



U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

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May 19, 2008

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SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Coast Guard and Maritime Transportation

FROM: Subcommittee on Coast Guard and Maritime Transportation Staff

SUBJECT: Hearing on “Coast Guard and National Transportation Safety Board Casualty Investigation Program”

PURPOSE OF THE HEARING

On Tuesday, May 20, 2008, at 10:00 a.m., in Room 2167 of the Rayburn House Office Building, the Subcommittee on Coast Guard and Maritime Transportation will meet to receive a report from the Department of Homeland Security’s Office of the Inspector General (“OIG”) entitled “United States Coast Guard’s Management of the Marine Casualty Investigation Program” (OIG-08-51, May 2008). The Subcommittee will also receive testimony from the National Transportation Safety Board (“NTSB”) and the Coast Guard regarding the issue of which agency should exercise primacy in the conduct of marine casualty investigations.

BACKGROUND

The investigation of accidents (also known as “casualties”) – whether they involve ships, planes, trains, trucks or automobiles – provides a foundation for Congress and the executive branch agencies to review and amend transportation safety legislation and regulation. Without a thorough investigation into the causes of accidents through the development of comprehensive information on all aspects of the accident, including all potential causal factors, it is difficult if not impossible to develop legislation or regulations that can effectively prevent future accidents.

REVIEW OF MARINE CASUALTY INVESTIGATION PROGRAM – U.S. COAST GUARD

Statutes

The casualty investigation procedure codified in Chapter 63 of Title 46, United States Code, has its origins in public law number 622, which reorganized the Bureau of Marine Inspection and Navigation (“BMIN”), a precursor service eventually folded into the modern day Coast Guard. Adopted in 1936, P.L. 74-622 established Marine Casualty Investigation Boards – to be comprised of a chairman representing the Department of Justice, and two additional members, one member representing the BMIN and one member representing the Coast Guard – to investigate serious casualties involving loss of life. For casualties that did not result in loss of life, a Marine Board made up of two traveling inspectors and one supervising inspector of the BMIN was to be appointed by the Secretary of Commerce.

These Boards were abolished by Reorganization Plan No. 3 of 1946, which permanently transferred the BMIN from the U.S. Department of Treasury to the U.S. Coast Guard. However, the tradition of assembling formal panels to examine marine accidents continues in current practice.

Thus, today, Section 6301 of title 46 requires the Coast Guard to investigate marine casualties to determine the cause of the casualty, including the cause of any death, and to determine whether:

- there is “misconduct, incompetence, negligence, unskillfulness, or willful violation of law committed by any licensed individual;”
- “misconduct, incompetence, negligence, unskillfulness, or willful violation of law committed by any person, including any officer, employee, or member of the Coast Guard, contributed to the cause of the casualty or death involved in the casualty;”
- “there is evidence of an act subjecting the offender to a civil penalty;”
- “there is evidence of a criminal act” that should be referred to appropriate authorities for prosecution; and
- “there is a need for new laws or regulations, or amendment or repeal of existing laws or regulations to prevent the recurrence of the casualty”. 46 U.S.C. 6301.

Online Posting of Casualty Reports Required

Section 442 of the Maritime Transportation Security Act of 2002 (P.L. 107-295) amended chapter 61 of title 46, United States Code, to require the Coast Guard to make available in electronic format all casualty reports (i.e., to post them online). At the present time, the Coast Guard posts on-line the information recorded in its Marine Information Safety and Law Enforcement (“MISLE”) database. In many cases, the information in MISLE does not provide specific information regarding the cause of a casualty, or the recommendations (if any) developed by the investigator to prevent future casualties.

A recent example of a failure to post complete casualty information online involves the tragic death of a crewmember of the inspected Sailing Vessel (S/V) ALABAMA. On July 14, 2006, Benjamin Sutherland, an 18-year-old crewmember of the S/V ALABAMA, fell to his death while trying to cross between the two masts of the vessel on the “spring stay” – a taught wire cable

stretched between the foremast and the mainmast. The following data is posted on the Coast Guard's website regarding that casualty: "A crew member of the Schooner ALABAMA accidentally fell from the mast rigging and suffered fatal injuries. Vessel was approximately one hour into a scheduled day trip on Vineyard Sound and was carrying 45 passengers. Weather was calm with reported wave height of 1-2 ft, and winds were at 15 knots in a NW direction." No other information is publicly available.

However, two newspapers, *The Martha's Vineyard Times* and the *Vineyard Gazette*, submitted a Freedom of Information Act ("FOIA") request for the Coast Guard's full casualty investigation report on the ALABAMA and received considerably more information than was made available online. Subcommittee staff requested and received a copy of the information provided to the newspapers. While the report contains no evidence of violations of statute or regulations, there were two important safety recommendations contained in the report aimed at preventing such tragedies in the future, including a recommendation for the development of a regulation regarding the use of safety harnesses onboard similar sailing vessels, and a recommendation regarding the development of safety policies by the owners of such passenger vessels. In addition, the complete report includes the narrative report compiled by the Coast Guard investigator along with written statements by witnesses.

Furthermore, unlike other safety agencies, the Coast Guard does not post all marine casualty safety recommendations on the Internet or conduct follow-up assessments to ensure that the recommendations have been implemented.

Regulations

Regulations (46 CFR Part 4) provide that the Coast Guard's investigation of a marine casualty "will determine as closely as possible:

- 1) The cause of the accident (emphasis added);
- 2) Whether there is evidence that any failure of material (either physical or design) was involved or contributed to the casualty, so that proper recommendations for the prevention of the recurrence of similar casualties may be made;
- 3) Whether there is evidence that any act of misconduct, inattention to duty, negligence or willful violation of the law on the part of any licensed or certificated person contributed to the casualty, so that appropriate proceedings against the license or certificate of such person may be recommended and taken under 46 U.S.C. 6301;
- 4) Whether there is evidence that any Coast Guard personnel or any representative or employee of any other government agency or any other person caused or contributed to the cause of the casualty; or,
- 5) Whether the accident shall be further investigated by a Marine Board of Investigation in accordance with regulations in subpart 4.09.¹

Section 4.07-10 of the regulations requires the investigating officer to submit a report to the Commandant as follows –

(a) At the conclusion of the investigation the investigating officer shall submit to the Commandant via the Officer in Charge, Marine

¹ 46 CFR 4.07-1.

Inspection, and the District Commander, a full and complete report of the facts as determined by his investigation, together with his opinions and recommendations in the premises. The Officer in Charge, Marine Inspection, and the District Commander shall forward the investigating officer's report to the Commandant with an endorsement stating:

- 1) Approval or otherwise of the findings of fact, conclusions and recommendations;
- 2) Any action taken with respect to the recommendations;
- 3) Whether or not any action has been or will be taken under part 5 of this subchapter to suspend or revoke licenses or certificates; and,
- 4) Whether or not violations of laws or regulations relating to vessels have been reported on Form CG-2636, report of violation of navigation laws.²

Policy Letters/Marine Safety Manual

In addition to statute and regulation, the Coast Guard provides guidance on marine casualty investigations through its Marine Safety Manual and Policy Letters. Chapter 5 of the Marine Safety Manual, entitled "Levels of Effort and Types of Investigations", was recently updated (April 24, 2008) to incorporate guidance from a series of Policy Letters dating back to the mid-1990s. The Chapter covers such issues as "Preliminary Investigation", "Data Collection", and "Informal" and "Formal" Investigations.

The Chapter states that "Preliminary Investigations" are used to determine the seriousness of a casualty or pollution incident and to determine whether further investigation or notification of other agencies is required.

"Data Collection" is required for all reportable marine casualties not assigned to Informal or Formal Investigations. Thus, the Chapter notes that "Data collection is the minimum level of investigation required when there will be no analysis, conclusions, or recommendations stemming from an investigation." Data collection is "intended to document the facts surrounding an incident for the public record and must meet the investigative obligations outlined in 46 U.S.C. 6301" (emphasis added). Data collection does not, however, "decide ... the cause of the casualty ..." as required by Section 6301.

"Informal Investigations" are conducted when there is: a death; serious injury; loss of an uninspected vessel of less than 500 gross tons; loss of a barge of more than 100 gross tons on inland waters; property damage in excess of \$100,000 but less than \$1,000,000; a collision or allision resulting in property damage exceeding \$25,000; loss of propulsion or steering affecting an inspected U.S. vessel, a foreign vessel, or uninspected U.S. vessel of 100 gross tons on U.S. navigable waters; failure of Coast Guard approved equipment; a medium discharge of oil or hazardous substance; a commercial diving casualty; or a recreational diving casualty. Informal investigations are usually carried out by one Investigating Officer ("IO") in conjunction with other staff.

² 46 CFR 4.07-10.

“Formal Investigations” are conducted when there is: two or more deaths; two or more seriously disabling injuries or six or more injuries which result in fractured bones, loss of limbs, severe hemorrhaging, severe muscle, nerve, tendon or internal organ damage or hospitalization for more than 48 hours within five days of the injury; loss of an inspected vessel or loss of an uninspected vessel of 500 gross tons or more; property damage exceeding \$1,000,000; or a major discharge of oil or release of hazardous cargoes. Formal Investigations are usually conducted by a “Marine Board” convened by the Commandant and comprised by three or more members.

The Coast Guard has conducted few three-person Marine Boards of Investigation in the last few years. In this decade, only one Marine Board of Investigation has been completed (the F/V ARCTIC ROSE). There is an ongoing formal investigation into the recent sinking of the F/V ALASKA RANGER. In the 1990s, the Coast Guard conducted 12 Marine Boards, while in the 1980s, 18 Marine Boards were conducted.

Qualifications for Coast Guard Marine Casualty Investigators (“IOs”)

Concurrent with the issuance of the revised Marine Safety Manual, the Coast Guard issued a message (known as an ALCOAST) to all Coast Guard personnel regarding “Marine Casualty Investigating Officer Doctrine” that outlines the current qualifications required of Marine Casualty Investigators. Significantly, the message admits that, “there has been an overall decrease in the experience of Coast Guard Marine Casualty Investigators” and that “in an effort to strengthen the Marine Casualty Investigation Program, the Commandant is developing an action plan that will ensure IO billets are staffed with a corps of well trained, certified and experienced Marine Casualty Investigating Officers.”

The message outlines the specific steps that an individual must complete to become a Marine Casualty Investigator. Specifically, to become an IO, a person must attend the basic investigating officers training course at the Coast Guard’s training center in Yorktown, Virginia. The trainee must then complete a number of performance qualification standards – which are individual skill areas that are learned through on-the-job training, including preparing for investigation, initiating an investigation, generating an incident timeline, conducting causal analysis, conducting human error analysis, drawing and recording conclusions, developing safety recommendations/alerts, and recommending enforcement action. The person must then be examined by a Qualification Board consisting of personnel that are already qualified as Marine Casualty Investigators. Additionally, to be considered certified as a Marine Casualty Investigator, the IO must be assigned to an operational billet as a Marine Casualty Investigator and must be designated in writing as an IO by the cognizant Officer in Charge Marine Inspection.

Importantly, the ALCOAST also appears to presage issues that are addressed in the OIG’s report on the Coast Guard’s Marine Casualty Program when it states, “If your unit lacks the appropriate certified personnel to conduct a marine casualty investigation, then you shall seek assistance outside of your unit. The Coast Guard is conducting a study of the status of IO qualifications, including personnel currently assigned to IO billets and those with IO certifications not assigned to IO billets.”

Report of the Department of Homeland Security Inspector General

In December 2005, the Committee on Transportation and Infrastructure and the Committee on Commerce, Science and Transportation of the Senate requested the OIG “to conduct a study of the Coast Guard’s marine casualty investigation program and report to the Committees the finding and recommendations.”

The Committees were particularly interested in an examination of “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.”

To promote safety for all who work or travel on the water and to protect the marine environment, the Committees asked that the study and report specifically include an examination of the following issues:

- 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 database for marine casualty prevention programs;
- 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.

Summary of the Report

The Inspector General’s report, entitled “United States Coast Guard’s Management of the Marine Casualty Investigation Program”, finds that the Coast Guard’s marine casualty investigation program is “hindered by unqualified personnel conducting marine casualty investigations; investigations that are conducted at inappropriate levels, and ineffective management of a substantial backlog of investigations needing review and closure.”

The Inspector General’s report covers the period from January 1, 2003, through October 31, 2006. During this period, the Coast Guard “opened” 15,327 investigations but conducted only 13 formal investigations. As noted above, only one three-person Marine Board of Investigation was conducted during that period.

The OIG found that many of the casualty investigations were not conducted at the level of scope (i.e., formal, informal, data collection) that was appropriate to the circumstances of the casualty under the Coast Guard's own policies. The report identifies more than 1,200 casualties that should have been investigated at a higher level than the level at which they were investigated. Specifically, 134 casualties were examined that should have been investigated at the "formal" level including 55 casualties where only data was collected; 952 casualties that should have been investigated at the "informal" level but for which only data was collected; and, 169 casualties that should have been investigated at the "data collection level or higher but were not."

Some of the "downgrading" was due to a post-9/11 directive that allowed casualty investigations to be investigated at lower levels. However, despite the fact that the "9/11 downgrade directive" was cancelled in 2002, not all units have subsequently conducted investigations in accordance with the directive that replaced the "downgrade directive" (G-MOA Policy Letter 2-02), resulting in a number of casualties that were not investigated at the level required by policy given the nature of the accidents involved.

The OIG also found that a significant number of individuals who are not qualified under Coast Guard standards as casualty investigators are nonetheless assigned to such positions. While conducting site visits, the auditors examined a sample of individuals assigned as investigating officers and found that 68 percent (15 of 22) of the marine casualty investigators did not meet qualification standards. Five of these individuals had not even completed the "basic course" required for all investigators. While this was an admittedly small sample, the Coast Guard did not dispute the results, stating "that the results reflect the qualifications problem facing the marine casualty investigation program nation-wide."

Further, the OIG found that in 2007 the Coast Guard had significantly modified the prerequisites for becoming a casualty investigator by changing the "requirement of a Hull or Machinery and Small Vessel Inspector". The OIG observed that, "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."

The OIG found that the development within the Coast Guard of qualified casualty investigators is hampered by the following factors:

- "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 Coast Guard has not established a clear and desirable career path for investigator, which can further impede recruitment efforts;" and,
- "Additionally, according to Coast Guard personnel, tour of duty rotations hinder investigators in acquiring the experience needed for career development."

The OIG notes that "In contrast, civilian marine casualty investigators are not subject to the three-year tour of duty rotation standard." Nonetheless, of the 22 marine casualty investigators reviewed by the OIG, only one was a civilian. In 2007, the Coast Guard reported that six civilians are serving as full time marine casualty investigators.

The OIG's report also observes that there are previous reports – including one by the Coast Guard's Research and Development Center conducted in 1994 and one by a Coast Guard Quality Action Team conducted in 1995 – that identified problems with the Coast Guard's efforts to increase the numbers and qualifications of marine casualty investigators.

Finally, the report notes that there is a tremendous backlog of casualty investigations that have not been reviewed or closed and a number of instances in which data collected on an accident were incorrectly entered into the Coast Guard MISLE database. In November 2006, Coast Guard headquarters had a backlog of more than 4,000 investigations of which almost 2,500 (58 percent) had been open and awaiting review and closure for more than six months. Coast Guard headquarters reviews and closes investigations, but only one person was assigned to this process. To reduce this backlog, on September 29, 2006, the Coast Guard closed almost 4,000 investigations that it deemed to be "low risk", including 194 informal investigations and one formal investigation. It is the opinion of the OIG that, "some investigations merited reviews because they involved serious incidents requiring causal analysis" and that "enforcement action also may have resulted from these investigations."

Because so many casualty investigations were closed "en mass", there was no opportunity to "identify errors input to the MISLE database." The Inspector General tested 145 marine casualty investigations and found that 30 percent contained at least one MISLE data error. However, it is unlikely that anyone will review the hundreds of cases that were closed without review and, as a result, the data in those cases will always be suspect. Further, the OIG observed that, although MISLE is designed to "support trend analysis and studies that may result in recommendations and safety alerts", the information in the system is unreliable because of the high error rate.

The Inspector General makes eight recommendations, seven of which have been acted upon by the Coast Guard. The OIG is leaving four of these actions open until details and documentation is provided on actions taken so that the OIG can determine whether they adequately address the findings. The recommendations are listed below.

- 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.
- 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.
- Develop and implement a plan to ensure attendance at the basic and advanced courses for those qualified to attend.
- Revise the August 2007 marine casualty investigation qualification standard to include the prequalification of Hull or Machinery, and Small Vessel Inspectors.
- 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.
- 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.
- Finalize and issue the Marine Safety Manual.

- 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.

NATIONAL TRANSPORTATION SAFETY BOARD (“NTSB”) REQUEST FOR PRIMACY

The NTSB and the Coast Guard currently share responsibility for the investigation of marine casualties, with the NTSB taking the lead on some major casualties. Recent examples include the investigation of the grounding of the EMPRESS OF THE NORTH and the allision of the M/V COSCO BUSAN with the San Francisco Bay Bridge.

In its draft reauthorization bill, the NTSB proposes to assume “the right to elect lead or primary status in a marine investigation.” The NTSB asserts that, “This recommendation is not intended to serve as an expansion of authority by the Board, but to provide the necessary authority if at any time in the immediate aftermath of a marine casualty there is a disagreement between the Board and the Coast Guard created by a disagreement over interpretation of the regulations they have jointly issued; it would thus permit the Board to elect primacy and speed the immediate and urgent investigative process along without confusion over which agency has lead status.”

In addition, the Board proposes a new section for “Maritime accident investigation” that in large measure parallels the Board’s authority in aviation accidents, and gives the Coast Guard party status in an investigation in the same manner that the Federal Aviation Administration (“FAA”) has party status in aviation casualty investigations.

NTSB and Coast Guard Approaches to Investigations

While having similar responsibilities regarding investigation of casualties, the Board and the Coast Guard often approach an investigation with different processes and different objectives. The Board’s primary responsibility is to determine the proximate cause of an accident. While responsible for determining proximate cause, the Coast Guard is also charged with determining whether any violations of statute or regulation occurred in conjunction with the accident. At times, this law enforcement function appears to sometimes conflicts with the Coast Guard’s search for causal factors.

In addition, the Board is very careful to secure the scene of a casualty and protect all potential evidence. This approach ensures that valuable information is not lost during the early stages of an investigation. In the recent case of the investigation of the COSCO BUSAN (which allided with the San Francisco Bay Bridge in November 2007), investigators from the Board who responded to the incident found that certain important navigational equipment was not only not secured by the Coast Guard, it had not even been identified by Coast Guard investigators (whom the OIG later learned did not meet the Coast Guard’s own qualifications for casualty investigators).

When examining an accident, the Board brings together all interested parties, including the Coast Guard, to examine all available evidence. The Board also carefully controls the release of information regarding accident investigations to ensure that a single message is being presented.

PREVIOUS COMMITTEE ACTION

The Subcommittee held a hearing in April 2007, on “Commercial Fishing Vessel Safety” and in August 2007, on “The Challenges Facing the Coast Guard’s Marine Safety Program”. In November 2007, the Subcommittee conducted a field hearing in San Francisco on the allision of the COSCO BUSAN with the San Francisco Bay Bridge. In April 2008, the Subcommittee held a follow-up hearing on the COSCO BUSAN during which the Department of Homeland Security, Office of Inspector General, testified regarding its report on the “Allision of the M/V COSCO BUSAN with the San Francisco-Oakland Bay Bridge”. Each of these hearings examined the Coast Guard’s marine safety program, including the casualty investigation mission.

WITNESSES

The Honorable Anne Richards
Assistant Inspector General
Department of Homeland Security

Ms. Kathryn Higgins
Board Member
National Transportation Safety Board

Rear Admiral James Watson, IV
Director of Prevention Policy for Marine Safety, Security, and Stewardship
U.S. Coast Guard