



**TESTIMONY OF
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“OVERSIGHT OF THE CRUISE INDUSTRY”

**BEFORE THE
SENATE COMMERCE, SCIENCE, AND TRANSPORTATION COMMITTEE**

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Introduction

Good morning Mr. Chairman, Ranking Member Hutchison, and distinguished members of the committee. Thank you for the opportunity to appear before you to discuss issues related to cruise ship safety.

In my role as the Coast Guard’s Deputy Commandant for Operations, I am responsible for setting standards for safety, security, and environmental stewardship for commercial vessels, facilities and mariners, ensuring compliance with those standards, and conducting investigations of violations and accidents. I am also responsible for policy regarding the conduct of Search and Rescue (SAR). I’ll touch on each of these areas in my testimony today in the context of foreign flagged cruise ships operating in U.S. waters.

While it is still too early in the investigation to comment with any certainty on the cause of the tragedy involving the cruise ship *Costa Concordia*, or the conduct of the passengers and crew after the initial incident and during the evacuation of the vessel, as mariners and safety professionals - all of us in the U.S. Coast Guard extend our heartfelt condolences to the families and friends of the loved ones lost in this tragic event.

Impetus for Safety Requirements

To understand where we are today with respect to passenger vessel safety, we should look at the lessons the past has taught us.

The 100th anniversary of the sinking of the *RMS Titanic* in April 1912 is only weeks away. The *Titanic* tragedy prompted overwhelming international response which resulted in the first Safety of Life at Sea Convention, also known as SOLAS 1914. This first version focused on lifeboats, emergency equipment, and radio watches. Improvements to the Convention made in 1929, 1948, and 1960 added requirements for subdivision, stability, machinery, firefighting, lifesaving, communications, and navigation systems. SOLAS is the key international maritime agreement focused on safety.

For the most part, large passenger vessels visiting the United States before the 1960s were in liner service, with the primary purpose of transporting passengers from one part of the world to another. With the advent of commercial airlines, the international passenger vessel industry evolved from transportation to entertainment, and liners became cruise ships.

In the 1960s, a number of serious cruise ship fires, involving heavy loss of life, brought the issue of cruise ship safety to the attention of maritime authorities worldwide. These fires involved the older passenger ships *Lakonia*, *Yarmouth Castle*, and *Viking Princess*, which had superstructures that contained some combustible materials, allowing the rapid spread of flames and total destruction of passenger spaces.

In May 1966, the Maritime Safety Committee (MSC) of the Intergovernmental Maritime Consultative Organization (IMCO), now called the International Maritime Organization (IMO), met to consider measures to improve the fire safety of passenger vessels. The committee first directed its attention to the problem of fire safety in older passenger vessels and crafted the 1966 amendments to SOLAS 60, which included additional fire protection standards for existing passenger vessels. Congress showed great interest in this work, especially since the Coast Guard had conducted a Marine Board of Investigation into the 1965 *Yarmouth Castle* fire. On November 2, 1968, Public Law 89-777 (R.S. 4400(c); 46 U.S.C. 362(c)), Fire Safety Standards for Foreign and Domestic Passenger Vessels, came into effect, which required the Coast Guard to verify that foreign cruise vessels complied with the 1966 fire safety amendments.

In 1968, the United States unilaterally required all passenger vessels with overnight accommodations for 50 or more passengers to meet the 1966 fire safety amendments or U.S. passenger vessel requirements. The Coast Guard promulgated Navigation and Vessel Inspection Circular 2-68, which provided implementing guidance on how to conduct a control verification examination on foreign flag cruise ships, specifying that “this verification may necessitate a degree of plan review, removal of panels, ceilings, etc., in addition to the testing of construction materials.” On August 26, 1983, Public Law 98-89 provided additional authority for the Coast Guard to verify that foreign flag cruise ships embarking passengers in U.S. ports comply with SOLAS convention requirements.

The Coast Guard made improvements to its vessel examination program in 1985 and 1993, which further expanded examination requirements and provided much more detailed guidelines for control verification examination procedures on foreign cruise ships. Since 1993, cruise ship designs have continued to evolve, growing in size and complexity with the capability of carrying thousands of passengers and crew, and the Coast Guard has frequently updated guidance for plan review and control verification examinations necessary for foreign cruise ships operating out of U.S. ports. Last year, there were 143 cruise ships, sailing under foreign registry, that operated out of U.S. ports and carried over eleven million passengers.

Modern Standards for Cruise Ships

Over the past decade, the international shipping community, through the IMO and with Coast Guard leadership, has moved decisively toward a proactive approach to passenger ship safety. With cruise ships growing progressively in size and capacity, in May 2000, the IMO agreed to undertake a holistic examination of safety issues pertaining to passenger ships, with particular emphasis on large cruise ships. The outcome of this proactive initiative is an entirely new prevention and survivability based regulatory philosophy for the design, construction, and operation of cruise ships.

The U.S., through the efforts of the Coast Guard, has taken a very active leadership role throughout this initiative, putting forward many of the recommendations for action taken by the various IMO Sub-Committees. The effort identified a number of areas of concern related to cruise ships, and resulted in substantial amendments to major IMO conventions, including SOLAS, International Convention for the Prevention of Pollution From Ships (MARPOL) 73/78, International Tonnage, Standards for Training, Certification, and Watchkeeping (STCW) and Load Line conventions. These conventions provide internationally-accepted standards for the design, construction, outfitting, and operation of ships. They address surveys, structures, stability, machinery, fire safety, lifesaving equipment, communications, navigation equipment, safety management, maritime security, pollution prevention, crew competency, watertight integrity, and safe loading.

Significant improvements under the five main pillars of the initiative entered into force in July 2010:

- **Prevention:** Amendments to the STCW Code and supporting guidelines focus on navigation safety and resource management;
- **Improved survivability:** New SOLAS requirements for the “safe return to port” concept address essential system redundancy, management of emergencies, and casualty mitigation, including the new concept of dedicated shipboard safety centers to manage emergencies;
- **Regulatory flexibility:** Amendments to SOLAS provide a methodology for the approval of new and innovative safety technologies and arrangements;
- **Operations in areas remote from SAR facilities:** Guidelines on external support from SAR authorities, as well as guidance to assist seafarers taking part in SAR operations have been developed; and finally
- **Health safety and medical care:** Guidelines on establishing medical safety programs, and a revised Guide on Cold Water Survival.

Other recent improvements include stability and survivability of cruise ships through new probabilistic subdivision and damage stability regulations, and flooding detection systems; improved voyage planning, particularly in remote and high latitude areas; and voyage data recorders. As a separate initiative, stemming from the 2006 fire aboard the *Star Princess*, significant improvements have been made to the fire safety features of external areas on cruise ships. Overall, the past decade has been an enormous leap forward in cruise ship safety measures and has been largely proactive as opposed to reactive to casualties as has generally been the case in the past. Coast Guard’s leadership in the international community with respect to cruise ship safety measures and our support to foreign casualty investigations evidences our dedication to U.S. passenger safety wherever our citizens embark on cruise ships.

The Safety, Security, and Environmental Protection Net

The IMO conventions form the bases for the international safety, security, and stewardship net designed to ensure consistent standards across the world wide fleet of cruise ships. The owners and operators, flag states and port states each have distinct roles in ensuring compliance with those standards.

Flag states have the primary responsibility to ensure vessels of their flag meet international and domestic standards. They often achieve this through recognized third party organizations who certify that vessels meet design, construction, operating, and manning requirements throughout the life of the vessel.

Port states verify substantial compliance with international standards and ensuring compliance with applicable domestic requirements for vessels of all flags calling in their ports. As the port state authority for the U.S., the Coast Guard has established a robust control verification program that subjects cruise ships calling in U.S. ports to a much higher level of scrutiny than other foreign flag vessels, and much higher than any other port states require for foreign flag cruise ships in their ports.

Coast Guard Control Verification Program for Foreign Flag Cruise Ships

The Coast Guard has a very robust port state control program for cruise ships. All foreign flag cruise ships arriving in the United States that embark passengers or make a U.S. port call while carrying U.S. citizens as passengers must participate in the control verification process. Cruise ships that return to U.S. service after a prolonged absence are treated as if they had never been in service in the U.S. and must undergo the entire process again.

The Coast Guard control verification program includes initial, annual, and periodic examinations for foreign flag cruise ships calling in our ports. It includes concept review during the very earliest stages of design, pre-construction plan review by Coast Guard naval architects and fire protection engineers, mid-construction inspections at the builder's yard by Coast Guard marine inspectors, an initial operational inspection of the vessel upon completion of construction, and at least annual inspections while the vessel is in service in U.S. ports. This regime allows the Coast Guard to determine that the vessel is in substantial compliance with all applicable international and domestic standards.

The engineering review of plans for structural fire protection arrangements provides a great level of assurance that shipboard fire safety arrangements meet international standards. After review, these same engineers visit the ship and confirm that the actual arrangements on the vessel are the same as those shown on the structural fire protection plans. No other port state provides this level of attention to detail for cruise ships. On the basis of this initial examination, the Coast Guard issues a certificate of compliance that allows the vessel to operate in U.S. ports.

The annual examination ensures that foreign cruise ships continue to maintain all the systems the Coast Guard previously examined during the initial exam in proper operating condition and that the flag administration has performed annual renewal surveys as required by SOLAS. Inspectors focus on firefighting, lifesaving, and emergency systems and witness a comprehensive fire and boat drill by the crew. In addition, inspectors examine the vessel for modifications that would affect the vessel's structural fire protection and means of escape. They also check for modifications completed without the vessel's flag administration approval. After a satisfactory annual examination, the Coast Guard re-issues a certificate of compliance.

Periodic examinations are also conducted, typically midway between the annual examinations. These examinations are limited in scope and build on the more comprehensive annuals, and they are intended to ensure vessels are being operated in a safe manner. The periodic examinations focus on the performance of officers and crew, with specific attention paid to their training on and knowledge of the ship's emergency procedures, firefighting, lifesaving systems, and performance during the drills. To ensure the overall material condition of the ship has not appreciably changed since the annual examination, inspectors randomly select sample items for examination.

Inspectors also vary the scope of the examination depending upon the material condition of the vessel, the maintenance of the vessel, and the professionalism and training of the crew. At every Coast Guard examination of a foreign cruise ship, the inspectors will determine whether the vessel is in substantial compliance with the international convention standards.

As a result of the *Costa Concordia* incident, I have directed Coast Guard field inspectors to witness the passenger muster required by SOLAS whenever they are onboard a cruise ship conducting an initial, annual, or periodic examination. Our personnel will witness these musters either immediately before or during vessel departure from port. I am pleased to see that the cruise industry associations announced a new emergency drill policy requiring mandatory muster for embarking passengers prior to departure from port.

Investigations

Foreign vessels operating in U.S. waters are required by U.S. law to report accidents immediately. Upon accident notification, we proactively investigate to determine causes and issue safety recommendations to prevent recurrences. It is a continuous improvement process which incorporates lessons learned from accident investigations to enhance cruise ship safety and ensure compliance with national and international laws.

After the *Costa Concordia* incident, the Coast Guard immediately offered technical expertise and support to the Government of Italy's marine casualty investigation. The Coast Guard's expertise in marine casualty investigations will prove helpful as we move forward with the investigation. Currently, Coast Guard teams are conducting interviews with the U.S. passengers to ascertain the vessel's crew level of preparedness and response. Information gained from the *Costa Concordia* investigation may assist in identifying marine casualty causal factors that could have broad application. It is long standing practice to cooperate in all manner of accident investigations involving different flag and coastal states and the Coast Guard routinely acts in this accord.

Search and Rescue (SAR) and Mass Rescue Operations (MRO)

The Coast Guard has maintained a good relationship with the cruise lines regarding search and rescue and medical evacuations. For the Coast Guard, a Mass Rescue Operation involving a cruise ship casualty offshore, with potentially thousands of passengers and crew forced to evacuate into lifeboats and the water, presents our greatest search and rescue challenge. Working with cruise line and passenger vessel companies, the Coast Guard continues to develop and improve SAR and MRO contingency plans. In addition to internal Coast Guard SAR plans, the Coast Guard holds a copy of cruise ship SAR plans and is able to incorporate the cruise ship plans into our overall SAR planning in the event of an emergency. The Coast Guard also meets periodically with cruise line medical personnel to discuss plans for medical emergencies, which pays dividends during actual medical evacuations. For example, many of the 857 medical evacuations performed by the Coast Guard last year, were conducted from cruise ships. evacuations last year.

In addition to working directly with cruise lines, Coast Guard has been working in partnership with the passenger vessel industry associations, including Cruise Lines International Association and the Passenger Vessel Association. Coast Guard works with the associations to develop, coordinate and represent Coast Guard policies and positions related to passenger vessel mass rescue plans, coordination, and exercises.

Recently, Coast Guard led a Department of Homeland Security sponsored interagency table top exercise for Federal agency representatives involving a cruise ship emergency in the Arctic. Mass rescue planning involves support from many of our Federal agency and State partners.

In 2002, Congress appropriated funding for 22 permanent billets for the Coast Guard's Passenger Vessel Safety Specialist/Mass Rescue Operation Program. These billets provide the Coast Guard with increased capacity and capability to help coordinate and promote passenger vessel prevention plans, manage risk and maintain a state of readiness in response to the impressive growth in foreign and domestic passenger vessels over the past decade. Planning for a mass evacuation of a cruise ship carrying thousands of passengers and crew involves intense preparation and extensive coordination to meet the varying types of emergencies that could arise.

Coast Guard passenger vessel safety personnel at each of our Districts assist in the conduct and coordination of Coast Guard mass rescue exercises. Over the last five years, the Coast Guard conducted thirty-six mass rescue exercises involving passenger vessels, three of which involved a cruise ship. The Coast Guard has an agreement with CLIA to include an actual cruise ship as part of these exercises every two years. Since 2007, CLIA has fulfilled this partnership agreement by providing a cruise ship every other year for a full scale exercise. The purpose of these exercises is to assist the Coast Guard, other Federal, state and local search and rescue authorities and cruise ship industry partners in exercising mass rescue plans, practice interagency/industry cooperation and coordination and identify ways to improve the overall response to a major maritime disaster.

Mass rescue exercises have been structured around a five-year cycle. In 2010, the Coast Guard directed that, at a minimum, each Coast Guard District conduct and/or participate in one discussion based (e.g., seminar, workshop, game, or tabletop) and one operations based (e.g., drills, functional, full scale) mass rescue exercise over a five year period. To meet this exercise requirement, beginning this year, the Coast Guard has planned a five-year mass rescue exercise series known as "Black Swan." The exercise series will begin this year with a cruise ship seminar in New Orleans, followed by a functional drill in 2013, also in New Orleans, and full scale mass rescue exercises in Miami in 2015 and Norfolk in 2017. The scope of these exercises provide a valuable opportunity to identify and resolve the difficulties associated with rescuing hundreds or thousands of people at once. It is also a chance to address the unique challenges posed by off shore mass rescues.

The Black Swan mass rescue exercise series will focus on the exercise of Coast Guard mass rescue plans, coordination with other authorities and industry partners, notification and information processes, personnel accountability, embarking thousands of survivors on rescue ships from the water, lifeboats and rafts, and rescued passenger and crew support.

Cruise Ship Security and Crime

September 11, 2001 spurred the development of the Maritime Transportation Security Act (MTSA) and the IMO International Ship and Port Facility Security (ISPS) Code, both of which are rigorously enforced by the Coast Guard. Prior to the MTSA and ISPS, only the cruise ships that visited the U.S. and cruise terminals were required to have security plans in place. The requirement for cruise ship and facility security plans in the United States had come into effect as a result of the 1985 *Achille Lauro* terrorist incident in the Mediterranean Sea, resulting in the murder of Leon Klinghoffer - a wheel-chair bound U.S. citizen.

The Coast Guard examines every cruise ship that visits the U.S. for compliance with MTSA and ISPS requirements at the same time it carries out annual and periodic examinations. Overall, cruise ship compliance records have been extremely good, with only three security-related detentions in approximately 1,800 security examinations since July 2004.

Notwithstanding this security compliance regime, there have been serious incidents and crimes that have affected U.S. citizens aboard foreign-flagged cruise ships, however, this has led to an increased focus on protecting our citizens both in port and while they are at sea. In 2010, Congress bolstered passenger safety and security with respect to such incidents and crimes by enacting the Cruise Ship Security and Safety Act of 2010 (CVSSA). Since then, the Coast Guard has worked diligently to implement the provisions of this act.

The CVSSA prescribes security and safety requirements for designated cruise ships and is the authority for a rulemaking now under development by the Coast Guard. CVSSA amended Title 46, United States Code, by adding passenger vessel security and safety requirements, and crime scene preservation training requirements for passenger vessel crewmembers. CVSSA addresses many areas that affect personal safety and security, including: ship design; better public access to information about crime aboard cruise ships; improved precautions, response, medical care, support for victims of sexual assault; preservation of evidence necessary to prosecute criminals; and more consistent and complete reports about criminal activities. A large number of these requirements went into effect when the President signed the legislation on July 27, 2010; however, there are areas that require implementation through the publication of regulations.

Thus far, the Coast Guard has completed the following actions with respect to implementing the CVSSA:

- In June 2011, the Coast Guard published policy establishing guidelines for Coast Guard Marine Inspectors examining cruise vessels for compliance to include physical requirements, such as: rail heights; door peep-holes as one commonly sees on hotel doors, which allow cabin occupants to see who is outside before opening their cabin door; and the passenger security guide.
- The Coast Guard established an internet-based portal (NCC@uscg.mil) to facilitate electronic submission of crime reports.
- The Coast Guard established a web link to publish cruise ship sexual assault and criminal activity data received from the the Federal Bureau of Investigation (FBI) in accordance with the act: <http://www.uscg.mil/hq/cg2/cgis/>.
- An Inter-agency workgroup consisting of Coast Guard, FBI, and the Maritime Administration personnel completed development of a model course addressing crime scene preservation standards and curricula. In July 2011, the Coast Guard published policy promulgating training standards and curricula for the certification of passenger vessel security personnel.

Closing

As I close, let me emphasize that the Coast Guard places the highest priority on vessels that embark passengers in the United States; and embark U.S. passengers world-wide. We have a strong and effective port state control program for foreign cruise ships and ensure that vessels that visit the United States are in substantial compliance with applicable international and domestic standards.

We participate in casualty investigations, even those taking place overseas, and we lead efforts at IMO to improve maritime safety, security, and environmental protection standards.

Furthermore, we have one of the best Search and Rescue programs in the world and we work closely with the industry on SAR planning and medical evacuations. We have efforts underway to plan for mass rescue operations.

We are taking measures to implement the CVSSA. We have accomplished much, but additional work must take place.

As a result of the *Costa Concordia* incident, we have also put into place a regime to witness passenger musters as part of our mandatory vessel examination program. As the investigation unfolds, the Coast Guard will capture lessons learned and incorporate them into our safety regime.

The Coast Guard also looks forward to continued cooperation with this committee, passenger victims groups, and the passenger vessel industry to maximize cruise vessel safety, security, and environmental protection. Although we are not asking for, or recommending to Congress, new legislation at this time, we may do so in the future once we have had the opportunity to review the *Costa Concordia* investigation.

Thank you again for the opportunity to testify today. I will be pleased to answer any questions you may have.