

The Coast Guard Journal of Safety at Sea

**January-March 1998** 

**Coast Guard** 

Volume 55, Number 1



## Annual Index

# YEAR 2000

## HAVE YOU COMPLETELY ADDRESSED YOUR Y2K PROBLEM?

By now most of you are aware of the difficulties associated with your "information systems" caused by the previous industry norm of using "2 digits" when storing or calculating dates. What many of you may not be aware of however, is that virtually every "smart" device or electronic system we currently use (i.e. anything with a chip in it that performs sequencing or date calculations and/or storage) as well as any new devices we buy off the shelf today, are also at risk from this threat.

The insidious nature of this problem is compounded by the fact that virtually identical looking devices, sitting side by side and performing well today, may act very differently as the year 2000 approaches. This potentially drastic difference in performance is caused simply because a slightly different chip is embedded within them. It is recommended by the experts, that for any smart system or electronic device you are relying upon you should consider investigating whether there will be a problem: WHEN IN DOUBT, CHECK IT OUT!

With the aforementioned in mind, and in the interest of mutual safety on our shared waterways, the Coast Guard will act as a clearing house for any lessons learned or problems identified associated with this issue. Accordingly, we encourage anyone who experiences any Y2K related problems and/or identifies possible solutions to those problems, to share those experiences by using the Coast Guard WEB site at www.dot.gov/dotinfo/uscg/hq/g-m/nmc/ y2k.htm or by contacting John Shonacher at the National Maritime Center at (703) 235-8453. By our combined vigilance and cooperation we may very well avoid serious safety and economic problems in the future.

WE LOOK FORWARD TO WORKING WITH ALL OF YOU AS WE ADDRESS THIS POTENTIAL THREAT TO OUR MUTUAL INTEREST IN MARITIME SAFETY.

#### Admiral Robert E. Kramek, USCG Commandant

The Marine Safety Council of the United States Coast Guard

Rear Admiral Paul M. Blayney, USCG Chief Counsel, Chairman

Rear Admiral Robert C. North, USCG Assistant Commandant for Marine Safety and Environmental Protection, Member

Rear Admiral John T. Tozzi, USCG Assistant Commandant for Systems, Member

Rear Admiral Ernest R. Riutta, USCG Assistant Commandant for Operations, Member

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## Our 55th Year Proceedings of the Marine Safety Council

January - March, 1998 Vol

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... 56

#### Annual Index Issue

Features
Assistant Commandant's Perspective:
"G-M Reorganization Revisited"
Vice Admiral Loy Selected to be Next Coast Guard Commadant
Photo Contest
Coast Guard Headquarters (G-M) Reorganization Review Articles:
Marine Safety and Evironmental Protection Directorate
G-M
G-M-1
G-M-29
G-MO
G-MOC
G-MOR17
G-MOA
G-MOV
G-MS
G-MSE
G-MSO
G-MSR
G-MR
G-MRP
G-MRI
National Maritime Center
Marine Safety Center
Marine Safety Lab43
National Vessel Documentation Center44
Container Inspection Training & Assistance Team46
Advisory Committees
License Statistics
Condition-Based Maintenance
Certificate of Appreciation
Proceedings 1997 Index
Author Names
Reader's Suryey/Mailing List Verification63
Year of the Ocean
Departments.
By the Way Editor's Point of View
Nautical Oueries

Mariner's eabag..

## Assistant Commandant's Perspective



By RADM Robert C. North Assistant Commandant For Marine Safety & Environmental Protection

## "Reorganization Revisited"

Over the last five years, many domestic and international businesses have either reorganized, streamlined, "right-sized," or effected any one of a hundred other "change-ups." Last year, the number of mergers alone totaled more than 10,000. But this phenomenon, and the economic drivers of efficiency and value, have not passed by the Federal Government. Spurred by the requirements of the *National Performance Review* (NPR) and the *Government Performance and Results Act* (GPRA), many federal agencies have met these mandates with much energy (and anxiety), much as we did in our reorganization *before* the trend was common in federal circles.

In the nearly three years since our July 1995 reorganization, we have been monitoring and where necessary—refining our Marine Safety and Environmental Protection (CGHQ) and field command structures to meet the needs of our industry stakeholders, our field commanders and our shareholders, the American Public. The fact that we reorganized without mandate is testimony alone to our enduring commitment for continuous improvement.

While time has proven our organizational changes to be successful, we have made a few changes, including creation of the Licensing and Evaluation Branch (staff symbol, NMC-4C) at the National Maritime Center, and the International Compliance and Outreach Division (G-MOC-4) in the Office of Compliance, USCG Headquarters. More notably, following a comprehensive, federal interagency study on ports and waterways management, a provisional Waterways Management Studies and Program Development Staff (G-M-2) was formed to oversee our evolving waterways management (WWM) strategy.

At the port level, an ongoing evaluation of field Activity commands at Baltimore, New York, and San Diego is underway. When first created under the USCG's 1995 National Streamlining Plan, Activities were envisioned as "one-stop" shops which drew together our full range of law enforcement, marine safety, aids to navigation, and port safety and security services under a single, consolidated command to improve coordination and customer service. The Integrated Operation Command study, now underway at Headquarters, is evaluating the effectiveness of the Activity concept and its potential for further implementation.

To aid your understanding of these changes, we have compiled this user-friendly index of our Coast Guard Headquarters Program Offices to augment your best local Coast Guard resource, our Captains of the Port (COTP) and Officers in Charge-Marine Inspection (OCMI), whose knowledge of local trends and issues is well-suited to providing for your particular needs. As our business plan matures and organization evolves, you may likely see further updates to this index. But in all that changes, one thing remains constant—our unwavering commitment to provide you, the taxpayer, the highest quality service and greatest return on your investment, by ensuring safety on our waterways and protection of our treasured marine environment.

## Vice Admiral James M. Loy Nominated as Next Coast Guard Commandant



Vice Admiral James M. Loy

Vice Admiral James M. Loy, an Altoona, PA, native, has been nominated by President Clinton to become the next commandant of the U.S. Coast Guard, a position that includes promotion to four-star admiral. VADM Loy will become the twenty-first commandant, when he succeeds Admiral Robert E. Kramek during a change-of-command ceremony scheduled for May 29, 1998.

Following high school Vice Admiral Loy entered the U.S. Coast Guard Academy and graduated in 1964 with a bachelor's degree in general engineering. Additionally, he has earned advanced degrees from Wesleyan University and the University of Rhode Island. He is an honor graduate of the Industrial College of the Armed Forces.

During his 34 years of service to the nation, Vice Admiral Loy has distinguished himself in a number of challenging assignments and consistently demonstrated strong leadership. He is currently serving at Coast Guard Headquarters, as the Coast Guard's Chief of Staff. Prior assignments have included command of the Coast Guard's Atlantic Area and U.S. Maritime Defense Zone Atlantic in Portsmouth, VA, command of the Eighth Coast Guard District in New Orleans, and Chief of the Office of Personnel and Training at Coast Guard Headquarters.

Vice Admiral Loy has commanded four Coast Guard cutters including Point Lomas on 43 combat patrols in Vietnam, Valiant out of Galveston, TX, and Midgett out of San Francisco.

He and his wife, the former Kay McGirk, also an Altoona native, have two children, Kelly Loy-Morf of Cary, NC, and Michael, a Coast Guard officer stationed in Key West, FL.



## EDITOR'S POINT OF VIEW

By Cheryl Robinson Proceedings magazine, as always, strives to keep you informed about all aspects of the maritime industry.

All over the world there are millennium projects setting the pace for the new millennium and the U.S. Coast Guard is no different—Y2K, Licensing 2000, and the Global Positioning System, just to name a few. The Proceedings staff's first priority project for the millennium is to transform the look and content of this publication to reflect the challenge of the future. Since 1995, when our five-year plan began, our goal has been to move continually towards the millennium by making Proceedings a more professional safety journal and by offering the readers a variety of technical and specific maritime industry articles.

We have conducted pen and pencil surveys and queried focus groups; as well as received thousands of letters, e-mails, faxes, and calls while trying to respond positively to your highly regarded input. As a result, our readers have graciously understood our changes in the past and I certainly hope as we approach the new millennium, you will continue to offer support and input while receiving Proceedings as a tradition and a steadfast pillar in the maritime community.

In 1998, we strive to move even closer to our goals as we approach the year 2000.

A special thank you to all our readers!

Next Issue ...

#### National Pollution Funds Center

Upcoming Issues ...

**Regulatory Reinvention & Standards Development** 

**Hazardous Material** 





*Proceedings Magazine* is in need of good photographs of ships, people saving lives, lessons learned, preventing injuries, incidents, vessels, cruise ships, safety subjects and environmental protection alerts. The photos should be geared towards action and closeups. Don't forget winter shots for those of you in cold climates.

If you have a good eye for action, detail and the unusual, try some shots for *Proceedings*. We will, of course, give credit to the photographers and units for any photos used in the magazine. *Proceedings* invites photographers, amateurs and professional alike, to enter the Photo Contest.

Your suggested themes are only limited by your imagination. So, if you have any topics you would like to see in the magazine, capture the idea in a photo and we will do the rest.

While any format is acceptable (color, black and white, photo, slides, or on disk), we prefer color slides, if possible. If you want any of the material back, let us know and we'll return it as soon as possible. There is no limit on the number of entries per person.

Contest winners will be announced in the Oct-Dec 98 issue. You may win recognition and prizes, too! So, all of you photo buffs, grab the old "Kodak™" and shoot one for us. The Marine Safety and Environmental Protection Editorial Board will judge the photographs.

If you have an idea or a photo and you're in doubt about its publication value to us, call the Editor: Cheryl Robinson at (703) 235-1604.

Our address: Photo Contest

Photo Contest
 Proceedings Magazine
 USCG/NMC
 4200 Wilson Blvd., Ste. 510
 Arlington, VA 22203-1804

## MARINE SAFETY AND ENVIRONMENTAL PROTECTION DIRECTORATE





## ASSISTANT COMMANDANT FOR MARINE SAFETY AND ENVIRONMENTAL PROTECTION

The Assistant Commandant for Marine Safety and Environmental Protection (G-M) directs coordinated national and international regulatory programs for commercial vessel safety, port safety and security, and marine environmental protection. More specifically, he administers overall Program responsibilities and analyzes the effectiveness of current regulations, while enforcing the Federal laws under his cognizance. The Assistant Commandant also heads the U.S. delegation to meetings of the Maritime Safety and Marine Environmental Protection Committees of the International Maritime Organization (IMO), a United Nations specialized agency headquartered in London, England.

## Administration & Coordination Staff (G-M-1)



The Administration and Coordination Staff (G-M-1) provides direct support to the Assistant Commandant on program-related issues and public outreach, including speeches. The Staff also serves as coordinative liaison between Marine Safety and Environmental Protection headquarters staff elements, and between other Coast Guard headquarters programs on legislative matters.

## WATERWAYS MANAGEMENT

The Waterways Management Studies and Program Development Directorate (G-M-2) has been tasked with program development for keeping America's ports and waterways secure, efficient, accessible, economically viable and environmentally sound. To that end, the Waterways Management staff is working with the Maritime Administration to form partnerships



with fellow agencies of the Federal Government and with ports and waterways stakeholders. These partnerships are expected to enable the Federal Government to provide services to ports and waterways users with greater effectiveness. In addition to this effort, the Waterways Management staff is also involved with Year of the Ocean (YOTO) and various standing advisory groups, such as the Interagency



Committee on Waterways Management (ICWWM) and the Navigation Safety Advisory Council (NAVSAC). If you are interested in finding out more about Waterways Management, please contact the Director, CAPT James Spitzer, LCDR Stephan Billian, LCDR Daniel Pippinger, Ms. Margie Hegy, or LT Gregory Hughes by phone at (202) 267-6164, or by mail at Commandant (G-M-2), 2100 2nd Street SW, Washington, DC 20593.

## **G-MO: Director of Field Operations**

CAPT Thomas Gilmour (202-267-2201)

The Field Operations Directorate oversees and provides policy for all regulatory compliance and marine response programs executed by Marine Safety District Offices, the National Strike Force Coordination Center, and local Marine Safety Offices. The directorate is composed of four offices and one special staff, which manage and oversee the programs indicated:

Compliance	CAPT John Schrinner (202-267-0490
<ul> <li>Licensing &amp; Manning Policy</li> </ul>	
Vessel Compliance Policy	
Port & Facility Compliance Policy	and the second
Response	CAPT Larry Hereth (202) 267-0518
<ul> <li>Response Operations Policy</li> </ul>	
<ul> <li>Plans and Preparedness Policy</li> </ul>	
Port & Environmental Management	
Investigations & Analysis	CAPT Scott Cooper (202) 267-1430
Marine Investigations Policy	
Evaluation of Compliance Programs	
Vessel Traffic Management	CAPT Robert Ross (202) 267-0731
Vessel Traffic Policy	
<ul> <li>Vessel Traffic Facility Management</li> </ul>	
Navigation Policy	
Traveling Inspection & Quality Assurance	CAPT James Garrett (202) 267-1080
<ul> <li>Compliance Program Oversight &amp; Improv</li> </ul>	vement
<ul> <li>Field Technical Support &amp; Special Insp</li> </ul>	ections

A detailed description of each office follows:



### **OFFICE OF COMPLIANCE (G-MOC)**

#### PRIMARY RESPONSIBILITIES/DUTIES:

The Office of Compliance is responsible for an array of activities associated with *incident prevention* aspects of the following traditional programs: Commercial Vessel Safety, Port Safety and Security, Commercial Fishing Vessel Safety, Merchant Marine Licensing and Documentation\*, Marine Environmental Protection, and Outer Continental Shelf activities. Some specific functions include:

- · Administering marine safety and environmental protection compliance programs
  - · Oversight of field activities
  - · Third-party oversight
  - Industry programs
- · Developing and maintaining program policies for compliance.
- · Overseeing all compliance activities and authorities vested in OCMI's and COTP's.
- · Acting for the Commandant on appeals from decisions or actions of OCMI's and COTP's.
- · Administering marine inspection and foreign vessel boarding activities.
- · Providing marine inspection guidance for recreational boating safety program.

#### \* Note:

Merchant Marine Licensing and Documentation had been administered by the Licensing and Manning Compliance Division (G-MOC-1). As of January 1998, the majority of that Division's work was transferred to the National Maritime Center for administration. That portion related to vessel manning has become a program element within the administrative purview of G-MOC-2, Vessel Compliance Division. Therefore, reference to G-MOC-1 is deleted from this overview.

#### CUSTOMERS/STAKEHOLDERS:

- The American Public;
- USCG Marine Safety Community;
- · Other federal, state, and international governmental bodies;
- · The Maritime Industry, including:
  - Vessel Owner/Operators,
    - · Port Facility Owner/Operators,
    - · Classification Societies,
    - Various industry representatives (agents, surveyors, council, professional associations, etc.),

#### FUTURE GOALS/MISSION STATEMENT:

#### G-MOC's strengths include:

- a staff of conscientious and dedicated individuals who produce well under the constant pressure of a daunting workload;
- rapid response to customer imposed deadlines;
- an excellent working relationship among division chiefs that enables the sharing of work regardless of divisional subject matter boundaries.

With these strengths as a base to build upon, G-MOC is dedicated to providing its constituent stakeholders with the best possible service in a responsive and accurate manner. The single most important mission of the Office of Compliance is the facilitation of Coast Guard field units in the consistent and fair enforcement of marine safety programs. G-MOC will continue to take the initiative in developing and coordinating creative solutions to difficult regulatory and safety challenges facing the maritime industry.

## Vessel Compliance Division (G-MOC-2)

#### PRIMARY RESPONSIBILITIES/DUTIES:

- 1. Administration of vessel compliance program for enforcement of laws, regulations and international conventions/treaties relating to the operation and safety of U.S. inspected vessels (other than the offshore industry), uninspected commercial vessels (other than fishing vessels), and foreign commercial vessels. (Offshore and fishing vessel programs are administered by G-MOC-3.)
- Provide interpretation and guidance to Coast Guard, industry, other governmental agencies, governments, and public persons relative to vessel inspection and compliance issues, including such topics as:
  - · IMO Conventions, including STCW, ISM, SOLAS, MARPOL, Loadlines, etc.
  - Operational Measures for Single Hull Tank Vessels
  - OPA 90
  - Retroactive Fire Safety Amendments to SOLAS
  - Underwater Examinations In Lieu of Drydocking (UWILD)
  - Dual-loadlines for TAPS tankers operating in Puget Sound
  - · Gaming vessel disaster contingency plans
  - Foreign Flag Passenger Vessel Control Verification Examinations
  - Streamlined Inspection Program
  - Alternative Compliance Program
- 3. Monitor field procedures and activities to ensure efficacy and accuracy of program implementation.
- 4. Prepare Commandant's action to industry's: (1) extension requests for material requirements, loadline and drydock examinations; (2) appeals of decisions made by Officers in Charge, Marine Inspection (OCMI) or USCG designated third parties relating to vessel inspection and compliance; and (3) waiver requests.
- 5. Administer oversight of third-party inspections (e.g., ABS).
- Draft Navigation and Inspection Circulars (NVIC's), official Coast Guard policy letters, and changes/ revisions to the Marine Safety Manual. Coordinate with various intra- and extra-Coast Guard entities in developing new, or revising existing regulations.
- 7. Prepare speeches, briefs, presentations, and read-ahead material as requested on the subjects within the Division's purview.
- Administer the foreign passenger vessel Control Verification Examination (CVE) programa specialized set of the Port State Control Program administered by G-MOC-4. This activity includes negotiating Outlines of Cooperation with classification societies in order to streamline the plan review process and coordinate/conducte initial CVE's for new builds.
- 9. Liaison with customers/stakeholders. Provide responses to public queries and concerns relative to vessel compliance issues.
- 10. Work closely with the Military Sealift Command (MSC) and Maritime Administration (MARAD) in coordinating the issuance and maintenance of these public vessels' Certificates of Inspection (COI).

- Coordinate issues relative to reflagging a vessel to the United States, including those security issues peculiar to this action.
- Coordinate G-MOC-2 activities with other USCG Offices and Divisions within Headquarters. Review other Offices' correspondence, draft policy and NVIC's, rulemakings, partnerships, etc.
- 13. Comment on draft legislation governing vessel compliance.
- 14. Comment on conclusions and recommendations developed from vessel casualty reports from the field, as well as from other formal investigations involving vessel safety.
- 15. Review, publish, and manage enforcement of vessel manning requirements.

#### CUSTOMERS/STAKEHOLDERS:

- "M" units within the Coast Guard, including Marine Safety Offices, Marine Inspection Offices, Activities, Resident Inspection Offices, RTC Marine Safety School, Headquarters "M" Offices and Divisions, Marine Safety personnel Coast Guard-wide, and coordination with G-O (e.g., SAR plans, etc.).
- Extra-Coast Guard Governmental Authorities: Various federal, state, local and international agencies, including: DOT, DOD, MARAD, MSC, EPA, Congress, state "DOT's", the IMO, and flag states whose vessels trade in the United States.
- Industry: Vessel Owners/Operators, Classification Societies, professional and consensus associations (e.g., PVA, AWO, ASTM, NFPA, etc.).
- The American public, especially those whose livelihood and well-being is affected by commercial vessels transiting the navigable waterways of the United States.

#### FUTURE GOALS/MISSION STATEMENT:

The Vessel Compliance Division is dedicated to delivering timely, accurate, and responsive action to its stakeholders in a manner consistent with the mission, goals and directives of the Office of Compliance. Part of that commitment is a dedication to working closely with stakeholders in the development of appropriate solutions to regulatory and safety concerns. Successful examples of the Division's dedication to this end are the Alternative Compliance Program and Streamlined Inspection Program – both designed and developed in partnerships with the maritime industry.



## Ports & Facilities Compliance Division (G-MOC-3)

#### PRIMARY RESPONSIBILITIES/DUTIES:

The Ports and Facilities Compliance Division (G-MOC-3) administers a variety of Marine Safety compliance programs—port operations, offshore activities and certain vessel safety programs. The staff serves to interpret regulations and standards, and to provide policy guidance to its primary customers, Marine Safety Offices, in an array of issues pertaining to inspections, port safety and environmental protection objectives.

- Inspections compliance activities include commercial fishing vessel safety, waterfront facilities, outer continental shelf facilities, offshore supply vessels, oil spill response vessels, mobile offshore drilling units, commercial diving and deepwater ports.
- Port Safety compliance activities incorporate the container inspection program, vessel movement control (i.e., safety/security zones, COTP orders), explosive handling supervision, cargoes of particular hazard handling, harbor patrols, and marine events.
- Environmental Protection compliance activities encompass administration of the Shoreline Protection Act, domestic laws implementing MARPOL, Asian Gypsy Moth program, bulk liquid transfer operations, ocean dumping, offshore incineration and offshore lightering.

The staff often teams with the (G-MSO) staff (Office of Operating & Environmental Standards) to develop and revise marine safety and environmental protection regulations.

#### CUSTOMERS/STAKEHOLDERS:

- The staff maintains a close liaison with various stakeholders to champion effective partnerships in pursuit of our common port safety and environmental protection goals.
- The Commandant (G-M) Business Plan goal MSS-3, to reduce the fatality rate aboard uninspected commercial fishing vessels, is supported through voluntary dockside examinations, public education, partnerships with the Coast Guard Auxiliary, NIOSH, and a variety of organizations related to the fishing industry.
- Coast Guard relations with the U.S. Customs Service, National Cargo Bureau and Classification Societies integrate the Container Inspection Program (CIP) into a synchronized national intermodal hazardous material transportation compliance program.
- Partnering with the American Bureau of Shipping, to develop an Alternative Compliance Program for MODU inspections, is in progress.
- The Memorandum of Understanding between the CG and Minerals Management Service (MMS) is being revised, with focus on addressing agency responsibilities for new hybrid Floating Production & Storage Offshore (FPSO) systems for deepwater oil and gas developments.
- · Commerical fishing industry.
- Policy is being drafted to accept American Petroleum Institute's standard API-570, "Piping Inspection Code–Inspection Repair, Alteration, and Re-rating of In-Service Piping Systems," as an alternative to pipeline hydrostatic testing for bulk liquid facilities.

- Consideration is being given to develop a self-inspection program regime for certain facilities.
- Staff is participating in the CG funded Marine Board study on reducing the risk of spills by
  offshore lightering.
- Existing CIP procedures and policies are being reevaluated in order to improve consistency on a national level and remove impediments to the economical movement of hazardous materials in maritime commerce.
- Commercial Fishing Vessel (CFV) initiatives include stability and damage control trainers, voluntary licensing, professional video development, EPIRB testing kits and CFV repair kit giveaways.
- · Clarification of the applicability of 46 CFR Subchapter L (OSVs) was recently promulgated.
- Current projects are underway to revise 46 CFR Part 197 (Commercial Diving), and draft new inspection regulations for Oil Spill Response Vessels.
- · Policy guidelines regarding marine events for fireworks are also being revised.

#### International Compliance and Outreach Division (G-MOC-4)

#### PRIMARY RESPONSIBILITIES/DUTIES:

- Administer the Port State Control program for enforcement of international conventions and U.S. regulations pertaining to foreign flagship vessels operating in U.S. waters. Interpret international conventions and standards, and provide guidance to Coast Guard Port State Control Officers (PSCOs) regarding inspection, compliance and enforcement procedures. Review foreign vessel detention reports for consistency and forward to IMO via DOS.
- 2. Ensure consistent enforcement measures are applied by field units. Develop explicit enforcement criteria for new international and domestic initiatives consistent with international PSC guidelines.
- Develop the PSC annual flag State and classification society targeting lists, as well as the monthly owner/operator targeting lists for use with the PSC Boarding Priority Matrix. Publish information pertaining to targeted owners/operators, classification societies and flag States in an effort to eliminate substandard shipping in U.S. waters.
- 4. Investigate and prepare responses to appeals of foreign vessels detained in U.S. ports from owners, operators, classification societies and flag States.
- 5. Maintain liaison with four regional PSC Memoranda of Understanding (MOU) including Paris MOU, Tokyo MOU,Caribbean MOU and Vina Del Mar Agreement.
- Oversee the development and refinement of PSC vessels detention database for the eventual inclusion in Marine Safety Network (MSN). Maintain close liaison with USCG workgroup developing the new MSN to ensure smooth transition of PSC database.
- Act as U.S. delegate to the IMO Flag State Implementation (FSI) subcommittee. Review and prepare
  position papers for all relevant U.S. issues. Comment on related IMO Maritime Safety Committee
  (MSC) and Marine Environmental Protection Committee (MEPC) session papers, as necessary, in
  support of G-MS.
- 8. Prepare speeches, briefs and read-ahead material as requested on PSC enforcement issues, classification societies, flag State performance and foreign owners and vessels of particular interest.

#### CUSTOMERS/STAKEHOLDERS:

- Coast Guard customers include field, district and area marine safety offices, and RESTRACEN Yorktown.
- U.S. Government customers include the Department of State, Department of Labor, MARAD and congressional liaisons.
- Other governmental customers and stakeholders include the four regional PSC Memoranda of Understanding (Tokyo, Paris, Caribbean and Vina Del Mar), and foreign flag Administrations.
- Other International Compliance customers include the recognized classification societies (ABS, DNV, Lloyds, NKK, BV, RINA, GL, KRS and approximately 20 others), and foreign vessel ship managers.

#### FUTURE GOALS/MISSION STATEMENTS:

- 1. Expand the Port State Control Program through training for Coast Guard personnel, class society representatives, and foreign PSCO's at the Coast Guard Port State Control Course, and exchanges with ABS surveyors at their class surveyor training program.
- 2. Provide outreach services to regional Port State Control MOU's to establish consistent global vessel detention reporting procedures.
- 3. Implement the ISM and STCW 95 Codes in the Coast Guard's Port State Control Program. STCW standards will improve the knowledge and practical skills of mariners on foreign flag vessels, and ISM certification will ensure that vessel operators have safety management systems in place.



## **OFFICE OF RESPONSE (G-MOR)**

The Office of Response (G-MOR) addresses local, regional, national and global issues related to the marine environment and their relationship with the geopolitical interests of the United States. Our mission is to provide our internal and external customers the resources (personnel, funding, equipment, or information) necessary to prepare, plan for and respond to marine and port contingencies through the development and dissemination of comprehensive and consistent policies.

### OUR CUSTOMERS:

- Coast Guard field offices
- National response system
- Environmental interest groups
- International Maritime Organization
- Maritime industry
- Public stakeholders



### Port and Environmental Management Division (G-MOR-1):

#### PRIMARY RESPONSIBILITIES/DUTIES:

- Coordinates development of international pollution prevention and response cooperation agreements.
- Coordinates the implementation of environmental compliance, preparedness, and response policies for the National Response System.
- Coordinates with national level framework for intergovernmental cooperation (NRT).
- Maintains an educational outreach program (Sea Partners) to develop awareness of marine
  pollution issues to improve compliance with marine environmental protection laws and
  regulations.
- Coordinates the International Oil Spill Conference.

#### Plans and Preparedness Division (G-MOR-2)

#### PRIMARY RESPONSIBILITIES/DUTIES:

- Oversees and monitors Area Contingency Plans, to assure compliance with national policies.
- Establishes policy guidance and coordinates review and approval of vessel and facility response plans and shipboard oil pollution emergency plans (VRPs, ACPs, SOPEPs).
- Develops and implements the Ballast Water Management plan for the Coast Guard.
- Represents United States in international negotiations dealing with Ballast Water Management.
- Monitors working group activity for the National Port Readiness Network.
- Manages the National Preparedness for Response Exercise Program (PREP).
- Develops and maintains policies for marine pollution preparedness.

## **Response Operations Division (G-MOR-3)**

#### PRIMARY RESPONSIBILITIES/DUTIES:

- Oversees public and private efforts directed at the removal of oil and chemical discharges in the coastal zone of the United States.
- Develops and maintains policies for marine pollution response.
- Develops and maintains policies for the Port Security program.
- Coordinates and supervises Coast Guard activities with the international community, intelligence
  agencies and other Federal agencies, as appropriate, in matters concerning threats or acts of
  terrorism, espionage or sabotage in U.S. ports, harbors and territorial waters.
- · Coordinates the Coast Guard program for abandoned vessels.
- Develops and implements Incident Command System (ICS) for use in maritime response incidents.
- Manages development of the On-Scene Command and Control (OSC2) integrated information management system.
- Provides program oversight, policy guidance, publication, and record keeping for issuing Certificates of Alternative Compliance (CAC) for privately owned vessels; reviews and prepares CAC plans for Coast Guard vessels.
- Represents Coast Guard interests, as the designated national authority for navigational safety, in development of digital charting requirements and policies.

#### CUSTOMERS/STAKEHOLDERS:

Professional Mariners Port authorities Marina operators Fishing industry Environmental Organizations Other agencies of the Federal government Foreign governments Other Coast Guard units or organizations Ship agents Port terminal operators Recreational boaters Offshore oil drilling - production industry Maritime advisory councils State & municipal governments International maritime organizations and Associations





For more information about our office contact us at:

Commandant (G-MOR) U.S. Coast Guard 2100 2nd Street SW Washington,DC 20593-0001

Phone: (202) 267-0518 Fax: (202) 267-4085

## OFFICE OF INVESTIGATIONS AND ANALYSIS G-MOA

Our customers...

- Coast Guard field offices
- Coast Guard Headquarters
   program offices
- Maritime public, classification societies, trade organizations and safety councils



**G-MOA** primary roles are to manage the marine casualty investigation program, to review and analyze marine casualty investigations, to follow up on safety recommendations made as a result of those investigations, and to conduct analyses of marine casualty data.

Marine casualties or accidents, as defined by law, are those accidents involving U.S. commercial vessels anywhere in the world or foreign vessels in waters subject to the jurisdiction of the United States. Marine casualties may include injury or death of a mariner aboard a ship or a person engaged in commercial diving, and pollution or discharges of a hazardous substance into a navigable waterway of the U.S. With information from thousands of incidents, G-MOA develops guidance regarding investigation and enforcement practices for marine casualties, marine violations and personnel action; and monitors field procedures and activities to ensure that they are being uniformly applied throughout the Coast Guard.

G-MOA is divided into two divisions:

The Investigations Division (G-MOA-1) and the Compliance and Analysis Division (G-MOA-2).

#### Major activities of G-MOA-1 include:

- Reviewing and approving marine casualty investigation reports.
- Preparing the Coast Guard's official position with respect to all reports requiring Commandant action.
- Tracking Coast Guard progress in implementing safety recommendations.
- Managing the drug and alcohol (chemical) testing regulations set forth in 46 CFR 16.
- Overseeing and importing Boards of Investigation and Boards of Inquiry.
- Coordinating the Coast Guard's response to National Transportation Safety Board (NTSB) recommendations.
- Administering the suspension and revocation (S&R) program. Administering the administrative clemency procedures (the appeal process) for merchant mariners.
- Administering the civil penalty program for violations of law and regulations related to marine safety, navigation and waterborne transportation activities.

Maintaining archival record systems for all marine casualties. Ensuring database validity via various quality assurance checks of field unit data entry.

The S&R programs administer action taken against merchant mariners who hold licenses or documents issued by the Coast Guard. For example, the Coast Guard may seek suspension of a mariner's license if he was involved in an assault against a shipmate.

While the Investigations Division deals primarily with marine casualty investigations; our Compliance and Analysis Division provides statistical analysis and data to our customers.

#### G-MOA-2's roles include:

- Analyzing investigation data and making recommendations for regulatory changes or the implementation of new safety related initiatives that help prevent marine safety accidents. – Assessing, improving, and implementing programs used to prevent casualties and determine their effectiveness in reducing casualties;
- Providing marine safety information and statistics for both internal Coast Guard and external public dissemination. Providing marine casualty data to field units for local risk assessment initiatives;
- Participating in the training of field unit personnel and other data customers concerning casualty, personnel action, and marine violation data entries. Fostering programs to improve competencies and skill levels that increase the expertise of our investigative personnel and improve the technical accuracy of our investigations.

For more information about our office, check our web site at: http://www.uscg.mil/hq/g-m/gmhome.htm or contact us at:

Commandant (G-MOA) U.S. Coast Guard 2100 2<sup>nd</sup> Street SW Washington, DC 202593-0001 Phone (202) 267-1430 Fax: (202) 267-1416

Office of Vessel Traffic Management		
	CAPT Robert G. Ross	(202) 267-0731
Programs & Policy Division (G-MOV-1)	Mr. J. Michael Sollosi	(202) 267-1539
Facilities Division (G-MOV-2)	CDR Kenneth Prime	(202) 267-1690
Navigation Rules & Information Division (G-MOV-3)	Mr. E. J. LaRue	(202) 267-0416

#### PRIMARY RESPONSIBILITIES/DUTIES:

- Program Manager for Vessel Traffic Management functions within the Coast Guard's Waterways Management business area.
- Supervise the implementation and enforcement of the marine traffic management provisions of the Ports and Waterways Safety Act to include:
  - Develop and implement appropriate vessel traffic management measures in U.S. ports and waterways.
  - Coordinate and monitor all research and development efforts affecting marine traffic management systems, including surveillance and tracking, decision support, display and communications.
- Manage the U.S. system of Vessel Traffic Services (VTS) responsible for the effective performance of VTS and policy development for VTS for individual U.S. ports.
- Develop and analyze alternative means of fulfilling the Coast Guard's Vessel Traffic Management role and furthering the nation's waterways management program.
- Serve as Coast Guard representative on committees, associations and working groups concerned with navigation safety and active waterways management.
- Maintain liaison with international organizations and operating agencies of foreign nations to plan, coordinate and harmonize vessel traffic management issues.
- Serve as U.S. delegate to International Maritime Organization (IMO) Subcommittee on

Safety of Navigation, and Chairman, International Convention for the Safety of Life at Sea (SOLAS) Subcommittee Working Group on Safety of Navigation.

- Develop rules, regulations and standards for the prevention of collisions, rammings, and groundings, for:
  - International and Navigation Rules, Regulated Navigation Areas, speed control, Bridge-to-Bridge Radiotelephone, Traffic Separation Schemes, anchorages, navigation equipment regulations, Artificial Reefs, and Shipping Safety Fairways.
  - Provide program oversight, policy guidance, publication, and record keeping for issuing Certificates of Alternative Compliance (CAC) for privately owned vessels; review and prepare CAC plans for Coast Guard vessels.
  - Represent Coast Guard interests, as the designated national authority for navigational safety, in development of digital charting requirements and policies.

#### CUSTOMERS/STAKEHOLDERS:

Professional Mariners Ship agents Port authorities Port terminal operators Marina operators Recreational boaters Fishing industry Offshore oil drilling - production industry Environmental Organizations Maritime Advisory councils Other agencies of the Federal Government State & municipal governments Foreign governments International maritime organizations and associations Other Coast Guard units or organizations



#### FUTURE GOALS/MISSION STATEMENTS:

Reduce the number of collisions, allisions and groundings in U.S. waterways:

- Determine appropriate waterways management tools on port by port basis using Ports and Waterways Safety Assessments (PAWSA) and Port Access Route Studies.
- Establish or adapt appropriate waterways management measures through cooperation with customers and stakeholders.
- Develop and implement a universal Automatic Identification System (AIS).
- Operate enhanced AIS where appropriate.
- Propose standards and carriage requirements for Electronic Chart Display and Information Systems (ECDIS) and Electronic Chart Systems (ECS).
- Develop and refine Measures of Effectiveness for Waterways Management.

Reduce the number of and/or impact of impediments to ports and waterways accessibility and efficiency:

- Coordinate Federal efforts to provide waterway services.
- Reduce the burden on ports and waterways users by aligning stakeholder needs with requirements.
- Leverage technology in addressing future needs.
- Resolve waterway use conflicts by improving communication and establishing conflict resolution forum with stakeholders.
- Promote Prevention Through People (PTP) and Customer Satisfaction initiatives.

## **DIRECTOR OF STANDARDS (G-MS)**

#### **Standards Directorate Vision Statement:**

The Standards Directorate is committed to the development of initiatives, policies and regulations designed to enhance maritime safety, and preserve and protect the maritime environment, through the cooperative efforts of partnerships between the Coast Guard, the maritime community, and the public.

## Director of Standards (G-MS) duties and responsibilities:

- Establish federal policies for development of marine safety, security and environmental protection treaties, laws and regulations.
- b. Develop safety, security and environmental protection standards for the maritime industry. Integrate all marine safety and environmental protection regulatory programs.
- c. Integrate the "Prevention Through People" strategy throughout the standards development process. Examine the role of the human element in all standards initiatives within G-M.
- Prepare legislation, regulations, and industry guidance for new safety, security and environmental protection programs.
- Maintain an active program for development of third party consensus industry standards.
- f. Develop and maintain technical expertise in marine engineering, systems, equipment, and operations, and serve as the focal point for programs coordination with the maritime industry.
- g. Coordinate primary technical support to marine safety programs and programs in other Directorates. Programs include: marine inspection, marine licensing, port safety and security,

marine environmental response, waterways management and bridge administration.

- Assist the Commandant, G-M, and the Commandant's staff as necessary, in preparation in planning for participation in directorate related international organizations and conferences.
- Represent the U.S. interests and position in national and international fora, including the International Maritime Organization, to integrate U.S. and international standards for marine safety and environmental protection.
- j. Initiate and coordinate Coast Guard participation in Department of State advisory committees for the preparation of coordinated U.S. positions to international organizations and conferences on issues for which G-M has responsibility.
- k. Coordinate and manage the international programs for G-M, including development of the U.S. position on all issues and development of implementing programs.
- Serve as principal Coast Guard participant, National Committee for Prevention of Marine Pollution.
- m Coordinate activities relating to advisory committees for G-M.
- Act as Chairman of the Interagency Coordinating Committee on Oil Spill Research.

### A BRIEF INTRODUCTION TO THE COAST GUARD'S OFFICE OF DESIGN AND ENGINEERING STANDARDS

What does the Coast Guard do?



Most people would answer, "Make daring rescues at sea, catch drug smugglers, and clean up oil stained beaches." The Coast Guard also has responsibility for ensuring that the vessel you are on will not blow up or fall apart. But, in case something does happen the Coast Guard also makes sure that the vessel has what is needed to either place you in the water safely or fish you out if you have gone overboard alone. To make sure the ship is properly built and outfitted, the Coast Guard relies on a variety of technical standards. Some of these standards are contained in the Code of Federal Regulations. Others are developed by national standards organizations, such as the American Society for Testing and Materials, the American Society of Mechanical Engineers, or the National Fire Protection Association. Still others are international standards of the International Maritime Organization (IMO) or International Organization for Standardization. Traditionally, the Coast Guard's ship design and outfitting regulations have placed their emphasis on designing a fail-safe system. While this approach is expected to continue, it will have a greater focus on the interaction of the human element with the system. The development and maintenance of regulations and standards are part of the responsibilities of the Office of Design and Engineering Standards (G-MSE).

G-MSE is broken down into four divisions:

Human Element and Ship Design Division (G-MSE-1) Naval Architecture Division (G-MSE-2) Systems Engineering Division (G-MSE-3) Lifesaving and Fire Safety Standards Division (G-MSE-4)



Each division works with many different groups in an effort to make the rules as fair as possible and only as restrictive as necessary. Some of these groups include classification societies like the American Bureau of Shipping and Lloyd's Register, and industry groups like the Passenger Vessel Association or American Waterway Operators. The Coast Guard also works alongside other governmental agencies such as the Environmental Protection Agency and the National Transportation Safety Board, and of course shipyards and parts manufacturers and suppliers. We work with industry representatives on the Congressionally sanctioned safety advisory groups. We participate in the development of industry codes through membership in the

standards setting organizations. Through the committee work at the IMO we work with industry representatives and foreign governments to develop international standards. This is a critical effort in improving the safety of the majority of deepwater ships that are moving in U.S. ports, as they are foreign flag ships. Each of the G-MSE divisions has people working in these areas. We also assist in casualty reviews. This type of review, when approached from a system perspective, can find weaknesses or faults that a more traditionally focused review might have missed. This is in addition to the work that is being done on regulations, R&D oversight, and vessel and systems design reviews.

#### **The Divisions**

#### Human Element and Ship Design Division (G-MSE-1); phone (202) 267-2997

**G-MSE-1** has primary responsibility for the regulatory project establishing the Alternate Compliance Program (ACP) and overseeing the recognition and authorization of foreign classification societies. They also are the lead division for administration of the Prevention Through People (PTP) program, and its focus on the human element in the safety equation.

PTP is one of the non-regulatory approaches to marine safety that is being carried out by the Coast Guard in conjunction with the marine industry. G-MSE-1 is a participant at IMO in the Human Element Correspondence Group and Fire Protection Subcommittee. This division also oversees the IMO human element bibliographic database on the WWW and developed and maintains the PTP web site. Another area of involvement for G-MSE-1 is in the field of risk assessment and risk management. The Risk Based Technology Management Team developed the "Risk Based Decision-Making Guidelines" which involved members from throughout Coast Guard

Headquarters, with the administration of the group being carried out by G-MSE-1. The High Speed Craft (HSC) Working Group, which develops domestic implementation policy for the IMO HSC Code, is another activity that is led by the division.

## Naval Architecture Division (G-MSE-2); phone (202) 267-2988

G-MSE-2 develops standards and policy in the areas of ship and offshore structures, stability, subdivision, load lines, and hydrodynamics (seakeeping and maneuverability). They are active in various committees of standard setting organizations and represent the U.S. on the IMO Stability, Load Line and Fishing Vessel Safety Subcommittee. They manage hull system research and development projects to support the development of regulations to protect the marine environment. G-MSE-2 supports classification society technical committees and develops standards for bulk cargo carriage. The Naval Architecture Division is the lead for the application of PTP to the commercial fishing vessel industry. The current Ship Structure Committee Executive Director is also a member of this division.

#### Systems Engineering Division (G-MSE-3); phone (202) 267-2206

This division is the lead for many projects. looking at shifting our formal technical approach to safety through the application of systems engineering principles and how individual subsystems and, even components if necessary, fit within the system. Some of the regulatory projects completed within the last year are the Harmonization with International Standards, revision of the Electrical Engineering (Sub, J) regulations and Tank Level or Pressure Monitoring Devices. Additional regulatory projects which are being considered for the near future will involve another revision of the Electrical Engineering (Sub, J) regulations and additional updates of applicable regulations on harmonization with newly adopted international standards. G-MSE-3 is in the process of evaluating the feasibility of developing a strategic plan to implement risk-based technology and applying risk management approaches to maritime systems. G-MSE-3 also provides expertise on pressure vessels, engineering processes, machinery and piping systems and components, and electrical systems for novel concepts in the design stage of vessels. The engineers of G-MSE-3 also participate in IMO and other national and international organizations involved in standard development activities.

#### Lifesaving and Fire Safety Standards Division (G-MSE-4); phone (202) 267-1444

This division's areas of responsibility cover a wide range from regulations for lifesaving equipment (Subchapter W) to development of fire prevention standards to equipment approvals. The members of this division are more likely to work with independent laboratories and equipment manufacturers than others in G-MSE. This is primarily due to their responsibilities for equipment approvals. What equipment must be approved by the Coast Guard? Basically, almost all lifesaving and fire safety equipment that the Coast Guard requires to be carried on a vessel must be approved for performance by the Coast Guard. This includes Personal Flotation Devices (life jackets, ring buoys, etc.), fire extinguishers, visual distress signals, life rafts, and other equipment. The standards that this division works on also support the Coast Guard's Boating Safety Program, and will affect any of us who has been out on a boat. One of their current projects is finding alternatives for the use of Halon in fire suppression systems. This is very important as the production of Halon is being phased out due to its nature as an ozone depleting agent.

In this brief look at the Office of Design and Engineering Standards you can see that every part has an effect on your place in the marine community and our environment.

If you would like more information or have specific questions please contact the division at the number listed, or visit the web site for Marine Safety and Environmental Protection which can be found at: http://www.uscg.mil/hq/g-m/gmhome.htm



## OFFICE OF OPERATING AND ENVIRONMENTAL STANDARDS (G-MSO)

As part of the Standards Directorate, the Office of Operating and Environmental Standards (G-MSO) plays a large role in accomplishing objectives supporting that vision and the mission of the Coast Guard. To that end, G-MSO develops and maintains standards regulating marine industry through treaties, regulations and policy. The office is subdivided into four divisions with well-defined responsibilities:

The Maritime Personnel Qualifications Division (G-MSO-1) is responsible for development and maintenance of standards, regulations and guidance for the maritime industry regarding personnel qualifications, licensing and certification, and vessel manning. Recent regulatory projects under MSO-1's purview include the new Tankerman/ Person in Charge of Oil Transfer rulemaking, the interim rule implementing the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) in the U.S., and the recently published proposed rule on licensing and manning for officers of uninspected towing vessels. G-MSO-1 has also produced several Navigation and Vessel Inspection Circulars (NVICs) providing national policies on issues arising from implementation of STCW. These NVICs cover subjects as diverse as designated instructors and examiners, company responsibilities under STCW and training requirements for personnel serving on roll-on, roll-off vessels. Current projects include work on completing proposed rulemakings and initiating new revisions of the licensing regulations.

The second G-MSO division, the Vessel and Facility Operating Standards Division (G-MSO-2), is responsible for developing and maintaining standards and regulations for inspected and uninspected vessels, facilities and offshore platforms. This includes regulating vessel, facility and platform operations as well as offshore lightering, deepwater port, ocean dumping and ocean incineration activities. Current projects include response plans for high capacity passenger vessels, oily water separator requirements, Passenger Vessel Safety Act (PVSA) implementation, carriage of dangerous cargoes, International Safety Management (ISM) Code, licensing for 12 passenger uninspected vessels, Streamlined Inspection Program (SIP) regulations, commercial fishing vessel equipment carriage regulations and Notice of Arrival (NOA) requirements.

The Hazardous Materials Standards Divison, G-MSO-3, is responsible for developing and maintaining regulations, standards and industry guidance to promote the safety of life and protection of property and the environment during marine transportation of hazardous materials. Their expertise covers a wide range of activities including waterborne shipment of hazardous materials, classification of new cargoes, evaluation of DOT exemptions, bulk solid permits, shipboard fumigation, chemical hazards and attributes databases, and occupational health and safety of marine industry personnel. They publish the *Chemical Data Guide for Bulk Shipment by Water*, and represent the Coast Guard in such hazardous materials related fora as the DOT Research and Special Programs administration. American Bureau of Shipping (ABS) technical committees, and National Fire Protection Association (NFPA) committees and Marine Chemist Qualification Boards. Some of G-MSO-3's current projects include Revisions to the Vapor Control Systems regulations of Title 33, United States Code, response plans for vessels and facilities for hazardous materials, and the never-ending stream of requests for deviations from regulations,

**G-MSO-4, The Environmental Standards Division**, integrates environmental issues in development of standards and public policy. They develop and maintain standards, regulations and guidelines for industry, states and the public to implement laws and treaties on marine environmental protection, and serve as the Office's focal point for environmental liaison, coordination and concurrence. Some current and recently completed projects include work on the Act to prevent Pollution from Ships (APPS), the Antarctic Environmental Protection Act and regulations governing operation of Oil Spill Response Vessels (OSRVs).

Members of the Office of Operating and Environmental Standards represent the U.S. in national and international fora, including the International Maritime Organization (IMO). G-MSO-1 personnel represent the U.S. at meet-

ings of the IMO Subcommittee on Standards of Training and Watchkeeping. This representation has been directly responsible for integrating the Coast Guard's Prevention Through People strategy into international maritime personnel qualification requirements. G-MSO-2 personnel are closely involved with vessel and facilities equipment issues, working in areas such as updates to the Convention for Safety of Life at Sea (SOLAS). G-MSO-3 personnel represent the U.S. at the IMO Subcommittee on Bulk Liquids and Gases (BLG), the IMO Subcommittee on Dangerous Goods, Solid Cargoes and Containers (DSC), the United Nations Committee of Experts on the Transport of Dangerous Goods and the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP). G-MSO-4 personnel work to integrate U.S. and international environmental standards by supporting and participating in the Marine Environmental Protection Committee (MEPC).

G-MSO is home to five of the seven Coast Guard sponsored advisory committees chartered under the Federal Advisory Committee Act. Using the expertise of committee members, Federal officials, industry and the public have access to information and advice on specific areas of interest. Some of the committees are established by statute, others are chartered. Advisory committee members are typically appointed by the Department of Transpor-

tation for terms of two to three years. Representing a broad spectrum of industry and public interests, committee members meet several times each year to address issues of interest to industry, the Coast Guard and the public. Subcommittees and working groups under each committee meet an additional several times per year to make recommendations and comments.

The Chief of G-MSO serves as Executive Director of the National Offshore Safety Advisory Committee (NOSAC) and the Towing Safety Advisory Committee (TSAC). NOSAC addresses a broad range of issues of interest to the offshore industry, including offshore drilling, support vessel operators, offshore construction, pipe laying, diving and geophysical services. TSAC provides recommendations on issues relating to the inland and coastal towing



industry. G-MSO-1 is the Executive Director of the Merchant Marine Personnel Advisory Committee (MERPAC). This advisory committee has been instrumental in developing standards for implementation of STCW and other rulemakings. Similarly, G-MSO-2 serves as Executive Director of the Commercial Fishing Industry Safety Advisory Committee (CFISAC). Input from CFISAC has been used to help draft the recently implemented safety equipment requirements for commercial fishing vessels. Finally, G-MSO-3 serves as Executive Director of the Chemical Transportation Advisory Committee (CTAC). A CTAC working group provided tremendous insight in development of a workplan for regulatory changes revising the requirements for vessel and facility vapor control systems. (A list of the Advisory Committees is included in this issue; see page 48.)

In summary, the Office of Operating and Environmental Standards has a diverse collection of responsibilities for standards in the areas of maritime personnel, vessels and facilities, hazardous materials and environmental protection. Staff members represent the U.S. at meetings of numerous international standards organizations, ensuring that U.S. initiatives and views are strongly supported in the international arena. The industry perspective is incorporated in standards development using input and advice from the five Federal Advisory Committees. By using that input in the regulatory process, the needs of stakeholders are considered, while marine safety is enhanced and the marine environment is preserved and protected.

## OFFICE OF STANDARDS EVALUATION AND DEVELOPMENT (G-MSR)

The Office of Standards Evaluation and Development (G-MSR) supports G-M's development of regulations, studies, and reports implementing laws and treaties within G-M's responsibility.

In partnership with the Coast Guard's Office of Regulations & Administrative Law (G-LRA), G-MSR consults with the Office of Management and Budget (OMB) and Department of Transportation (DOT) to develop Coast Guard marine safety and environmental policies and procedures for implementing national objectives as defined by Congress and the President. G-MSR advises the Assistant Commandant for Marine Safety and Environmental Protection, his Directors, and Office Chiefs on appropriate regulatory approaches to implement national, departmental, and Coast Guard policy. G-MSR provides expert advice on regulatory process requirements, optimum development strategies, dissemination of policy and public information, and problem resolution. G-MSR represents the Coast Guard to a variety of public and private individuals and organizations. G-MSR manages development of regulatory projects within the Directorate, identifying necessary regulatory projects, establishing goals for their development, and managing available resources. To fulfill our responsibilities, G-MSR works closely with G-M policy and enforcement offices, Coast Guard legal offices, various DOT agencies, Federal and State agencies, industry, and the general public.

The range of support that G-MSR provides is dictated by the requirements of each individual regulatory project. Projects can consist of any combination of the following: project management (subject matter intensive); regulatory development (strategy development and coordination of rulemaking activities); economic, environmental, and data analysis; technical writing; research; and administrative support.

#### **OUR CUSTOMERS:**

- · Coast Guard Office Chiefs, and Directors
- Self-directed regulatory project team members
- Coast Guard Office of Regulations & Administrative Law
- The Department of Transportation
- The Office of Management and Budget
- · General public seeking information on regulations

#### **OUR PRIMARY PRODUCTS:**

- Economic & environmental analyses
- Editorial support for regulatory functions
- Administrative support for G-M Offices & Divisions.
- Regulatory process guidance and assistance.
- Published Regulations





#### PRIMARY RESPONSIBILITIES/DUTIES:

G-MSR-1 Standards Evaluation Analysis Division

The Standards Evaluation and Analysis Division is staffed by civilian, military, and contract personnel. Most of the members of this Division are regulatory impact analysts that advise Project Managers on the potential economic or environmental impact of specific rulemakings and monitor the adequacy of existing regulations in light of new or evolving economic. technological, or business factors. Specific responsibilities include development of the regulatory assessment or evaluation, an economic analysis of a particular rulemaking; the environmental assessment or environmental impact statement; a finding of no significant impact (FONSI); categorical exclusions; and collection of information documents.

#### G-MSR-2 Project Development Division

The Project Development Division is primarily responsible for providing project management. facilitation, and technical writing and editorial support. It is also staffed by civilian, military, and contract personnel, with contract personnel providing assistance solely as Technical Writers/Editors and administrative support. The division also houses the Regulatory Coordinator function. The Regulatory Coordinator administers the rulemaking process, works closely with G-LRA, develops G-M regulatory project priorities, and advises G-M and G-MS on regulatory development issues.

The self-directed regulatory project teams are headed by a leadership triad. The leadership triad consists of the Project Manager (Technical and Policy), the Project Manager (Regulatory Development), and the Project Counsel (G-LRA). The leadership triad works together to develop the optimum direction and strategy to completing a regulatory project in light of policies, procedures, and issues of programmatic and departmental concern. For more information, please contact us at:

Commandant (G-MSR) Attn: Howard Hime 2100 2nd Street, SW Washington, DC 20593-0001

Phone: (202) 267-6826 Fax: (202) 267-4547



## DIRECTOR FOR RESOURCE MANAGEMENT (G-MR)

The Director for Resource Management duties and responsibilities are to:

- a. Serve as Facility Manager for the Marine Safety operating programs. Coordinate and integrate financial, informational, and human resources.
- b. Plan, acquire, develop, and allocate resources for development and execution of the Coast Guard's marine safety programs.
- Provide the focal point for all resource issues in support of the Standards and Operations Directorates.
- d. Oversee the development and management of the Coast Guard's direct user fee program.
- Evention as the information resource director for the Assistant Commandant. Represent the Office on the Coast Guard Headquarters IRM Board.
- f. Coordinate all human resource and leadership policies for the Assistant Commandant for Marine Safety and Environmental Protection.



## OFFICE OF PLANNING AND RESOURCES (G-MRP)

The Chief, Office of Planning and Resources duties and responsibilities are to:

- a. Assist in coordinating the Resource Management Directorate's programs with those of other headquarters directorates, and work closely with them in planning, utilization and priority allocation of multimission facilities, where they have a common interest.
- b. Function as the Planning Officer for G-M.
- Perform strategic planning for G-M, addressing current and forecast organizational, operational, and resource-related issues.
- d. Develop long-range plans for meeting G-M information needs.
- e. Develop, implement and manage an information resource acquisition review and approval process.
- f. Direct and exercise oversight for G-M, of the operating programs' Strategic Planning. Programming, Budgeting, Execution and Evaluation System (SPPBEES) functions. Coordinate the preparation of program data and other documents required under SPPBEES.
- g. Undertake and assist in the conduct of technical, personnel, and management studies in support of G-M. Perform in-depth evaluations of programs to assess their effectiveness and utilization of resources.
- h. Administer budgeted AFC-30, R&D, and AC&1 funds under the control of G-W, furnishing preliminary apportionments and allocation recommendations.
- Coordinate and integrate policies for personnel accession, training, qualifications, and career path management for all G-M personnel.
- Coordinate and allocate billets and positions for policy guidance program execution.
- k. Serve as senior career counsellor and personnel ombudsman for all G-M personnel.

PAGE 30

- L Administer the G-M Training Program.
- m Oversee the MARGRAD recruitment program and the MARTP recruitment and training program.
- n. Advise G-M on human resource management issues.
- Oversee the development and maintenance of training requirements for personnel and units involved in marine inspection, licensing, pollution prevention, pollution response, port safety and security program activities.
- p. Coordinate the Research and Development Program for G-M. Seek broad participation among divisions in R&D proposal development and prioritization. Ensure R&D projects address established strategic goals and are included in the Business Plan.



## STRATEGIC PLANNING AND ANALYSIS DIVISION (G-MRP-1)

The Chief, Strategic Planning and Analysis Division duties and responsibilities are to:

- a Conduct strategic planning for G-M.
- b. Coordinate development of the GPRA Performance Planning and publish G-M Business Plan, Performance Plans and Performance Reports.
- c. Prepare program planning.
- d. Develop Commandant's Executive Business Plan.
- Review and prepare Issues and Determinations on current and anticipated plans, programs and problems.
- f. Annually assist in revision of strategic five year IRM Plan to identify Office information needs and requirements. The plan identifies IRM goals. objectives, success factors, measures of success, and monitoring procedures.

- g. Program Manager Support Support program managers in conducting in-depth evaluations of operating programs to improve policy guidance and program effectiveness. Participate in developing and evaluating support policy and organizational decisions related to G-M programs, fostering new program initiatives, and identifying new and more effective means of managing existing programs.
- h. Economic Analyses form specific economic analyses as directed by the Office Chief.
- i. Disseminate performance data to district and field units for targeting data.
- Develop pilot projects to build risk models for selected ports. Assist district and unit CO's to develop district/port level performance and exposure data for risk management.



### BUDGET AND RESOURCES DIVISION (G-MRP-2)

## The Chief, Budget and Resources Division duties and responsibilities are to:

- Act as Budget Officer for G-M to manage development and oversee execution of the AFC-30 and AC&I budgets.
- b. Manage, coordinate, evaluate, prepare and review Resource Management. Act as TEMAC coordinator for G-M. Act as the Headquarters Planning Coordinator (HQPC) for G-M.
- c. Manage the user fee program including the review of all user fees, regulations, collections, reports to Congress and the inclusion of user fees in new regulatory programs as necessary.
- d. Act as G-M Facility Manager. Act as Headquarters Facility Manager for G-M and Coordinate physical plant support services.

### HUMAN RESOURCES DIVISION (G-MRP-3)

#### The Chief, Human Resources Division shall:

- Administer training programs for all marine safety program personnel.
- Administer all marine safety post graduate and industry training programs.
- c. Plan and coordinate the officer, enlisted, and civilian billet assignments in the marine safety program with CGPC.
- d. Develop and identify career paths for all marine safety program personnel. Manage career development issues for program personnel.
- e. Execute force manager duties for all marine safety technicians (MST) and port securitymen (PS) in the Coast Guard.

### OFFICE OF INFORMATION RESOURCES (G-MRI)

#### The Chief, Office of Information Resources duties and responsibilities are to:

- Plan, organize, direct, promote, control and manage activities and resources associated with the collection, creation, use, and dissemination of information.
- b. Develop, operate, maintain and support information systems in order to satisfy the overall needs of G-M.
- c. Implement statutory and regulatory requirements for carrying out information management activities.
- Approve and coordinate all prospects, studies and procurements within the Office requiring IRM or IRM related services.
- Promulgate G-M IRM policies, procedures and responsibilities to ensure that information resources are used effectively, efficiently and economically in support of G-M missions.
- Evaluate the data contained within the major G-M information systems in order to improve its accuracy, completeness, and reliability.
- g. Assist G-M customers determine cost-effective uses of information technology to better perform their missions.
- h. Represent G-M on Coast Guard IRM councils, committees, and task forces.
- Establish and manage G-M's Records Management System.
- Develop and implement G-M's information resource acquisition approval process.
- k. Establish a library of information resource procurement requests and supporting documents.
- m Manage G-M's program to ensure responsiveness to the public under the Freedom of Information Act and the Privacy Act of 1974.



## DATA ADMINISTRATION DIVISION(G-MRI-1)

The Chief, Data Administration Division duties and responsibilities are to:

- a. Establish and apply procedures to analyze, evaluate and improve the accuracy, integrity, reliability and utility of data and records contained in G-M information systems.
- b. Manage the loading, conversion and maintenance of software and data on all G-M information systems.
- Enforce data security, privacy, and integrity controls for information contained on G-M information systems.
- d. Manage the active involvement of all program and divisional staffs in the management of data on G-M information systems.
- Identify data which no longer serves a useful purpose and coordinate efforts to eliminate its capture.
- Support operating programs with their data queries requirements. Provide data required to respond to FOIA requests.
- g. Perform database management functions for all G-M information systems.
- h. Develop projects for data usage, performance, capacity, resource requirements and life-cycle costs for all G-M information systems.
- Plan, organize, develop, implement and administer the G-M Records Management system.

### SYSTEM SUPPORT SERVICES DIVISION (G-MRI-2)

## The Chief, System Support Services Division duties and responsibilities are to:

- Implement procedures to identify problems and request changes in order to keep G-M information systems current with program needs.
- Establish and implement procedures to keep the user communities informed about issues relevant to G-M information systems.
- c. Train and assist the user communities in the proper use of all G-M information systems applications.
- Approve (through Change Control Board) and prioritize enhancements on major G-M information systems.
- e. Develop and distribute necessary changes to system and user documentation.
- f. Establish and implement Quality Assurance, ADPSO and Configuration Management procedures for all G-M information systems.
- g. Maintain production systems in accordance with the approved functional and architectural baselines.
- h. Perform COTR functions for all G-MIRM contracts and be the point of contact with G-ACS.
- i. Manage the information technology budget to ensure it is consistent with G-M IRM plans.
- Coordinate responses to all requests for information received under the Freedom of Information Act and the Privacy Act of 1974.



### SYSTEM DEVELOPMENT DIVISION (G-MRI-3)

The Chief, System Development Division duties and responsibilities are to:

- Define, design, develop, support and enhance G-M information systems in order to satisfy program needs.
- Encourage the active involvement of G-M and office staffs in the development and enhancement of G-M information systems.
- Identify, request and manage the R&D, AC&I and office staffs to lead and manage the development and enhancement of G-M information systems.
- Schedule and perform approved enhancements of major G-M information systems.
- Identify information systems which are no longer cost effective and coordinate efforts to replace them.

- Identify and report shortcomings in the technical architecture needed to support G-M information systems.
- g. Review changes to legislation, regulation, policy and Research & Development Center projects to determine Office IRM system impact.
- h. Develop and annually revise an Implementation Plan for the Strategic IRM Plan detailing development of requirements.
- Establish policies and procedures to implement IRM requirements contained in applicable laws.


## NATIONAL MARITIME CENTER (NMC)



The National Maritime Center (NMC), an independent USCG Headquarters command, actively pursues new and innovative ways to assist the maritime community in gaining and using the services of the Coast Guard. By promoting some of the many missions of the Assistant Commandant for Marine Safety and Environmental Protection, and by facilitating the maritime community in meeting the requirements and gaining access to these services, the NMC provides and improves service to many of the Coast Guard's customers.

The NMC maintains an active public and industry awareness outreach program aimed at communicating Coast Guard regulatory activities and policy guidelines. The NMC executes policy, regulations and standards developed by Headquarters. The NMC acts as the "voice of the program" to external customers through the publications and the world wide web site. NMC's primary function is to initiate and execute various marine safety programs at a national and international level.

The National Maritime Center is under the leadership of the Commanding Officer, CAPT Mike Rosecrans and the Deputy Director, Mr. Donald Kerlin. The National Maritime Center programs consist of several divisions located in Arlington, VA, and four field units located throughout the nation.

#### NMC Goals and Objectives

The NMC focuses its efforts on effectively supporting and contributing to the goals of the G-M Business Plan. Coast Guard goals, as well as the DOT Strategic Plan.

The NMC is working diligently to improve determination of mariners' competency, responsiveness to customers needs, and support to field commands. Current efforts at reengineering the mariner licensing program will be led by the NMC. CAPT Mike Rosecrans stated, "We owe the most efficient and effective mariner licensing and documentation program our collective intellect and experience allows,"

The programs located at the Virginia office are as follows:

The Marine Personnel Division maintains central records for merchant marine personnel. It also administers merchant marine personnel programs for documentation, examination administration, course approvals, licensing and pilotage. As we step into the future of seafarer licensing, the NMC has begun implementing STCW which places less emphasis on examination only and increasing emphasis on performance-based training. The "Examination Administration Guides" for deck and engineering licensing are being changed to reflect changes in the assessment process of candidates. New training courses will be developed and ciriteria identified for issuing new off-shore supply vessel licenses. The division will also address new issues affecting qualifications of mariners sailing on international voyages and tankerman qualifications required to meet STCW and domestic anti-pollution initiatives.

CAPT William Bennett, Chief, Marine Personnel Division (NMC-4) (703) 235-0011 Mr. Jack Buri, Marine Personnel Branch (NMC-4A) (703) 235-1951 Mr. Gerry Miante, Marine Examination Administration Branch (NMC-4B) (703) 235-0014 Mr. Stewart Walker, Licensing and Evaluation Branch (NMC-4C) (703) 235-8451

The Budget, Administration and <u>Planning Division</u> provides technical direction and continuity in planning, directing, and implementing the NMC's operations. Mr. James Aiken, Chief, Budget, Administration and Planning Division (NMC-3) (703) 235-1561

#### The Publication and Information

staff provides the maritime community with pertinent information that is easy to access. Several publications that were previously scattered throughout the Coast Guard are now being published and administered through a single office. Publications under the domain of the NMC include: the Proceedings of the Marine Safety Council, the Marine Safety Newsletter, the Marine Safety Manual, Navigation and Vessel Inspection Circulars, the World Wide Web, the G-M Phone Book, the Key Word Index, and the Merchant Vessels of the United States. Using state-of-the-art technology, the staff obtains and incorporates all available sources of information and makes it readily available to the maritime industry. You can visit our web site at:

http://www.uscg.mil/hq/g-m/gmhome.htm. Ms. Cheryl Robinson, Publications and Information Staff (703) 235-1604 Mr. Donald Kerlin, Deputy Director (703) 235-0013

The four field units of the National Maritime Center are as follows:

The Container Inspection Training and Assistance Team (CITAT) located in Oklahoma City, OK, works with Coast Guard field units and other federal, state and local agencies, assists shippers to enhance their capability to comply with the Hazardous Materials Regulations and the Safety Approval of Cargo Containers Regulations. The team coordinates Coast Guard participation in local hazardous materials enforcement "Strike Force" joint inspections. Team activities entail inspections of intermodal freight containers and portable tanks for compliance with the Hazardous Materials Regulations and the Safety Approval for Cargo Containers Regulations (49 CFR).

LCDR Steve O'Malley, Supervisor (405) 954-8985.

The Marine Safety Center (MSC). in Washington, DC, under the direction of the NMC, continues to provide technical services in review and approval of plans for design, construction, alteration and repair of U.S. commercial vessels and marine structures subject to the marine inspection laws; and administer the provision of the International Convention on Tonnage Measurement of Ships, 1969. The MSC provides direct engineering support to Coast Guard Federal On Scene Commanders who act as coordinators during a pollution incident response. In addition the MSC provides technical support to Coast Guard and industry problem solving teams. CAPT Jeffrey Lantz, **Commanding Officer** (202) 366-6484

The National Vessel Documentation Center (NVDC), in Falling Waters, WV, plans and administers a central system for the documentation of U.S. vessels and ensures proper recordation of vessel transactions. The centralization of the vessel documentation services allows the Coast Guard to provide more efficient and effective service by enhancing uniformity, specialization, and expertise of the documentation staff. Combined with leveraging technology, the NVDC is a 1996 Department of Transportation customer service award winner.

Mr. Tom Willis, Director (304) 271-2400

The Marine Safety Laboratory

(MSL), in Groton, CT, provides forensic oil analysis and expert testimony in support of oil pollution law enforcement for Coast Guard field investigators, district commanders, hearing officers, the National Pollution Funds Center, Department of Justice, and other federal agencies.

Dr. Martha Hendrick-Smith, Manager (860) 441-2645

An expanded explanation of the Marine Safety Center, CITAT, NVDC, & MSL is provided in the following Articles:

# MARINE SAFETY CENTER

The U.S. Coast Guard Marine Safety Center was established in 1986 as a consolidation of district Merchant Marine Technical Offices and is located on the sixth floor of the DOT Headquarters building in Washington, DC. The following paragraphs provide a brief overview of the MSC organization, responsibilities, and activities.

Additional information is available through the MSC web site at: <u>www.uscg.mil/hq/msc</u>

Goals: By 2000, reduce time spent on plan review by one-half; balance mission emphasis; maintain a one month backlog.

The Marine Safety Center works directly with the marine industry, the Commandant and Coast Guard field units in the evaluation and approval of commercial vessel and systems designs, development of safety standards and policies, response to maritime casualties and oversight of delegated third parties in support of the Coast Guard's marine safety and environmental protection programs.

#### Technical Window for the Coast Guard's Commercial Vessel Safety Program

Provide the maritime community a "window" to the Coast Guard's Marine Safety program with respect to vessel design issues.



# Technical Support for Coast Guard Field Units

Provide naval architecture and marine engineering technical support to field Marine Safety Offices (MSOs), Marine Inspection Offices (MIOs), and Federal On Scene Coordinators (FOSCs). This includes forensic casualty analysis for both marine safety and operational units.

# Technical Support for the Commandant

Provide technical support to the Commandant through input on casualty reviews, legislation, development of industry standards, appeals, proposed Navigation and Vessel Inspection Circulars (NVICs) and regulatory projects and the formulation of technical policy.

#### **Commercial Vessel Plan Review**

Review designs of commercial vessels to ensure compliance with domestic and international requirements as required by shipping laws, the Code of Federal Regulations, Department of Transportation and U.S. Coast Guard implementing directives and guidance. and the International Maritime Organization (JMO).

#### Interpretation of Technical Requirements

Develop interpretations of technical requirements in the regulations, international standards, and implementing directives. Many vessels have unique installations with unusual construction techniques, applications, or arrangements which incorporate advances in technology and which are not currently addressed by the regulations. These special designs are reviewed to ensure that the level of safety incorporated into the design is equivalent to that of the more conventional installations.



#### **Oversight of Third Party Organizations**

Conduct oversight of third party organizations which have been delegated authority to act on behalf of the Coast Guard. A significant part of Coast Guard plan review is performed by third party organizations, (primarily the American Bureau of Shipping) on behalf of the Coast Guard. These reviews are audited for compliance with Coast Guard standards. Close communications are maintained to provide guidance. policy, and assistance to facilitate performance of these functions on behalf of the Coast Guard.

#### Letter of Compliance Program for Liquefied Gas Tankships

Provide administrative control and technical support to Coast Guard field offices carrying out port state control initiatives for foreign flag liquefied gas tankships.



#### Control Verification Examination Program for Passenger Vessels

Provide technical support to the Control Verification Examination (CVE) program for foreign flag passenger vessels.

The Marine Safety Center (MSC) is comprised of 50 Coast Guard officers and civilian employees. The MSC is organized into three divisions as shown below.

## **Hull Division**

#### Major Vessel Branch

The Major Vessel Branch conducts structural, stability, and the protection reviews of small passenger vessels (<150 passengers), large passenger vessels, freight vessels (>100m), and fish processing vessels.

#### Mobile Offshore Drilling Unit (MODU) Branch

The MODU Branch conducts reviews of stability and structures for U. S. Coast Guard certificated MODUs, liftboats, small passenger vessels (<150 passengers), tug and tow boats, oceanographic research vessels (ORVs), freight vessels (<100m), and passenger submarines.

## **Engineering Division**

#### **Machinery Branch**

The Machinery Branch verifies compliance and provides technical support to the marine industry and Coast Guard field offices on shipboard piping systems, boiler and pressure vessel design, and main and auxiliary machinery, including steering gear, materials, welding, nondestructive testing, fire fighting, and fire protection systems aboard new and existing U.S. vessels, mobile offshore drilling units, and foreign flag passenger vessels.



#### **Electrical Branch**

The Electrical Branch provides technical support to the marine industry and Coast Guard field offices on the design of electrical systems, equipment, and wiring methods including fault current protection, hazardous areas installations, and automated systems for control of vital vessel functions. This includes microprocessor based control systems.

## **Cargo Division**

#### **Domestic Tank Vessel Branch**

The Domestic Tank Vessel Branch provides technical support to the marine industry and Coast Guard field offices on structural, stability, and fire protection issues for tank ships, all types of barges, dredges, oil spill recovery vessels, and offshore supply vessels.

#### Foreign Tank Vessel Branch

The Foreign Tank Vessel Branch provides technical support to the marine industry and Coast Guard field offices on tank vessel cargo carriage authority issues, cargo piping systems, and vapor control systems. The branch also manages the U.S. Letter of Compliance program for foreign flag liquefied gas carriers.

#### **Tonnage Survey Branch**

The Tonnage Survey Branch manages the U.S. Tonnage measurement program, under which U.S. flag vessels are assigned registered tonnages/dimensions and tonnage regulations are enforced.

#### **MSC Salvage Team**

The MSC Salvage Team is comprised of 8-10 staff engineers who are on call 24 hours a day, 7 days a week, to assist and support Coast Guard Captains of the Port (COTPs) when disaster strikes. Salvage Team members are naval architects trained to conduct technical analysis in the areas of vessel stability, structural integrity, and vessel removal operations. When activated, the salvage team provides technical support to COTP during marine casualties (groundings, collisions, explosions, fires).

#### Team Members

The team's members have strong credentials, including Masters degrees in naval architecture, professional engineering licenses, and experience in commercial vessel design. They are expert users of several naval architecture software packages. Salvage Team members selected from each of the three divisions, provide their service as a collateral duty.

#### Resources

The team has mobile computing capability for on-scene deployment, as well as presentations to inform field personnel of the services available. The MSC maintains a database of about 5,000 hull files that can be used to generate computer models of vessels for use in salvage engineering. External relationships with organizations like the Navy Supervisor of Salvage (SUPSALV), Coast Guard Intel Coordination Center, and the Office of Naval Intelligence (ONI), and all major class societies, enable the team to quickly locate and transfer information about a damaged vessel that otherwise would be difficult to access.

#### Drills

The Salvage Team assists in the development and execution of exercises involving vessel casualties under recovery vessels, and offshore supply vessels. The National Preparedness for Response Exercise Program (PREP) participation in these exercises has been on the rise over the past few years with excellent results in terms of team preparedness and integration with other parts of the response effort.

#### Education and Awareness

The salvage team educates COTPs, salvage response industry personnel, and Coast Guard members in salvage readiness and salvage engineering. The team provides training to facilitate real-time technical analysis during a vessel casualty.



#### The People

The 50 currently assigned personnel at the MSC have a variety of different backgrounds and previous work experiences. Coast Guard Officers primarily come to the MSC from graduate school. Before attending school, many were assigned to Marine Safety Offices or afloat engineering tours. The civilian engineers have a wide variety of experience in the marine industry. The support staff includes the office automation personnel and a newly expanded Information Resource Management (IRM) staff of three. The technical portion of the graphic above represents staff engineers that perform plan review.

#### Education

The MSC has 27 engineers with one or more Master's Degrees in the following areas:

Naval Architecture and Marine Engineering Mechanical Engineering Civil/Environmental Engineering Electrical Engineering Fire Protection Engineering Chemical Engineering Business Administration

#### Professional Engineering Registration

As a testament to the dedication and expertise of the NMC staff, there are currently five licensed Professional Engineers in the office.



#### Pequot Shipyard "SASSACUS" High Speed Craft (HSC) Project

This project marks the first large-scale application of the international HSC Code in U.S. commercial shipbuilding. These vessels are classed by Det Norske Veritas, who is actively involved in the plan review process. The Pequot Indian tribe is underwriting the project. The plan is to build a fleet of HSC vessels to ferry New York City passengers to a Connecticut casino and to sell additional ships abroad. The first vessel has been completed and the keel has been laid on the second of the six planned vessels.

#### Strategic Sealift Project

The MSC provided plan review support of the conversions and new builds of the RO/RO fleet to be used to pre-position U.S. forces in critical areas throughout the world. Construction is being accomplished at Avondale, Newport News, and NASSCO.

#### The Safety of Life at Sea (SOLAS) Retroactive Fire Safety Amendments (RFSAs)

The 1992 SOLAS amendments mandate certain safety upgrades to existing passenger vessels. The critical issues include spaces adjacent to stair towers and automatic sprinkler systems. The compliance date for these upgrades was 1 October 1997. Since over 150 vessels are subject to these requirements the MSC anticipated the surge of incoming plans. To prepare for the influx of plans, the MSC shifted personnel resources to offset the projected increase in workload. The MSC also conducted an RFSA workshop to address the industry's technical concerns. By making these adjustments and preparations the MSC decreased the potential impact that the RFSAs could have on our ability to serve the entire spectrum of the marine community.

#### **Barge Buckling Study**

As a result of the Buffalo Barge casualties in Galveston, the MSC conducted a comprehensive study into root causes of tank barge structural failure due to buckling. It was the most in-depth study ever performed by the Coast Guard on this issue. As a result of this study, the Coast Guard has issued a new NVIC providing the inland tank barge industry with recommendations for safe cargo loading practices.

#### Changes to Letter of Compliance (LOC) Program

The MSC implemented a major regulatory change to LOC Program streamlining the application and review process for foreign flag chemical tankships operating in U.S. waters.

#### Alternate Tonnage Implementation

The Tonnage Survey Branch coordinated development of the first alternate tonnage threshold rulemaking for OSV's, which was published in the Federal Register on December 18, 1996. The 1996 Coast Guard Authorization Act gave the Coast Guard the authority to specify alternate convention tonnage thresholds to the existing thresholds found in Coast Guard related statutes. The intent of the legislation was to provide the marine industry relief from having to rely on tonnage reduction techniques, by allowing vessels to be regulated to higher tonnage thresholds as determined under the internatal tonnage convention measurement (ITC) system. Other fleet segments are being addressed by separate rulemakings, whose development is being coordinated at USCG headquarters with the assistance of the MSC.

#### Partnerships with Industry

The following list includes but a few high profile partnerships with industry, formed to provide the best service possible:

Fastship ATLANTIC Chevron Spar Buoy Tiger Team Oryx Spar Buoy Project AMOCO Spar/TLP Project AMERICA WORLD CTTY ABS Technology Liaison Arco/A vondale Shipyard Tiger Team Newport News Double Eagle Tanker Project

#### MSC's Comprehensive Oversight Program

The MSC performs technical oversight of functions delegated to third party classification societies or entrusted to certification by registered Professional Engineers (P.E.). Many functions are currently delegated to the American Bureau of Shipping (ABS), with other classification societies involved to a much lesser extent. This is expected to change significantly over the next few years as additional classification societies are empowered through the Coast Guard's Alternate Compliance Program. MSC oversight of classification societies is based on a single overall scheme of mutually acceptable written procedures. Oversight of P.E. certified plans is accomplished in accordance with Navigation and Vessel Inspection Circular 10-92 and MSC procedures. Active and open communications between the MSC. ABS and others audited by these activities is key to the success currently enjoyed by this program. Lessons learned have been used to refine activities and prepare for greatly expanded activities in the future.

A few recent cases are listed below.

NORTH CAPE - Grounded barge, Rhode Island. BUFFALO 292/286 - Buckled barges, Houston/ Galveston.

JULIEN - Tankship allied with bridge, Portland, Maine, IGLOO MOON - Compressed gas vessel grounding, Miami.



TOPAZ - Chemical tankship grounding in Savannah. FORMOSA SIX - Tankship collision, New Orleans. COASTAL EAGLE POINT - Tankship grounding. Tampa.

BELL 157 - Capsized barge, 2 crew casualties.

#### High Speed Craft (HSC) Implementation QAT

The MSC is actively participating in a Quality Action Team (QAT) that is working on the development of U.S. Interpretations needed to implement the new International Maritime Organization (IMO) HSC Code.

## Water Mist Fire Extinguishing Systems

The MSC is working closely with HQ on development of policy and review procedures of this new fixed fire fighting technology.

#### Revisions to Vessel Vapor Control System (VCS) Regulations

The MSC is working as a member of joint CG/industry team under charter of Chemical Transportation Advisory Committee (CTAC) to review existing VCS regulations and make recommendations for regulatory revisions.

# Prevention Through People Initiative with Inland Tank barge Industry

The MSC is working as a member of joint CG/industry team under charter of CTAC to review Tank barge Certificates of Inspection and develop recommendations to modify the method and contents of endorsements to reduce the potential for human error.

#### **Baldrige Management System**

The MSC has conducted a self assessment and identified gaps against the Baldrige Criteria. The current Baldrige score is 216 points out of a possible 1,000. Project plans have been created to close priority gaps to achieve the following Baldrige target scores: 1998: 350 points; 1999: 450 points; 2000: 600+ points. MSC project team members are currently working on completing milestones identified for the current fiscal year. Achieving these targets will help the MSC compete successfully for the Commandant's Quality Award in 1999 and the President's Award in 2000.

#### Strategic Planning

The MSC Quality Management Board (QMB) has identified the priority issues, Key Success Factors and primary strategies of its strategic plan. The focus of the plan is to reengineer the core process of plan review using a risk based approach. This approach will not only allow the MSC to quantify the value of its activities in terms of reduction in risk to life, property and the environment, but will provide a mechanism to systematically improve the process of plan review.

#### **ISO 9000**

A cross-functional team has evaluated the cost/benefits for the MSC obtaining ISO certification. Based on the team's recommendation, the MSC has established a long term goal (3-5 years) for ISO-9002 compliance, beginning now with documenting core processes and coordinating ISO activities with current Baldrige priorities.

#### Engineering Information Technology System

The MSC is in the process of procuring a new computer system capable of performing the highly technical review and analysis of commercial vessel designs. The upgrade includes the installation of Standard Workstation (SWS) III, extending its capabilities in the areas of scanning, printing, and video interface that will enable more thorough, timely, and accurate design reviews, aid customer interaction, and provide a sustainable infrastructure.

#### **MASCOT** Replacement

(Marine Safety Center Office Tracking System) The MSC is evaluating the options for replacement of its document and project management software. The primary purposes of MASCOT are correspondence tracking, time keeping, and project management. This system will undergo modifications in conjunction with the move to our new computer system. The MSC is currently exploring various possibilities to upgrade/ modify MASCOT in preparation to the switch to SWS III. Improvements in system speed, user input/output flexibility, and the ability to track various key management indicators are among the improvements that will be incorporated into the next revision of MASCOT.

#### **Policy Tracking System**

The MSC is developing a policy tracking system that will make its written policy more consistent, available, and accurate. To perform its primary mission, the MSC applies, interprets, and develops commercial vessel design review policy. The policy is currently captured in a complicated and often confusing variety of written guidance. Reliance on this policy has grown as technology outpaces the regulations and precedent setting decisions are made. In the interest of providing consistent, accurate, and timely policy interpretations to our maritime industry customers, a Quality Action Team (QAT) was formed in 1995 to investigate possible solutions. This QAT identified several commercial-off-the-shelf applications which identify, document, distribute, store, and retrieve electronic documents. This allows the staff engineers, doing the work real-time, fingertip access to policy information from many sources. This system is planned as an integral part of the EITS/SWS III computer upgrade.

#### **Tonnage Technical Policy**

A Tonnage Technical Policy document is being developed to provide interpretive guidance and serve as a centralized source of all tonnage policy. The document will be posted on the MSC web site when completed. The first part of this document, addressing the convention measurement system, is targeted for release in 1998.

#### **Electronic Commerce**

The MSC is gearing up to begin preliminary acceptance of plans in an electronic format. The electronic transmission, routing, reviewing, and distribution of electronic Computer Aided Design (CAD) drawings, instead of paper drawings, can mean time and cost savings for the MSC and its submitters. Teams have been formed at the American Bureau of Shipping (ABS) and the MSC to help facilitate the transition to electronic forms of communication, including plan submission, electronic storage, and video conferencing capabilities. By the end of the calendar year, the MSC is planning to begin preliminary acceptance of electronic drawings from ABS. Electronic submissions from other submitters will follow shortly.

# From Marine Safety Lab

The USCC Marine Safety Laboratory is the only laboratory in the Federal Government dedicated to the identification of the sources of unknown all splits. In 1998 it celebrates its twentieth year of service to USCC field offices and pollution investigators. Some "old timers" may recall that the lab began as the Central Oil Identification Laboratory, and became known by the acronym "COIL." Although it has been relocated and renamed several times over the intervening years, its responsibilities and duties have not changed.



Improvements in laboratory instruments and procedures have included computerization and advanced techniques, enabling a reduction in the enlisted military staff from 11 to 8 personnel. The recent Coast Guard-wide reorganization also replaced the Commanding Officer with a civilian manager and added a second civilian chemist to the staff. The Marine Safety Laboratory (now 'MSL?') has become a unit of the National Maritime Center, instead of reporting directly to (G-M); MSL has not physically relocated and retains the same mailing address and telephone: however, not all of the units we service may be aware of the recent changes.

### NATIONAL VESSEL DOCUMENTATION



The National Vessel Documentation Center (NVDC) located in Falling Waters, WV officially opened on 1 August 1995. The centralization of NVDC commenced with the signing of an Operating Facility Change Order (OFCO) on May 19, 1995.

The Operating Facility Change Order (OFCO) initiated three coordinated activities:

- The consolidation of 14 regional ports of documentation.
- The centralization of vessel documentation to a single facility which would provide program oversight and administer day-to-day documentation services.
- The re-engineering of key work processes for modification to reduce complexity and for added automation.

The centralized and consolidated function saved approximately \$1.7 million per year. In addition to providing greater documentation functions, the centralization provided on-site policy guidance. After centralization, an automated phone system was implemented which established a toll-free number for better customer service; and faxing of data which reduced the turn-around time to an average of six hours. Faxing transmissions allows filing of timecritical documents with the auto faxback system delivering forms to customers in seconds. Calls could then be directed to personnel who could readily respond to a customer's request within 45 seconds. The automated phone system also provides 24hour-a-day, seven days a week customer service. Customers may now request forms packages and leave voicemail requests for information. Today, if a vessel is transferred the file is readily available, because the file remains at NVDC and is not transferred to other sites across the country and customer requests can be fulfilled expediently.

#### VESSEL DOCUMENTATION CUSTOMER INFORMATION

Vessel documentation is a national form of registration. Documentation provides conclusive evidence of nationality for international purposes, provides for unhindered commerce between states, and admits vessels to certain restricted trades, such as coastwise trade and the fisheries. A vessel must measure five net tons or more and, with the exception of certain oil spill response vessels, must be wholly owned by a citizen of the U.S. Tonnage is determined by volume and has nothing to do with weight. Most vessels more than 25 feet in length will measure five net tons or more. Vessels of five net tons or more used in fishing activities in navigable waters of the U.S. or in the Exclusive Economic Zone (EEZ), or used in coastwise trade must be documented unless the vessel is exempt from documentation.

A Certificate of Documentation may be endorsed for fishery, coastwise, registry, or recreation. Any documented vessel may be used for recreational purposes, regardless of its endorsement, but a vessel documented with a recreational endorsement only may not be used for any other purpose. Registry endorsements are generally used for foreign trade.

The basic requirements for documentation are to demonstrate ownership of the vessel, U.S. citizenship, and eligibility for the endorsement sought. U.S. citizenship is established by completion of form CG-1258. Build evidence is normally established by submitting a Builder's Certification on form CG-1261. The name and/ or hailing port may be changed by filing an application for change on form CG-1258. If the vessel is subject to a mortgage of record, you must obtain permission from the mortgagec on form CG-4593. Documentation forms may be downloaded from the world wide web site.

#### You may contact us at ::

National Vessel Documentation Center 2039 Stonewall Jackson Drive Falling Waters, WV 25419

> Toll Free (800) 799-8362 Main (304) 271-2400 Fax (304) 271-2405

Web site: URL: http://www.uscg.mil/hq/g-m/gmhome.htm



## U.S. COAST GUARD CONTAINER INSPECTION TRAINING & ASSISTANCE TEAM (CITAT)



"Seaborne commerce is the lifeblood of our nation." (DOT Secretary Stater)

Nearly all non-bulk international trade moves in intermodal containers. In 1996, over 21 million TEUs (twenty feet

equivalent length containers) moved through the United States' ocean terminals while millions of others passed through our rail and highway terminals. Ten percent of these containers contain hazardous materials ranging from poisonous gases to commercial explosives. These commodities pose a real risk to the transportation system and the public; however, that risk can be safely managed. Effective enforcement controls the risk yet does not unnecessarily delay safe shipments.

In 1994, the United States Congress funded the creation of a Container Inspection Training and Assistance Team (CITAT). This team is tasked with assisting and training all Coast Guard units inspecting or regulating intermodal hazardous material shipments. The aim is to standardize enforcement through training. Recognizing that intermodal shipments transcend Coast Guard jurisdiction, the team augments multi-agency container inspection operations. In addition, CITAT provides subject specific training to Coast Guard Law Enforcement Units, the United States Customs Service, and other organizations participating in multi-agency container operations.

Specific assistance CITAT has provided to units includes: (1) sending personnel to work along side unit personnel to help the unit establish (or reestablish) a working relationship with the intermodal shipping industry, (2) augmenting Coast Guard units conducting multi-agency strike force operations (MASFO), (3) providing technical assistance on regulatory interpretations, (4) meeting with local industry representatives (with COTP approval) to discuss hazardous material shipment issues, (5) sending personnel to augment a unit dealing with a sudden increase in particularly dangerous goods, and (6) conducting on-site training.



#### COURSES TRAINED

CITAT provides three types of training: Primary, Secondary and Customized. Our *primary* lesson plan series is designed to provide an overview of the Hazardous Material Regulations and is two to four days in length. This course includes one day of field training in which students practice what was learned on intermodal containers already in the transportation stream.

Next is our *secondary* lesson plan series, which provides an in-depth look at special hazardous material container inspection including radioactive shipments, container repair, explosive shipments, and IMDG shipments. This course is three to five days in length and is geared toward the experienced student, and as such, a good working knowledge of the 49 CFR 100-177 Hazardous Material Regulations is required. Secondary training may involve one or more days in the field conducting hazardous material and container inspections. Finally, CITAT provides *customized* training to the U.S. Customs Service, Coast Guard Law Enforcement Detachments, and Coast Guard Cutters. CITAT is also able to custom tailor its training program to meet the needs of any customer whose involvement with the waterborne transportation of hazardous materials generates specialized training requirements.

#### INDUSTRY RELATIONS

CITAT is not a substitute for partnerships forged between Captains of the Ports (COTP's) and industry, however, we work together with national industry organizations, such as VOHMA (Vessel Operators Hazardous Materials Association) whose membership consists of almost all of the major vessel operators, and many of the shipping lines directly. We maintain close ties with many regulatory agencies, both federal and local. To foster a better understanding of the industry we regulate, CITAT, in cooperation with VOHMA has started an industry awareness-training program. With world trade growing 2.3 times as fast as world output and a corresponding increase in the number of containers shipped annually, our understanding of the industry will be critical to maintaining a safe and effective transportation system.



Advisory Committee	Executive Director	Assistant Executive Director
CG Committee Management Officer	Ms. Georgia Abraham USCG Headquarters (G-CCS-2) (202) 267-0602	N/A
Navigation Safety-NAVSAC RADM Anthony F. Fugaro, USCG (ret.) 20715 Beachcliff Blvd. Rocky River, OH 44117	Ms Margie Hegy USCG Headquarters (202) 267-0415 voice (202) 267-4770 fax	N/A
National Offshore Safety-NOSAC Mr. Peter K. Valez	CAPT Robert Skews	Mr. Jim Magill
Mr. Peter K. Valez Manager, Regulatory Affairs Shell Offshore Inc. P.O.Box61933 New Orleans, LA 70161	USCG Headquarters (G-MSO) Office of Operations and Environmental Standards (202) 267-0212 voice (202) 267 4570 for	USCG Headquarters (G-MSO-2) Vessel and Facility Operating Standards Division (202) 267-1082 voice (202) 267-4570 for
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Commercial Fishing Industry Vessel- CFIVAC Mr. George J. Easley Oregon Trawl Commission P.O.Box 569 Astoria, OR 97103-0569	CDR John Davin USCG Headquarters (G-MSO-2) Vessel & Facility Operating Standards Division (202) 267-1181 voice (202) 267-4570 fax	LCDR Randy Clarke USCG Headquarters (G-MSO-2) Vessel & Facility Operating Standards Division (202) 267-1181 voice (202) 267-4570 fax
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## **G-M Advisory Committee Chairpersons**

## ANNUAL LICENSE and CERTIFICATE OF REGISTRY STATISTICS

It has been our practice in the past to publish a compilation of license and certificate of registry statistics for the previous two years in the Annual Index edition. We will publih the annual statistics in a later edition.

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#### Condition-Based Maintenance: Doing the Right Maintenance and Doing Maintenance Right

By:

the ASNE CBM Steering Committee

In an effort to help the military and commercial air and sea related industries gain a better understanding of Condition-Based Maintenance (CBM), the Flagship Section of the American Society of Naval Engineers (ASNE) is planning a symposium at the Hyatt Regency Hotel, in Crystal City, Arlington, VA, to be held on 30 June and 1 July, 1998. The symposium planners and sponsors include representatives from the Coast Guard, Naval Sea Systems Command (NAVSEA), Naval Air Systems Command (NAVAIR), Military Sealift Command (MSC) and American Bureau of Shipping (ABS).

#### What is Condition-Based Maintenance?

The objective of (CBM) is to reduce costs by doing appropriate maintenance tasks only when there is objective evidence of the need for such maintenance, while at the same time ensuring safety and equipment reliability. In other words, doing the right maintenance and doing maintenance right. Tasks performed in doing maintenance can be grouped into three basic categories:

Corrective - Correcting unsatisfactory functioning or performance conditions (in other words, fixing things that are broken to restore any lost functions or capability).

Alternative - Changing (or altering) a design to eliminate unsatisfactory functioning conditions.

Preventive - Minimizing unsatisfactory functioning conditions. Preventive maintenance is made up of five different subcategories as follows:

Kind of Task	Typical Example
<u>Condition-directed tasks</u> - these are performed when measurements against a standard indicate an actual or impending failure	Vibration monitoring of rotating or reciprocating machinery
<u>Time-directed tasks</u> – these are life renewal tasks performed only when statistical evidence confirms the existence of wearout	Periodic filter replacement, or replacement of equip- ment bearings based on operating hours
Failure-finding tasks- intended to detect hidden failures not otherwise evident to operators	Test operation of safety devices, such as relief valves or overspeed trips
<u>Servicing tasks</u> – to help prevent performance degra- dation from loss of a consumable material	Replacing a consumable item, such as valve packing, or 'topping off' engine oil or aircrew oxygen bottles
Lubrication tasks - to prevent performance degrada-	Engine Oil Change

Underlying a sound maintenance program are the principles and methodology of Reliability-Centered Maintenance (RCM). These principles and methodology establish the rules for determining evidence for performing maintenance in each of the task categories mentioned above.

tion due to friction

It is important to note that these tasks apply not only to machinery, but to the ship, plane or power plant as a whole. The principles, and in some cases tools, typically used to determine the need for maintenance of machinery, can be utilized to assess the condition of structure and whole systems as well.



#### Why CBM?

Quite simply, condition-based maintenance offers significant maintenance savings opportunities. Historically, a great deal of maintenance has been time directed and scheduled on the basis of past operating experience, regardless of the actual condition of the affected equipment. These time-based intervals between maintenance actions, particularly for critical equipment, are often very conservative; the underlying assumption often being that more maintenance will preserve functionality, though in fact, intrusive maintenance may degrade equipment. This is because the very act of intrusive inspection, which may not have been necessary in the first place based on the demonstrated needs of the equipment, often results in the need for subsequent maintenance or repair. Examples of this problem include the inadvertent misalignment of casings and bearings for rotary machinery (like turbines) when replaced after inspection, or when seals and gaskets are damaged on diesel engines during maintenance.

While CBM utilizes historical data, condition-based maintenance principles call for objective evidence of the need for maintenance <u>before</u> it is performed. If there is no evidence showing that equipment has failed, is seriously degraded, or is about to fail or become seriously degraded, then maintenance should not be performed regardless of the time interval since last maintenance. Ideally, the actual condition of equipment would be monitored through an on-line system or other appropriately spaced, non-intrusive diagnostic tests and inspections that measure actual performance against standards. Even time-directed maintenance has a place in the realm of conditionbased maintenance provided the right evidence exists to justify it.

The reduction of unnecessary maintenance and its associated savings-reduction in labor hours, avoidance of equipment damage following intrusive maintenance and inspection, avoidance of danger to people caused by equipment failure and attendant loss of revenue during equipment downtime-are why condition-based maintenance makes sense.

#### ASNE Symposium for Condition-Based Maintenance

To offer a dialogue and promote a better understanding of CBM, the American Society of Naval Engineers (ASNE) will hold a symposium at the Hyatt Regency Hotel, in Crystal City, Arlington, VA, on 30 June and 1 July, 1998. The objective is to bring together representatives of both the marine and aviation communities to exchange ideas on achieving reductions in total cost of ownership and increased operational availability by exercising the principles of condition-based maintenance. A broad range of issues, including policy, procedures and technology will be covered.

At this time, the representatives of the symposium plan on presenting 27 technical papers on three concurrent tracks, and hope to have as many as 80 exhibitors on the topic of CBM from both the military and commercial shipping and aviation industries. Approximately 600 attendees are expected representing the Coast Guard, Navy, and Marine Corps, as well as commercial shipping, aviation and support industries. Attendees will include vessel owners and operators, repair facility operators, suppliers, regulatory authorities, designers and engineers, builders, insurers and classification society representatives.

Topics to be discussed include automation, maintenance diagnostics, advanced sensor design and application, corrosion control, combat systems, training, systems monitoring, power systems, transportation systems, modeling, mechanical systems, regulation and workload management. Following the technical paper presentations, a panel discussion, encouraging audience questions and participation, is planned. ASNE also has invited an astronaut from NASA's Shuttle-MIR Project as guest speaker at the luncheon planned for June 30, to speak on his or her experiences concerning operation and maintenance while aboard the Russian MIR space station.

ASNE is a non-profit society whose purposes are to advance the knowledge and practice of naval engineering in public and private applications and operations, to enhance the professionalism and wellbeing of members, and to promote naval engineering as a career field.



#### The Logo

Working outward from the Reliability-Centered Maintenance (RCM) hub through the task category spokes of the wheel and their associated rules of evidence of maintenance need, the application of those rules at the wheel rim determine when objective evidence indicates a need for maintenance. In the overall picture, CBM is the application of RCM-based rules to determine when to perform maintenance and essentially is "where the rubber hits the road."

For further information, please visit the CBM Symposium homepage at: http://www.jhuapl.edu/ASNE/cbmsymp/ or, contact: LCDR Rick Wharton (Coast Guard liaison and ASNE CBM Symposium Webmaster) (410) 762-6625 whartonr@erols.com Ken Jacobs (Symposium Chairman) (703) 602-0969, x600 Jacobs\_Ken@hq.navsea.navy.mil



#### PLAN FOR THE DEVELOPMENT OF A NATIONAL MARITIME SAFETY INCIDENT REPORTING SYSTEM

The Maritime Administration and the U.S. Coast Guard have signed a Memorandum of Agreement to work together to facilitate the development and implementation of a practical nonattribution national maritime safety incident reporting system. The system is to serve the interests of the U.S. public and maritime stakeholders by identifying safety problems and facilitating appropriate preventive actions. The purpose of this announcement is to solicit ideas, comments, questions, and interest by individuals and organizations willing to participate in the design and development process.

Due to the probable length and complexity of the project, comments and requests to participate will be considered throughout the life of the project.



Forward your ideas, comments, and questions, and your desire to participate in this process, please send them to the Docket Management Facility, [USCG 1998-3714], U.S. Department of Transportation, room PL-401, located on the Plaza Level of the Nassif building at the same address between 10 a.m. and 5 p.m.. Monday through Friday, except Fedreal hoildays. For further information, contact:

Mr. Alexander C. Landsburg, Maritime Administration. Program Manager for Systems' Safety and Human Factors. (202) 366-1923, fax: (202) 493-2288, email:

alex.landsburg@marad.dot.gov, mailing address: Office of Maritime Labor, Training, and Safety, U.S. Department of Transportation, Maritime Administration, MAR-250, Room 7302, 400 Seventh Street, SW, Washington, DC 20590;

LCDR Scott J. Ferguson, U.S. Coast Guard, Office of Investigations and Analysis, (202) 267-0715/1430, fax: (202) 267-1416, e-mail: sferguson@comdt.uscg.mil, mailing address: Commandant (G-MOA), U.S. Coat Guard Headquarters, 2100 Second Street, SW, Washington, DC 20593-0001;

Mr. Ken Olsen, Office of Investigations and Analysis. (202) 267-1417/1430, fax: (202) 267-1416, e-mail: kolsen@comdt.uscg.mil, mailing address: Commandant (G-MOA), U.S. Coast Guard Headquarters, 2100 Second Street, SW, Washington, DC 20593-0001.





 What term indicates the line drawn at the top of the flat plate keel?

- A. Base line
- B. Molded line
- C. Designer's waterline
- D. Keel line

2. If an alien stowaway is discovered aboard your vessel, his name must be placed on the \_\_\_\_\_\_.

- A. Alien Crew List
- B. Crew List
- C. Passenger List
- D. separate Passenger List marked stowaways

3. What term indicates a curvature of the decks in a longitudinal direction?

- A. Deadrise
- B. Camber
- C. Sheer
- D. Flare

4. When evacuating a seaman by helicopter lift, which statement is TRUE?

- A. Evacuation should be from an area forward of the bridge.
- B. The vessel should be slowed to bare steerageway.
- C. If the hoist is at the stern, booms extending aft at the stern should be cradled with the topping lifts hove taut.
- D. The later should not be touched until it has been grounded.

5. Maritime Administration personnel may be allowed in the pilothouse upon the responsibility of the \_\_\_\_\_\_.

- A. Chief Officer
- B. Master
- C. most senior person present from the Maritime Administration
- D. officer in charge of the watch

## **Deck Questions**

6. The floors in a vessel's hull structure are kept from tripping, or folding over, by \_\_\_\_\_\_.

Nautical

- A. face plates
- B. bottom longitudinals
- C. longitudinal deck beams
- D. transverse deck beams
- When using the term "limber system" one is referring to a \_\_\_\_\_\_.
- A. cleaning system
- B. drainage system
- C. strengthening system
- D. weight reduction system

 The time allowed for loading and discharging cargo in a charter party is referred to as \_\_\_\_\_\_.

- A. charter hire
- B. demurrage
- C. dispatch
- D. lay days

9. Your vessel has run aground and is touching bottom for the first one-quarter of its length. What is the LEAST desirable method from the standpoint of stability to decrease the bottom pressure?

- A. Discharge forward deck cargo.
- B. Pump out the forepeak tank.
- C. Shift deck cargo aft.
- D. Flood an after double-bottom tank.

10. A look-out should report objects sighted using \_

- A. une bearings
- B. magnetic bearings

C. gyro bearings

D. relative bearings

V/2/MEK8 1-V 5-D 3-C 4-D 2-D 6-B 3-B 8-D 6-B 10-D

# Queries

## **Engineering Questions**

- Absorption filters are not commonly used in steam turbine or diesel engine lubricating systems because they
  - A. utilize exotic and expensive filtering media making them too costly for use
  - B. are only effective at temperatures below 100°F
  - C. can absorb no more than five times their weight in water
  - D. remove additives from the lube oil
- Which of the following statements is used to describe the term "base" in reference to greases?\_\_\_\_\_
  - A. Texture of the grease under load.
  - B. Temperature at which the grease softens or melts.
  - C. Type of soap used in its production.
  - D. Temperature below which the grease will be ineffective as a lubricant.
- 3. Which of he following statements represents the main difference between a stuffing box gland and a mechanical seal for sealing the shaft of a centrifugal pump?
  - A. Packed stuffing box glands are subject to wear, but mechanical seals are not.
  - B. Packed stuffing box glands must be cooled by the liquid being pumped, but mechanical seals do not require cooling.
  - C. If packing fails, the pump can be kept running temporarily by tightening the gland, but if a mechanical seal fails it must be totally renewed to stop the leakage.
  - D. The scaling surface of a mechanical seal is parallel to the shaft, but the scaling surface of a packed gland is perpendicular to the shaft.
- Which of the following statements is correct concerning the "flash point" of a liquid?
  - A. It is lower than the ignition temperature.
  - B. It is the temperature at which a substance will spontaneously ignite.
  - C. It is the temperature at which a substance, when ignited, will continue to burn.
  - D. It is the temperature at which the released vapors will fall within the explosive range.
- Closed impellers differ from open impellers in that closed impellers \_\_\_\_\_.
  - A. allow liquid to enter the eye from one direction only
  - B. have side walls which extend from the eye to the outer edge
  - C. have small impeller eyes
  - D. are not vented above the impeller eye



- One characteristic of a lubricating oil adversely affecting the results of centrifuging is \_\_\_\_\_\_.
  - A. high TBN number
  - B. low oil floc point
  - C. low oil demulsibility
  - D. low oil neutralization number
- 7 Why do roller bearings have higher loading capacities than ball bearings?
  - A. They are installed with tighter clearances.
  - B. They are subject to less pitting and metal fatigue.
  - C. They have a greater tolerance of high speed applications.
  - D. They have a greater contact area.
- When any low pressure distilling plant is operated with less than the designed vacuum, the \_\_\_\_\_\_.
  - A. flash temperature rises
  - B. flash temperature drops
  - C. capacity increases
  - D. scale formation decreases
- Which of the following statements is true concerning the hydrodynamic wedge developed by lubricating oil?
  - A. The wedge-shaped oil film's load carrying capacity is determined by its length and thickness.
  - B. The load carrying capacity is inversely proportional to the velocity of the fluid.
  - C. Pressures throughout the oil wedge are uniform.
  - D. The load carrying capacity is directly proportional to the thickness of the oil film.
- - A. so as to never be integral with the main engine foundation
  - B. with a sloped bottom
  - C. only of nonferrous, noncorrosive metals
  - D. with drain/return lines terminating just above or at the designed normal level
    - Engineering Answers I-D. 2-C, 3-C, 4-A, 5-B, 6-C, 7-D, 8-A, 9-A, 10-B



## Do you hold a license valid for service on vessels of less than 200 gross tons?

If so, do you know how the new regulations of the International Convention for the Standards for Training, Certification, and Watchkeeping for Seafarers (STCW) apply to you?

The STCW applies to mariners on most vessels on the high seas. Excepted vessels include fishing vessels, yachts, and military vessels. The United States defines the High Seas as those waters beyond the Boundary Lines set forth in Title 46, Code of Federal Regulations, Part 7. In general, on the East and West Coasts, the line is at the mouth of a harbor and divides the harbor from the high seas. A general rule for the Gulf Coast is that the line runs parallel to the shore line along the seaward limits of the contiguous zone about 12 miles off shore. These are general descriptions of the locations of the Boundary Lines; if there is any question as to the exact location, you should check the regulations. If your license is valid for ocean or near coastal waters, you are subject to the STCW; especially, if you operate a sea going vessel (i.e.a. vessel on the high seas).

In developing regulations to implement the STCW, the Coast Guard reviewed the qualifications required of a mariner for a license to operate vessels of less than 200 gross tons. The regulations for the operation of these vessels, the regulations for the inspection and equipment on the vessels, and the voluntary safety standards in general use were also reviewed. It was determined that the entire scheme of safety for the operation of these vessels and licensing of personnel provided a reasonable equivalent to the special requirements of the STCW. Due to this equivalent safety, the Coast Guard did not impose any special licensing requirements for licenses limited to vessels of less than 200 gross tons. Licenses limited to vessels of less than 200 gross tons will be annotated to indicate that they meet the intent of the STCW without further endorsement.

To prevent confusion in dealing with port-state officials and prevent possible detention of vessels on an international voyage, mariners serving on such vessels sailing on an international voyage will be issued a separate STCW form upon request and at no charge. Mariners should apply for these forms in person or by mail from any Coast Guard Regional Examination Center (REC).

Further information about the issuance and content of STCW forms is found in Navigation and Vessel Inspection Circular (NVIC) 8-97. A copy of the NVIC is available on the web at www.http:// uscg.mil/hq/g-m/gmhome.htm or a copy can be requested by writing to the Commanding Officer (NMC-4C). National Maritime Center. 4200 Wilson Boulevard, Suite 510, Arlington, VA 22203-1804. Champion: Cooper, Scott P. CAPT

Memo

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Certificate of Appreciation Awarded to John 2 Author

for contributions made to



3-D Life-Cycle Database Learn From the Past, Predict the Future: Making Use of a 3-D Life-Cycle Safety Management Information Highway (Oct-Dec/97 p24)

#### Accidents

The Need For and Analysis of Data to Address Human Factors Issues (April-June/97 p39)

Work Hours for Mariners (Oct-Dec/97 p10)

Alaska State Parks Partnership Brings Education and Compliance to Operators on the Kenai River (July-Sept/97 p23)

Aluminum Phosphide Fumigants Hazmat: The Dangers of Aluminum Phosphide Fumigant (Oct-Dec/97 p38)

American Bureau of Shipping Based Alternate Compliance Program USCG/American Bureau of Shipping Based Alternate Compliance Program (July-Sept/97 p4)

American Waterways Operators S.A.F.E. Decks Stay Alert For the Edge (April-June/97 p53)

> Lessons Learned in the Inland Towing Industry (April-June/97 p52)

Black Boxes Black Box for Ships: Voyage Data Recorders and The International Maritime Organization (Oct-Dec/97 p48)

Black History Month A Look Back...Black History (Jan-March/97 p6)

Coast Guard Auxiliary Is History Prologue? (Oct-Dec/97 p28)

Commercial Fishing Can the Commercial Fishing Industry Benefit From Sharing Lessons Learned? (April-June/97 p32) Container Inspection Program Container Inspection Program: A Local Perspective (Oct-Dec/97 p42)

Control Verification Examinations Complacency on the High Seas (Oct-Dec/97 p4)

Drug and Alcohol Regulation Medical Use of Marijuana in California and Arizona (Jan-March/97 p24)

Emergency Drills Targeting Crew Proficiency on Emergency Drills (Oct-Dec/97 p14)

Facility Inspection Program Facility Self Inspection Program (July-Sept/97 p32)

Fire Safety The Mandatory IMO Fire Test Procedures Code. What Does it Mean to the U.S. Marine Industry? (April-June/97 p70)

First Class Pilot License Chart Sketch Exam for First Class Pilots Partnering Yields a Quality Product (July-Sept/97 p22)

Fishing Vessel Stability Fishing Vessel Stability: The Continuing Saga (April-June/97 p34)

Hammer Award Hammer Time (April-June/97 p9)

Hazardous Material Hazmat: The Dangers of Aluminum Phosphide Fumigant (Oct-Dec/97 p38)

#### Health

Hepatitis: A Serious Health Hazard to Seafarers (Oct-Dec/97 p30)

Partnership in Maritime Medicine (July-Sept/97 p41) Medical Use of Marijuana in California and Arizona (Jan-March/97 p24)

PROCEEDINGS OF THE MARINE SAFETY COUNCIL - JANUARY-MARCH 1998

Hepatitis

Hepatitis: A Serious Health Hazard to Seafarers (Oct-Dec/97 p30)

Human Factors The Need For and Analysis of Data to Address Human Factors Issues (April-June/97 p39)

Work Hours for Mariners (Oct-Dec/97 p10)

Inland and International Rules of the Road Rule 18: Who Must Keep Out of the Way? (April-June/97 p50)

International Maritime Organization Black Box for Ships: Voyage Data Recorders and The International Maritime Organization (Oct-Dec/97 p48)

> The Mandatory IMO Fire Test Procedures Code. What Does it Mean to the U.S. Marine Industry? (April-June/97 p70)

Focus on IMO (April-June/97 p62)

Lessons Learned A Fall Overboard from an Inland Towing Vessel (April-June/97 p49)

> Can the Commercial Fishing Industry Benefit From Sharing Lessons Learned? (April-June/97 p32)

Fishing Vessel Stability: The Continuing Saga (April-July/97 p34)

Hazmat: The Dangers of Aluminum Phosphide Fumigant (Oct-Dec/97 p38)

Photos Show it All (April-June/97 p24)

Propeller Clearing Ports (April-June/97 p73)

Safety Brokering: Seven Lessons Learned for Maritime Safety (April-June/97 p12)

Safety Improvement Reporting System (April-June/9736) The Benefits of Using Root Cause Analysis Techniques to Improve Procedures and Avoid Future Incidents (April-June/97 p18)

Lessons Learned in the Inland Towing Industry (April-June/97 p52)

What Really Happened? (April-June/97 p27)

Vessel Traffic Service A Valuable Learning Tool (April-June/97 p21)

Three Casualties, Three Lessons Learned (April-June/97 p47)

The Need For and Analysis of Data to Address Human Factors Issue (April-June/97 p39)

Thoughts on a National Lessons-Learned System (April-June/97 p6)

The Marine Safety Reporting System (April-June/97 p42)

The Mandatory IMO Fire Test Procedures Code. What Does it Mean to the U.S. Marine Industry? (April-June/97 p70)

License Statistics License Statistics (Jan-March/97 p14)

Marine Safety Information System Thoughts on a National Lessons-Learned System (April-June/97 p6)

Marine Safety Lab Marine Safety Lab: A Closer Look (Oct-Dec/97 p61)

Marine Safety Office Boston Complacency on the High Seas (Oct-Dec/97 p4)

Marine Safety Reporting System The Marine Safety Reporting System (April-June/97 p42) Marine Sanitation Device Investigator's Corner: They Know What They are Doing. Routine Dangers in the Engine Room (Oct-Dec/97 p66)

Marine Surveyors Ethics and Responsibility (Oct-Dec/97 p34)

Mariner's Advisory Committee Success Story: Prevention Through People, Circa 1964 (July-Sept/97 p44)

Mariner's Seabag (Jan-March/97 p10) (July-Sept/97 p52) (Oct-Dec/97 p64)

#### Miami River Miami River Partnership Improves Waterfront Facility Safety (July-Sept/97 p24)

MSO/Group Los Angeles/Long Beach Just Over the Horizon (July-Sept/97 p34)

#### Nautical Queries

(Jan-March/97 p12) (April-June/97 p60) (July-Sept/97 p50) (Oct-Dec/97 p62)

Partnerships and Alternate Compliance Chart Sketch Exam for First Class Pilots Partnering Yields a Quality Product (July-Sept/97 p22)

Coast Guard/ Navy Partnering Among Armed Forces (July-Sept/97 p20)

Facility Self Inspection Program (July-Sept/97 p32)

Fighting Pollution: Sea Partners Bring New Approach (July-Sept/97 p28)

Miami River Partnership Improves Waterfront Facility Safety (July-Sept/97 p24)

Preparedness for Response Exercise Program Drill (July-Sept/97 p37)

S.A.F.E. Decks Stay Alert For the Edge (April-June/97 p53)

Spill of National Significance Exercise Forges New Partnerships (July-Sept/97 p40)

Success Story: Prevention Through People, Circa 1964 (July-Sept/97 p44)

The New Keeper Class WLM: A Partnership In Building Cutting Edge Ships (July-Sept/97 p12)

USCG/American Bureau of Shipping Based Alternate Compliance Program (July-Sept/97 p4)

#### Pollution

Fighting Pollution: Sea Partners Bring New Approach (July-Sept/97 p28)

Marine Safety Lab: A Closer Look (Oct-Dec/97 p61)

Yesterday's Spill Data, Tomorrow's Cleaner Bay (Oct-Dec/97 p4)

Preparedness for Response Exercise Program Preparedness for Response Exercise Program Drill

(July-Sept/97 p37)

Presidential Inaugural Coast Guardsmen at Inaugural Events (Jan-March/97 p8)

> Coasties Making Music in the Spotlight (Jan-March/97 p9)

Propeller Clearing Ports Propeller Clearing Ports (April-June/97 p73)

Propulsion Failures Propulsion Failures (Oct-Dec/97 p16)

Prevention Through People Partnerships and PTP (July-Sept/97 p48)

PROCEEDINGS OF THE MARINE SAFETY COUNCIL - JANUARY-MARCH 1998

Lessons Learned (April-June/97 p26)

Applying Risk-Based Technology (Oct-Dec/97 p58)

Success Story: Prevention Through People. Circa 1964 (July-Sept/97 p44)

USCGA Cadets Participate in PTP and Want to Do More (Oct-Dec/97 p56)

RADM Robert C. North (July-Sept/97 p2) (Oct-Dec/97 p2)

Regulator Compliance for Safety Just Over the Horizon (July-Sept/97 p34)

#### Root Cause Analysis

The Benefits of Using Root Cause Analysis Techniques to Improve Procedures and Avoid Future Incidents (April-June/97 p18)

#### Rule 18

Rule 18: Who Must Keep Out of the Way? (April-June/97 p50)

SAFE Decks

S.A.F.E. Decks Stay Alert For the Edge (April-June/97 p53)

#### Safety Brokering

Safety Brokering: Seven Lessons Learned for Maritime Safety (April-June/97 p12)

#### Safety Improvement Reporting System Safety Improvement Reporting System

(April-June/9736)

#### Safety Management

Learn From the Past, Predict the Future: Making Use of a 3-D Life-Cycle Safety Management Information Highway (Oct-Dec/ 97 p24)

#### Safety of Life at Sea

Targeting Crew Proficiency on Emergency Drills (Oct-Dec/97 p14)

#### Sea Partners

Fighting Pollution: Sea Partners Bring New Approach (July-Sept/97 p28) Seaworthiness of Vessels Ethics and Responsibility (Oct-Dec/97 p34)

Spill of National Significance Spill of National Significance Exercise Forges New Partnerships (July-Sept/97 p40)

Statistics (April-June/97 p58)

Team Approach Complacency on the High Seas

(Oct-Dec/97 p4)

Towing Vessels A Fall Overboard from an Inland Towing Vessel (April-June/97 p49)

Lessons Learned in the Inland Towing Industry (April-June/97 p52)

#### USNAVY

Coast Guard/ Navy Partnering Among Armed Forces (July-Sept/97 p20)

Yesterday's Spill Data, Tomorrow's Cleaner Bay (Oct-Dec/97 p4)

#### USCG Academy USCGA Cadets Participal

USCGA Cadets Participate in PTP and Want to Do More (Oct-Dec/97 p56)

#### USCG Band

Coast Guardsmen at Inaugural Events (Jan-March/97 p8)

Coasties Making Music in the Spotlight Jan-March/97 p9)

USCG Partnership in Maritime Medicine Partnership in Maritime Medicine (July-Sept/97 p41)

Vessel Engine Room Investigator's Corner: They Know What They are Doing. Routine Dangers in the Engine Room (Oct-Dec/97 p66)

Vessel Traffic Information Service Propulsion Failures (Oct-Dec/97 p16)

Vessel Traffic Service A Valuable Learning Tool (April-June/97 p21)

Adess, CAPT Michael L.	(July-September '97/pg. 41)	
Angelo Joe.	(April-June '97/pg. 70)	
Bancroft, Calvin	(April-June '97/pg. 36)	l
Baugh, LT David	(July-September '97/pg. 20)	
Cantwell. Vincent	(April-June '97/pg. 42)	
Coales, CDR E.O.	(October-December '97/pg, 42)	
Cooper, CAPT Scott P.	(April-June '97/pg. 6, 52)	• 3
Day. LT M.	(October-December '97/pg. 42)	4
DiNicola, CDR Peter J.	(July-September '97/pg. 14)	8
Farthing, LCDR John	(July-September '97/pg. 32)	
Gavilanes, Carlos	(July-September '97/pg. 32)	ų,
Gelland, John S.	(April-June '97/pg. 27)	
Gilbert. Randy	(October-December '97/pg. 24)	
Gillian, LT R.	(October-December '97/pg. 42)	
Grabowski, Martha	(April-June '97/pg. 12)	
Gray, Janice L.	(October-December '97/pg. 31)	
Hall, Kriste	(April-June '97/pg. 26) (July-September '97/pg. 48) (October-December '97/pg. 58)	
Hanewich. LCDR Steve	(July-September '97/pg. 24)	
Harmon, CDR Jim	(July-September '97/pg. 34)	
Harper-Phaneuf, Virginia	(October-December '97/pg. 34)	1
Hughes, Leslie J.	(April-June '97/pg. 32)	,
Ives, CAPT Paul	(July-September '97/pg, 44)	1
Kramek, ADM Robert	(April-June '97/pg. 9)	1
Landsburg, Alexander C.	(April-June '97/pg. 39)	1
Lui, LT I.	(October-December '97/pg. 14)	1

MacKenzie, LT Wayne F. (October-December '97/pg, 38)

McDermott, Catherine McGraw, PO Tim McKechnie, LT Joseph E. McNiff. Tom Miller, LT Thomas C. More, LT Kathy Offun, LT Todd Page, CAPT Ed Pierce, LT David W. Randall, CDR Peter Reid, MCPO Linda Reinhert, LTJG John W. Reynolds, DCI Dan Rinelli, LTJG R. A. Russell, YN1 Arron Sanborn, CDR Ann Servido, LCDR Joseph A. Sheetz, Donald J. Sutton, CAPT John Sweeney, James P. Ungs, CAPT Timothy J. Vienneau, Robert Watson, CDR James A. Wilczynski, LCDR Vincent Wilson, Dr. Marc B. Wood, LT Spencer Young. Christopher

(July-September '97/pg. 40) (July-September '97/pg. 32) (October-December '97/pg. 44) (October-December '97/pg. 28) (April-June '97/pg. 34) (October-December '97/pg. 16) (July-September '97/pg. 32) (April-June '97/pg. 21) (July-September '97/pg. 22) (July-September '97/pg. 44) (July-September '97/pg. 28) (October-December '97/pg. 5) (October-December '97/pg. 38) (July-September '97/pg. 37) (October-December '97/pg. 61) (April-June '97/pg. 50) (October-December '97/pg. 5) (April-June '97/pg. 47) (April-June '97/pg. 49) (April-June '97/pg. 18) (July-September '97/pg. 41) (July-September '97/pg. 4) (October-December '97/pg. 5) (October-December '97/pg. 56) (October-December '97/pg. 10) (July-September '97/pg. 23) (October-December '97/pg. 48)

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**Proceedings** Magazine continues to get positive comments nationally and internationally as a good source of timely and informative maritime industry information and articles. In our continuing effort to adequately serve your needs, we would like to get your feedback! Please take a few minutes to complete this short survey to let us know how we are doing. Our goal is to constantly improve the quality of this publication and your input will help us determine if we are on the right track. We encourage you to make copies of this survey and distribute them for maximum participation.

1998

The mailing list is also being reviewed. The subscription is free, but to cut down on postage costs we need to do our annual clean up of the mailing list. If you wish to continue to receive *Proceedings*, please return the survey to verify your address and/or indicate an interest in the magazine. We appreciate your support. Your opinion really counts!

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This year will be filled with special events, including a major International World's Fair, Oceans 98 in Lisbon, Portugal, as well as a series of Special Events in the United States. President Clinton has encouraged all elected officials and government organizations to participate in observance of this special designation. The Coast Guard will celebrate and support the International Year of the Ocean throughout the year, as well.

In recognition of the importance of the ocean, the marine environment and its resources for life on earth and for sustainable development, the United Nations has declared 1998 as the International Year of the Ocean (YOTO). This provides a window of opportunity for governments, organizations and individuals to become aware of the ocean situation and to consider the actions needed to undertake our common responsibility to sustain the greatest common heritage we have and without which we can not exist. It also provides an opportunity to raise public awareness and understanding of ocean and related issues.

#### Goalsof(YOTO):

- The ocean and its resources are vital to supporting all life on earth.
- The ocean affects our daily lives, in turn our daily lives affect the health of the ocean.
- The ocean's resources are finite, our demands are not.
- The ocean is the key source of food, medicine, energy and commerce.
- The ocean is the next frontier with landscapes and life forms that await discovery.

More than 70 percent of the Earth's surface is covered by water. The United States has more than 95,000 miles of coastline and more than 3.4 million square miles of ocean with its exclusive economic zone. More than one-half of the U.S. population now live and work within 50 miles of the coastline.

According to the Commandant, "The Coast Guard engages internationally to benefit the Nation and further Coast Guard Missions." As the world's premier maritime service, the Coast Guard promotes and understands the importance of the oceans-in the United States and globally.

There are a variety of concerns evolving around the Year of the Ocean. The themes that were established are: maritime transportation; national security; ocean resources (living resources and energy and mineral resources); marine environmental quality; recreation and tourism; weather, climate, and natural hazards. There are also several cross-cutting issues: science, technology and research; legal framework; management of ocean areas, uses, and resources; and education and exploration.

Some key U.S. participants in YOTO begin with the White House Offices and include the military and other federal agencies, such as the U.S. Coast Guard, U.S. Navy, U.S. Army Corps of Engineers, Department of Transportation, Department of Interior, Department of Energy, Department of Defense, Department of State, Department of Commerce, Environmental Protection Agency, Federal Emergency Management Agency, Mineral Management Services, U.S. Maritime Administration, National Oceanic and Atmospheric Administration, National Science Foundation, Smithsonian Institution, U.S. Geological Survey, and Federal Maritime Commission.



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PLANNING THE MARSIM 2000 CONFERENCE TO BE HELD MAY 8-12, 2000 IN ORLANDO, FLORIDA, are Conference Organizing Committee members, *l.to r.*, Alex Landsberg, MARAD/SNAME; Malek Pourzanjani, South Hampton Institute; Tom Johnson, RTMSTAR Center; Stephen Nadeau, Biscayne Bay Pilots; Harry J. Crooks, RTMSTAR Center; Per Barnstad, Kongsberg/NorControl; Dwight Hutchinson, RTMSTAR Center; and Paul Krueger, Creative Workshop.

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