



U.S. House of Representatives
Committee on Transportation and Infrastructure

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July 27, 2007

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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 Challenges Facing the Coast Guard's Marine Safety Program.

PURPOSE OF THE HEARING

On Thursday, August 2, 2007, at 2:00 p.m., in 2167 Rayburn House Building, the Subcommittee on Coast Guard and Maritime Transportation will meet to examine the "Challenges Facing the Coast Guard's Marine Safety Program." The Subcommittee is interested in hearing from the Coast Guard and the maritime industry about the current state of this important governmental function that is: "Protecting Life and Property at Sea."

BACKGROUND

Evolution of the Marine Safety Laws

The Marine Safety Program originated in the 19th Century with the adoption of a statute in empowering the District Courts to appoint "inspectors" of "hulls" and "boilers" to ensure the seaworthiness of vessels propelled by steam and the Steamboat Inspection Service was created by an act of July 7, 1838.

The Steamboat Inspection Service was reorganized in 1852 and 1871 to strengthen the government's regulation of safety on steam vessels.

In 1884, Congress created in the Treasury Department the Bureau of Navigation to oversee all navigation and shipping laws.

In 1903, both the Steamboat Inspection Service and the Bureau of Navigation were transferred to the newly established Department of Commerce and Labor.

In 1904, 957 people lost their lives when the excursion steamer *General Slocum* burned in the East River of New York. Congress enacted a series of amendments to the laws governing steamboat inspection. In 1910, Congress adopted the "Motor Boat Act" to provide protection for recreational boaters.

While it did not involve a U.S. flag vessel, the *Titanic* disaster resulted in the loss of many Americans and led to several efforts both international and national to improve maritime safety. The first Safety of Life at Sea (SOLAS) Convention was held in London in 1914. Because of World War I, much of these first international efforts were not immediately adopted. The U.S. did adopt provisions regarding lifesaving devices, in legislation passed in 1915 giving the Supervising Inspectors authority to govern the number of lifesaving appliances, and local inspectors the authority to issue certificates to able seamen and lifeboatmen.

In 1932, the Secretary of Commerce (Commerce and Labor were now separate Departments) was authorized to consolidate the Bureau of Navigation and the Steamboat Inspection Service, into the Bureau of Navigation and Steamboat Inspection.

In 1934, the passenger vessel *Morro Castle* was returning from a cruise to Havana, Cuba, when it caught fire off the coast of New Jersey and burned. Eight-nine passengers and 35 crewmembers died. In 1935, the steam vessel *Mohawk* collided with the Norwegian motorship *Talisman*, sinking the *Mohawk* with the loss of 14 passengers and 31 crewmembers. These two disasters resulted in a thorough Congressional investigation, the publishing of Senate Report No. 184, ("Morro Castle" and "Mohawk" Investigations) in 1937, and the adoption of legislation addressing: the structure, equipment and material used on vessels; officers, crew and seagoing personnel; and Federal supervision over the merchant marine.

In 1936, the Senate ratified the Convention for the Safety of Life at Sea, and Congress extended "inspection" to ocean-going motor vessels over 300 tons and to all "tank vessels" carrying dangerous cargo. In 1936, the "Personnel Bill" was adopted requiring a three-watch system on seagoing vessels, establishing 8 hours per day as the normal standard, and requiring monthly inspections of crews quarters on vessels over 100 tons. Lifeboatman and able seaman certificates were cancelled and reissued. The Act also required that 75 percent of the crew be American citizens, with vessels receiving government assistance required to have 80 percent American citizens increasing to 90 percent.

Also in 1936, the Bureau of Navigation and Steamboat Inspection was reorganized and renamed the Bureau of Marine Inspection and Navigation (BMIN). The number of inspection districts and supervising inspectors was reduced from eleven to seven. Ten principal traveling inspectors were appointed to observe conditions onboard ships at sea to assure that vessels were properly operated; crews well trained and discipline maintained; that passengers were instructed regarding lifeboat, fire and abandon-ship procedures; and crew morale was maintained.

The reorganization also established "marine boards" to investigate marine casualties. "A" boards, which investigated loss of life, consisted of a representative of the Department of Justice, the Coast Guard and the Department of Commerce. These boards were required to investigate the fundamental causes of a casualty and fix responsibility. Other casualties were investigated by "boards" of one or two BMIN personnel depending on the severity of the casualty.

The Act reorganizing BMIN had an important provision requiring that members of the newly established “technical division” be “selected for their knowledge, skill, and practical experience in designing and supervising the construction and operation of vessels propelled by machinery, and shall be competent judged of the character, strength, stability and safety qualities of such vessels and their equipment.”

In 1939, Congress adopted legislation to carry out the provisions of the “Officers’ Competency Certificates Convention of 1936” and adopted the “Motor Boat Act of 1940” to provide for the better protection of recreational boats.

In early in 1942, the functions relating to safety of life at sea, marine inspection, seamen’s welfare and certain other maritime activities carried out by the Bureau of Marine Inspection and Navigation (BMIN) were temporarily transferred from the Department of Commerce to the U.S. Coast Guard (by executive order) for the duration of the war and until six months after the end of hostilities.¹

During the war years, the Coast Guard was responsible for those safety matters that had been regulated by BMIN: approval of plans for merchant ships and their equipment; inspection of vessels to check stability, fire control or fireproofing, life-saving and fire-fighting equipment; administration of load line requirements; administration and enforcement of the laws pertaining to the numbering of motor-boats and the issuance of certificates of inspection; examination, licensing and certification of Merchant Marine personnel – masters, pilots, engineers, staff officers; investigation of marine casualties; preparation and publication of rules and regulations to protect passengers, officers, and crews of American ships; Merchant Marine Council activities; and the training of merchant mariners.

BMIN becomes part of the Coast Guard

In 1946, Congress considered three executive branch Reorganization Plans, submitted by the President pursuant to the Reorganization Act of 1945. Each plan had to be rejected without change by both Houses – similar to the way that base closing plans are approved or rejected today. Reorganization Plan No. 3 called for the permanent transfer of the BMIN to the Coast Guard.

With the exception of the Coast Guard, most who testified – including many of the same organizations represented today – did not support the proposal to permanently transfer the Bureau of Marine Inspection and Navigation (BMIN) to the Coast Guard. Most urged Congress to reject the plan and return the BMIN to the Department of Commerce.

“Under the administration of the Department of Commerce, the Bureau was not only efficiently but was economically administered. The local inspectors in the various departments were all men with extended service in the navigation and operation of our merchant marine. Investigation of marine casualties were thorough and painstaking.” “... under the Coast Guard the Bureau has been loaded up with a lot of inexperienced personnel, many of them graduates of the United States Coast

¹ The above is summarized from a paper by Captain H. C. Shepherd, U.S.C.G.R., Chief of Merchant Marine Inspection, United States Coast Guard, published in “Historical Transactions 1893-1943” of the Society of Naval Architects and Marine Engineers, 1945.

Guard Academy, who had no experience whatsoever on merchant marine vessels.”
[From letter submitted for the record by the Vessel Owners’ and Captains’
Association of Philadelphia.]

“The railroads bear the same relationship to the U.S. Army that the merchant marine does to the Coast Guard and the Navy. For purposed of supply the Army must have the railroads at its disposal. But if the Army operated as the Coast Guard did during the war, and has since, and will perpetually if the reorganization plan goes through, railroad men would be examined for fitness to serve by a board of Army officers.”
[Testimony by John Hawk, Vice President Seafarers International Union of North America, before the Senate Judiciary Committee, June 21, 1946]

The Senate Judiciary Committee reported the plan unfavorably, but it ultimately passed the Senate on a 37-30 vote. The House rejected the Plan No. 3 on a voice vote. Reorganization Plan No. 3 became effective on July 16, 1946.

Many experienced inspectors, naval architect and marine engineers who served in the BMIN during the war and had accepted commissions in the Coast Guard Reserve continued to serve in the Coast Guard. Captain Shephard – who held a unlimited master’s license and joined the Steamboat Inspection Service in the 1920s – headed the Merchant Marine Inspection program before and during the war and went on to serve as the Chief of the Office of Merchant Marine Safety (the “M” program) for 10 years, retiring as a Rear Admiral.

In the post war years the Coast Guard’s Merchant Marine Inspection program was augmented by merchant marine officers who joined the marine safety program through the “219 Program” (named for the Section of the statute that established it). These officers brought at-sea experience to a highly complex and technical program. The former members of the BMIN and the “219ers” trained the next generation of marine inspectors, all of whom have now retired.

Much of the post war effort on maritime safety was at the international level with updates of SOLAS in 1948, 1960, and 1974 and the establishment of Inter-Governmental Maritime Consultative Organization now the International Maritime Organization (IMO).

In the domestic arena, there were major initiatives regarding recreational vessel and passenger vessel safety. After a number of tragic casualties – including the *Jack* and the *Pelican* both in 1951, resulting in the loss of 56 lives – Congress adopted the “Small Passenger Vessel Act” in 1958.

In 1975, the sinking of the SS *Edmund Fitzgerald* in Lake Superior focused attention on several critical issues involving bulk carriers and lifesaving equipment. The recommendations of the Marine Board were, for the most part, implemented by the Commandant, including improvement in training requirements, launching arrangements for lifeboats and liferafts, and carriage of immersion suits – an issue of great concern to Great Lakes maritime personnel.

In 1988, to address the comparatively high loss of life in the U.S. commercial fishing industry, Congress adopted the “Commercial Fishing Industry Vessel Safety Act of 1988”. (Note: The Committee adopted amendments to this Act in the Coast Guard Authorization Bill H.R. 2830 last month.)

The 1980s ended with the grounding of the *Exxon Valdez*, which led to the adoption of the Oil Pollution Act of 1990 (OPA-90), the most sweeping maritime safety legislation adopted by Congress since the 1930s. The Coast Guard's Marine Safety Program was invigorated by the passage of OPA-90 as the public focused its attention on preserving clean water and beaches.²

ISSUES

Today, the Committee seeks to find out: Can or should the Coast Guard, a "military, maritime, multi-mission service" be expected – in an increasing technical world – to prevent marine casualties from occurring, minimize the effect of a casualty after it occurs, and maximize lives saved?³ Can Coast Guard personnel, who rotate through multiple missions during their career, understand the complexities of marine safety, adequately investigate marine casualties, inspect vessels for compliance with highly technical regulations, and judge the qualifications of the mariners who operate these vessels? Has the Coast Guard's reorganization that merged Marine Safety Offices with operational Groups affected marine safety in areas because the officers in charge of some sectors may not have a background in commercial vessel safety?

To accomplish these goals, a marine safety program requires robust but flexible vessel safety and personnel standards that are based on "best marine practice" and the lessons learned from thorough casualty investigations. This requires technically competent personnel that can examine vessels and personnel to ensure that they meet the high standards, and they must treat the mariner with respect. Further, continuity of service and knowledge of a wide variety of vessels – tank vessels, passenger vessels, bulk carriers, towing vessels and barges, and the operation of such vessels – is required. A large volume of technical materials must not only be reviewed but understood – the Code of Federal Regulations (CFRs), policy letters, Navigation and Vessel Inspection Circulars (NVICs) and the Marine Safety Manual – amounting to thousands of pages of highly technical specifications and information regarding vessel and equipment design, construction, maintenance, operation; and personnel training and qualifications.

Coast Guard and NTSB casualty investigations as well as Congressional oversight hearings since 1981 on the Coast Guard's Marine Safety Program highlight programmatic deficiencies are of concern to the Committee.

Technical expertise

Marine inspectors – the personnel who visit the shipyards and attend periodic 'inspections' of most commercial vessels – must be technically competent and should have an understanding of vessel operations as well.

The following are four examples of casualties that could have been prevented had the Coast Guard's marine safety program had the technical expertise and professional continuity necessary to "inspect" the vessels with an eye to preventing the casualty from occurring.

² See paper by William A. Cleary, Jr., "Regulation", published in "A Half Century of Marine Technology 1943 - 1993", by the Society of Naval Architects and Marine Engineers.

³ See *A Study of Cost, Benefits, Effectiveness of the Merchant Marine Safety Program*, May 1, 1968, U.S. Coast Guard."

MARINE ELECTRIC— in February 1983, the S.S. *Marine Electric*, a 40-year old modified T-2 tanker capsized and sank while carrying coal from Norfolk, Virginia to Brayton Point, Massachusetts. Thirty-one members of the crew died.

The Chief Mate, the Third Mate and an AB survived. The U.S. Coast Guard Marine Board, a panel of Coast Guard officers, concluded that both the Coast Guard and the American Bureau of Shipping failed to properly inspect the vessel and that their failure to exercise diligence resulted in the loss of the vessel and loss of life. The Marine Board made two significant recommendations:

That the examination of U.S. Merchant vessels to assure their compliance with the applicable Federal safety statutes and regulations be conducted and determined by knowledgeable members of a U.S. government agency. The responsibility for these functions should not be delegated or entrusted to the private sector.

That the Commandant empanel a commission to “conduct an indepth [sic] review of the entire Coast Guard Commercial Vessel Safety Program and make recommendations ... (regarding) the Program’s overall structure and the Coast Guard’s ability to continue with such a program ... the present and projected expertise level of the program administrators, program and project managers, Officers in Charge Marine Inspection, and field inspectors, and the distribution of such expertise within the program ... present and projected procurement and training programs, and identification of the requirements and qualifications of a marine inspector.”⁴

The Commandant rejected these recommendations, stating that efforts, “including the reorganization of the marine safety training program, the additional guidance in the Marine Safety Manual, the establishment of a toll free number for reporting safety discrepancies, the initiation of the old vessel examination program, the examination of field inspection records and development of oversight guidance,” were already underway in the Coast Guard.

MISS MAJESTIC— On May 1, 1999, the WWII vintage amphibious vehicle (DUKW) the *Miss Majestic* operating as a “small passenger vessel” sank in Lake Hamilton near Hot Springs, Arkansas, due to flooding through the aft drive shaft housing after the boot seal had dislodged. Thirteen passengers, including 3 children, died.

The Coast Guard investigation of the casualty states, “The Coast Guard has no national inspection, maintenance and operation standards for DUKW passenger vessels ...”. The Coast Guard inspector “did not notice the missing hinge assembly for the aft shaft housing partly due to lack of awareness of the importance of DUKW components.” The Coast Guard inspector had not inspected a DUKW in 5 years, and had only conducted a total of four DUKW inspections during a previous tour.

The NTSB investigation found that “The Coast Guard’s inspection programs for the *Miss Majestic* was inadequate and cursory,” and that “The lack of Coast Guard guidance and training for the inspection of DUKWs contributed to the inadequate inspections of the *Miss Majestic*.”

⁴ See, U.S. Coast Guard Marine Board Report, SS *Marine Electric*.

LADY D – In March 2004 the small passenger vessel *LADY D* capsized in the Baltimore inner harbor. Five passengers died, 4 were seriously injured and 12 suffered minor injuries.

The NTSB conducted a thorough investigation of the casualty and found that lack of intact stability was the probable cause of the casualty. The lack of intact stability was caused by overloading that resulted from the following:

- “The *Lady D* was erroneously granted sister status by the U.S. Coast Guard to a pontoon vessel with different design characteristics;
- “The Coast Guard certified the *Lady D* to carry too many people as a result of an inappropriate stability test on the vessel to which it was granted sister status; and
- “The Coast Guard’s regulatory stability test standards on which the *Lady D*’s passenger allowance was based on an out-of-date average passenger weight.”

In a December 2004 letter to the Coast Guard Commandant the NTSB recommended that the Coast Guard “revise your guidance to determine the maximum occupant capacity of small passenger pontoon vessels” and in a later letter advised the Coast Guard to “revise regulations to require that passenger capacity for domestic passenger vessels be calculated based on a statistically representative average passenger weight standard that is periodically undated.”

Based on the results of an investigation of an airline crash in January 2003, the FAA revised its weight and balance guidance in August 2004.

In October 2005, the Coast Guard announced its intention to contract for a “study on of the potential impacts that would result from increasing the passenger weight and size regulatory standards used when calculating the intact stability of domestic passenger vessels.”

In April 2006 the Coast Guard published in the Federal Register “Voluntary Interim Measures” for “Domestic Vessel Passenger Weights” and stated that “it is committed to a **high priority rulemaking** to develop new regulations and interim measures to address increased passenger weight problems...”.

The Coast Guard has yet to publish the results of the study announced in October 2005 or a Notice of Proposed Rulemaking.

Almost 50 people died in these three casualties.

Casualty investigations

In 1995, the Coast Guard issued a “Report of the Quality Action Team on Marine Safety Investigations” recommending that, “To improve the overall quality of the information derived from investigations, an investigations career path should be developed. This would enable the Coast Guard to raise the overall level of expertise in investigations. This is necessary to have personnel who can thoroughly and efficiently investigate major casualties and who can properly address the very complex human factors aspects of casualties.”

At the request of the Committee, the Inspector General of the Department of Homeland Security is currently conducting a thorough evaluation of the Coast Guard's marine casualty investigation program. While the results of that study were due by the end of June, the Committee expects to receive the report soon.

The Coast Guard has conducted only two Marine Board investigations in the decade between 1998 and 2007. During the same period, the NTSB issued 29 reports. The most recent Coast Guard Marine Board report on the loss of the F/V *Arctic Rose* took three years to produce and failed to account for a critical 20,000 pounds of weight that had been added to the vessel after the stability booklet was prepared.

The Coast Guard is required to post marine casualties on the Internet, but a review finds a lack of information on the causes of most casualties that would be useful to owners and operators for the prevention of future incidents.

Issuance of Licenses and Merchant Mariner Documents

The Coast Guard is responsible for ensuring the quality and validity of the training programs that assist mariners in obtaining licenses as deck and engineering officers, and documents as seaman or members of the engine-room department; the administration and implementation of the program that issues licenses and merchant mariner documents; and, the legal system adjudicates 'suspension and revocation' proceedings of alleged misdeeds and infractions of the law.

Last year, the Subcommittee held an oversight hearing on the back-log and delay in issuing licenses and merchant mariner documents. Witnesses testified that they experience delays that cost them: time, jobs and money.

Oversight of Lifesaving Equipment:

There are two types of lifesaving equipment facilities: the manufactures that make the equipment, and the service facilities that service lifesaving equipment such as life-boats and inflatable liferafts. In the past, Coast Guard personnel conducted on-site inspections at manufacturing plants to ensure that equipment was made and tested correctly, and at service facilities when equipment such as – lifeboats and inflatable liferafts – from an 'inspected' vessels was being serviced.

Today Coast Guard inspectors do not regularly visit manufacturing facilities and rarely visit servicing facilities where inflatable lifesaving equipment is serviced. Companies that manufacture and service lifesaving equipment – the last line of defense in the event of a vessel casualty – are concerned about the Coast Guard's lack of oversight of the manufacture and service of this important equipment.

Marine safety regulations

In 1981, the House Merchant Marine and Fisheries Committee conducted a series of oversight hearing on the Coast Guard mission and noted that –

In recent years, the role of the Coast Guard has increasingly become that of a regulatory agency. However, we do not believe that the regulatory function is compatible with the nature of a military service. The best example of this incompatibility lies in the Coast Guard personnel rotation policy, which is not unlike that of our other military services. While the practice of regularly transferring Coast Guard personnel to different geographic locations and delegating new responsibilities may be sound from a military perspective, it severely hampers the agency's ability to successfully fulfill its regulatory functions because it limits the development of expertise in any given geographic or technical area. It should go without saying that the development of just this kind of expertise is critical to the promotion of a safe merchant fleet and the promulgation of regulations which are not economically debilitating.

The Committee recommended, "The Coast Guard should be relieved of any responsibilities which can be fulfilled with equal or greater competence and efficiency by other federal agencies, by state or local government, or by the private sector. Particularly strong consideration should be given to the transfer of some duties in the areas of Bridge Administration, **Commercial Vessel Safety**, towing and salvage operations, and icebreaking."⁵

The emphasis on 'operational' missions such as Search and Rescue (SAR) and drug interdiction (Law Enforcement) continued along with efforts to 'delegate' marine safety responsibilities to 'third parties' despite that fact that Congress continues to adopt legislation that require the Coast Guard to undertake complex regulatory initiatives that require in-house expertise. For example, after the grounding of the tank vessel *Argo Merchant*, Congress adopted the Port and Tanker Safety Act giving the Coast Guard more regulatory responsibility. And in response to the grounding of the tanker *Exxon Valdez*, Congress adopted the Oil Pollution Act of 1990 (OPA-90), which required a staff of 75 to write the regulations, and a continuing staff to administer the Oil Spill Liability Trust Fund.

In December 1993, the charter-fishing vessel *E/Toro II* sank in Chesapeake Bay with 23 people on board. The vessel did not have survival craft that provided protection from hypothermia. Two passengers and one crewmember died from the effects of hypothermia. The Coast Guard investigator recommended that consideration be given to revising primary lifesaving equipment requirements for small passenger vessels to minimize the effects of hypothermia. The NTSB recommended that the Coast Guard "require that **out-of-the-water survival craft** for **all** passengers and crew be provided on board small passenger vessels on **ALL** routes." Four years prior to the sinking of *E/Toro*, the Coast Guard published a Notice of Proposed Rulemaking (NPRM) that would have required most small passenger vessels to carry inflatable survival craft capable of keeping the occupants completely out of the water. In 1997, the Coast Guard published a Final Rule that allows a vessel such as *E/Toro* – a wood vessel with no watertight subdivision – to operate on Chesapeake Bay in December (when water temperature hover around 45°F) with survival craft that would not provide out-of-the-water protection.

The Committee understands that the Coast Guard is working on over 90 marine safety regulatory projects including:

⁵ See "Semi-Paratus: The United States Coast Guard 1981" Oversight report of the Subcommittee on Coast Guard and Navigation.

- Towing vessel inspection regulations authorized in 2004. The Coast Guard is seeking guidance from industry to develop regulations. No estimate of when final rules might be published is available.
- Fishing vessel safety regulations regarding stability on smaller vessels and other issues.
- Hours of service limits for towing vessels.
- Automatic Identification System (transponders).
- Electronic charts (mandated by law on vessels beginning January 1, 2007).
- Alternate tonnage measurement.
- Potable drinking water on inspected vessels.

For many of these projects even a preliminary notice of rulemaking has not been published.

In 2004, as a result of their investigation of the *Lady D* casualty, NTSB recommended that the Coast Guard revise the passenger weight standard used to calculate stability on passenger vessels. As noted above, the Coast Guard announced in April 2006 that “it is committed to a **high priority** rulemaking to develop new regulations ... to address increased passenger weight problems”.

“Almost without exception there is no accepted career path to regulatory program leadership at the highest levels for newly assigned personnel, or for warrant officers, or for those that don civilian clothes in retirement,” a former Coast Guard marine inspector wrote in a trade journal, going on to say, “There is every reason to reinvigorate a comprehensive marine modal administration in the Department of Transportation even if it comes in part at the expense of the multi-mission Coast Guard.”

Today, the Committee is examining the challenges that the Coast Guard faces “to reinvigorate a comprehensive” marine safety program that is dedicated to preventing marine casualties, minimizing the effect of the casualty, and maximizing lives saved.

WITNESSES

PANEL I

Admiral Thad Allen, USCG
Commandant, United States Coast Guard Coast Guard

PANEL II

Mr. Richard A. Block
Gulf Coast Mariners Association

Mr. Tim Brown
President, International Organization of Masters Mates & Pilots

Mr. Gunnar Lundeberg
President, Sailors' Union of the Pacific

Panel III

Mr. Thomas Allegretti
President, American Waterways Operators

Mr. Joseph Cox
President, U.S. Chamber of Shipping

Mr. Peter Lauridsen
Passenger Vessel Association

Mr. B.W. "Tom" Thompson
Executive Director
U.S. Marine Safety Association

Mr. Jim Weakley
President, Lake Carriers Association

Mr. Ken Wells
President, Offshore Marine Services Association