example, last year United States deep-draft seaports and seaport-related firms employed over 8 million American citizens while adding nearly \$2 trillion to our domestic economy. From 2002 to 2005, U.S. port calls of large, ocean-going merchant vessels (i.e., over 10,000 gross tons) increased nearly 10 percent to 61,047 according to U.S. Department of Transportation statistics. Moreover, over the last five years, the number of U.S.-flag passenger vessels increased by seven percent and offshore oil industry vessel growth exceeded 35 percent. We recognize industry's concern that our Marine Safety program lacks sufficient capacity to be responsive, inclusive, accessible, and customer-focused. We share in their desire to aggressively address this concern.

Projected growth areas for Marine Safety services include:

- o New inspection requirements for as many as 7,000 uninspected towing vessels;
- o Market-driven shifts in port activity due to increased demand for such products as liquefied natural gas, petroleum, dangerous cargoes, and containerized freight;
- o Proportional growth in marine investigations resulting from industry growth;
- o Increased demand for commercial fishing vessel examinations; and
- o Continued growth in requirements to publish implementing regulations.

An integrated Coast Guard approach to safety, environmental protection, waterways management, and security best ensures the long-term success of the global maritime transportation system. The goal in preventing or responding to major marine incidents, regardless of cause, is the same: to save lives, preserve property, protect the environment, and minimize disruption to the maritime transportation system. The Coast Guard's operational model is flexible, adaptive, efficient and capable of succeeding with myriad

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maritime scenarios. Today, as in the past, our safety, security, and stewardship program goals and authorities to act are inextricably linked.

Following the terrorist attacks of 9/11, our longstanding industry partnerships were critical to protecting the global marine transportation system. These partnerships remain vital today. We must ensure resources match the growing demand for our Marine Safety services. Our marine safety capacity and effective engagement with stakeholders demand senior leadership's attention. We will improve Marine Safety program focus and performance.

Course of Action. The Commandant is directing the development of a strategy that includes the following courses of action, (some of which are underway):

Improve the COGSI Guard's Marine Safety Program Capacity and Performance

Increase marine inspector and investigator capacity.

Within budget, the Coast Guard will add more marine inspectors, port state control officers, and investigators. We will use these full-time positions to meet current and anticipated growth in maritime commerce and expansion of the regulated fleet. Demand for inspection and investigation work is increasing and capacity to match these demands must be built and sustained as a result of growth factors such as projected Liquefied Natural Gas (LNG) ships and facilities, thousands of towing vessel examinations, non-tank vessel response plan reviews, ballast water management oversight, and regulatory development.

Strengthen marine inspection and investigation consistency by adding civilian positions.

Within budget, we intend to increase the number of civilian inspectors and investigators. Additional civilian inspector/port state control officer positions and investigating officers will help the Coast Guard retain expertise and geographic-specific competencies while ensuring long-term continuity in critical mission areas. We will distribute civilian positions according to demand and to complement the military workforce. Military personnel must continue to serve as marine inspectors and investigators to ensure innovation, and gain requisite experience for future program management and command responsibilities. A blend of military and civilian personnel is critical to building and sustaining consistency and competence.

Increase accessions from U.S. Merchant Marine Academy and maritime institutions.

The Coast Guard will strengthen recruiting efforts at the maritime colleges through additional liaison officers and by seeking opportunities for Coast Guard officers to serve as faculty at those institutions. Maintaining and sustaining competency within the Marine Safety program begins with recruitment and accession of additional maritime professionals, and active partnerships with maritime educational institutions.

Strengthen Marine Safety career paths.

We will demonstrate the value the organization places on the Marine Safety profession by revising personnel management policies. These policies must continue to ensure a viable career path to the most senior ranks in the Coast Guard, and value and promote the competencies of marine safety specialists. These policies could include, but are not limited

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to: direct commission programs; direction and guidance to officer selection panels relating to the need for specific Marine Safety specialties; increased tour lengths; incentives to retain qualified inspectors and investigators; institutional recognition of Marine Safety leadership positions in the field; and continuation contracts for officers possessing critical skills. Recognize those who advance from apprentice, to journeyman, to expert marine safety professional status.

Expand professional Marine Safety training and education.

We recently completed extensive review, update, and field testing of Marine Safety course and qualification material. The Coast Guard will expand formal and informal training and education opportunities to improve Marine Safety competencies, skills and qualifications. These programs will include additional resident educational opportunities for the military and civilian marine safety workforce, and enhanced pipeline training for field personnel to ensure better continuity and consistency in service. Through continuous evaluation, we will ensure training, education and qualification standards are responsive to the dynamics of the marine transportation system. A robust marine inspector and investigator workforce also requires additional expert field personnel to conduct unit training in order to build and sustain these critical competencies.

Expand opportunities for maritime industry training.

The Merchant Marine Industry Training (MMIT) program is a model of industry partnership and professional development. **Therefore**, the MMIT program will be expanded to include both formal and informal assignments to maximize interaction and experience. We will adjust the MMIT to industry's technological innovations, complexity, and growth as a means for the Coast Guard to better understand and address emerging safety, security, stewardship, and economic issues. The Coast Guard will engage industry within applicable legal and ethical guidelines to maximize training opportunities and fully immerse participants in industry operations. The Ship Rider and other industry familiarization programs will be offered to a larger group of Marine Safety professionals.

Enhance engineering capacity for plan review, policy, and standards development.

We will seek additional capacity and expertise for plan review of vessels and facilities. Increased technical capacity is needed to address plan review of commercial non-tank vessels, marine fire fighting and salvage, standards development and vessel construction specialties at Coast Guard Headquarters and the Marine Safety Center. Increased growth and complexity in ship design and construction, including high capacity fast ferries, LNG ships, mega container and cruise ships, and novel structural designs, call for an innovative and knowledgeable technical staff to develop guidance, standards, and policy. As industry evolves, so too does the demand for technical expertise.

Enhance Service Delivery to Mariners and Industry Customers

Establish Centers of Excellence.

We plan to establish additional Centers of Excellence (CaE) to provide venues for professional development and exchange between industry and Coast Guard personnel. COEs will focus on specialized areas of industry to improve inspector competencies and promote consistency across ports. For example, the Coast Guard Cruise Ship CaE in Miami, Florida was created to recognize and address cruise ship complexity, industry

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growth, and attendant risk. Specialized vessel inspection approaches were developed to improve inspector competence, effectiveness, and efficiency in nationwide cruise ship inspections. The support staff manages a resident 6-day course which provides instruction on USCG policy, and covers technical and management issues for foreign flagged cruise ships. COEs are appropriate for existing industry sectors and projected growth areas including investigations, LNG ships, towing vessels, fishing industry vessels, and outer continental shelf activity. COEs also will provide deployable casualty response and surge capacity.

Improve information technology systems.

The Coast Guard will incorporate tools to improve access and the exchange of information between industry and government using existing marine exchanges as a model. Such systems provide real-time, technology-based information to capture and manage the maritime transportation system. The Coast Guard will enhance web-based portals for sharing information and lessons learned between Coast Guard field personnel and industry, and include Coast Guard office directories and contact methods. The Coast Guard also will provide help-desks and FAQs to facilitate transparency.

Increase rulemaking capacity to expedite regulatory implementation.

The Coast Guard will increase capacity to address current and anticipated rulemaking projects. Increased rulemaking capacity requires additional support for project management, rulemaking development, economic analysis, environmental analysis, technical writing, and administrative law capacity to ensure legal sufficiency and efficacy of implementing regulations. We will publish timely guidance to assist regulated industry with implementation. To the extent practicable, the Coast Guard also will prepare legislative change proposals that minimize required rulemaking process time.

Improve mariner credentialing through greater efficiency, transparency and capacity.

The National Maritime Center (NMC) consolidation began in 2005. Located in West Virginia, recent accomplishments include implementation of the Mission Management System and reduction in cycle time by 25 percent since September 2006. The following milestones will further improve service delivery to the mariner:

- o Credentialing help desk fully staffed by February 2008;
- o Online self-help application tracking and payment options via www.pay.gov;
- o Bulk application processing for academies, schools and industry groups;
- o Issue of merchant mariner licensing documents in less than one week; and
- o Rebuild primary computer system and implement web-based processing.

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Expand Outreach and Advisory Mechanisms/or Industry and Communities

Establish an Assistant Commandant for Marine Safety, Security, and Stewardship

The Assistant Commandant for Marine Safety, Security, and Stewardship will direct and integrate Marine Safety, security, and environmental protection doctrine, policy, plans, and regulations. This flag officer will be the Coast Guard's national Marine Safety **leader** and will ensure alignment throughout the Coast Guard and among federal and international **partners**. This flag officer will be responsible for developing and promulgating national **policy** in prevention, response and waterways management, as well as leading and overseeing the important work of numerous federal advisory committees and industry **partnerships**.

Establish a national council of maritime advisors for the Commandant.

A council of maritime advisors will inform the Commandant of national maritime trends and issues of concern. This council will draw its membership from industry leaders, governors, academics, former **military** and government officials, and media.

Exercise leadership at international, national, regional, state, and local safety, security, and environmental committees

We will commit resources to lead, support, and engage these committees to collectively advance the shared goals of safety, security, and environmental stewardship. These fora also offer important opportunities to shape regulatory initiatives, and develop non-regulatory solutions where appropriate. We will incorporate customer engagement using quality processes to elicit **maritime** input as previously done with the "Prevention through People" philosophy.

Conclusion. The Coast Guard has established a clear way ahead to enhance the Marine Safety program. The proposed courses of action are responsive to external stakeholders and overseers, and supportive of work in progress and ongoing initiatives.

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R 241806Z APR 08 ZUI ASN-AOO115000012 ZYB FM COMDT COGARD WASHINGTON DC//CG-51/ TO ALCOAST BT UNCLAS IIN1673211 ALCOAST 194/08 COMDTNOTE 16732

SUBJ: MARINE CASUALTY INVESTIGATING OFFICER DOCTRINE A. COMDT COGARD WASHINGTON DC 191735Z NOV 07/ALCOAST 541/07 B. MARINE SAFETY MANUAL VOLUME V, COMDTINST M16000.10A C. MARINE SAFETY MANUAL VOLUME I, COMDTINST M16000.6 D. COMCOGARD PERseOM ARLINGTON VA 250057Z MAR 08/ALCGOFF 037/08 E. COMDT COGARD WASHINGTON DC 081630Z AUG 07/ALCOAST 387/07 1. REFERENCE A PROVIDED INITIAL GUIDANCE ON RESPONSE DOCTRINE FOLLOWING SIGNIFICANT INCIDENTS. THIS MESSAGE REITERATES AND EMPHASIZES THE IMPORTANCE OF POLICIES CURRENTLY IN PLACE THAT STRIVE TO ENSURE THE INTEGRITY OF THE MARINE CASUALTY INVESTIGATIONS PROGRAM. IN SUPPORT OF THIS EFFORT, THIS MESSAGE ANNOUNCES THAT REFERENCE B HAS BEEN PROMULGATED THIS DATE AND WILL BE PUBLISHED SHORTLY.

2. THERE HAS BEEN AN OVERALL DECREASE IN THE EXPERIENCE OF COAST GUARD MARINE CASUALTY INVESTIGATING OFFICERS (10). THIS IS DUE IN PART TO THE ASSIGNMENT OF NEWLY COMMISSIONED OFFICERS AND OTHER OFFICERS THAT DO NOT MEET THE ESTABLISHED PREREQUISITES AND HAVE NO PRIOR EXPERIENCE AS INVESTIGATING OFFICERS AND TO THE INFORMAL, BUT ROUTINE, PRACTICE OF ROTATING THESE OFFICERS THROUGH SEVERAL "PROFESSIONAL GROWTH ASSIGNMENTS" DURING THEIR TOUR AT A SECTOR OR SUBORDINATE UNIT.

3. IN AN EFFORT TO STRENGTHEN THE MARINE CASUALTY INVESTIGATION PROGRAM, COMDT (CG-545) IS DEVELOPING AN ACTION PLAN THAT WILL ENSURE 10 BILLETS ARE STAFFED WITH A CORPS OF WELL TRAINED, CERTIFIED AND EXPERIENCED MARINE CASUALTY INVESTIGATING OFFICERS. UNTIL THE PLAN IS FULLY COMPLETED AND IMPLEMENTED THERE ARE SEVERAL STEPS THAT SECTOR COMMANDERS AND MSU COMMANDING OFFICERS MUST TAKE TO ENSURE THAT THE OVERSIGHT AND COMPLETION OF MARINE CASUALTY INVESTIGATIONS IS DONE BY CERTIFIED MARINE CASUALTY INVESTIGATORS.

4. I CANNOT OVERSTRESS THAT PROPER TRAINING IS ONE OF THE MOST IMPORTANT ASPECTS OF ENSURING OUR PERSONNEL ARE PREPARED AND MOTIVATED TO DO THE JOB. CORE COMPETENCIES, PREREQUISITES FOR BECOMING A MARINE CASUALTY INVESTIGATOR AND COMPLETING EACH STEP IN THE TRAINING AND CERTIFICATION PROCESS, MUST BE UPHELD.

5. COMDT (CG-545) IS RESPONSIBLE FOR DETERMINING MISSION ESSENTIAL TRAINING REQUIREMENTS FOR ALL MARINE CASUALTY INVESTIGATORS IN ORDER TO MEET COAST GUARD AND PROGRAM OPERATIONAL COMMITMENTS. ONLY COMDT (CG-545) MAY GRANT A WAIVER TO ANY CERTIFICATION OR MINIMUM STANDARD FOR TRAINING. UPDATED PERFORMANCE QUALIFICATION STANDARDS WERE ANNOUNCED IN REFERENCE E. COAST GUARD COMMANDS SHALL ENSURE THAT ALL PERSONNEL REQUESTING AND ASSIGNED TO TRAINING MEET ALL COURSE PREREQUISITES.

6. IN ACCORDANCE WITH POLICY IN REFERENCES BAND C, PERSONNEL ASSIGNED TO AN OPERATIONAL BILLET AS A MARINE CASUALTY INVESTIGATOR SHOULD ALREADY BE FAMILIAR WITH MARINE SAFETY LAWS AND REGULATIONS THROUGH PRIOR TRAINING AND QUALIFICATIONS, GENERALLY, AS A MARINE INSPECTOR PRIOR TO BEING ASSIGNED TO MARINE CASUALTY INVESTIGATION DUTIES. TO FACILITATE THIS REQUIREMENT DURING AY 2009 ASSIGNMENT SEASON AND BEYOND, I HAVE DIRECTED COMDT (CG-545) TO WORK WITH THE APPROPRIATE HEADQUARTERS OFFICES AND PERSONNEL COMMAND TO ENSURE THAT ALL INVESTIGATING OFFICER BILLETS ARE PROPERLY CODED TO INDICATE THE PREREQUISITE QUALIFICATIONS REQUIRED FOR PERSONNEL TO BE ASSIGNED AND TO FACILITATE THE EFFORTS BY PERSONNEL COMMAND TO FILL THE BILLETS WITH APPROPRIATE CERTIFIED PERSONNEL.

7. THE MARINE CASUALTY INVESTIGATIONS PROGRAM IS CONSIDERED AN ADVANCED LEVEL OF THE COAST GUARD MARINE SAFETY COMMUNITY.

Appendix B

Management Comments to the Draft Report

ACCORDINGLY, QUICK INTERNAL ROTATION THROUGH AN INVESTIGATING OFFICER BILLET IS INAPPROPRIATE. PERSONNEL ASSIGNED ARE EXPECTED TO HAVE HAD PRELIMINARY TOURS RENDERING SUCH TICKET-PUNCHING UNNECESSARY. AS WITH SHORT TOURS, ACTIVE DUTY MARINE CASUALTY INVESTIGATORS MAY OCCASIONALLY BE SELECTED FOR REASSIGNMENT WITHIN A UNIT. SUCH REASSIGNMENTS ARE BASED ON THE NEEDS OF THE COMMAND AND ARE OFTEN REQUIRED TO FILL CRITICAL POSITIONS WITHIN THE COAST GUARD. BECAUSE OF THE ENORMOUS INVESTMENT OF TRAINING AND EXPERIENCE REQUIRED TO CERTIFY AS A MARINE CASUALTY INVESTIGATOR AND TO GAIN TECHNICAL COMPETENCE, INTERNAL ROTATIONS AND SHORT TOURS ARE HIGHLY DISCOURAGED AND SHOULD BE MADE ONLY IN ACCORDANCE WITH REFERENCE D.

8. IN ORDER TO BECOME CERTIFIED AS A MARINE CASUALTY INVESTIGATOR, THE 10 MUST COMPLETE PQS AND SIT BEFORE A QUALIFICATION BOARD CONSISTING OF PERSONNEL THAT ARE CERTIFIED IN THAT SPECIALTY. TO BE CONSIDERED CERTIFIED AS A MARINE CASUALTY INVESTIGATOR THE 10 MUST BE ASSIGNED TO AN OPERATIONAL BILLET AS A MARINE CASUALTY INVESTIGATOR, BE DESIGNATED IN WRITING AS AN 10 BY THE COGNIZANT OCMI, HAVE ATTENDED THE BASIC INVESTIGATING OFFICER COURSE (IOC) AT TRACEN YORKTOWN AND HAVE COMPLETED THE MARINE CASUALTY INVESTIGATOR

(FO) QUALIFICATION. UNTIL THE 10 HAS COMPLETED THEIR CERTIFICATION, THEY SHALL, AT ALL TIMES, BE UNDER THE SUPERVISION OF A CERTIFIED MARINE CASUALTY INVESTIGATOR AND SHALL NOT BE AUTHORIZED TO CONDUCT AN INDEPENDENT MARINE CASUALTY INVESTIGATION. PERSONNEL MUST COMPLETE THE PQS ANNOUNCED IN REFERENCE E. LOCAL QUALIFICATIONS ARE NOT AUTHORIZED. IN ORDER TO ALLOW PROPER IDENTIFICATION OF CERTIFIED PERSONNEL, UNITS SHOULD ENSURE THEY KEEP THE TMT DATA BASE UP TO DATE WITH 10 AND OTHER CERTIFICATIONS.

9. IF YOUR UNIT LACKS THE APPROPRIATE CERTIFIED PERSONNEL TO CONDUCT A MARINE CASUALTY INVESTIGATION, THEN YOU SHALL SEEK ASSISTANCE OUTSIDE OF YOUR UNIT. COMDT (CG-545) IS CONDUCTING A STUDY OF THE STATUS OF 10 QUALIFICATIONS, INCLUDING PERSONNEL CURRENTLY ASSIGNED TO 10 BILLETS AND THOSE WITH 10 CERTIFICATIONS NOT ASSIGNED TO 10 BILLETS. ON APRIL 18, COMDT (CG-545) REQUESTED DATA FROM ALL UNITS DOCUMENTING CERTIFICATION AND BILLET INFORMATION ON ALL INVESTIGATING OFFICERS. IF, IN THE PROCESS OF COMPLETING THE DATA CALL, A UNIT WITH A SHORTFALL OF CERTIFIED MARINE CASUALTY INVESTIGATORS IDENTIFIES A CERTIFIED MARINE CASUALTY INVESTIGATOR NOT CURRENTLY ASSIGNED TO AN 10 BILLET, THE UNIT SHOULD CONSIDER FOLLOWING THE GUIDANCE OF REFERENCE D TO INTERNALLY ROTATE THAT CERTIFIED PERSON INTO AN 10 BILLET, OR AS AN ALTERNATIVE, IDENTIFY THEM AS A RESOURCE TO SUPERVISE ALL MARINE CASUALTY INVESTIGATIONS UNTIL SUCH TIME AS THE UNIT IS ASSIGNED CERTIFIED PERSONNEL. IF A UNIT HAS NO CERTIFIED MARINE CASUALTY INVESTIGATORS, COMDT (CG-545) WILL WORK TO IDENTIFY AVAILABLE RESOURCES TO ASSIST.

10. RDML BRIAN SALERNO, ASSISTANT COMMANDANT FOR MARINE SAFETY, SECURITY AND STEWARDSHIP, SENDS:

11. INTERNET RELEASE AUTHORIZED.

BT

NNNN

Congress of the United States
Washington, DC 20515

December 16, 2005

Mr. Richard L. Skinner
Inspector General
Department of Homeland Security
Washington, DC 20528
Artn: Office of Inspector General

Dear Mr. Skinner:

On behalf of the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science and Transportation of the Senate, we are writing to request your office to conduct a study of the Coast Guard's marine casualty investigation program and to report to these Committees the findings and recommendations of that study not later than June 30, 2007.

The Committees expect that the study and report shall examine the extent to which marine casualty investigations and reports result in information and recommendations that prevent similar casualties; minimize the effect of similar casualties, given that it has occurred; and maximize lives saved in similar casualties, given that the vessel has become uninhabitable.

The Committees also suggest that the study include the following to promote the safety of all who work on or travel by water and to protect the marine environment:

- the adequacy of resources devoted to marine casualty investigations considering caseload, and duty assignment practices;
- training and experience of marine casualty investigators;
- investigation standards and methods, including a comparison of the formal and informal investigation processes;
- use of best investigation practices considering transportation investigation practices used by other Federal agencies and foreign governments; including British Marine Accident Investigation Branch programs;
- usefulness of the marine casualty data base for marine casualty prevention programs;

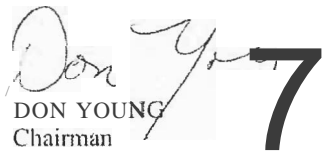
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Appendix C
Congressional Request for Audit

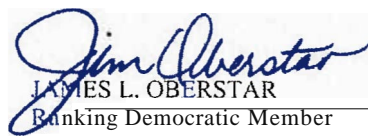
- the extent to which marine casualty data and information have been used to improve the survivability and habitability of vessels involved in marine casualties;
- any changes to current statutes that would clarify Coast Guard responsibilities for marine casualty investigations and report; and
- the extent to which the Coast Guard has reduced the frequency of formal investigations, or changed the types of incidents for which it has carried out a formal investigation process, in the past five years,

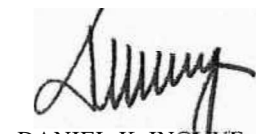
We thank you for your important contribution to our Committees' oversight over the Coast Guard's marine safety missions, and we look forward to receiving your report.

Sincerely,


DON YOUNG
Chairman
Committee on Transportation
and Infrastructure
United States House of Representatives


TED STEVENS
Chairman
Committee on Commerce,
Science and Transportation
United States Senate


JAMES L. OBERSTAR
Ranking Democratic Member
Committee on Transportation
and Infrastructure
United States House of Representatives


DANIEL K. INOUE
Ranking Democratic Member
Committee on Commerce,
Science and Transportation
United States Senate

Appendix D
Coast Guard's G-MOA Policy Letter 2-02



Commandant
United State Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-MOA
Phone: (202) 267-1430
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16732
G-MOA Policy Letter 2-02
SEP - 4 2002

MEMORANDUM

From: *M. B. Karr*
M. B. Karr
COMDT (G-MOA)

To: Distribution

Subj: **CONDUCTING MARINE INVESTIGATIONS: CASUALTY INVESTIGATIONS**

Ref: (a) G-MOA Policy Ltr 1-00, Conducting Marine Casualty Investigations
(b) G-MOA Policy Ltr 1-96, Marine Investigation Reports and MINMOD
(c) G-MAO Policy Ltr 2-95, Written Report of a Marine Casualty
(d) Msg P 192030Z JUN 02, Subj: MISLE Data Entry Policy for Incident Response and Investigation Activities
(e) Report of the Quality Action Team on Marine Safety Investigations, 18 Sep 95

1. References (a), (b) and (c) are cancelled. Reference (d) with regard to investigation issues is superseded. This policy letter and the Investigations and Enforcement Process Guide update current policy with regard to data entry into the Marine Information for Safety and Law Enforcement (MISLE) data system.
2. Reference (e) discusses several proposals for updating the marine investigation process. As a result of that report, this letter provides guidance on the appropriate minimum level of investigative effort for marine casualty investigations.
3. All Officers in Charge, Marine Inspection (OCMIs) and Captains of the Port (COTPs) shall take the enclosure to this letter for action in determining consistent minimum levels of investigative effort for marine casualty investigations. Nothing herein is intended to limit or change OCMI/COTP authority or responsibility to determine appropriate actions in any specific case. This policy will be incorporated into the next change to Volume V of the Marine Safety Manual. Questions concerning this policy may be directed to LCDR Chuck Barbee at (202) 267-1430.

#

Enclosure: (1) Levels of Investigative Effort

Distribution: All Activities/Marine Safety Offices
All Area/District (m)
Commandant (NMC)
TRACEN Yorktown (tmil)

Enclosure (1)

Levels of Investigative Effort

I. Purpose

This enclosure provides guidance to implement new policy and process for the investigation, reporting, and record-keeping associated with Coast Guard marine casualty investigations. This policy does not apply to:

- 46 CFR 4.05 requirements for notice and written reports of casualties;
- 46 CFR 4.06 and 33 CFR 95 requirements for post-casualty chemical testing and the reporting of chemical test results;
- Regulations and policy regarding pollution investigations;
- Personal action investigations of licensed or documented mariners; and
- Investigation of civil or criminal offenses.

II. Levels of Investigative Effort

The Quality Action Team on Marine Safety Investigations suggested that three levels of investigation are necessary once a preliminary investigation verifies an incident has occurred and assesses its apparent severity. This policy implements those levels of investigation:

- **Preliminary Investigations** are initial investigative efforts undertaken to ascertain whether a report is genuine, how severe the incident is or will become, whether the Coast Guard has jurisdiction, whether other agencies or offices must be notified, and what level of Coast Guard investigative effort is necessary. Once a preliminary investigation verifies that a reportable marine casualty as defined in 46 CFR 4.05-1 has occurred, the cognizant investigative authority assigns the incident for investigation as a data collection activity, informal investigation, or formal investigation, depending on severity and value to marine safety.
- **Data Collection Activities** do not require any significant investigative effort, and usually consist only of collecting and entering basic factual information into MISLE for future reference and analysis. Only minimum follow-up to verify accuracy and completeness should be conducted as necessary.
- **Informal Investigations** are less exhaustive investigative efforts than formal investigations, but include the determination and reporting of the causal factors of a casualty and violation analysis, when applicable. This is the minimum level of investigative effort required to initiate enforcement actions.
- **Formal Investigations** are reserved for the more serious or significant incidents investigated under 46 USC Chapter 63 from which the most value can be gained. Marine Boards of Investigation convened by the Commandant and other formal investigations convened by the District Commander or OCMI/COTP fit into this category.

III. **Conduct** of Investigations and Data Collection Activities

Preliminary Investigations A preliminary investigation shall be conducted for any report or evidence of a reportable marine casualty as defined in 46 CFR 4.05-1 involving a U.S. or foreign flag commercial vessel. The following criteria applies:

- When a preliminary investigation reveals that a reportable marine casualty as defined in 46 CFR 4.05-1 has in fact occurred, the level of investigative effort shall be raised to a data collection activity, informal investigation, or formal investigation.
- When a preliminary investigation reveals that a marine casualty meets the MISLE Data Entry Exemption below, is not reportable under 46 CFR 4.05-1, or it cannot be verified that a marine casualty has occurred, no additional Investigative effort is required and the results of the preliminary investigation shall be documented in MISLE in accordance with the Investigations and Enforcement Process Guide.
- Investigations closed at the preliminary level never require finding of fact (timeline) enmes.

Data Collection Activities A data collection activity shall be conducted for all reportable marine casualties as defined in 46 CFR 4.05-1 not assigned to *Informal Investigation* or *Formal Investigation*. MISLE data entry requirements shall be in accordance with the Investigations and Enforcement Process Guide.

- **MISLE incident Investigation Data Entry.** Normally, the reported casualty information should be entered into MISLE with only minimum effort expended to verify its accuracy and completeness in accordance with the Investigations and Enforcement Process Guide. The intent of this policy is to reduce the unit workload resulting from investigation of minor marine casualties to an absolute minimum while retaining basic event information for trend and statistical analysis.
- **MISLE Incident Investigation Data Entry Exceptions.** No MISLE data entry beyond the MISLE notification information is necessary or desired for marine casualties meeting the below criteria. For incidents meeting this criteria, the CG-2692 and any other material received should be documented in the notification after minimal review to verify that the incident meets one of the criteria. When feasible, the unit shall electronically attach the CG-2692 and other material to the MISLE notification. Until that time, the CG-2692 and other material shall be sent to Commandant in accordance with current policy.
 1. Groundings involving "bump and go" touching of the bottom on Western Rivers (as defined in 33 USC 2003) by uninspected towing vessels and uninspected barges in the navigation channel with no damage, no pollution, no personnel injuries, no breaking apart of the tow, and no assistance required to resume voyage.
 2. Casualties involving only minor injury. A minor injury is any injury that does not result in broken bones (other than fingers, toes, or nose), loss of limbs, severe hemorrhaging, severe muscle, nerve, tendon, or internal organ damage, or in hospitalization for more than 48 hours within 5 days of the injury.

AppendixD

Coast Guard's G-MOA Policy Letter 2-02

3. Casualties involving injuries when the injuries result from a pre-existing medical condition and not from a marine operation. (Le. a mariner with diabetes suffers a spell of blurry vision, and during the spell trips because he did not see a deck fitting and breaks a leg.) If the mariner holds license or merchant mariner's document the incident should be investigated to determine if suspension and revocation proceedings should be pursued by reason of medical incompetence.
4. Casualties (other than collisions and allisions) reported only because of property damage in excess of \$25,000 where the property damage does not exceed \$100,000.
5. Casualties involving U.S. state-numbered commercial vessels exempt from reporting to the Coast Guard under 46 CFR 4.01-3(a), unless a formal or informal investigation is conducted.

Informal Investigations An informal investigation should be conducted for any casualty involving a U.S. or foreign flag commercial vessel and meeting any of the below criteria. MISLE data entry requirements shall be in accordance with the Investigations and Enforcement Process Guide.

- **Death**: One death. Death cases may be downgraded to the *Data Collection Activity* level of investigation after credible evidence (such as a death certificate) indicates death from natural causes (including a pre-existing medical condition) or suicide.
- **Injury**: One injury which results in fractured bones (other than fingers, toes, or nose), loss of limbs, severe hemorrhaging, severe muscle, nerve, tendon, or internal organ damage, or in hospitalization for more than 48 hours within 5 days of lllie injury.
- **Vessel loss**: Loss of an uninspected vessel of less than 500 OT, or loss of a barge of more than 100 OT on inland waters (as defined in 33 USC 2003).
- **Property damage**: An event involving a vessel and resulting in property damage exceeding \$100,000 but less than \$1,000,000. The damage value comprises the cost of labor and material to restore the property (vessels, shoreline facilities, pipelines, OCS facilities, etc.) to its original condition before the occurrence, but does not include damage to natural resources, or the cost of salvage, cleaning, gas-freeing, dry-docking, or demurrage. Damage value.s should be the best estimates available immediately following the accident.
- **Collision**: Any collision or allision resulting in property damage exceeding 525,000.
- **Loss of propulsion or steering**: Any loss of propulsion or steering, even if momentary, affecting an inspected U.S. vessel anywhere, or affecting a foreign flag vessel or an uninspected U.S. vessel over 100 GT on U.S. navigable Waters.
- **Flooding or fire**: Flooding or fire that adversely affect a vessel's fitness for service on an inspected U.S. vessel anywhete, or on a foreign flag vessel or an uninspected U.S. vessel over 100 OT on U.S. navigable waters.

AppendixD

Coast Guard's G-MOA Policy Letter 2-02

- Equipment failure: Failure of Coast Guard-approved **primary** lifesaving equipment or Coast Guard-approved firefighting equipment.
- Discharge: Medium discharge of oil or medium release of a hazardous substance (as defined in 40 CFR 300.5), or of hazardous cargoes regulated under 46 CFR Subchapter O, in which a vessel is the source or the cause of the discharge or release.
- Commercial Diving Casualty: Death or injury of persons diving from a vessel for commercial purposes.
- Recreational Diving Casualty: Death or injury of persons diving from a vessel in federal waters for recreational purposes.

Formal Investigation A formal investigation should be conducted for any casualty involving a U.S. or foreign flag commercial vessel and meeting any of the below **criteria**. MISLE data entry requirements shall be in **accordance** with the Investigations and Enforcement Process Guide.

- Death: 2 or more deaths.
- Injury: 2 or more seriously disabling injuries or 6 or more injuries which result in . . . fractured bones (other **than** fingers, toes, or nose), loss of limbs, severe hemorrhaging, **severe** muscle, nerve, tendon, or internal organ damage, or in hospitalization for more than 48 hours within 5 **days** of the injury.
- Vessel loss: Loss of an **inspected** vessel, or loss of an uninspected vessel of 500 GT or more.
- Property damage: An event involving a vessel and resulting in property damage exceeding \$1,000,000. The damage value comprises the cost of labor and material to restore the property (vessels, shoreline facilities, pipelines, OCS facilities, etc.) to its original condition **before** the occurrence, but does not include damage to natural resources, or the cost of salvage. **cleaning, gas-freeing, dry-docking, or demurrage**. Damage values should be the best estimates available immediately following the accident.
- Discharge: Major discharge of oil or major release of a hazardous substance (as defined in 40 CFR 300.5), or of hazardous cargoes **regulated** under 46 CFR Subchapter O, in which a vessel is the source or the cause of the discharge or release.

Foreign Flag Exception: A formal investigation is not required for a casualty involving **only** a foreign flag vessel (i.e., no U.S. vessel involved, no damage to U.S. **property**, and no injury of U.S. citizens).

Barge Exception: A formal investigation is not required for the loss of a barge on inland waters (as defined in 33 USC 2003).

The Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Commerce, Science and Transportation of the Senate requested us to examine the extent to which marine casualty investigations and reports result in information and recommendations that prevent, minimize the effect of, and maximize lives saved in similar casualties. See Appendix C for the Committees' request. The Committees also suggested that our review include the following:

- a.* The adequacy of resources to marine casualty investigations considering caseload and duty assignment practices. The majority of personnel conducting marine casualty investigations are not qualified to conduct investigations, and the resources for the review and closure process of investigations are inadequate, resulting in a substantial backlog of investigations at Coast Guard headquarters.
- b.* The training and experience of marine casualty investigators. 15 of the 22 marine casualty investigators who we tested were not qualified under Coast Guard policy to conduct these investigations. Also, 3 of 15 marine casualty investigators have not taken either the basic or advanced marine casualty training course. Further, marine casualty investigators are not generally in their positions for more than one tour of duty at the same location. According to Coast Guard personnel, a reasonable career path to become an experienced marine casualty investigator would entail more than one tour of duty in the same location. Increasing the number of civilians in the marine casualty investigations program or extending the tour of duty for Coast Guard personnel could result in increased knowledge of local waterways and industries.
- c.* Investigation standards and methods, including a comparison between the Formal and Informal investigation processes. Informal investigations are less exhaustive than formal investigations, but still include the determination and reporting of the causal factors. Formal investigations are reserved for the more serious or significant casualties where the most value can be gained.
- d.* The use of best investigation practices considering transportation investigation practices used by other federal agencies and foreign government, including British Marine Accident Investigation programs. The United Kingdom's Marine Accident Investigation Branch, Australian Transportation Safety Board, and Transportation Safety Board of Canada focus on maritime safety and do not assign fault or determine civil or criminal liabilities. Similarly, the United States National Transportation Safety Board does not assign fault or determine

liabilities, but is focused on safety and preventing similar casualties. Further, these organizations on average conduct 18 marine casualty investigations per year, while the Coast Guard on average conducts 3,800 investigations, including approximately 266 informal and formal investigations per year. Also, these organizations do not have enforcement powers. According to Coast Guard officials, the Coast Guard's enforcement powers and assignment of fault do not prevent the Coast Guard from determining the casual factors of the marine casualties.

- e. Usefulness of the marine casualty database (MISLE) for marine casualty prevention programs. While there are various types of data input errors in MISLE, it is useful. With a thorough review at Coast Guard headquarters, these errors could be further minimized. Coast Guard provides routine training to the field personnel for MISLE. Coast Guard officials stated MISLE is a better system than the previous system; it is user-friendly and can be used to identify patterns with casualties. Yet, these officials and an official from an external entity stated that in some areas the causal analysis function could be improved. Safety advisory committees and other customers have used MISLE data. The Towing Safety Advisory Committee used MISLE data to develop a report regarding the proposed towing vessel inspection regulations. This report utilized Coast Guard-gathered marine casualty data on towing vessels from 1994-2005. This information was used to determine the severity and causes of these marine casualties.

- f The extent to which the marine casualty data and information have been used to improve survivability and habitability of vessels involved in marine casualties. The Coast Guard has issued numerous safety alerts and recommendations based on its marine casualty investigations. For example, as a result of a charter fishing vessel capsizing while crossing the Tillamook Bay Inlet in Oregon, the Coast Guard issued a risk based matrix to mariners to determine whether crossing of the inlet was permitted. Another example resulted from multiple collisions by a casino vessel with the St. John's Pass Bridge, in St. Petersburg, Florida. The Coast Guard came to an agreement with the casino operators not to pass by the bridge unless currents and winds are at a safe level. Sector Hampton Roads issued a safety alert for full body harnesses for towing vessel operators, which, according to a towing vessel operator, vastly improved the safety in the industry. The Coast Guard also issues safety alerts for general operations, cargo operations, engineering, navigation equipment, and safety equipment. These safety alerts and recommendations by the Marine Casualty Investigations Program contribute to the general safety of the waterways.

- g.* Any changes to current statutes that would clarify Coast Guard's responsibilities for marine casualty investigations and reports. Although we did not identify any required changes in statutes or regulations regarding marine casualty investigations, we did identify conflicting interpretations and applications of the Coast Guard's September 2002 policy letter. For example, per the policy letter, loss of propulsion should be investigated at the informal level. However, some marine casualty investigators define loss of propulsion as lost propulsion from one engine even though there might be multiple engines, whereas others defined loss of propulsion as when a vessel cannot remain underway. In addition, the dollar estimates for damages should be updated to reflect more current costs of repair. The Coast Guard should review the criteria for various levels of investigations and make appropriate changes, and ensure that the criteria are consistently applied throughout the Coast Guard. Further, the Coast Guard must finalize an updated version of the Marine Safety Manual.
- h.* The extent to which the Coast Guard has reduced the frequency of Formal investigations, or changed the types of incidents for which it has carried out Formal investigations, in the past five years. Based on our review of an extract from the MISLE database on the 15,327 marine casualties that occurred during the period January 1, 2003 through October 31, 2006, the Coast Guard conducted 13 formal investigations. However, based on our testing, we identified an additional 134 marine casualties that should have been conducted at the formal level. The Coast Guard conducted these investigations at the lesser informal or data collection activity levels.

Appendix F
Major Contributors to this Report

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Director, Coast Guard and Maritime Security Operations Division

Boston, MA Field Office

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Department of Homeland Security

Secretary
Deputy Secretary
Chief of Staff
Deputy Chief of Staff
General Counsel
Executive Secretary
Director, GAO/DIG Liaison Office
Assistant Secretary for Office of Policy
Assistant Secretary for Office of Public Affairs
Assistant Secretary for Office of Legislative Affairs
Commandant, USCG
USCG Audit Liaison

Office of Management and Budget

Chief, Homeland Security Branch
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Congress

Committee on Transportation and Infrastructure of the House of Representatives
Committee on Commerce, Science and Transportation of the Senate
Congressional Oversight and Appropriations Committees, as appropriate

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- Email us at DHSOIGHOTLINE@dhs.gov; or
- Write to us at:
DHS Office of Inspector General/MAIL STOP 2600, Attention:
Office of Investigations - Hotline, 245 Murray Drive, SW, Building 410,
Washington, DC 20528.

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