

UNITED STATES COAST GUARD

MARINE SAFETY PERFORMANCE PLAN

FY 2009-2014



MAY 2008



U. S. Coast Guard marine inspectors conduct a damage survey in the cargo hold of a Great Lakes bulk cargo vessel. To increase marine inspector and investigator capacity, we will add 276 full-time personnel to the marine safety program by the end of 2009.

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REAR ADMIRAL JAMES WATSON

Director, Prevention Policy (CG-54)

United States Coast Guard

The Coast Guard's missions of preventing and responding to major marine incidents remain unchanged, and conversely, the Coast Guard's responsibility to improve Marine Safety is ever changing. The maritime industry continues to grow. This poses new challenges, and we must keep up with our stakeholders' and partners' needs —our biggest challenge! We recognize industry's concerns and value their insights on how best to meet the demands of a dynamic global environment. We are always assessing our performance, making course corrections or charting new courses, and we understand that our success depends on a strong foundation of partnership with our maritime stakeholders. This is why we must have a formal "sail plan" that conveys our goals, objectives and performance targets both internally and externally.

I am pleased to present for public comment the Coast Guard's Performance Plan for Marine Safety. This performance plan is a living document that will undergo continuous review to illustrate the broad range of services the Coast Guard Marine Safety program provides the American public. These services directly support our national interests of ensuring a safe and efficient maritime transportation system, protecting the environment and natural resources, and preventing disruptions to commerce. This plan establishes what the Marine Safety program intends to achieve in the next five years; includes measures of effectiveness; and describes the linkages among our mission, strategic goals, objectives, and actual performance.

As Ben Franklin stated in his *Poor Richard's Almanac*, "an ounce of prevention is worth a pound of cure." I could not agree more! I am focused on keeping accidents from happening and I am totally committed to keeping the Coast Guard's prevention program the best in the world. To do that I am determined to field highly trained professionals, who provide the best and most efficient service to stakeholders, and who constantly work to strengthen and improve our partnerships.

Please note this performance plan addresses our Marine Safety mission, primarily consisting of marine inspections and investigations. This plan does not focus on marine environmental protection and response. These will be addressed in subsequent performance plans.

I value the input of our partners and stakeholders and encourage your thorough review of this Marine Safety Performance Plan. If you have any recommendations, please provide your comments to: MSPerformancePlan@uscg.mil.

James Watson

Rear Admiral, U. S. Coast Guard

PROGRAM OVERVIEW

MARINE SAFETY MISSION & VISION

MISSION

The Coast Guard Marine Safety program ensures the safety of tens of thousands of U.S. mariners, millions of passengers on ferries and other vessels, and tens of millions of recreational boaters. By preventing marine casualties, we also protect the marine environment from oil spills and the introduction of other harmful substances, and strengthen the economy by minimizing property loss and disruptions to maritime commerce.

The Coast Guard Marine Safety program accomplishes this through a multi-faceted approach that includes standards development, mariner credentialing, compliance enforcement, investigations and casualty analysis, industry and public outreach, and international engagement.

VISION

The Coast Guard Marine Safety program will be the model of effectiveness and efficiency that other maritime nations seek to emulate. Our personnel will epitomize the values of honor, respect, and devotion to duty. We will be always considerate and responsive to mariners and the maritime community.

PROGRAM SCOPE AND IMPACT

The Coast Guard Marine Safety program is responsible for ensuring the safe and environmentally sound operation of U.S. flagged vessels wherever they are in the world, and exercising Port State authority for foreign vessels operating in U.S. waters. The impact of the regulated industry is significant to the U.S. economy. 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.

We are the lead federal agency with responsibility for operations within the nation's marine transportation system, which consists of 25,000 miles of inland, intra-coastal, and coastal waterways; encompasses 240 locks, 355 ports, 1,000 harbor channels, and 1,941 cargo terminals; and includes 18,000 bridges and 97,000 aids to navigation. The marine transportation system is how the majority of the nation's food, clothing, oil, and other raw materials reach warehouses, stores, and gas tanks. More than \$958 billion of international commerce —1.4 billion tons of cargo, including more than 51 million containers —are carried within this system. We serve more than 8 million cruise ship and ferry passengers who log more than 65 million passenger-miles a year; and provide a venue for boaters who operate more than 12.8 million registered recreational vessels that generate an estimated 900,000 jobs and \$100 billion in revenue. Additionally, we support military sealift requirements for national defense.

MULTI-MISSION SYNERGY

The Coast Guard has added a variety of missions and authorities during its evolution as an organization, each building on prior successes. In the 1800's, Congress enacted legislation to create the Steamboat Inspection Service to protect the public from preventable marine incidents. Preserving life

in the aftermath of a marine incident was initially the responsibility of a separate federal search and rescue organization. These disparate agencies were deliberately combined to become the modern Coast Guard in order to reap the synergistic benefits that unity of effort brings to these different responsibilities.

This marriage of multi-mission responsibilities has created an interwoven fabric of prevention and response elements. The unique blending of these capabilities enables us to multitask and utilize the same resources to simultaneously accomplish several missions. This is particularly true in the Marine Safety program. When inspectors board vessels, they are multi-mission in their focus; while inspecting for safety, they also observe environmental protection and security conditions.

PROGRAM ELEMENTS

Standards Development

The Coast Guard's prevention role is largely regulatory, and our efforts begin with development of a regulatory regime that provides a set of minimum safety standards. The Coast Guard is the primary federal agency for developing marine safety, security, and environmental protection standards. We rely on a solid understanding of causal factors and risk management principles, and under the provisions of the Administrative Procedures Act, we participate with the public in the development of sound regulations. Coast Guard leaders also play an active role in the development of international marine safety standards.

Mariner Licensing & Documentation

The Coast Guard Marine Safety program ensures the competency of the nation's mariners through its Mariner Licensing & Documentation program. The program issues licenses and documents to qualified mariners, and ensures their competency through a combination of training courses, requisite experience, and examinations.

Compliance

The Coast Guard Marine Safety program systematically conducts inspections of U.S. and foreign vessels, marine facilities, and reviews plans for vessel construction, alteration, equipment, and salvage to ensure safety and environmental protection standards are being met. These inspections are comprehensive in nature, and often encompass machinery, electrical, piping, industrial, navigation, and pollution prevention systems. In a "typical" year, the Coast Guard Marine Safety program conducts more than 70,000 domestic vessel inspections, 10,000 port state control examinations and reviews for than 15,000 vessel plans for technical compliance.

Recreational Boating Safety

The Coast Guard Marine Safety program acts to enhance boating safety by developing vessel construction and performance standards; and ensuring compliance through a robust program of factory inspections, visiting some 2,000 of the approximately 3,600 active recreational boat manufacturers each year. We promulgate safety equipment carriage requirements; and in partnership with state and local enforcement agencies, we board and check 1.6 million recreational vessels each year. Additionally, the Coast Guard Auxiliary and United States Power Squadrons provide free vessel safety checks and inspections for an additional 200,000 or more vessels each year.

Investigations & Casualty Analysis

In a "typical" year, the Marine Safety program conducts approximately 14,000 marine casualty investigations. We make findings and lessons learned available to the public and other governmental entities, and use the results of our investigations to develop new standards to prevent future accidents.

Outreach & International Engagement

The Coast Guard Marine Safety program also pursues education and outreach programs that stress *Prevention-Through-People*. The common theme in the safety literature is that human factors are the primary cause of most accidents. We proactively engage with industry stakeholders and associations; as well as with allied agencies at the local, state, and national level, to develop cooperative efforts to promote safe and environmentally sound practices.

The United States is also an active Member State of the International Maritime Organization (IMO), and, through the Coast Guard, has maintained a strong leadership role since IMO inception in 1948.

ALIGNMENT WITH OTHER STRATEGIES & MANDATES

AUTHORITIES AND CONGRESSIONAL MANDATES

Most of the safety mandates for domestic vessels in U.S. Code are identified in Title 46 for commercial and recreational vessels. Foreign vessels, boats, facilities, and authorities are identified in Title 33 as well as numerous treaties and international agreements. Further refinements of laws are described in the U.S. Code of Federal Regulations.

COAST GUARD POLICIES, STRATEGIES AND DIRECTIVES

The Coast Guard is challenged to maintain and keep current the regulations needed to follow technological trends and new safety standards, as well as meet Congressional mandates for vessel inspections, tonnage admeasurements, and mariner licensing and documentation. Accordingly, the Coast Guard updates its policies and strategies annually to meet our marine safety mission goals and objectives.

DEPARTMENTAL AND EXECUTIVE STRATEGIES AND DIRECTIVES

This Performance Plan contributes to the Department of Homeland Security (DHS) goals and strategies as well as Presidential Directives. The Marine Safety program directly and indirectly supports the following DHS goals:

- Developing situational awareness on the waterways.
- Protecting lawful trade, travel, and immigration.
- Strengthening the security of the Nations transportation systems.
- Protecting the marine environment and living marine resources.
- Reducing the loss of life and property by strengthening response readiness.

PERFORMANCE MEASUREMENT AND EVALUATION

Program evaluation is one of the major elements of the Government Performance and Results Act (GPRA). The statute calls for agencies to use program evaluations to assess the manner and extent to which Federal programs achieve intended objectives. The statute further calls for agency Performance Plans to include a summary of the findings of program evaluations. Additional information on GPRA can be found at the Office of Management and Budget's website at www.whitehouse.gov.

GOALS & OBJECTIVES

GOAL 1 – REDUCE MARITIME CASUALTIES

Objective 1.1 – Improve Recreational Boating Safety

Each year approximately 700 recreational boaters are killed and thousands more are injured. Recreational boating results in the third highest annual number of transportation fatalities.

- Increase awareness of safe boating practices.
- Improve life jacket wear-rates.
- Implement measures to reduce alcohol use while boating.

Objective 1.2 – Reduce Towing Vessel Casualties

Largely due to their high risk operating environment, towing vessels and tows account for a substantial number of vessels involved in collisions and groundings, a significant number of commercial mariner deaths and injuries, and a large portion of oil and chemical spills.

- Develop and phase in inspection for certification regulations for towing vessels.
- Expand inspection and compliance activities.
- Increase outreach and partnership efforts; promote risk reduction.

Objective 1.3 – Reduce Commercial Fishing Casualties

Fishing vessels account for 27% of the five-year average number of commercial mariner deaths and injuries.

- Increase number of commercial fishing vessels complying with voluntary standards.
- Enhance dockside enforcement of safety regulations.

GOAL 2 – IMPROVE SERVICE TO MARINERS, INDUSTRY & PUBLIC

Objective 2.1 – Improve Service to Mariners and Industry

Complaints have been received about slow and unequal treatment of mariners during the licensing and credentialing process. Additionally, stakeholders have complained of a lack of focus on the part of the Coast Guard to their needs.

- Decrease mariner credentialing processing time.
- Improve policy, procedures, and stakeholder service.

Objective 2.2 – Strengthen Industry & Allied Agency Partnerships

The growing complexity of the marine industry, the increase in commerce, and new projects such as liquefied natural gas facilities all demonstrate the need for stronger and more enduring partnerships and a reinvigorated stakeholder focused approach.

- Improve and enhance cooperative relationships with the maritime community.
- Strengthen relationships with local, state, national, and international partners.

GOAL 3 – IMPROVE PROGRAM PROCESS & MANAGEMENT

Objective 3.1 – Clarify Management Responsibility & Accountability

There is a perceived lack of comprehensive and practical Marine Safety program direction that supports close, cooperative relationships with operational commands, industry stakeholders, and other stakeholders.

- Ensure program management structures and practices align with stakeholder needs and are understood internally and externally.
- Restore clarity and transparency to the Marine Safety program and improve industry accessibility to Coast Guard leadership at all levels.

Objective 3.2 – Expand Marine Inspector & Investigator Capacity to Match Industry Growth

Independent analysis has shown that the Coast Guard is applying insufficient resources to meet current and projected industry needs for inspector and investigator services.

- Design a program to meet the current and projected demands of the marine industry.
- Improve inspector training and career paths and increase accessions of personnel with marine science and engineering backgrounds.

Objective 3.3 – Balance Development & Stability of the Workforce

Independent analysis coupled with industry feedback indicates that due to rotation and promotion policies military marine inspectors and investigators do not spend sufficient time in either a subject of expertise or geographic area.

- Increase the ratio of civilian marine inspectors and investigators to provide stability and continuity.

Objective 3.4 – Expand Engineering & Rulemaking Capacity

Rulemaking and engineering capacity and expertise is challenged to keep pace with required updates to existing regulations, and provide necessary plan review and other approval services.

- Improve plan review, policymaking, and standards development performance.

Objective 3.5 – Improve Performance Measures & Measurement System

No comprehensive measurement regime exists that evaluates the performance of all aspects of the Marine Safety program as compared to national performance goals.

- Expand and improve performance measurement capabilities and practices.

Objective 3.6 – Complete an Independent Program Evaluation

Other than anecdotal information and evaluation of selected aspects there is no comprehensive independent evaluation of the entire Marine Safety program.

- Contract for a comprehensive and independent evaluation of the Marine Safety program.

GOAL 4 – IMPROVE HUMAN RESOURCE CAPABILITIES

Objective 4.1 – Strengthen Development & Career Opportunities

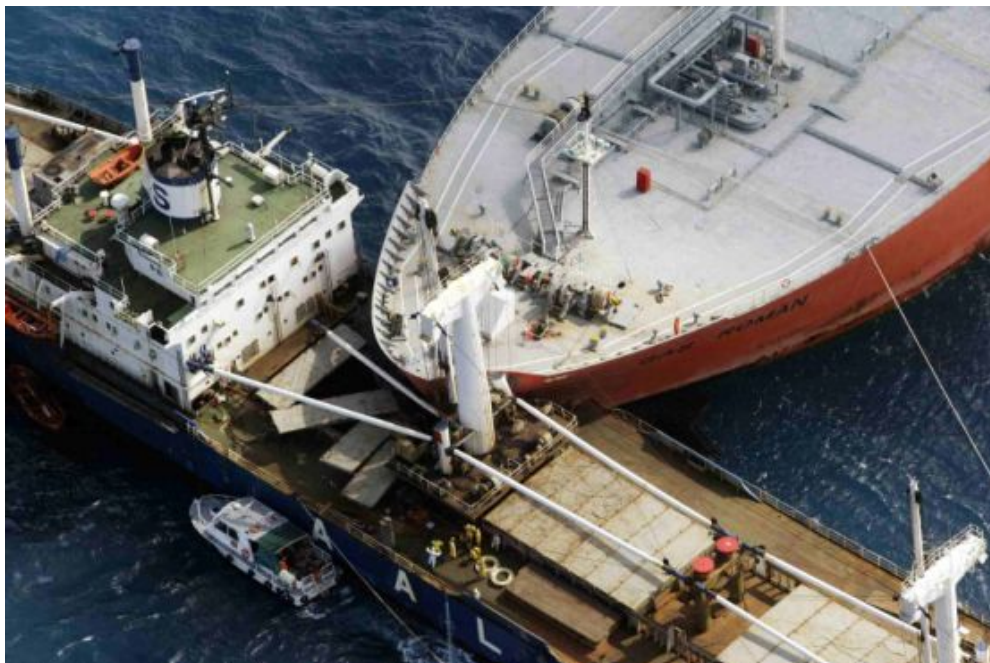
Coast Guard officers are confronted with a wide range of career opportunities given the multi-mission nature of the service. Attracting and retaining junior officers in the Marine Safety program is a key component in building the competencies and capacities necessary to achieve Marine Safety mission goals.

- Develop the Marine Safety program as a desirable career path to promote long-term availability of experienced personnel.

Objective 4.2 – Expand Knowledge of Industry Practices and Provide Advanced Training in Marine Inspections and Investigations

There is an identified need to increase the competency of inspectors and investigators as well as their knowledge of actual industry practices beyond that taught through normal training opportunities. To ensure our inspectors and investigators possess the technical expertise wherever and whenever necessary to perform quality inspections and investigations, we will:

- Increase advanced educational opportunities for marine inspectors and investigators in the marine sciences.
- Provide real-world training in certain high profile vessel types and investigations, emphasizing both the theoretical and practical application of inspection and investigation techniques.
- Promote better understanding of actual industry practices while enhancing partnerships.



PROGRAM CHALLENGES

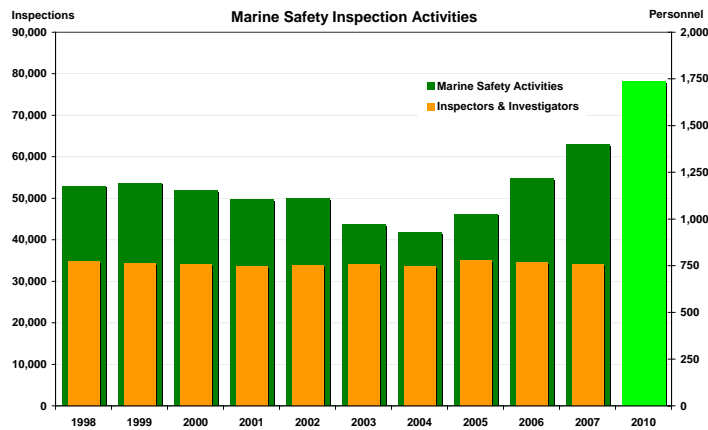
As part of the process to develop this performance plan, the Coast Guard conducted an assessment of opportunities and threats from the external environment, as well as strengths and weaknesses internal to the organization. Based on this assessment, the following gaps and issues were identified as significant for the Marine Safety program.

CAPACITY LIMITATIONS

The most significant threat to the Coast Guard’s Marine Safety professionalism is insufficient human resource capacity to be responsive to the regulated marine industry. Without sufficient capacity, we cannot develop or enforce standards that protect life and property, nor be responsive to industry.

The Coast Guard has been unable to meet the growing demand for domestic fleet inspections, the greater need for Port State control examinations, and increasing homeland security responsibilities with a workforce of marine inspectors and investigators that has remained relatively constant for the past decade or more —reaching a low of 744 in 2004 and a high of 780 in 2005.

As indicated in the chart below, we are conducting 20% more inspection activities today than was the average 5 years ago, and by 2010 the required effort will be nearly twice the inspection level in 2004. Not shown is the substantially greater effort required of these same personnel to support post-9/11 increases in homeland security responsibilities as part of our multi-mission workforce that is the bedrock of the Marine Safety ethos.



Other projected growth areas for Marine Safety services include:

- New inspection requirements for as many as 7,000 currently un-inspected towing vessels - a 40% increase in the size of the inspected vessel fleet;
- Market-driven shifts in port activity due to increased demand for such products as liquefied natural gas, petroleum, dangerous cargoes, and containerized freight;
- Increased foreign vessel arrivals; and

- Increased demand for commercial fishing vessel examinations and other safety initiatives.

We accept 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.

CAPABILITY ISSUES

Coast Guard capability in the Marine Safety mission area has declined while the complexity, novelty, and technological advancements used in the design, construction, and operation of ships and offshore systems has grown rapidly. Today's ships and floating offshore platforms are larger and more complex, incorporating more safety features and differing safety risks than ever before. Offshore systems continue to push the limits of technology as oil and gas exploration, production, and storage operations move farther offshore into deeper water. In many cases, new ships and offshore systems are using technology not addressed by current domestic regulatory schemes.

A compounding concern is the loss of experienced personnel due to the perception that a Marine Safety career provides limited opportunities for career development and senior leadership positions, such as Sector Command. The currency of this perception is borne out by retention statistics that show twice the median loss rate over the past 5 years for junior officers (O-2s) in the marine safety specialty than for Coast Guard O-2s overall. We must ensure the Marine Safety program provides a viable and attractive career path for junior officers to build the competencies and capacities necessary to achieve Marine Safety mission goals.

Engineering expertise is central to the Coast Guard's ability to develop necessary shipping regulations and verify compliance. Regulating a complex, technologically advanced industry requires knowledge and understanding of emerging engineering fields that drive commerce, safety and security. We need to improve rulemaking, maritime committee leadership, essential third party oversight, and technical expertise. Increasing the number of inspectors and investigators alone will not solve the problem. Multi-disciplinary engineering expertise is the foundation of Marine Safety competency and necessary to increase the level of service the Coast Guard provides.

SERVICE TO INDUSTRY & STAKEHOLDERS

The Coast Guard's relationship with its maritime stakeholders has suffered in recent years. Fees are charged to vessel owners and license applicants who expect and deserve a consistent, professional level of service based on regulations establishing the fee schedules. The Coast Guard's present capacity and competency levels, however, fundamentally affect our ability to deliver adequate services to industry. Additionally, the marine industry's rate of technological advancement has outpaced the Marine Safety program's growth and development. As a result, the industry is experiencing degradation in the delivery of our services.

A common industry concern has been that the Coast Guard has changed its approach to Marine Safety from the longstanding method of working with the industry to solve problems, to a much more rigid,, security-focused approach. Other concerns raised include the time it takes to complete regulatory projects and the importance of achieving promised customer service improvements in areas like processing mariner credentials.

The Coast Guard has always maintained active and productive partnerships through a variety of forums. The impact of Coast Guard operating requirements in a post-9/11 environment, however, has strained these traditional relationships which must be fully reconstituted.

SIGNIFICANT RESIDUAL RISKS

The towing industry, like many industrial sectors, is rapidly changing. Companies are consolidating, tows are getting larger — both longer and wider — with many businesses, ports, states and local entities encouraging growth in the sector to save money, ease port and traffic congestion, and reduce pollution caused by other modes of transportation. The environment in which the towing vessel industry operates: year round, day and night, in most all weather conditions, in close quarter vessel traffic lanes, and in shallow waters (coastal and inland rivers) combine to make this industry especially high risk. The impact of disruptions to commerce due to towing vessel incidents — along with risks to ports and urban areas — can be substantial. In addition, more barges are carrying Certain Dangerous Cargoes (CDCs), and many waterfront facilities operate “just-in-time” to minimize inventory costs which require increased shipments.

To address these concerns, risk mitigation, outreach, and a robust inspection program must be instituted to reduce towing vessel collisions and groundings, mariner deaths and injuries, and chemical and oil discharges.

Commercial fishing also continues to remain high on the Bureau of Labor Statistics list of selected occupations with high fatality rates. Commercial fishing vessels account for 27% of the five-year average number of commercial mariner deaths and injuries; 9% of the five-year average number of vessels involved in collisions and groundings; and 17% of the five-year average number of chemical discharge incidents and oil spills greater than 100 gallons into navigable waters.

Each year approximately 700 boaters are lost and thousands more are injured while engaged in recreational boating. This results in the third highest annual number of transportation fatalities, and boating deaths are on the National Transportation Safety Board’s Most Wanted List.

PERFORMANCE INITIATIVES

To address the aforementioned issues the Coast Guard Marine Safety program will undertake six major initiatives over the Fiscal Years 2009-2014 to meet the identified goals and objectives. These initiatives include: improving the capacity and competency of our personnel to ensure a superior workforce; optimizing service delivery to our stakeholders; deploying best management practices; improving recreational boating safety; addressing towing vessel safety; and reducing the risks associated with commercial fishing. The chart below depicts the linkages between these initiatives and the supported goals and objectives.

Initiatives	Courses of Action	Goals & Objectives Supported
Superior Workforce	<ul style="list-style-type: none"> ▪ Increase Marine Inspector And Investigator Capacity ▪ Strengthen Marine Inspection And Investigation Consistency By Adding Civilian Positions ▪ Increase Accessions From Maritime Institutions ▪ Strengthen Marine Safety Career Paths ▪ Expand Professional Marine Safety Training And Education ▪ Expand Opportunities For Maritime Industry Training ▪ Enhance Engineering Capacity 	<p>Goal 2 – Improve Service to Stakeholders Objective 2.1 – Improve Service to Mariners and Industry</p> <p>Goal 3 – Improve Program Process & Management Objective 3.2 – Expand Inspector & Investigator Capacity Objective 3.3 – Balance Workforce Development & Stability Objective 3.4 – Expand Engineering & Rulemaking Capacity</p> <p>Goal 4 – Improve Human Resource Capabilities Objective 4.1 – Strengthen Career Opportunities Objective 4.2 – Expand Knowledge of Industry Practices & Training</p>
Superb Service Delivery	<ul style="list-style-type: none"> ▪ Establish Centers Of Expertise ▪ Improve Information Technology Systems ▪ Increase Rulemaking Capacity To Expedite Regulatory Implementation ▪ Improve Mariner Credentialing ▪ Conduct Independent Evaluation 	<p>Goal 2 – Improve Service to Stakeholders Objective 2.1 – Improve Service to Mariners and Industry Objective 2.2 – Strengthen Industry & Allied Agency Partnerships</p>
Quality Management	<ul style="list-style-type: none"> ▪ Improve Management Accountability ▪ Strengthen Program Management ▪ Develop A Balanced Scorecard ▪ Implement A Quality Management System 	<p>Goal 2 – Improve Service to Stakeholders Objective 2.1 – Improve Service to Mariners and Industry Objective 2.2 – Strengthen Industry & Allied Agency Partnerships</p> <p>Goal 3 – Improve Program Process & Management Objective 3.1 – Management Responsibility/Accountability Objective 3.5 – Improve Performance Measures & Measurement Systems Objective 3.6 – Complete Independent Program Evaluation</p>
Boat Responsibly	<ul style="list-style-type: none"> ▪ Assess Effectiveness Of Boating Education ▪ Increase Safety Communications ▪ Increase Carriage Of Safety Equipment ▪ Increase Compliance with Navigation Rules ▪ Increase Life Jacket Wear Rates ▪ Assess Effectiveness Of Boating-Under-The-Influence (BUI) Efforts: ▪ Increase Manufacturer Compliance Efforts 	<p>Goal 1 – Reduce Maritime Casualties Objective 1.1 – Improve Recreational Boating Safety</p> <p>Goal 2 – Improve Service to Stakeholders Objective 2.2 – Strengthen Industry & Allied Agency Partnerships</p>
Safe Tow	<ul style="list-style-type: none"> ▪ Improve Towing Vessel Regulations ▪ Increase Towing Vessel Inspections ▪ Increase Safety Partnerships & Outreach Programs ▪ Increase Towing Vessel Inspector Workforce 	<p>Goal 1 – Reduce Maritime Casualties Objective 1.2 – Reduce Towing Vessel Casualties</p> <p>Goal 2 – Improve Service to Stakeholders Objective 2.2 – Strengthen Industry & Allied Agency Partnerships</p>
Fish Safe	<ul style="list-style-type: none"> ▪ Increase Outreach and Communication ▪ Expand Partnerships ▪ Increase Maritime Law Enforcement ▪ Increase Fishing Vessel Examiner (Inspections) Workforce 	<p>Goal 1 – Reduce Maritime Casualties Objective 1.3 – Reduce Commercial Fishing Vessel Casualties</p> <p>Goal 2 – Improve Service to Stakeholders Objective 2.1 – Improve Service to Mariners and Industry Objective 2.2 – Strengthen Industry & Allied Agency Partnerships</p>

SUPERIOR WORKFORCE

People are the heart of the Marine Safety program. Our ability to keep abreast of the rapidly growing and evolving maritime industry is fundamentally linked to the competency, capacity and readiness of our personnel. We must invest in our people and the supporting systems so that in the long term, the marine safety program develops and retains an experience cadre of technically savvy professionals who provide excellence in mission execution.



COURSE OF ACTION

To achieve the needed improvements in capacity and competence, the Coast Guard will:

- ***Increase marine inspector and investigator capacity:*** We will seek to add 276 full-time personnel (FTP) to the program in FY09. We will continue to assess Marine Safety personnel requirements in future budget planning cycles.
- ***Strengthen marine inspection and investigation consistency by adding civilian positions:*** Additional civilian inspector/port state control officer positions and investigating officers will help the Coast Guard retain expertise and geography-specific competencies while ensuring long-term continuity in critical mission areas. We will distribute civilian positions according to need and to complement the military workforce. Military personnel must continue to serve as marine inspectors and investigators to ensure innovation, and garner 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 the U.S. Coast Guard Academy, U.S. Merchant Marine Academy and other maritime institutions:*** We 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, as well as value and promote the competencies of marine safety specialists. These policies could include, but are not limited to: modifications to the Coast Guard Academy curriculum; direct commission programs; direction and guidance to officer selection panels relating to the need for specific Marine Safety specialties; geographic stability; 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. We must recognize and value those who advance from apprentice, to journeyman, to expert marine safety professional status.
- ***Expand professional Marine Safety training and education:*** We will expand formal and informal training and educational opportunities to improve Marine Safety competencies, skills and qualifications. These programs will include formal education

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 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 maximize interaction and experience. The Coast Guard will engage industry within applicable legal and ethical guidelines to maximize training opportunities and fully immerse participants in industry operations. Other industry familiarization programs will be offered to a larger group of Marine Safety professionals.
- ***Enhance engineering expertise for plan review, policy, and standards development:*** We will seek additional 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.

BENEFITS AND COSTS

The primary benefit of this initiative will be improved marine inspector and investigator readiness at Coast Guard field commands. Readiness improvements will result from an increase in the number of trained and experienced inspectors and investigators. Increased engineering capacity not only bolsters plan review, policy and standards development at the national level, but also supports field competence as our engineers transfer out to the field billets and share their expertise. Increased readiness is necessary to avert a possible increase in marine casualties that might otherwise be expected to result from continuing growth in the size and complexity of the maritime industry.

Prompt, capable delivery of Coast Guard statutory services facilitates compliance, minimizing costly disruptions to the maritime transportation system. For example, a delay for some commercial vessels costs them thousands of dollars per hour.

Costs associated with this initiative include 276 personnel requested in the FY09 budget. Due to the expansion of the U.S. inspected fleet, we expect revenues to the U.S. Treasury from user fees to offset some of the increased cost of additional personnel. The application of resources to continue to strengthen the marine safety workforce will be considered in future budget planning cycles.

SUPERB SERVICE DELIVERY

Service delivery to the stakeholders in the maritime transportation system, as well as the general public, is fundamental to our purpose as a public service agency. We must delivery customer focused, high-quality products and services in a timely and professional manner and in a format that is convenient to the industry and apparent to the public.

COURSE OF ACTION

To enhance service delivery, the Coast Guard will:

- ***Establish Centers of Expertise:*** We plan to establish additional Centers of Expertise (COE) 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 and investigator competencies and promote nationwide consistency. COEs are appropriate for existing industry sectors and projected growth areas including investigations, LNG ships, towing vessels, fishing industry vessels, and outer continental shelf activities. COEs will also provide support to casualty responses and surge capacity.
- ***Improve information technology systems:*** We will incorporate tools to improve access and facilitate 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 the sharing of information and lessons learned by the Coast Guard field personnel and industry. Web-based portals will also include Coast Guard office directories with contact information, as well as provide help desks and FAQs to facilitate transparency.
- ***Improve rulemaking process to expedite regulatory implementation:*** We will continue to improve our rulemaking process to address current and anticipated rulemaking projects. Improvements will include more robust project management, rulemaking development, economic analysis, environmental analysis, technical writing, and administrative law review to ensure legal sufficiency and efficacy of implementing regulations. We will publish timely guidance to assist regulated industry with implementation.
- ***Improve mariner credentialing through greater efficiency, transparency and capacity:*** The consolidation of mariner credentialing functions at the National Maritime Center (NMC) 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:
 1. Online self-help application tracking and payment options via www.pay.gov;
 2. Bulk application processing for academies, schools and industry groups;
 3. Issue of merchant mariner credentials in less than one week; and,
 4. Rebuild primary computer system and implement web-based processing.
- ***Independent Evaluation:*** The Coast Guard will hire a contractor for a comprehensive and independent evaluation of the Marine Safety and Environmental Protection program. Key elements in the statement of work will include identifying program customers and stakeholders, verifying their needs and expectations, validating program purpose and design, evaluating performance — particularly satisfaction with service levels — and identifying opportunities for improvement. The contract is expected to be awarded in the third quarter of FY 2008 and the final report is expected prior to the end of the second quarter of FY 2009.

BENEFITS AND COSTS

Accomplishment of this initiative will help ensure consistency in the development, application and dissemination of marine inspection policy and practices across all industry sectors. COEs will be located in close proximity to high volume industry and activity center and will address industry growth and emerging trends, manage risk, and provide for professional development and exchange between industry and Coast Guard personnel. Focus on specialized areas of industry will improve inspector and investigator competencies. COEs will also deploy in support of emergent needs and advise Coast Guard programs on policy and regulation decisions. Additionally, COEs will help ensure the Coast Guard maintains a technical staff with knowledge, skills, and practical experience in the design, construction and operation of commercial vessels to prescribe necessary regulations and develop appropriate policy in a timely manner.

Improved regulatory capacity will reduce the current backlog of regulatory projects and improve the cycle time for routine regulatory development.

Improved access and exchange of information between industry and government will improve customer service, increase transparency and contribute to the efficient operation of the marine transportation system. Customers have given high marks to previous Coast Guard efforts to implement online services these efforts and they are directly responsible for program improvements.

Mariners will benefit from centralizing and restructuring the Coast Guard's Mariner Licensing and Documentation program through improved consistency, reduced processing time and better customer service.

The costs associated with this initiative will be spread over several years. In FY08, 31 positions were added to the regulatory development program. Costs associated with standing up two COEs in 2009 are \$2.5 million dollars and 16 new personnel positions. The application of resources to stand up additional COEs and support process improvements for mariner credentialing will be considered in future budget planning cycles.



QUALITY MANAGEMENT

Sustained organizational performance, while regulating the complex and diverse maritime industry, requires a commitment to sound management practices. We must deploy dynamic performance management practices throughout all levels of the program to maintain capacity, performance and service, while delivering best value to the taxpayer.

COURSE OF ACTION

To improve program management, the Coast Guard will:

- ***Improve Management Accountability:*** We will restore clarity and transparency to the management of the Marine Safety program, and improve industry accessibility to Coast Guard leadership at all levels. In particular, we will establish a national council of maritime advisors to the Commandant, and continue hosting roundtable discussions with industry leaders. We will capitalize on the Coast Guard's modernization efforts to strengthen accessibility and timely service without jeopardizing transparency.
- ***Strengthen Program Management:*** We will provide visible and practical program direction that supports close, cooperative relationships with operational commands, industry customers, and other stakeholders. We will provide single-point accountability for all program outcomes, and designate management authorities and *line-of-service* responsibilities that correspond with key industry segments to the greatest extent possible. Ensuring management structures and practices align with customer and other stakeholder needs —and that they are understood internally and externally —is central to improving service delivery to the marine industry.
- ***Develop a Balanced Scorecard:*** We will expand and improve our performance measurement capabilities and practices, and develop a balanced scorecard that includes customer satisfaction metrics as well as a complete suite of outcome, output, activity, capability, and efficiency measures.
- ***Implement a Quality Management System:*** We will implement a defined set of policies, processes and procedures for the planning and execution of marine safety mission activities. Implementation of a quality management system throughout the program will enable us to identify, measure, control and improve the various core processes that will ultimately lead to improved mission performance.

BENEFITS AND COSTS

Improved industry and stakeholder satisfaction is the immediate benefit that will be realized by this initiative. A more focused and thereby more effective, efficient and transparent management organization is the long-term and more enduring benefit. Improved program management is necessary to sustain gains in capacity, competency and service delivery in the long term. As an example, the Coast Guard has undergone two external audits required or sponsored by IMO. Both were completed in April 2008. The first was conducted by Transport Canada to evaluate our Standards, Training, Competency and Watchstanding (STCW) quality management system. It found our credentialing program to be remarkably improved since the last audit in 2002, with our ambitious centralization project, focus on service, dedicated personnel and excellent leadership receiving credit. Continued emphasis and depth of the deployment throughout the program will only serve to increase performance.

Many of the costs associated with this initiative are being managed with available resources. The application of resources and external expertise to support development of a balanced scorecard and fully deploy a quality management system will be considered in future budget planning cycles.

BOAT RESPONSIBLY



While recreational boating is a fun and generally safe activity, each year some 700 boaters are lost and thousands more are injured. Recreational boating results in the third highest annual number of transportation fatalities, and boating deaths are on the National Transportation Safety Board's Most Wanted List.

COURSE OF ACTION

To improve recreational boating safety, the Coast Guard will aggressively implement a strategic plan, developed in consultation with the National Boating Safety Advisory Council. Elements of the plan address:

- ***Assess Effectiveness of Boating Education:*** We will work with our partners to track the utilization and effectiveness of training and education courses.
- ***Improve Safety Communications:*** We will work with key stakeholders and partners to improve safety communications and increase awareness of safe boating practices.
- ***Increase Carriage Safety Equipment:*** We will work with industry partners to increase boaters' knowledge of required safety equipment and monitor trends for carriage..
- ***Increase Compliance with Navigation Rules:*** The Coast Guard will work with the National Association of State Boating Law Administrators (NASBLA) and other boating safety partners to improve awareness of and enforcement of compliance with navigation rules.
- ***Increase Life Jacket Wear Rates:*** We will aggressively work with our partners to assess factors affecting life jacket usage, encourage availability of lifejackets, and strengthen the enforcement regime.
- ***Assess Effectiveness of Boating-Under-the-Influence (BUI) Efforts:*** The Coast Guard will create a baseline measurement to track trends in alcohol use by boaters, assess the effectiveness of field sobriety penalties, and increase the effectiveness of enforcement.
- ***Increase Manufacturer Compliance Efforts:*** We will identify boats involved in accidents where carbon monoxide, flotation, capacity, or fuel systems are factors, verify non-compliance through the USCG Factory Visit program, and ensure corrective actions are implemented. We will work to enhance manufacturer understanding and compliance with USCG regulations. We will keep manufacturers and State boating law administrators

informed about USCG Factory Visit program discrepancies that led to federal recalls by producing at least one Boating Safety Circular annually.

- ***Performance Measurement & Reporting:*** The Coast Guard will work with NASBLA to pursue a Memorandum of Agreement with all federal land management agencies to ensure proper and timely accident reporting to State authorities.

BENEFITS AND COSTS

The Coast Guard expects to achieve the Boating Safety objectives summarized above within the constraints of existing resources by working collaboratively with its many boating safety partners. These ambitious goals, objectives, and strategies are expected to reduce boating injuries and deaths.



SAFE TOW

TOWING VESSEL SAFETY REGULATION

America's economy depends on the towing industry and the nation's 25,000 miles of natural waterways — one loaded barge alone is the equivalent of 60 truckloads, and a single towing vessel may have 80 or



more barges in tow. To improve towing vessel safety and meet the mandate of the Maritime Transportation Safety Act of 2004, the Coast Guard is considering developing towing vessel inspection for certification regulations. The addition of towing vessels will increase number of vessels subject to Coast Guard inspection by over 40%.

COURSE OF ACTION

To improve towing vessel safety, the Coast Guard is considering developing inspection for certification regulations, which are expected to phase-in over a four-year period beginning in 2011. The regulations may require towing vessels to meet acceptable standards, or be removed from service. To date, the Coast Guard has worked extensively with the Towing Safety Advisory Committee (TSAC) and their designated Working Group to develop TSAC's recommendations to the Coast Guard regarding this inspection regime.

BENEFITS AND COSTS

This initiative promotes safe operation of towing vessels by establishing regulations and by seeking to add full-time personnel in order to ensure compliance. We hope to see a reduction in the number of deaths, injuries and casualties, including groundings, collisions, and oil spills, associated with the operation of towing vessels. The Coast Guard should also benefit from the infusion of personnel associated with this inspection regime including training and development of a core of qualified marine inspectors.



Costs associated with this initiative include additional marine inspectors to manage the 40% increase in the number of vessels inspected by the Coast Guard. The application of resources required to implement the towing vessel safety program will be considered in future budget planning cycles.

FISH SAFE

Commercial fishing continues to be one of the most dangerous occupations in America. The industry also faces severe economic pressures — depleted stocks and limits on fishing, increasing fuel and other costs, and prices that have stagnated since at least 2000. This fosters an attitude of greater risk tolerance that can lead to decreased concerns about training, safety equipment and maintenance. Although we have legislative authority to inspect commercial fishing vessels, we believe the Coast Guard has a clear mandate to minimize marine casualties associated with commercial fishing.



COURSE OF ACTION

To improve commercial fishing vessel safety, the Coast Guard will undertake the following actions as part of the initiative:

- ***Increase Outreach and Communication:*** Our prevention efforts have focused on industry outreach and communications. To improve our impact, we will seek to add full-time civilian Commercial Fishing Vessel Safety Examiners and Coordinators. This will allow us to expand the Voluntary Dockside Examination program and reach out to the Fishing Industry to help them understand and come into compliance with regulations for basic safety equipment and lifesaving devices.

The Coast Guard Auxilliary performs a significant number of safety exams, and at many commands, they are an integral part of the fishing vessel safety team. We will seek to expand their involvement and institutionalize their role. In particular, we will seek to expand the dock walker program, use Auxiliarists in Boarding Officer training, and include Auxiliarists in investigations of fishing vessel casualties.

We will continue to promote safety and best practices through active participation at conferences and industry trade shows; and through printed materials, such as articles in the Marine Safety & Security Council *Proceedings*, safety booklets, and fishermen's digests and newsletters.

- ***Expand Partnerships:*** We will continue to work within the Commercial Fishing Industry Vessel Safety Advisory Committee to improve safety communications and risk tools to assist fishermen.

We will engage early and repeatedly at Fisheries Management Councils and with the National Marine Fisheries Service to ensure fishery regulators are continually reminded of the importance of safety and the impacts their decisions have on safety.

We will work with the National Institute of Occupational Safety and Health — who has a field office in Alaska focused on workplace safety in the fishing industry — and take advantage of their expertise in understanding causes and effects to develop future strategies for reducing commercial fishing deaths and injuries. We will also seek to improve information sharing with insurance companies in order to facilitate better understanding of injury mechanisms and potential interventions, and will leverage relationships with manufactures of safety equipment to identify areas where new or improved products are needed.

The Coast Guard will maintain close relationships with state fisheries regulators and seek to leverage their authority to favorably impact commercial fishing vessel safety. We will also work with Canadian regulators to share solutions and develop common approaches to minimize deaths and injuries.

- ***Coordinate Maritime Law Enforcement with Fishing Vessel Safety:*** We will provide guidance and challenge district commanders to implement a robust program of fishing vessel safety enforcement to deter unsafe operation, detect violations, and educate the industry. A model for such effort is provided by Operation Safe Crab, conducted by Coast Guard District Thirteen — documented in the Second International Fishing Industry Safety and Health Conference Proceedings published in 2006.

We will encourage operational commands to target high-risk fisheries; to provide capable and sufficient resources; to schedule activities to maximize access to vessels and crews; and to provide ample advance publicity to effectively announce the program and explain its purpose. We will emphasize the importance of keeping the process cooperative and non-adversarial.

At-sea law enforcement boarding of vessels to ensure compliance with maritime law is standard Coast Guard procedure. We will encourage effective coordination of at-sea boardings of commercial fishing vessels by identifying vessels who pose a greater safety concern because they refused to allow a voluntary dock-side examination or were found not in compliance. We will emphasize the importance of keeping the boarding process non-adversarial and charge boarding officers to promote safety by pointing out and explaining potentially dangerous conditions, whether or not they are contrary to laws and regulations.

BENEFITS AND COSTS

We estimate that implementation of the actions described in this initiative will reduce commercial fishing deaths and injuries by 10% per year through 2014. Improved Coast Guard search and rescue



results are an additional expected benefit. In 2000, the resources expended for search & rescue of commercial fishing vessels was estimated at \$20 million. A collateral goal of this initiative is to reduce the vessels involved in Search and Rescue cases by 10% per year and improve, by a similar amount, the successful rescues of commercial fishers who are in distress.

Greater attention to marine safety by the commercial fishing industry will also result in fewer fishing vessels involved in collisions and groundings. This will reduce the level of property damage experienced by the industry. It will also lead to fewer pollution incidents.

The application of resources to implement the Fish Safe program will be considered in future budget planning cycles.

APPENDIX

INDUSTRY TRENDS

U.S. waterborne commerce has expanded tremendously and will continue to expand as illustrated in Table 2. In 2006, total waterborne commerce reported by the U.S. Army Corps of Engineers was 2,588 million short tons — a 2.4% increase over 2005, a 6.0% increase over the 2001-2005 average, and an 8.8% increase over the 1996-2005 average.

U.S. Waterborne Trades, 2001-2005
(Million Metric Tons)

Trade	2001	2002	2003	2004	2005	% Ch. 2001-05
Foreign	1,157.5	1,131.3	1,209.6	1,305.7	1,348.8	16.5
Imports	830.1	813.9	879.9	954.6	995.2	19.9
Exports	327.4	317.4	329.7	351.1	353.6	8.0
Domestic	945.7	926.3	921.9	949.9	933.4	-1.3
Coastwise	202.8	196.3	202.8	200.1	193.8	-4.4
Inland	562.3	551.6	553.0	568.1	566.1	0.7
Lakes	90.7	92.1	81.5	93.9	87.3	-3.7
Other	89.9	86.3	84.6	87.8	86.2	-4.1
Total	2103.2	2057.6	2,131.5	2,255.6	2,282.2	8.5

Note: Other includes intra-port and intra-U.S. territory trades.
Sources: Foreign—U.S. Bureau of Census, Foreign Trade Division. Detailed data available at www.census.gov/foreign-trade. Domestic—U.S. Army Corps of Engineers, Waterborne Commerce of the United States. Detailed data available at www.usace.army.mil/ndc.

The growth in container traffic has been particularly dramatic. In 2006, more than 51 million containers were handled at U.S. ports. This is a 67.4% increase from just six years ago — and the volume is expected to be 50 percent greater by 2015. Additionally:

- According to the WTO, the U.S imported and exported 12% of all global merchandise trade in 2006 (\$2.9 trillion). Over 90% transported by vessels.
- 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.
- Over the last 5 years offshore oil industry vessel growth exceeded 35 %.

Industry Activity	Growth (2001-2006)
Tanker calls at U.S. ports	23%
U.S. Container Trades by Port	52%
Containership calls at U.S. Ports	25%
Containerships over 4,999 TEU's making calls at U.S. Ports	241%
LNG carrier capacity calling at U.S. ports	115%
North American Departures for Cruise passengers (2003-2006)	19%

There are about 10,500 vessels in the fleet of U.S. vessels subject to Coast Guard inspection. This will expand by two-thirds when regulations implementing the Marine Transportation Act of 2004 are phased in, adding some 5,200 traditional towing vessels, and 1,800 assistance vessels and other vessels

engaged in towing. Additionally, over the last 5 years, the number of U.S. flag passenger vessels has increased by 7 percent.

Maritime trade is expected to more than double by 2020; port infrastructure continues to expand at a rapid rate; LNG and other new facilities have been and are being added; carriers are deploying increasingly larger vessels.

The average annual number of cruise passengers in the North American market, reported by the Cruise Lines International Association, was 8.1 million in the period 2000 to 2005. This is nearly a 66% increase from just six years earlier. Average annual passenger travel on ferries, reported by the American Public Transportation Association, increased to 65.6 million passenger miles for the period 2000 to 2005—a 21% increase from the average six years earlier.

There were approximately 12.8 million recreational boats registered in the U.S. in 2006 and the five-year average of registered boats has increased 1.33% during two average periods from 1997-2001 and 2002-2006.

Examining visiting foreign flag vessels for compliance with international standards is essential to ensuring the safety of passengers, protecting our marine environment, and preventing disruptions to maritime commerce; and this “Port State Control” responsibility has grown tremendously—foreign vessel arrivals in U.S. ports more than doubled over the past ten years.

Today’s maritime industry is complex both in the technology of the vessels and systems, and the nature of business operations. The shipping industry continues to grow, producing larger, faster, and much more complicated ships. Offshore systems are a marvel of technology and can cost more than a billion dollars. Like all businesses, the maritime industry faces tighter margins, more demanding customers, and myriad audits. In addition, since ships operate between national and/or state jurisdictions, they face multiple governing regimes.

Examples of current developments include:

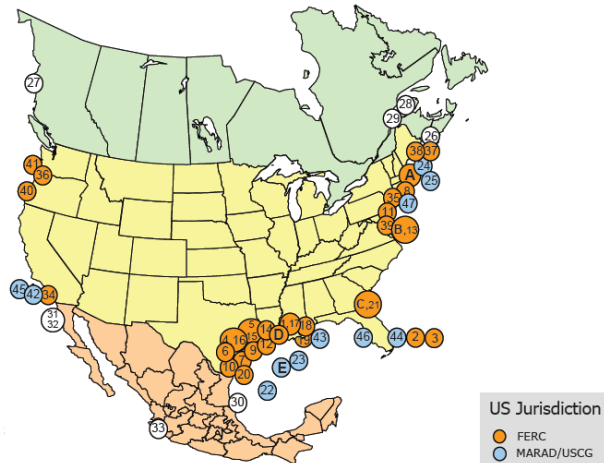
- A cruise ship is under construction in Europe that will be the largest ever at more than 220,000 GT carrying over 6,000 passengers. Targeting the North American market in Sept 2009, this \$1 billion cruise ship is designed using the most advanced stability, structural, and fire protection technologies.
- There are 31 product tankers being built to new classification society structural standards under construction or on order at U.S. shipyards for the U.S. Jones Act market.
- Proposed amendments to the Short Sea Shipping Transportation Initiative include \$2 billion of loan guarantees to assist shippers with constructing a new class of cargo ship for short sea shipping.
- There is unprecedented growth in the liquefied natural gas (LNG) industry. There are currently six shore-side LNG terminals operating in the U.S. There are as many as 20 additional LNG terminals proposed for operation in the next 5-10 years. 250,000 cubic meter LNG ships are being constructed which are twice the size of existing LNG ships.
- Offshore oil and gas production platforms continue to increase in size and complexity, as potential oil fields get deeper and there is a need to extract more from each well. Recent innovations include the use of temporary or short-term platforms that incorporate vessel-like characteristics, yet remain on scene for only 3-5 years before moving to a new location. The increased competition leads to more diverse regulatory compliance schemes, such as certification by foreign Administrations that cause Coast Guard inspectors to increase their breadth of safety standards.
- There are currently six Offshore Continental Shelf facilities under construction as well as three conceptual Floating Production Storage and Offloading (FPSO) units in design and

development. The costs associated with these projects range from \$2.2 to \$4.4 billion. A typical FPSO has more than 500,000 bbl of storage capacity, and can produce 50 to 80 k bbl oil /day and 15 to 50 million cubic feet of gas /day.

- The largest container ship in operation, with a maximum carrying capacity of 11,000 twenty-foot containers, is the longest ship currently in service and is propelled by the largest diesel engine ever manufactured. The integrated computer system in the engine room, cargo control room, and bridge continuously monitors 8,000 separate data signals. This vessel entered operation in the fall of 2006 and is the first of seven vessels in this class.

All of these projects incorporate the latest technologies in advanced fire protection, structural design, naval architecture, and marine engineering. The systems associated with these vessels and facilities must operate with minimal error and incorporate the latest design concepts. Most novel designs far exceed the current scope of both Coast Guard Marine Safety regulatory and inspection schemes.

Existing and Proposed North American LNG Terminals



FY 2007 PERFORMANCE REPORT

The Government Performance and Results Act (GPRA) is the statutory impetus for performance measurement, reporting, and results-oriented management. It requires annual performance plans and subsequent performance reports, and directs agencies to define intended performance in an objective, quantifiable, and measurable form.

Heads of Agencies are required by Executive Order “to approve clear annual and long-term goals defined by objectively measurable outcomes.” The emphasis on outcomes is explicit in various Office of Management and Budget (OMB) directives —activity measures are not used to judge program success. OMB Program Assessment Rating Tool guidance, for example, provides criteria for evaluating the quality of long-term and annual performance measures, appropriateness of targets, and extent to which results have been achieved. It stipulates that “output measures, interim milestone outcomes, or proxy outcome measures are only acceptable where clear outcome measures are not available, comprehensive, or of sufficient quality.” Because of their importance, OMB and agencies must agree on suitable measures.

The table below lists measures that reflect Marine safety effectiveness in preventing marine casualties. These metrics are reported to the Department of Homeland Security (DHS) and used by OMB and

the U.S. General Accounting Office (GAO) to judge Coast Guard annual and long-term outcome performance.

Marine Safety Program Annual & Long-term Performance Results

	FY 2007		PRIOR YEAR		TARGET		PRIOR YEAR VARIANCE		TARGET VARIANCE	
	Annual	5yr Ave	Annual	5yr Ave	Annual	5yr Ave	Annual	5yr Ave	Annual	5yr Ave
Recreational Boating Deaths & Injuries	3,224	4,037	4,197	4,367	3,928	3,959	23.2%	7.6%	17.9%	(2.0%)
Commercial Mariner Deaths & Injuries	408	508	621	523	430	428	34.3%	2.9%	5.1%	(18.7%)
Commercial Passenger Deaths & Injuries	211	225	330	219	180	162	36.1%	(2.7%)	(17.2%)	(38.9%)
Total Maritime Deaths & Injuries	3,843	4,770	5,148	5,109	4,538	4,549	25.3%	6.6%	15.3%	(4.9%)
Oil Spills >100 gallons	135	154	165	155	152	158	18.2%	0.6%	11.2%	2.5%
Chemical Spills	39	44	48	49	50	49	18.8%	10.2%	22.0%	10.2%
Chemical Spills & Oil Spills >100g per 100 million short tons shipped	11.8	15.0	16.0	16.2	15.0	19.0	26.3%	7.4%	21.3%	21.1%
Collisions	195	234	222	252	236	236	12.2%	7.1%	17.4%	0.8%
Allisions	865	739	700	713	649	649	(23.6%)	(3.6%)	(33.3%)	(13.9%)
Groundings	818	850	897	851	779	779	8.8%	0.1%	(5.0%)	(9.1%)
Total Collisions, Allisions & Groundings	1,878	1,823	1,819	1,816	1,664	1,664	(3.2%)	(0.4%)	(12.9%)	(9.6%)

FY 2007 annual results for recreational boating deaths & injuries were an improvement over prior year and the 5-year average. [Note that boating injuries in 2007 were under-reported due to lag in receiving validated data from the states. The actually number of injuries stands at 3,677.] Commercial mariner deaths & injuries likewise showed an improvement over prior year and the 5-year average. Long-term performance for recreational boating deaths & injuries, as indicated by year-to-year change in the moving 5-year average, continued to show improvement due primarily to sustained declines in boating injuries. Long-term performance for commercial mariner deaths & injuries also improved in FY 2007; the moving 5-year average returning to where it was at the end of FY 2005. The annual result for commercial passenger deaths & injuries was an improvement over prior year, but above our target and the moving 5-year average, which increased again in FY 2007. The unfavorable long-term trend in passenger deaths & injuries is attributed to an increase in maritime passenger traffic —MARAD water transportation statistics published in May 2007 report that the number of North American cruise passengers increased 19.4% between 2003 and 2006.

The Coast Guard did not meet long-term targets for commercial mariner, passenger, and recreational boating deaths and injuries. In retrospect, these targets were overly ambitious. Target values for the 5-year averages in commercial mariner and passenger deaths & injuries, were set in 2005 using understated baseline data — translation of commercial mariner and passenger casualties from the legacy MSIS database into the current Marine Information for Safety and Law Enforcement (MISLE) system resolved data query issues, which led to nearly a 6% increase in baseline results.

Annual results for chemical spills and significant oil spills — oil spills greater than 100 gallons — showed improvement over prior year and 5-year average. This supported continuation of a several years’ trend of improved long-term performance, as indicated by year-to-year change in moving 5-year averages.

Collisions, allisions, and groundings are a subset of adverse vessel events the Coast Guard strives to prevent; and proxy outcome measures for disruptions to maritime commerce. In FY 2007, there were fewer collisions & groundings, and corresponding improvements in long-term performance. There was, however, a significant increase in allisions and long-term performance for this metric was consequently unfavorable.

The Coast Guard did not meet its targets for allisions and groundings, which when established several years ago, unrealistically anticipated perpetual continuation of a steeply sloped performance trend line.

MARITIME PERSONNEL CASUALTIES

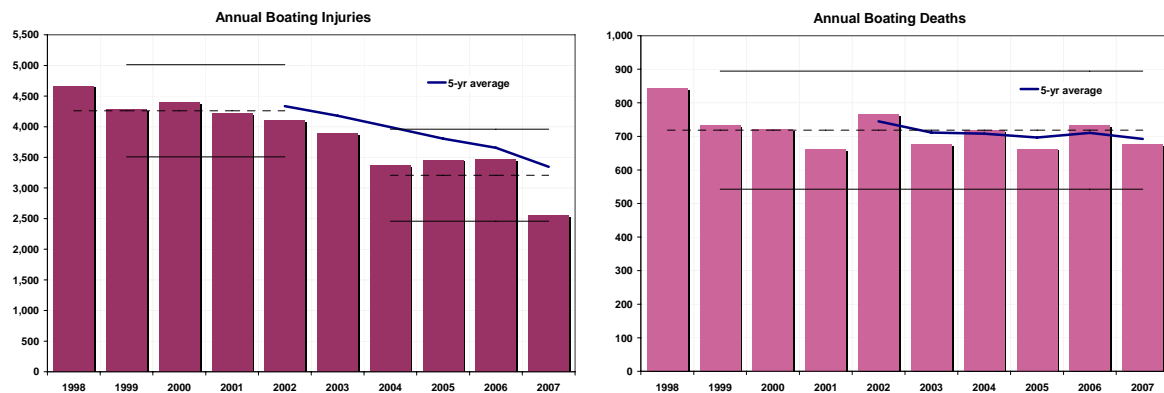
The Coast Guard develops and ensures compliance with marine safety regulations and standards to prevent death and injury to tens of thousands of U.S. mariners, millions of passengers on ferries and other vessels, and tens of millions of recreational boaters. We track commercial mariner, commercial passenger, and recreational boating deaths & injuries as measures of annual marine safety performance. We use 5-year averages of these as indicators of long-term performance trends.

45 CFR 4.05-1 requires operators of commercial vessels to notify the Coast Guard of any loss of life or injury that requires professional medical treatment beyond first aid. Notices of commercial mariner and passenger casualties are recorded in the Coast Guard’s Marine Information for Safety and Law Enforcement (MISLE) database. Commercial mariner deaths, disappearances, & injuries include crewmembers or employees aboard U.S. commercial vessels in U.S. waters. Casualties aboard foreign flag or government vessels are excluded. Commercial passenger deaths & injuries include casualties from passenger vessels operating in U.S. waters — passenger deaths, disappearances or injuries associated with diving activities are excluded. Deaths, disappearances or injuries determined to be the result of natural causes or intentional acts — such as heart attack, altercation, or the like — are excluded.

33 CFR 173.55 requires filing a Boating Accident Report when a person dies, is injured and requires medical treatment beyond first aid, or disappears from the vessel under circumstances that indicate death or injury. Boating Accident Reports are recorded in the Coast Guard’s Boating Accident Report Database (BARD) System. Recreational boating casualties include deaths and disappearances caused or contributed to by a recreational vessel, its equipment, or its appendages. Deaths, disappearances or injuries determined to be the result of natural causes or intentional acts — such as heart attack, altercation, or the like — are excluded.

Recreational Boating Casualties

While the annual number of boating injuries has shown a decline over the past decade, there has been an increase in injuries over the last four years. [Note that boating injuries in 2007 were under-reported due to lag in receiving validated data from the states.] The actual number of injuries stands at 3,677. The annual number of boating deaths, however, has remained relatively constant over the same period. We lose approximately 700 boaters each year — the third highest annual number of transportation fatalities — and recreational boating fatalities remain on the National Transportation Safety Board’s Most Wanted List.



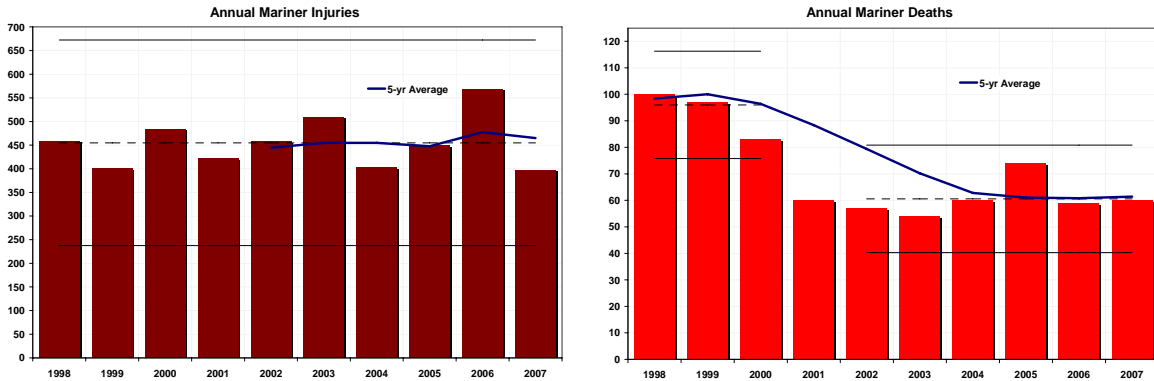
70% of reported fatalities occur on boats where the operator was not reported to have received boating safety instruction. Issues that safety instruction seeks to address — operator inattention, not maintaining a proper lookout, carelessness, reckless operation, and excessive speed — are primary contributing factors in all reported accidents.

Overall, two-thirds of all fatal boating accidents were when the victims drowned. Of those who drowned, 90% of the victims were not wearing their life jacket.

Alcohol use is the leading contributing factor in fatal boating accidents; accounting for nearly 20% of all reported fatalities.

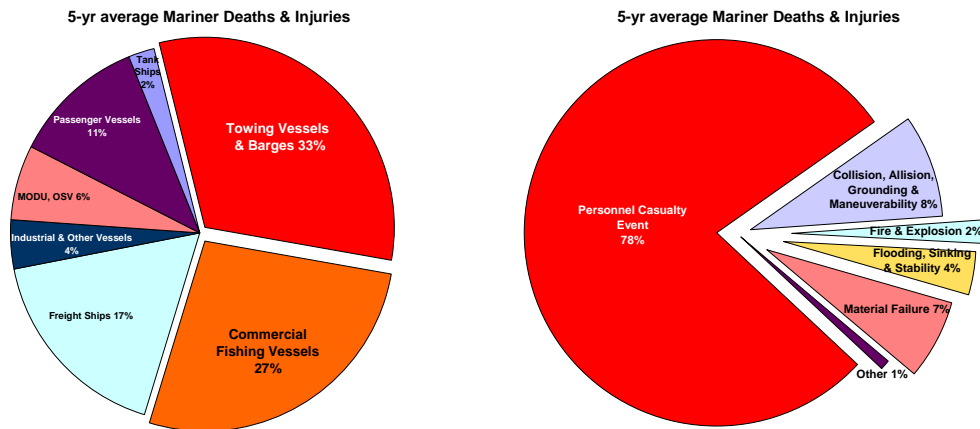
Commercial Mariner Casualties

The annual number of commercial mariner injuries has remained relatively constant for the past ten years, and the annual number of commercial mariner deaths has decreased from pre-2001 levels, but has remained within expected limits of variation for the past seven years.



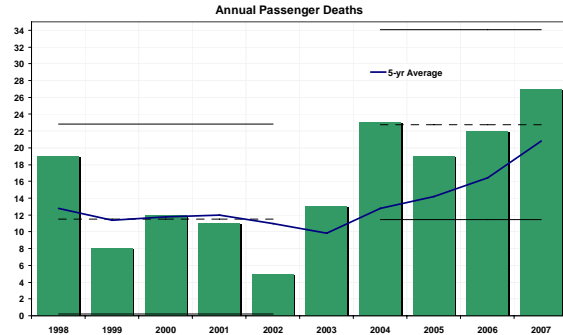
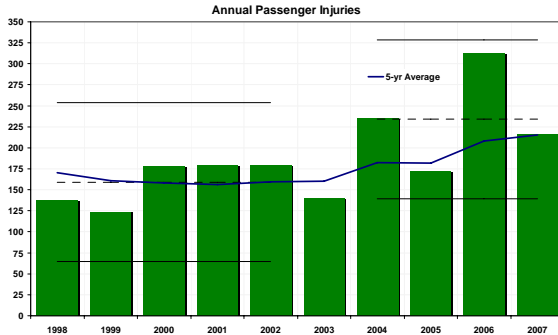
Towing vessels and commercial fishing vessels account for more than 60% of commercial mariner deaths & injuries. Coast Guard District Eight, with its large towing vessel community, accounts for about 35% of commercial maritime deaths & injuries; District One contributes about 17% to the 5-year average; and District Seventeen accounts for 15%.

More than three-quarters of commercial mariner deaths & injuries are accounted for by incidents where the initial event is a personnel injury such as falling overboard or being struck by an object. About 8% of commercial mariner deaths & injuries are accounted for by incidents where the initial event is a collision, allision, grounding, or maneuverability incident such as loss of steering. About 7% of mariner casualties are accounted for by incidents where the initial event is some type of material failure.



Commercial Passenger Casualties

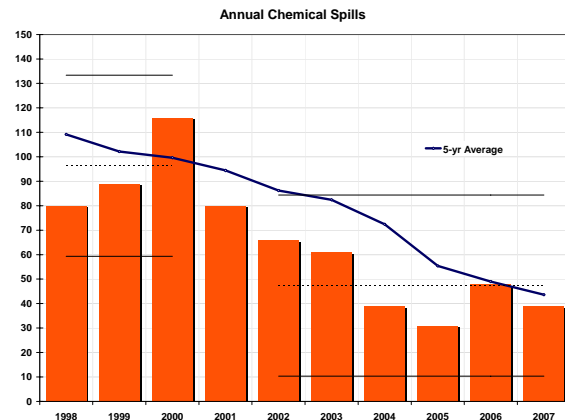
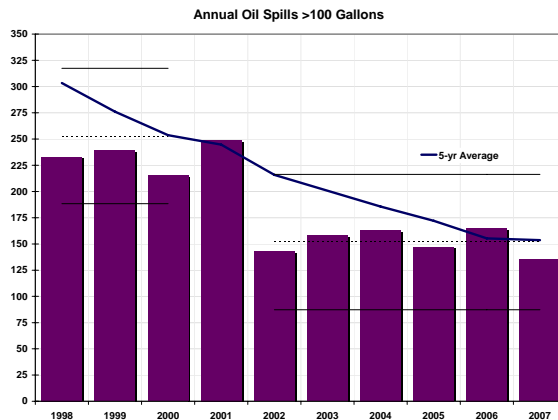
Commercial passenger deaths and injuries have varied significantly from one year to the next. For the past four years, they appear to be varying within a new, higher range, with corresponding increases in the moving 5-year averages.



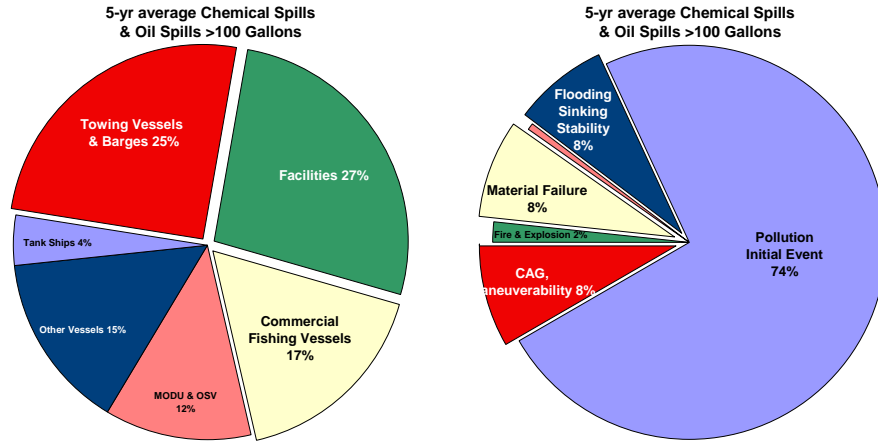
OIL & CHEMICAL SPILLS

Developing and ensuring compliance with marine safety regulations and standards also contributes to the prevention of oil and chemical spills due to marine casualties. The number of chemical spills and the number of oil spills (greater than 100 gallons) are used as proxy outcome measures of risk to the marine environment. We use 5-year averages of these metrics to track long-term performance trends.

The Coast Guard has jurisdiction for spills into or upon navigable waters of the U.S, adjoining shorelines, the contiguous zone, Deepwater Ports, the Continental Shelf and other areas. 40 CFR 300 requires vessel or facility operators to report any discharge of oil or oil products that cause a sheen, discoloration, sludge or emulsion; and any hazardous substance that equals or exceeds reportable quantities listed in 40 CFR 302. Only investigations recorded in the Coast Guard’s MISLE database of reportable chemical and oil discharge incidents into U.S. waters from maritime sources subject to Coast Guard jurisdiction are counted. Discharges onto land, into the air, or into enclosed spaces are excluded. Discharges from non-maritime sources — such as aircraft, trucks & other vehicles, rail cars & rail equipment; U.S. Navy and other public vessels; fixed platforms and pipelines — are excluded. Discharges from unspecified, unclassified, and unknown sources are also excluded.



There was a dramatic decrease in oil spills greater than 100 gallons after FY 2001, but the annual number of these has since remained relatively constant. Note that in addition to corresponding with Sept 2001, this dramatic decline also coincides with a shift from the MSIS database to the current MISLE system. The annual number of chemical discharge incidents has also varied within expected limits of variation since FY 2001 and has remained relatively constant for at least 4 years.



Facilities account for about 27% of the 5-year average chemical spills and oil spills greater than 100 gallons. Towing vessels & barges account for about 25%, and commercial fishing vessels about 17%.

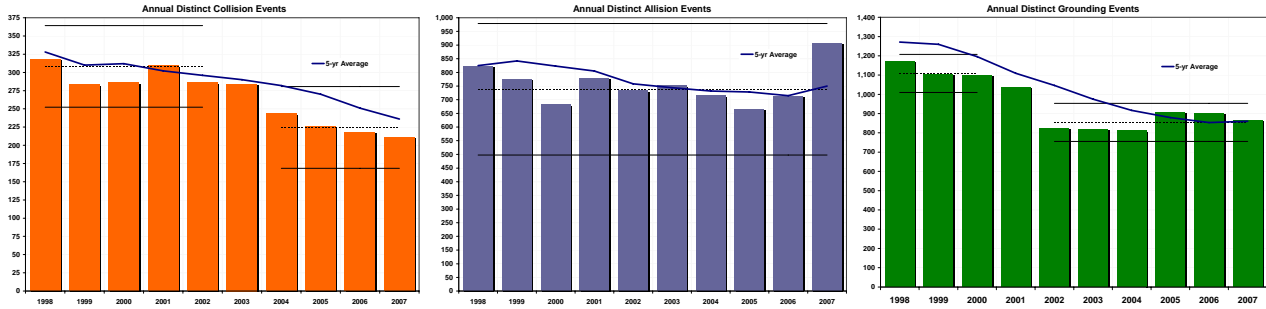
About three-quarters of chemical spills and oils spills greater than 100 gallons are accounted for by situations where the initial event is a pollution incident such as spills occurring during fuel transfer operations. About 8% of these spills are accounted for by marine casualties where the initial event is a collision, allision, grounding, or maneuverability incident such as loss of steering. About 8% result from marine casualties where the initial event is some type of material failure, and a similar number follow with initial events associated with flooding, sinking, or stability.

COLLISIONS, ALLISIONS, & GROUNDINGS

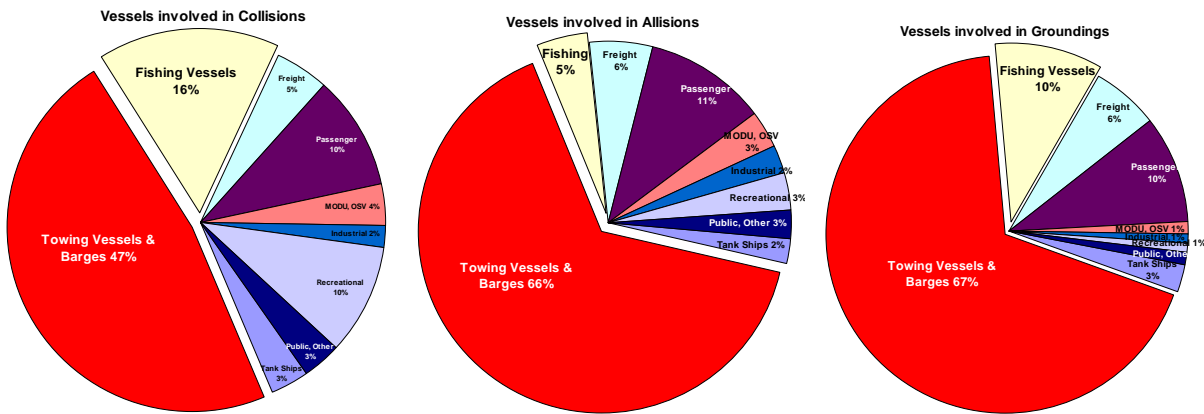
The Coast Guard develops and ensures compliance with marine safety regulations and standards to prevent marine casualties that result in property losses or disruptions to maritime commerce. We use the numbers of collisions, allisions, and groundings as proxy outcome indicators of risk to the maritime economy due to marine casualty incidents, and 5-year averages of these as indicators of long-term performance trends.

46 CFR 4.05-10 requires the owner, agent, master, operator or person in charge to notify the Coast Guard of any occurrence involving a vessel that results in a collision, allision, or grounding. Only investigations recorded in the Coast Guard’s MISLE database of reported collision, allision, and grounding incidents in U.S. waters involving commercial vessels are counted. Collision, allision, and grounding incidents not involving a commercial vessel — such as a collision between two recreational vessels — are excluded. Only distinct events are counted. For example, a collision in U.S. waters between two or more vessels, at least one of which is not a recreational boat, is counted as one distinct collision event.

The annual number of distinct collision events was relatively constant for six or more years, yet showed a significant decline after FY 2003, and continues to show some year-to-year improvement. The annual number of distinct allision events has remained relatively constant for the past decade and more. The annual number of groundings declined significantly after FY 2001, but has remained relatively constant for the past six years.



Towing vessels and barges account for 47% of the 5-year average number of vessels involved in collisions, two-thirds of vessels involved in allisions, and a similar portion of vessels involved in groundings. Commercial fishing vessels account for 16% of vessels involved in collisions, 5% of allisions, and 10% of groundings. Passenger vessels account for 10% of vessels involved in collisions, 11% of allisions, and 10% of groundings.



Y 2009–2014 Targets for Marine Safety Outcomes

Long-term and Annual performance targets for the outcomes measures listed in the tables at the end of this section are established by the process described below.

TARGET SETTING PROCESS

The process for establishing targets for the current budget year plus five additional years—the future years planning horizon—begins with a determination of annual targets. Targets for 5-year averages used as long-term performance measures are then calculated from actual past results and the annual targets established using the method below.

Targets for annual measures are based on a determination of current baseline performance and the impact of factors expected to modify performance through the planning horizon. To forecast these impacts we consider separately the future effects of external drivers and trends, any anticipated impacts due to capability constraints, expected results of continuous improvement efforts, and the promised benefits of performance initiatives. These areas of consideration are further explained below.

Baseline Forecast

The Baseline Forecast is that progression of performance outcomes expected to result with no more than mere maintenance of the status quo.

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In a stable performance environment, where results are expected to deviate within normal limits of variation above and below some average value, the baseline forecast is typically a forward projection of that mid-point.

In a dynamically changing performance environment, the baseline forecast is more appropriately based upon some trend line — with due care given to both the type of trend line and its expected persistence.

External Drivers & Trends

These adjustments to the baseline forecast are those expected due to external outcome drivers and trends — the anticipated impact of status quo changes caused by factors beyond organizational control.

External outcome drivers are causal factors outside organizational control that can directly impact desired outcomes — cause increased or decreased outcome results. An example might be industry implementation of a new technology that directly impacts the desired outcome.

Trends are factors outside organizational control that may indirectly impact desired outcomes — they are the currents and frictional forces that can magnify or dampen the impact of a key internal or external outcome driver. Examples might include econometric or demographic changes.

Capability Impacts

Capability Impacts are predicted changes in performance outcomes due to expected changes in resource inputs—not captured as anticipated benefits of continuous improvements or performance initiatives. Consideration should be given to any expected changes in Authorities, Capabilities, Capacities, Competencies, and Partnerships—including changes in staffing, training, equipment, infrastructure, information, and operating budgets.

Continuous Improvement

Adjustments to the baseline forecast are performance gains expected from incremental improvements in the utilization of existing resources.

Performance Initiatives

Adjustments to the baseline forecast are those benefits promised by initiatives designed to achieve quantum improvements in performance outcomes —the business case proffered by white papers for new Resource Proposals, Reinvestment Proposals, Legislative Change Proposals, etc.

OUTCOME TARGETS

Annual Targets for Marine Safety Outcome Measures

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Recreational Boating Deaths & Injuries	4,184	4,184	4,184	4,164	4,162	4,155
Commercial Mariner Deaths & Injuries	496	486	462	426	415	415
Commercial Passenger Deaths & Injuries	236	200	196	161	188	188
Oil Spills >100 gallons	150	150	146	141	140	140
Chemical Spills	50	44	42	41	41	41
Collisions	212	212	199	193	187	180
Allisions	739	739	716	709	702	695
Groundings	885	885	855	855	855	855

Long-term Targets for Marine Safety Outcome Measures

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
5-yr Average Recreational Boating Deaths & Injuries	4,248	4,184	4,180	4,177	4,173	4,169
5-yr Average Commercial Mariner Deaths & Injuries	529	520	487	480	457	441
5-yr Average Commercial Passenger Deaths & Injuries	251	248	221	204	197	187
5-yr Average Oil Spills >100g per 100 million short tons shipped	13.0	12.1	11.6	11.3	11.0	10.7
5-yr Average Chemical Spills per 100 million short tons shipped	25.9	22.8	22.0	21.8	21.4	20.9
5-yr Average Collisions	231	218	212	206	200	194
5-yr Average Allisions	754	754	754	728	721	712
5-yr Average Groundings	886	886	877	873	867	861