

# **FY-2008 Annual Afloat Safety Report**



**FOR MARITIME OPERATIONAL FORCES  
CUTTERS,  
CUTTER BOATS,  
SHORE-BASED BOATS**

**Commandant (CG-1134)  
Afloat Safety Division  
Office of Safety and Environmental Health**

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# **PURPOSE**

This report contains summaries and analyses based upon reported FY08 mishaps; where applicable, this data is compared to historical trends. Its purpose is to promote safety awareness and improved risk management across the spectrum of maritime operations by providing program managers, operational commanders, and individual operating units with a snapshot of how well we are doing in preserving property and providing a safe workplace for personnel.

To reduce future safety risk within maritime operations, we must understand where we currently stand. Identifying hazards that have resulted in mishaps helps us to better anticipate, recognize, and control risk throughout our workplaces and operations.

We hope units with operational maritime assets will find this report useful and will share and discuss the information up, down, and across chains of command. Combined with the operational mishap messages that are shared service-wide, the awareness of potential hazards generated by this report should help units to take a critical look at operational procedures and safety programs.

As always, any ideas and comments are valuable in improving the Coast Guard's safety and environmental health program. Please share them with your Unit Safety Coordinators (USC's), Sector Safety Managers, applicable detached Safety and Environmental Health Officer (SEHO's), other applicable safety staff, or the appropriate Headquarters point of contact listed at the end of this report.

## **Message from Chief, Afloat Safety Division (CG-1134)**

This was a remarkable year for safety within the afloat community. Drastic reductions were noted in the occurrence of small boat mishaps. The Team Coordination Training program is undergoing a transition and a new name will be used for the course along with new curriculum and new videos. Special thanks to all of the members of Team Coast Guard who participated in and assisted with the production of these new videos.

Last year we were looking to the future for delivery of the RB-M and WMSL. This year several RB-M's have been delivered to the field and have received high praise from operators. The USCGC BERTHOLF has transited to homeport in Alameda, CA and the USCGC WASCHE is expected to be delivered in the near future. These new assets are critical to meeting the future mission demands of the organization. As we look to the future of safety in the Coast Guard, "Risk" is the name of the game. Only by learning to appropriately utilize risk management principles in all levels of mission execution will we be able to continue the reduction of mishaps within the organization.

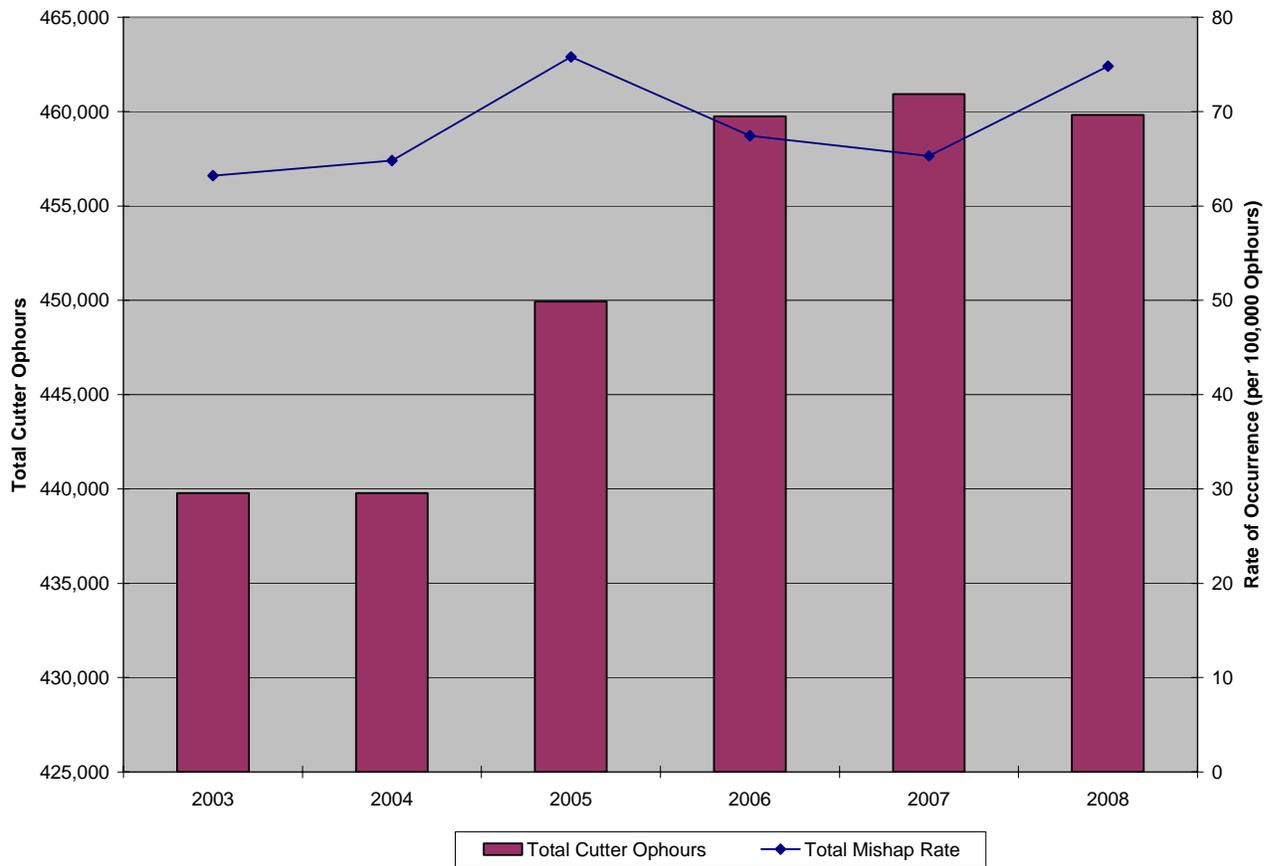
The information contained in this report has been extracted from the E-MISHAP database. It has been reported by your shipmates for you to use in the prevention of similar mishaps in the future. Please review it, share it, and discuss it with your chain of command. Think about your risks and be safe!

CDR R. M. Keesler, Chief Afloat Safety Division (CG-1134)

# Cutter Forces

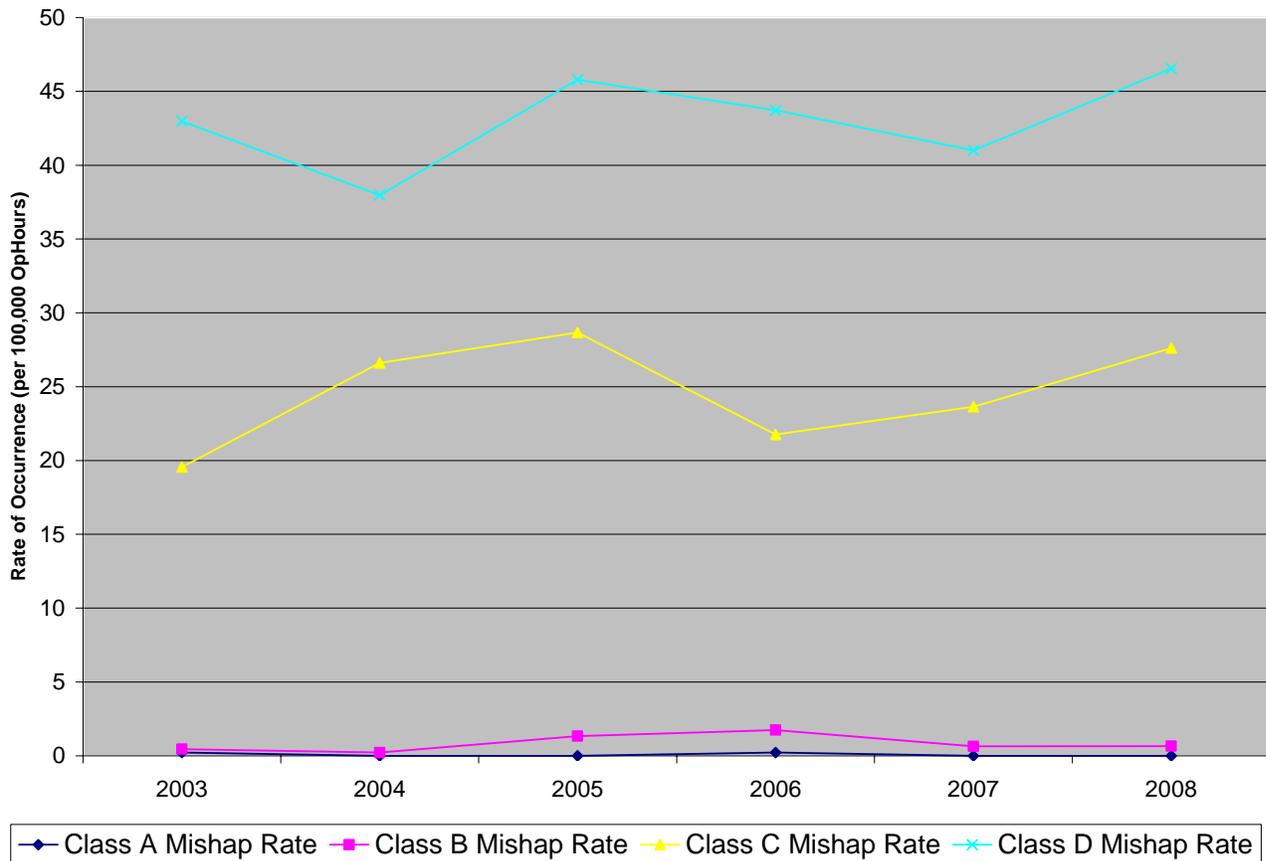


**GRAPH 1: Cutter Mishap Rate per 100K Operating Hours**



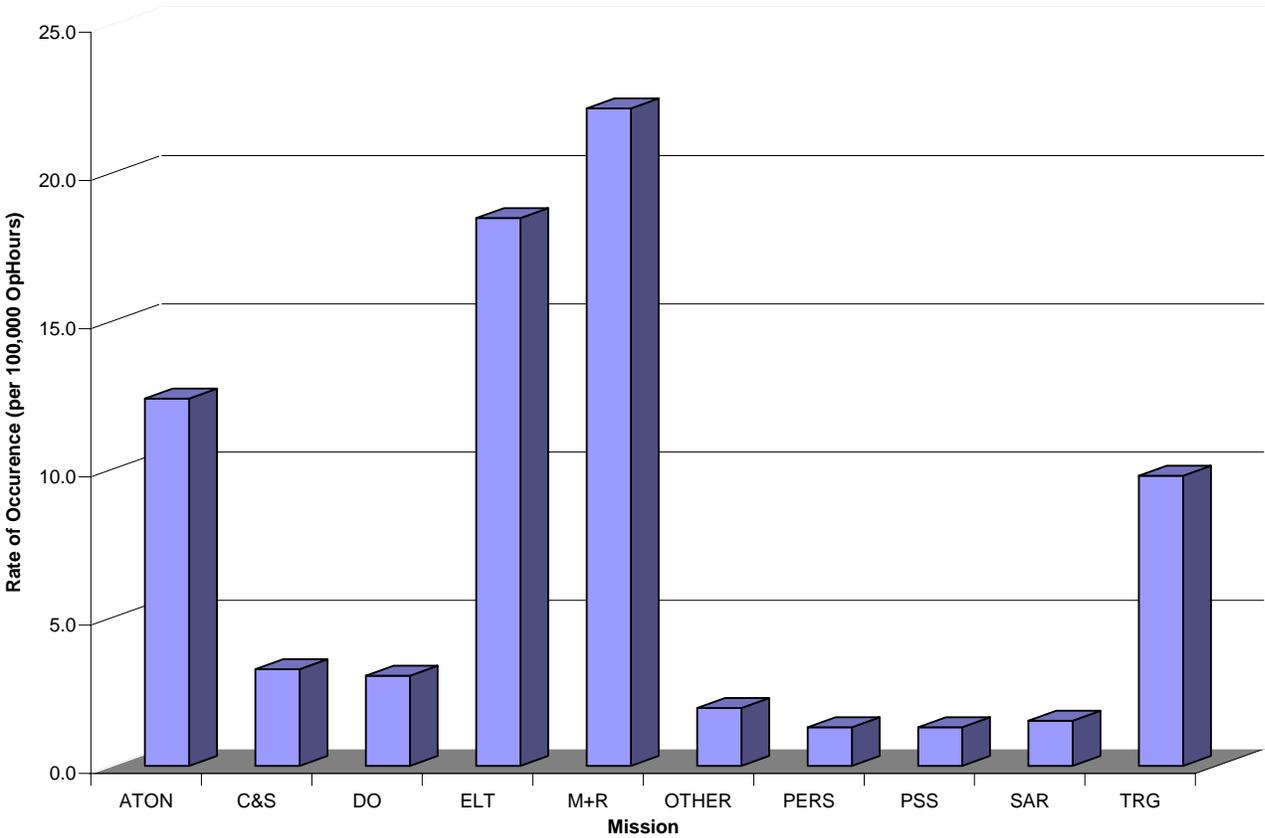
Operational hours have remained consistent over the last three fiscal years. After declining in recent years, cutter mishap rates rose to near FY 05 levels (see graph 1).

**GRAPH 2: Cutter Mishap Rate by Class of Mishap**



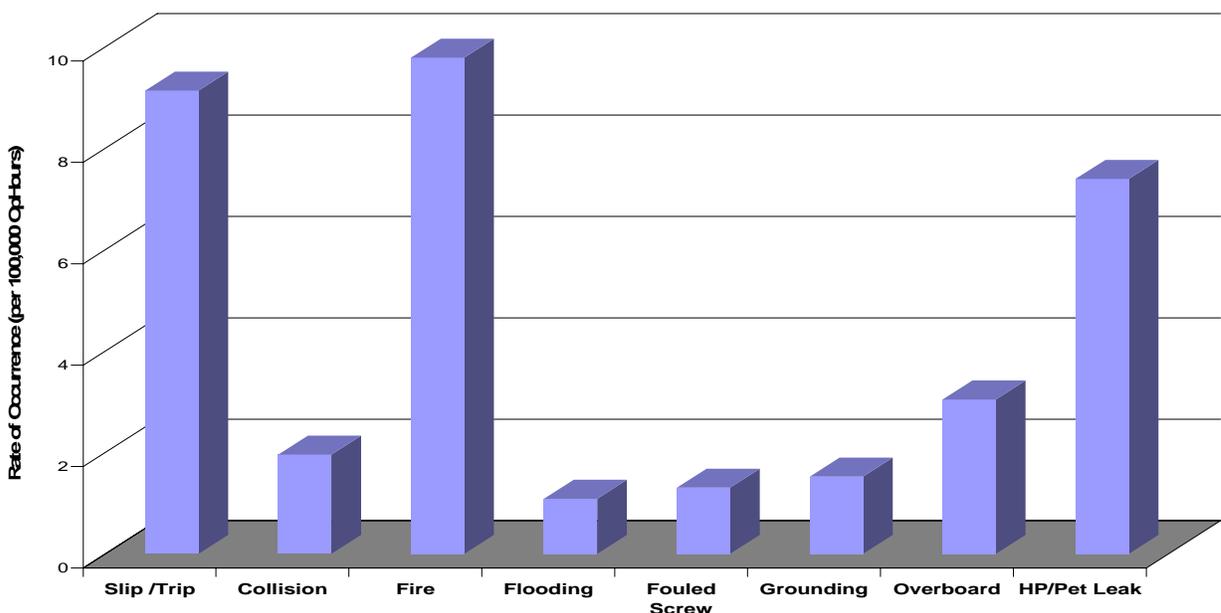
Class C mishap rates continued an upward trend that started in FY 07. Class D mishaps show a significant increase from the previous year (see Graph 2). No class A mishaps occurred aboard cutters during the year. Three class B mishaps were experienced aboard cutters which is the same number as the prior year. The class B mishaps consisted of main diesel engine failure aboard an 87' WPB, a loss of propeller due to the shaft shearing aboard a WMEC, and engine failure aboard a 110' WPB. Class C mishaps continued to climb in FY 08. The largest concentration of class C mishaps continues to be Injuries and Slips, Trips, and Falls. FY 08 also experienced a rise in the number of People in the Water (PIW) with an increase from 8 mishaps in FY 07 to 14 mishaps in FY 08. Class D mishaps increased in FY 08 after two years of declining numbers. The largest increases were in shipboard Fires and HP/Pet Leaks. Fires increased from 27 fires in FY 07 to 45 in FY 08. A significant increase in HP/Petroleum leaks was noted also as numbers rose from 16 incidents in FY 07 to 34 in FY 08 (further analysis is provided below graph 4).

**GRAPH 3: Mishaps Rates by Mission FY 2008**



Cutters in FY 08 experienced the largest rate of mishap occurrence during Maintenance and Repair, the Enforcement of Laws and Treaties, and ATON (See Graph 3). The largest increase in mishap rates over FY 07 numbers occurred while executing ATON missions and during the Enforcement of Laws and Treatise.

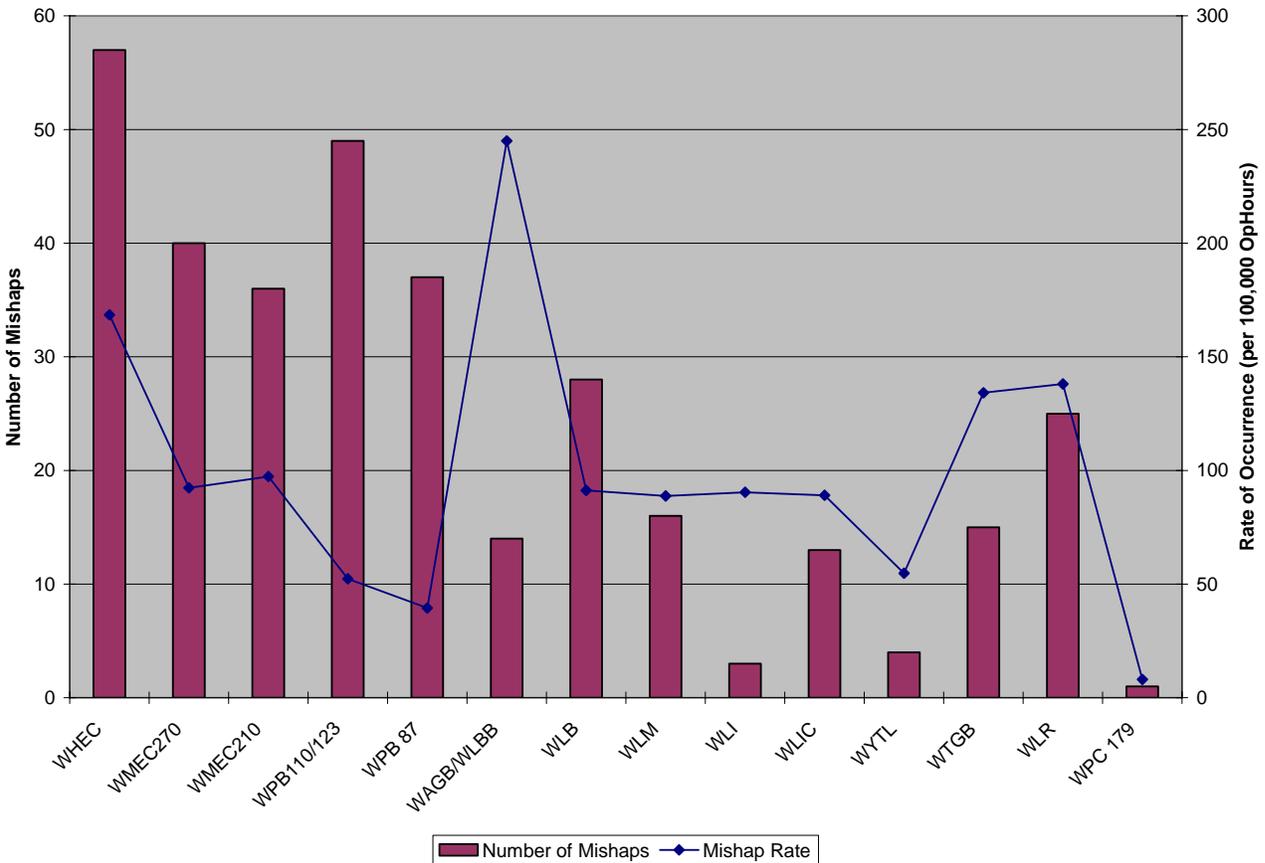
**GRAPH 4: Cutter Mishap Rate by Mishap Type FY 2008**



Examining cutter mishaps by mishap type (Graph 4) indicates that the highest rates were associated

with slips, trips, and falls followed by shipboard fires and high pressure petroleum leaks (HP/Pet Leak). The largest source of slip, trip, and fall injuries occurred while transiting ladders, scuttles, hatches aboard ship. Shipboard fires were distributed amongst several different classes of cutter with the largest numbers occurring on 378's, 210's, and 110's. The fires generally involved machinery or equipment failure in engine room compartments. Collisions occurred mainly during mooring evolutions and while getting underway.

**GRAPH 5: FY 2008 Cutter Mishap Rate by Class of Cutter**



Examining mishaps by platform finds the highest rates aboard the WAGB and WHEC class of cutter (See Graph 5). The leading categories of mishap aboard these cutters are injuries, fires, and slips trips and falls. The high mishap rate for the WAGB is due to an increase from 2 mishaps I FY 07 to 14 in FY 08, 10 of the 14 mishaps were due to injuries. The mishap rate for 378's is driven by fires and injuries. Increases in mishap rate also occurred aboard the WMEC 270 and WLR. Numbers in for most other platforms are consistent with last years figures with a few showing minor reductions over the previous year.

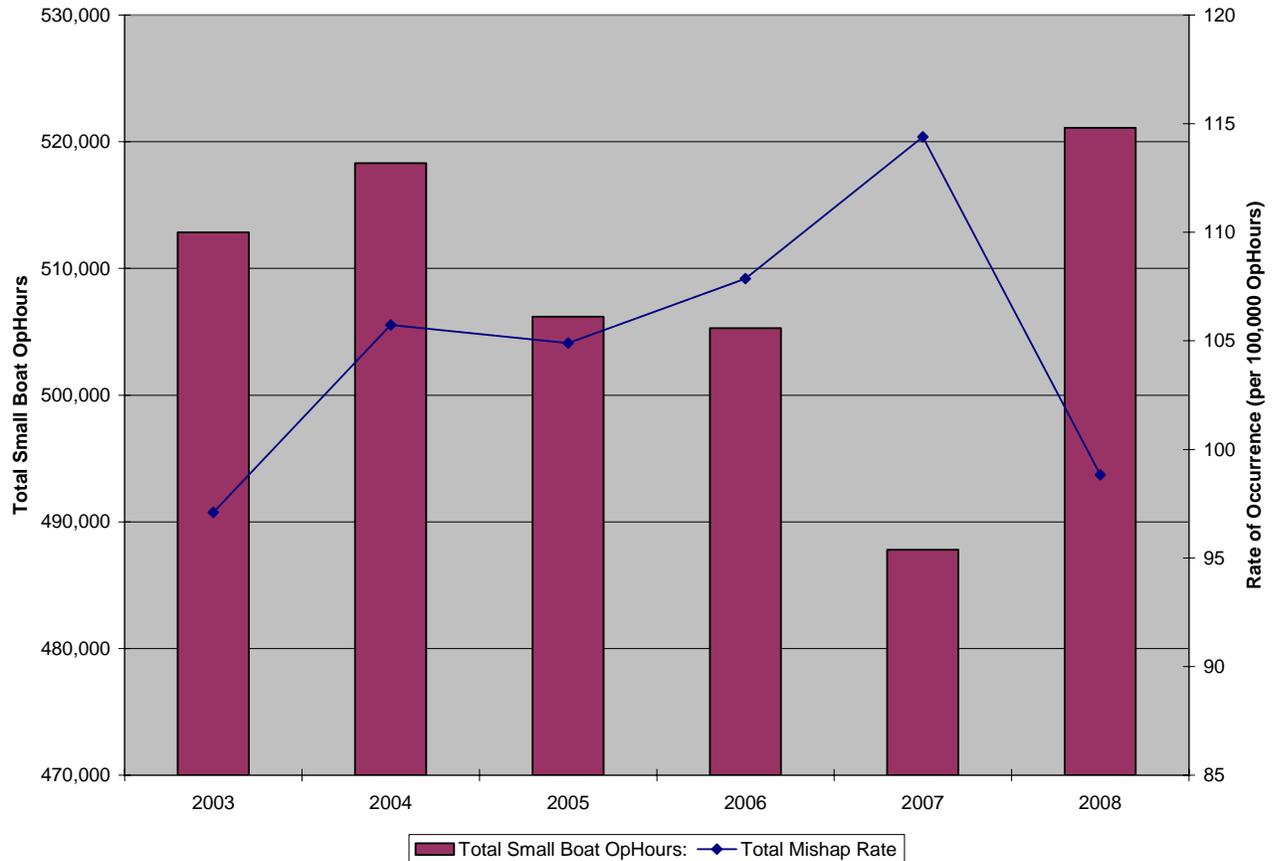
# Boat Forces



## Shore Based and Cutter Based Boats

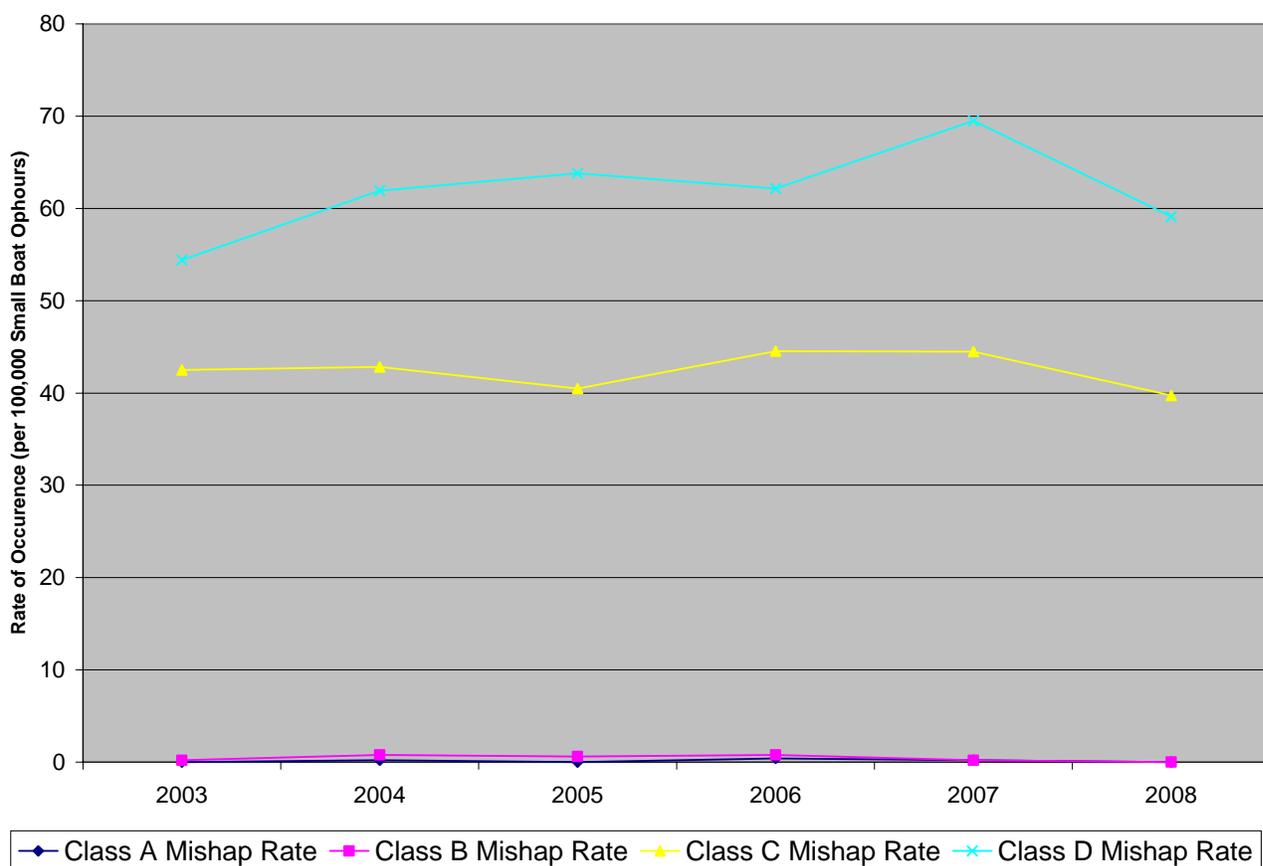
## Mishap Analysis:

**GRAPH 6: Boat Mishaps per 100K Operating Hour**



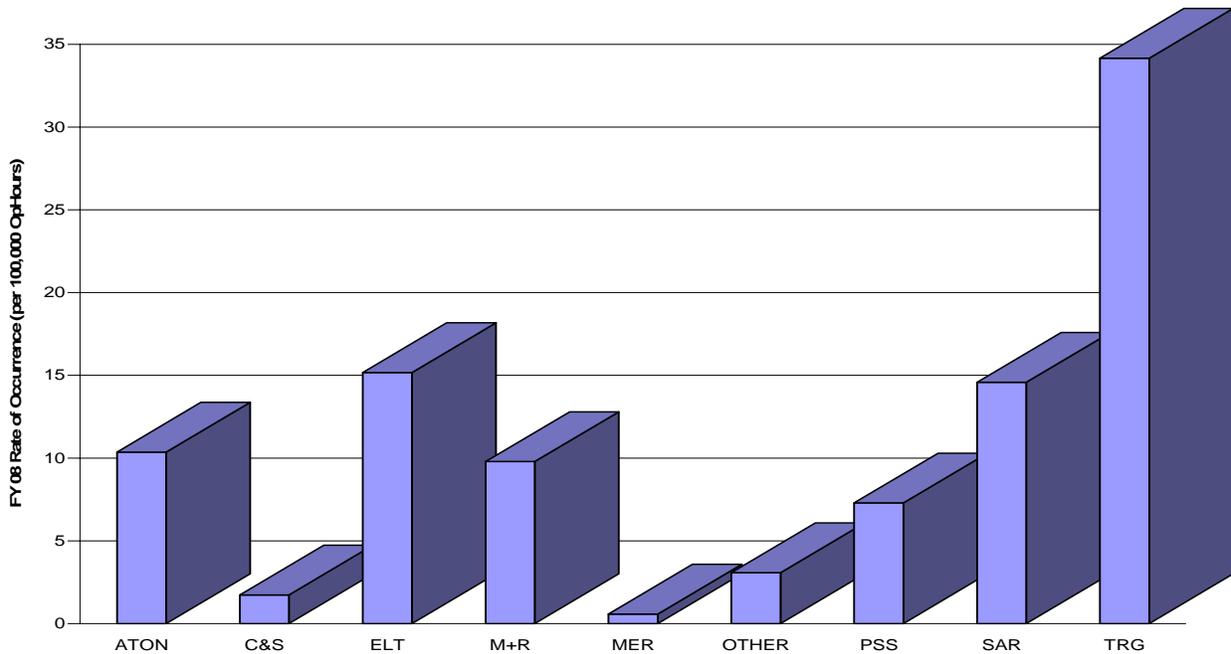
Small boat mishap rates in FY 08 fell to the lowest level since FY03. This is particularly good news considering the prior years had been experiencing a steady rise. Even with an increase of 40,000 operational hours the actual numbers of mishaps were below FY 07 numbers (See Graph 6).

**GRAPH 7: Boat Mishap Rates by Class of Mishap**



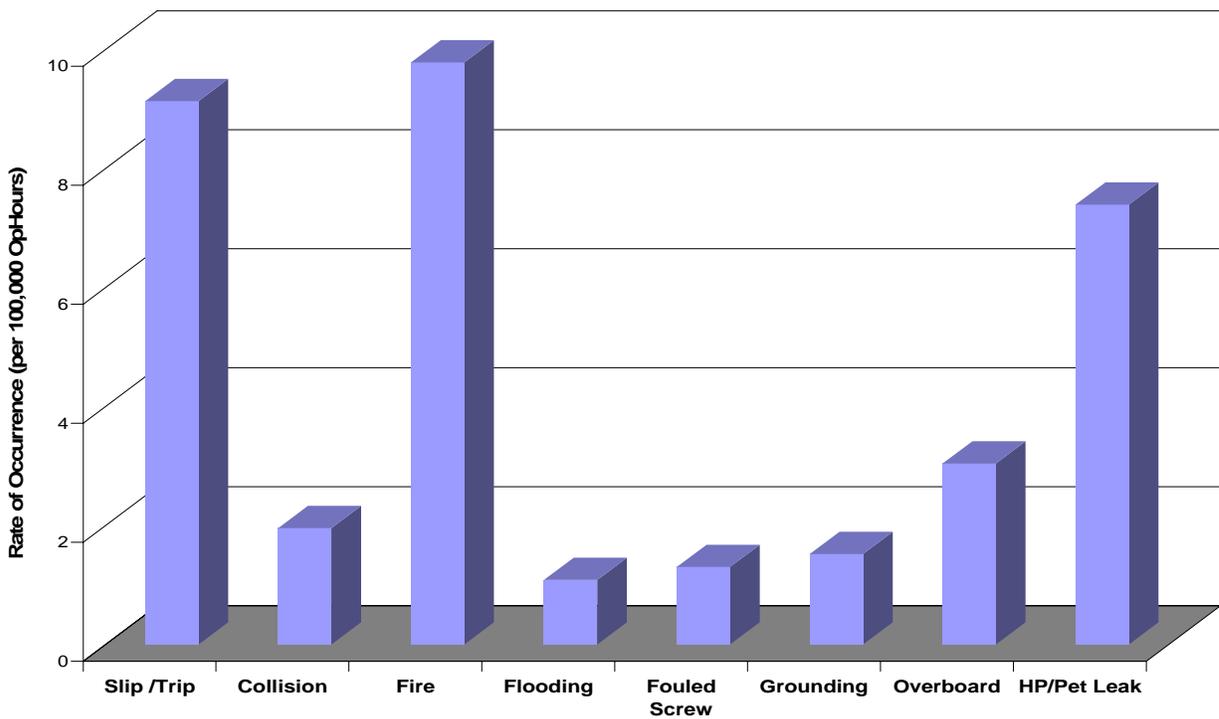
Small boats experienced a significant reduction in mishap rates in FY 08 (see graph 7). No class A or Class B mishaps occurred during the fiscal year. Historical data reveals that this is the first fiscal year since FY 00 that the Coast Guard suffered no Class A or Class B mishaps. Class C mishap rates are at the lowest level the operational community has seen since FY 02. The reduction in the Class C mishap rate is due in part to a reduction in reported groundings. Groundings fell from 108 in FY 07 to 91 reported incidents in FY 08. The significant drop in the rate of occurrence for Class D mishaps is due largely to the reduction in collisions from 178 reported in FY 07 to 153 reported in FY 08.

**GRAPH 8: Small Boat Mishap Rates by Mission Type FY 2008**



Small Boats in FY 08 experienced the largest rate of mishap occurrence during Training, the Enforcement of Laws and Treatise, and Search and Rescue (See Graph 8). The largest increase in mishap rates over FY 07 numbers occurred while executing the Enforcement of Laws and Treatise and Maintenance and Repair.

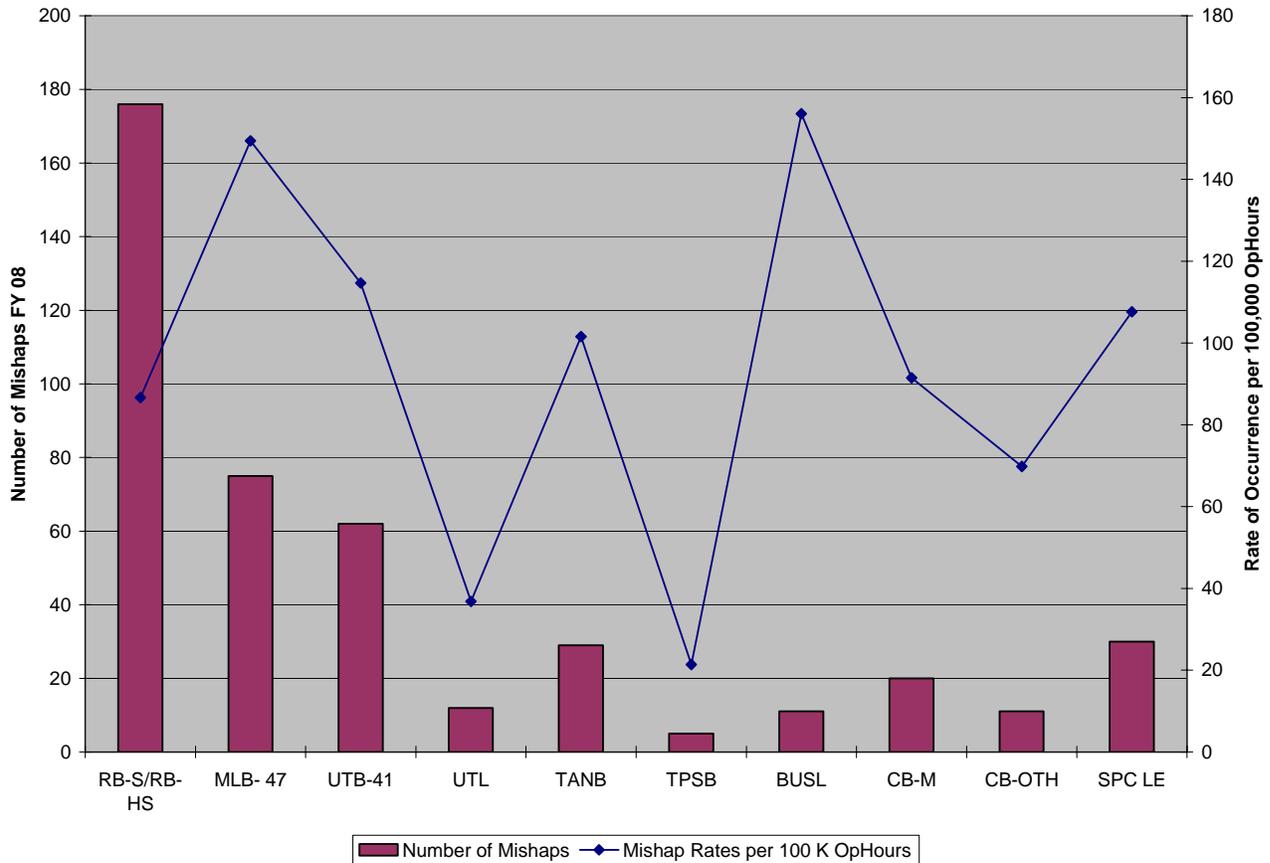
**GRAPH 9: Boat Mishap Rates by Mishap Type FY 2008**



Collisions and groundings continue to be the predominant cause of mishaps in the small boat community (see graph 9). Both collisions and groundings experienced a significant reduction in

numbers over previous years. Other categories that have fallen below the previous fiscal year totals include ejections and reported cases of people in the water (PIW). While ejections continue to be a significant safety concern in the Cost Guard, the total number of ejections reported in FY 08 is the lowest total reported since FY 02.

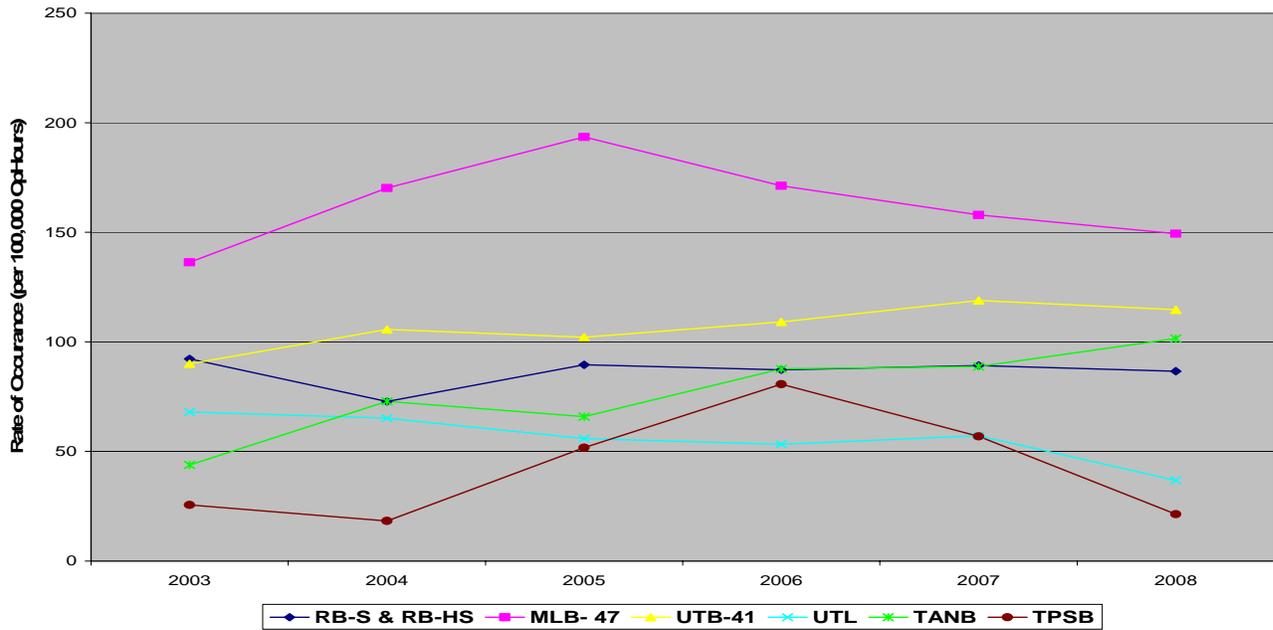
**GRAPH 10: Small Boat Mishap Rate by Platform FY 2008**



**Small Boat Mishap Rate by Platform Continued:**

Mishap rates by platform have continued to decrease for most of the small boat platforms. The mishap rate for the MLB-47, while still significantly higher than many other platforms, has its lowest mishap rate since FY 03. CB-OTH and SPC-LE mishap rates have fallen with the increase in the number of assets and operational hours (see Graph 10).

**GRAPH 11: Shore Based Small Boat Mishap Rates since FY 2000**



Graph 11 provides the mishap rates for the shore based small boats that historically have the largest amount of Op Hours. The rates for the MLB have continued to decline and are lower than any year since FY 03. TANB is the only platform to experience an increase in mishaps for the year.

## List of Acronyms-Boats and Cutters

| Acronym   | Type   | Class   |
|-----------|--|---|
| ANB       | AtoN Boat                                    | 55’-64’   |
| BUSL      | Buoy Boat Stern Loading                      | 49’   |
| CB-S      | Cutterboat-Small                             | 13’   |
| CB-M      | Cutterboat-Medium                            | 17’   |
| CB-L      | Cutterboat-Large                             | 24’   |
| CB-OTH    | Cutterboat-Over the Horizon                  | 23’   |
| MLB       | Motor Life Boat                              | 47’   |
| RB-HS     | Response Boat-Homeland Security              | 25’   |
| RB-M      | Response Boat-Medium                         | 45’   |
| RB-S      | Response Boat-Small                          | 25’   |
| SPC-LE    | Special Purpose Craft-Law Enforcement        | 33’   |
| SPC-AIR   | Special Purpose Craft-Airboat                | 18’ & 20’   |
| SPC-BTD   | Special Purpose Craft-Boarding Team Delivery | 24’   |
| SPC-HWX   | Special Purpose Craft-Heavy Weather          | 52’   |
| SPC-NLB   | Special Purpose Craft-Near Shore Lifeboat    | 42’   |
| SPC-SW    | Special Purpose Craft-Shallow Water          | 24’   |
| SPC-SKF   | Special Purpose Craft-Skiff                  | ---   |
| TANB      | Trailerable AtoN Boat                        | 26’   |
| TPSB      | Transportable Port Security Boat             | 25’   |
| UTB       | Utility Boat-Big                             | 41’   |
| UTL       | Utility Boat-Light                           | 17’ thru 28’ 11” aluminum or fiberglass boat that may have fendering and installed electronics and engines. |
| WAGB/WLBB | Icebreakers                                  | 420’/399’/240’  |
| NSC       | National Security Cutter                     | 418’  |

|      |                            |               |
|------|----------------------------|---------------|
| WHEC | High Endurance Cutter      | 378'          |
| WLB  | Buoy Tender-Seagoing       | 225'          |
| WLI  | Buoy Tender-Inland         | 100'/65'      |
| WLIC | Construction Tender-Inland | 75'/100'/160' |
| WLM  | Buoy Tender-Coastal        | 175'          |
| WLR  | Buoy Tender-River          | 65'/75'       |
| WPB  | Patrol Boats               | 110'/87'      |
| WPC  | Patrol Coastal             | 179'          |
| WTGB | Icebreaking Tug            | 140'          |
| WYTL | Harbor Tug                 | 65'           |

# TEAM COORDINATION TRAINING (TCT)

The TCT training program is comprised of TCT Facilitators, TCT District Administrators, USCG Academy Command and Operations School staff, and the Training Quota Management Center (TQC).

TCT Unit Level training is requested through the respective District Administrator who then assigns a facilitator and forwards their name to TQC for orders. Personnel interested in teaching TCT should contact their respective District Administrator. In order to be a TCT Facilitator, members must complete the TCT correspondence course, #G0652, and the Instructor Development Course (IDC), #230140. The TCT correspondence course must be completed prior to attending the IDC course. Prospective TCT facilitators must also have completed the 8 hour TCT Unit Level refresher course, or a resident TCT course listed below. Once the end of course test for the TCT correspondence course has been completed satisfactory, prospective TCT Facilitators will notify their respective TCT District Administrator. The District Administrator will then enroll the student into Instructor Development Course (IDC) #230140. Once the IDC has been completed the instructor must be observed instructing two TCT classes by a qualified TCT Facilitator. If successful, a TCT Facilitator Certificate will be issued by HQ certifying the member as a TCT Facilitator.

TCT course: Cutter OPS (500686). The Cutter OPS course is required for all Cutter Operations Officers and Operations Petty Officers of cutters 65 ft in length or greater. Students should be slated for the operations position, but it is not required.

The TCT curriculum is under revision and a Front End Analysis (FRA) is currently being performed by CG-132.

**Current District TCT Administrators (and work phone numbers) are listed below for reference:**

| District    | Administrator                  | Email  | Work Phone     | Fax            |
|-------------|--------------------------------|--|----------------|----------------|
| D1          | CWO Manny Zambrana             | Emmanual.Zambrana@uscg.mil   | (212) 668-7992 | (212) 668-7975 |
| D5 Primary  | CWO Tim Luton                  | Timothy.M.Luton@uscg.mil   | (757) 398-6509 | (757) 398-6203 |
| Secondary   | CWO Philip Pinto               | Philip.Pinto@uscg.mil  | (215) 271-4934 |                |
|             | Lionel Crossman                | Lionel.Crossman@uscg.mil   | (215) 271-4936 | (215) 271-4968 |
| D7          | CWO Pete Louzao                | <a href="mailto:Peter.D.Louza@uscg.mil">Peter.D.Louza@uscg.mil</a>         | (239) 985-0560 | (239) 985-0561 |
| D8          | CWO William Gordon<br>(Ashley) | William.A.Gordon@uscg.mil  | (504) 671-2142 | (504) 671-2146 |
| D9          | LT Winward Griffin             | <a href="mailto:Winward.A.Griffin@uscg.mil">Winward.A.Griffin@uscg.mil</a> | (216) 902-6118 | (216) 902-6121 |
| D11         | LCDR Arturo Perez              | Arturo.S.Perez@uscg.mil  | (510) 437-3697 | (510) 437-3223 |
| D13 Primary | Jeanette Wells                 | tesseract1@juno.com<br>Jeanette.L.Wells@uscg.mil                           | (253) 891-0620 | (253) 891-0620 |

|              |                    |  |                |                |
|--------------|--------------------|--|----------------|----------------|
| D14          | CWO Brian Leavy    | <a href="mailto:Brian.A.Leavy@uscg.mil">Brian.A.Leavy@uscg.mil</a>         | (808) 535-3430 | (808) 535-3439 |
| D17          | Mr. Mike Folkerts  | Michael.R.Folkerts@uscg.mil  | (907) 463-2297 | (907) 463-2273 |
| LANT TRATEAM | BMC Kenneth Harper | Kenneth.W.Harper@uscg.mil  | (757) 398-6457 | (757) 391-8100 |
| PAC TRATEAM  | Bobette Burdick    | <a href="mailto:Bobette.M.Burdick@uscg.mil">Bobette.M.Burdick@uscg.mil</a> | (510) 437-3301 | (510) 437-3297 |

## CONTACT INFO

Your comments on this report including recommended content, as well as any suggestions concerning the safety of maritime operations will always be greatly appreciated. Please feel free to call, fax, or e-mail us with any comments, questions or concerns.

### SAFETY POC's

#### Health Safety and Work-Life (HSWL)

Chief - Mr. Vincent Andreone (757) 628-4392  
Assistant Branch Chief- LCDR Harrichand Rhambarose (757) 628-4392  
Vessel Branch Chief - CWO Mike Lindsay (757) 628-4409  
<http://cgweb.lant.uscg.mil/Kdiv/kseHomePage.htm>

#### FORCECOM (FC-7)

Chief – CDR Jeff Church (510) 637-1151  
Safety Specialist – Mr. Duke Pettigrew (510) 637-1248  
<http://cgweb.mlcpac.uscg.mil/mlcpk/SafEnvHlthBran.htm>

### Other Helpful Information:

- Afloat Safety Division (CG-1134) / TCT / ORM web site:  
<http://www.uscg.mil/hq/cg1/cg113/cg1134/TCT.asp>
- Office of Boat Forces (CG-731) Boat Forces web site:  
<http://cgweb.comdt.uscg.mil/G-RCB/>
- Training Quota Management Center (TQC) web site:  
<http://www.uscg.mil/hq/tqc>
- Coast Guard Institute (CGI) web site:  
<http://www.uscg.mil/hq/cgi/>