

FY 2010 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

The purpose of this report is to promote safety awareness to the afloat community. By providing valuable trend analysis on our afloat assets, we hope to optimize operational performance and continue to reduce afloat mishaps in the future. Its purpose is also to improve 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 our personnel. This report contains both a comprehensive evaluation of FY10 mishaps as well as a historical look at past years' mishaps in order to evaluate our success in safeguarding our assets. The enclosed graphs depict **operational** Class A-D mishaps by fiscal year for Coast Guard cutters and boats, both underway and inport. Excluded from the graphs are mishaps that took place while off duty, such as sports-related injuries and mishaps that take place in an environment other than on a cutter or related to small boat operations.

Please take some time to review the graphs and share this information with your crew. Awareness is the most important step in preventing mishaps. Also, take time to discuss previous mishaps and their potential impact on your unit. By reviewing this report, we encourage each unit to evaluate their own safety programs and seek to continually improve the safety and security of their personnel and property. We must continue to share lessons learned and practice proper risk management in all of our daily activities.

As always, any ideas and comments are valuable in improving the Coast Guard's Safety and Environmental Health Program. Please share them with your Command, Sector Safety Managers, applicable detached Safety and Environmental Health Officer (SEHO's), the Safety and Environmental Health Office (SC) at the Health, Safety, and Work-Life Service Center (HSWL SC), other applicable safety staff, or the appropriate Headquarters points of contact listed at the end of this report.



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

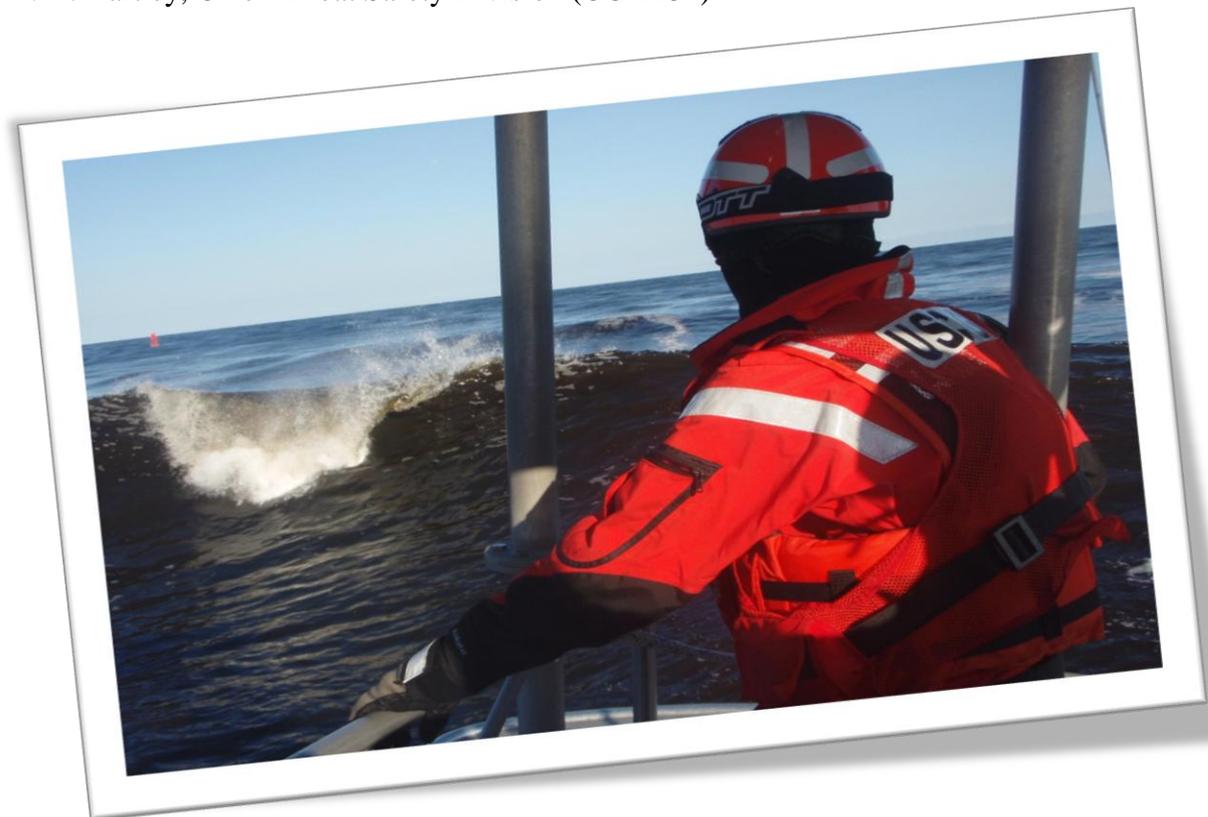
While the Commandant has asked that we steady the service, we are still pushing the envelope in terms of adding very capable small boats to the service. With each additional boat and each new mission set, we must work as a team to identify all our hazards, and then challenge one another to mitigate our hazards.

The aging cutter fleet promises to bring new challenges. CG-751, CG-451, CG-1134 and all cutter Tripartite members are working closely to keep our personnel safe while operating on these valued assets. Once again, we must work tirelessly to identify our risks and then communicate them to our operators so they can make informed decisions when managing risk.

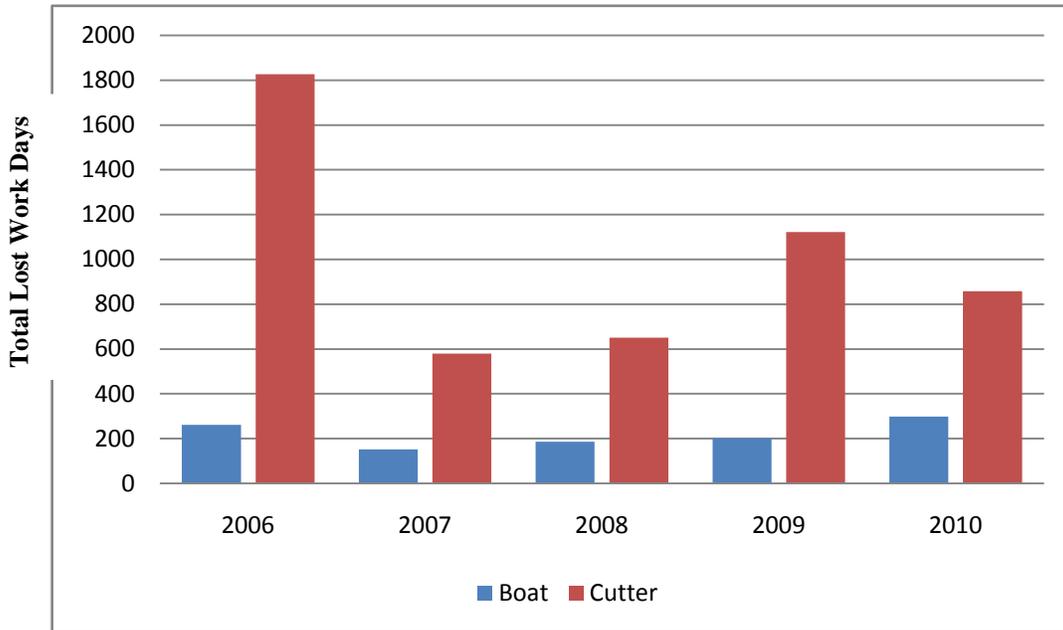
Finally, I ask Commanding Officers and Officers-In-Charge to watch for complacency at your cutter and small boat commands. Daily, routine missions are the ones that are catching us off guard. Stations performing standard patrols and cutters executing boat launch and recovery have run into a number of problems this past year by either not following policy or rushing a seemingly simple evolution. A number of mishaps can be prevented through reinforcement of policy and communication. The time for accountability is prior to a mishap occurring. We do not need a death or serious injury yesterday to be today's reminder to watch after our own and ensure each other's safety.

The information contained in this report has been extracted from the E-MISHAP database, <http://apps.mlca.uscg.mil/kdiv/ksemisrep/mhgo.asp>. 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. A. Hartley, Chief Afloat Safety Division (CG-1134)



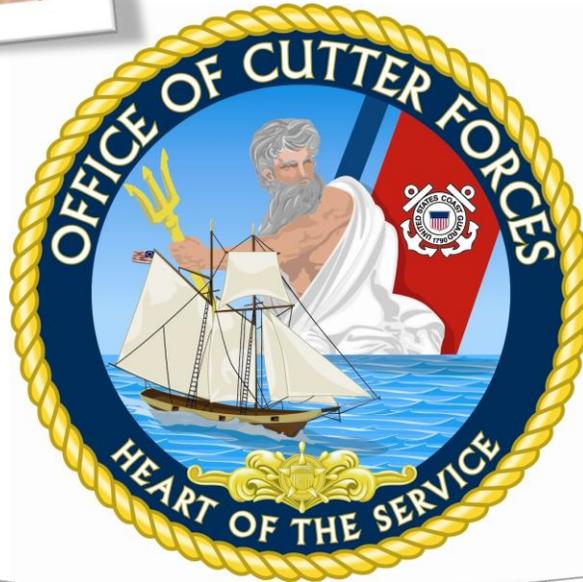
GRAPH 1: Lost Work Days



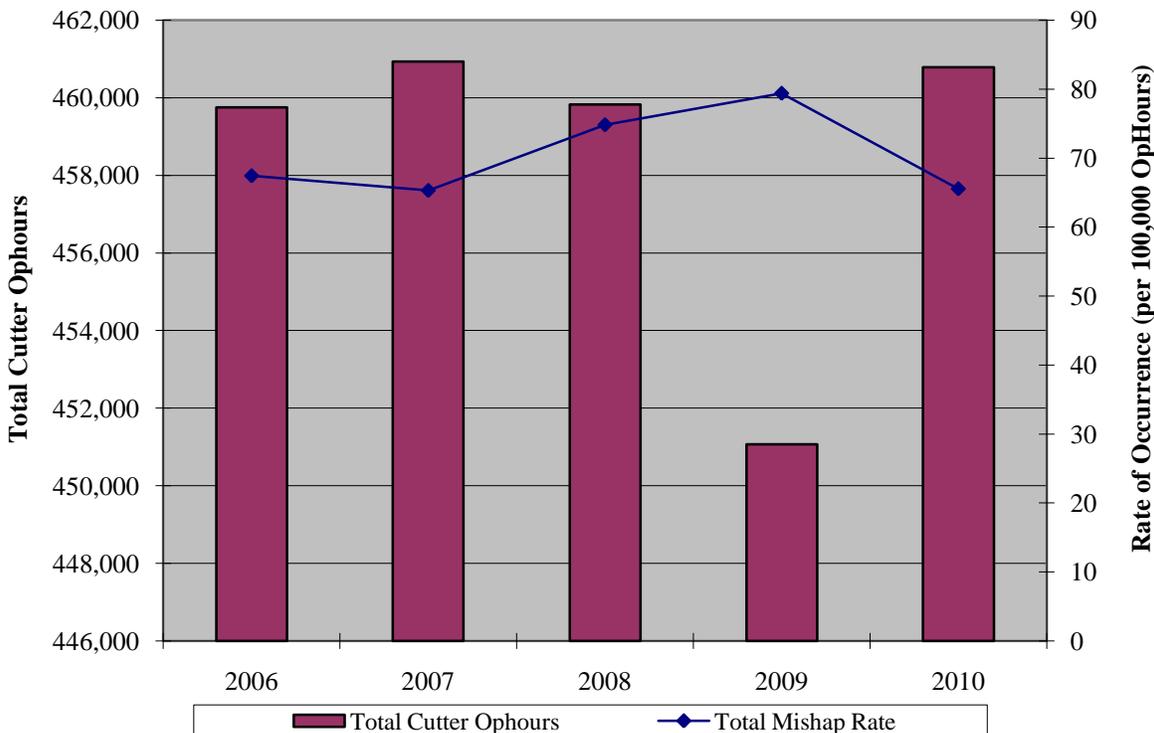
Cutter: Lost work days for cutters decreased for Fiscal Year 2010 due to a slight decrease in slip trips and falls on our aging MEC and HEC cutters. Ladders and scuttles continue to be our most hazardous areas.

Boat: Lost work days increased slightly due to mishaps that occurred during surf boat (47' MLB, 42' CPS-NLB) training evolutions.

Cutter Forces

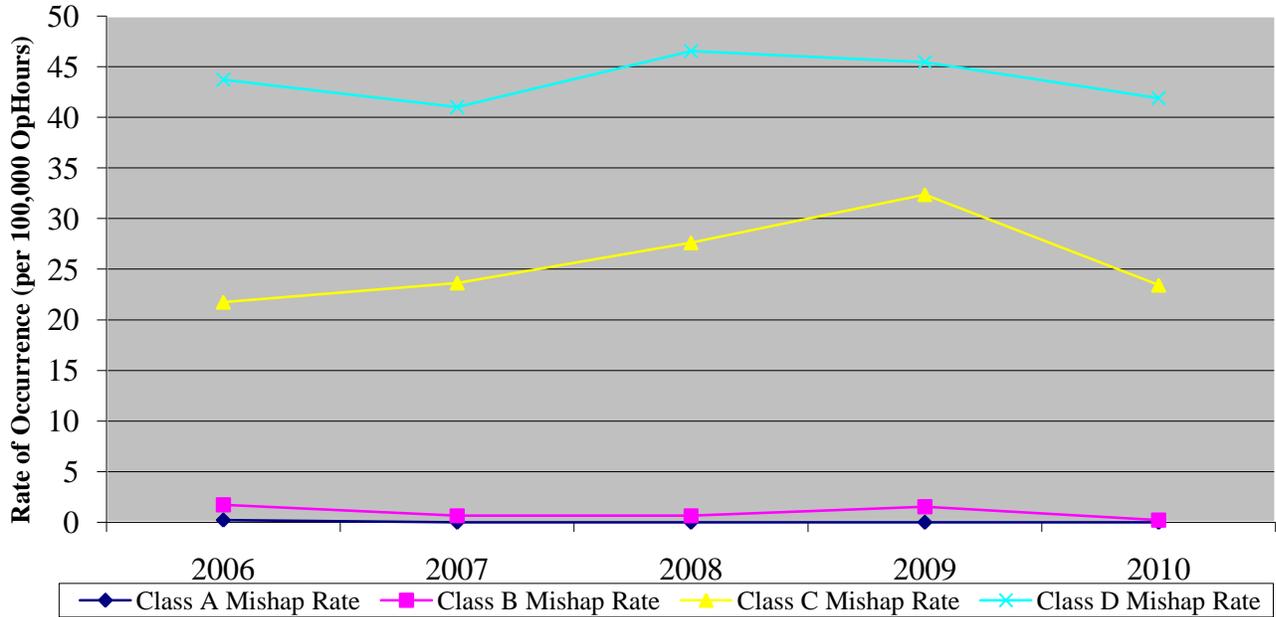


GRAPH 2: Cutter Mishap Rate per 100K Operating Hours



Cutter mishap rates have declined in FY10 (See Graph 2). Operational hours for cutters increased slightly in 2010 and the Total Mishap Rate decreased. This decrease is the result of fewer fires being reported since they did not meet the previous threshold limit for a minimum property value of \$1K for Class “D” mishaps. ALCOAST 590/10 revised cost threshold limit values for all classes of mishaps and currently requires that all fires be reported via message within 12 hours with no minimum property value. This new requirement should be reflected in your pre-mishap plan. Your input is important, we are using the fire data to document the frequency of fires onboard our aging fleet. Our FY11 Annual Afloat Safety Report will reflect this change in reporting requirements. These mishaps resulted in 18 hospitalizations, 806 lost work days, 1,923 days of restricted duty and property costs of over \$2.5M.

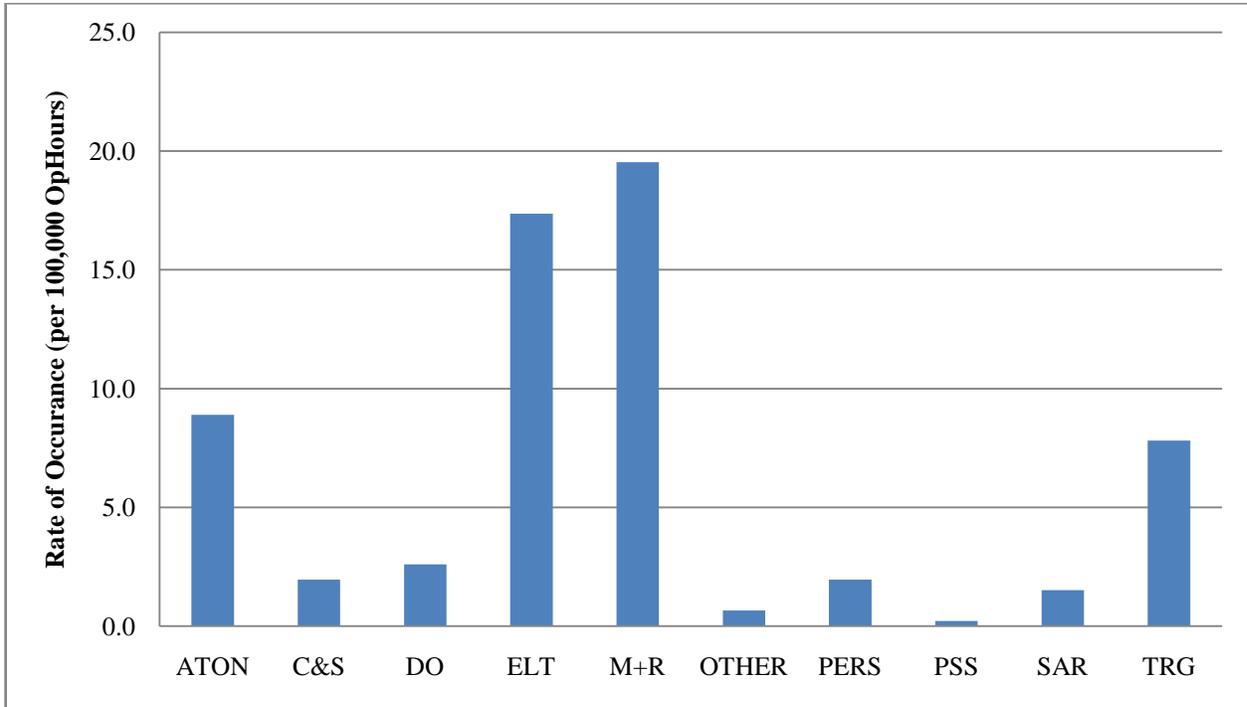
GRAPH 3: Cutter Mishap Rate by Class of Mishap



Class “C” and “D” mishaps have declined in FY10 (see Graph 3). There were 320 reportable mishaps resulting in 169 injuries.

There were no Class “A” mishaps or Class “B” mishap that occurred aboard cutters during the fiscal year. The majority of Class “C” mishaps were due to personal injuries involving slips, trips, and falls. The majority of the Class “D” mishaps were the result of personal injuries and fires.

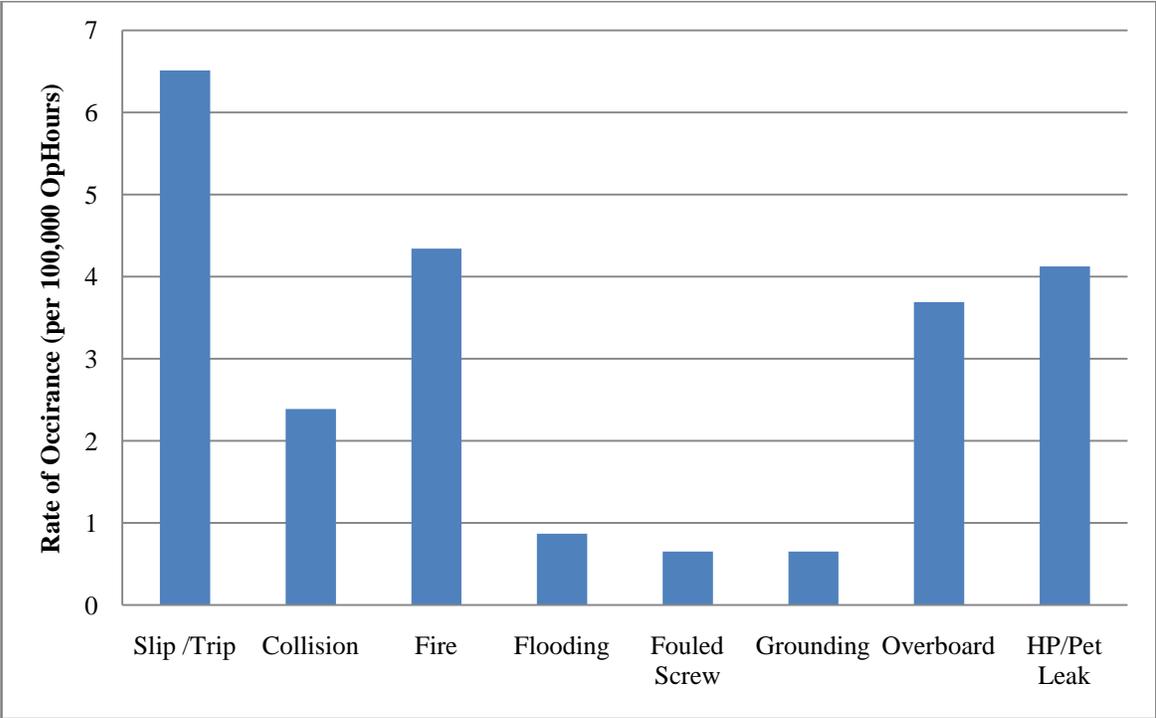
GRAPH 4: FY10 Mishaps Rates by Mission



The largest number of cutter mishaps in FY10 (See Graph 4) occurred during Maintenance and Repair (eye, finger, and back injuries were the leading for M+R). M+R has decreased since FY09 by 50% due to better hazard awareness aboard our cutters and looking out for your shipmates.

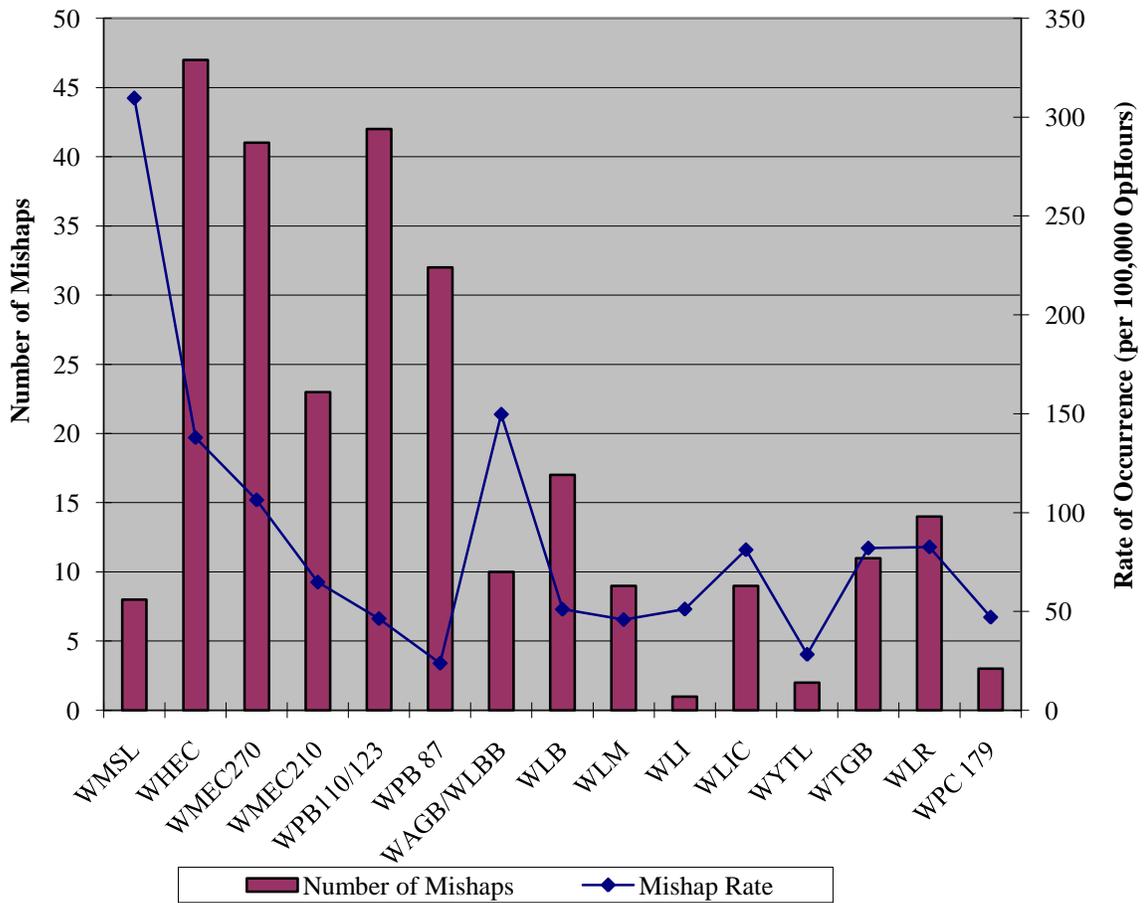
ATON	Aids to Navigation
C & S	Command and Support
DO	Deployable Operations
ELT	Enforcement of Laws and Treaties
M + R	Maintenance and Repair
PERS	Off Duty / Off the Job
PSS	Port Safety and Security
SAR	Search and Rescue
TRG	Training

GRAPH 5: FY10 Cutter Mishap Rate by Mishap Type



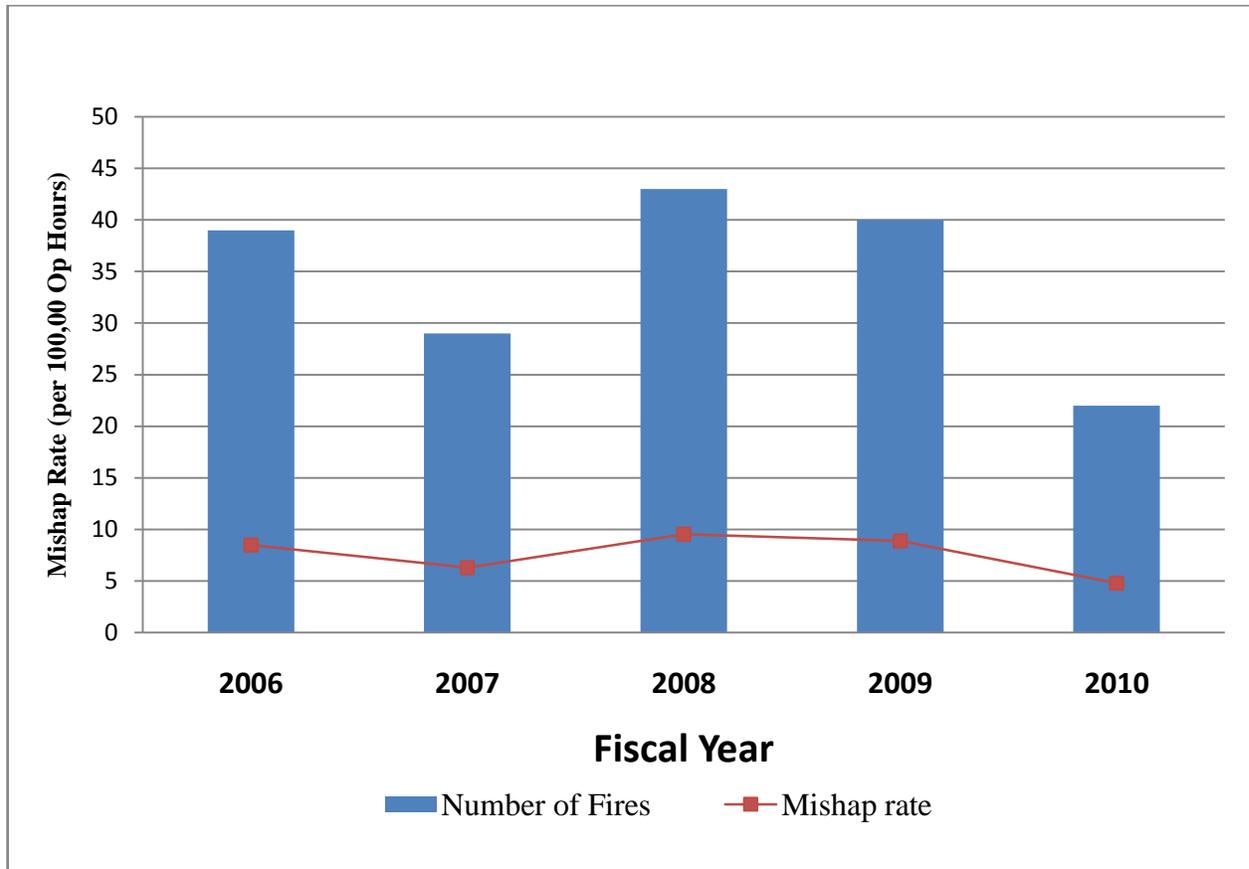
Examining cutter mishaps by mishap type (Graph 5) indicates that the highest rates were associated with slips, trips, and falls. Units should remind new personnel reporting onboard of the risk of slips, trips and falls. These risks can be mitigated by ensuring decks are kept clean, non-skid is in place and one hand is always on the hand rail. The largest source of slip, trip and fall injuries were attributed to ladders, scuttles and hatches. The majority of HP/Pet (high pressure lube oil/fuel) leaks occurred aboard 110' WPB's and the 87' WPB's which pose a fire hazard. Shipboard fires were distributed amongst several different classes of cutters and generally involved machinery or equipment failure, although the possibility of under reporting remains a concern. The increase in overboard mishaps are the results of a crewmember falling off a cutter, two instances of crew members falling off the pier while line handling and others occurred during embarking/disembarking from the cutter boat. Collisions occurred mainly during mooring evolutions.

GRAPH 6: FY10 Cutter Mishap Rate by Class of Cutter



Reviewing the number of mishaps by platform finds the highest rates aboard the WMSL, WHEC, and WAGB class of cutters (See Graph 6). The WMSL high mishap rate was due to slip, trips, and falls and in part to their low number of operational hours. The overall mishap rate decreased compared to FY09 even though operational hours increased for several of the platforms.

GRAPH 7: Cutter Fire Rates

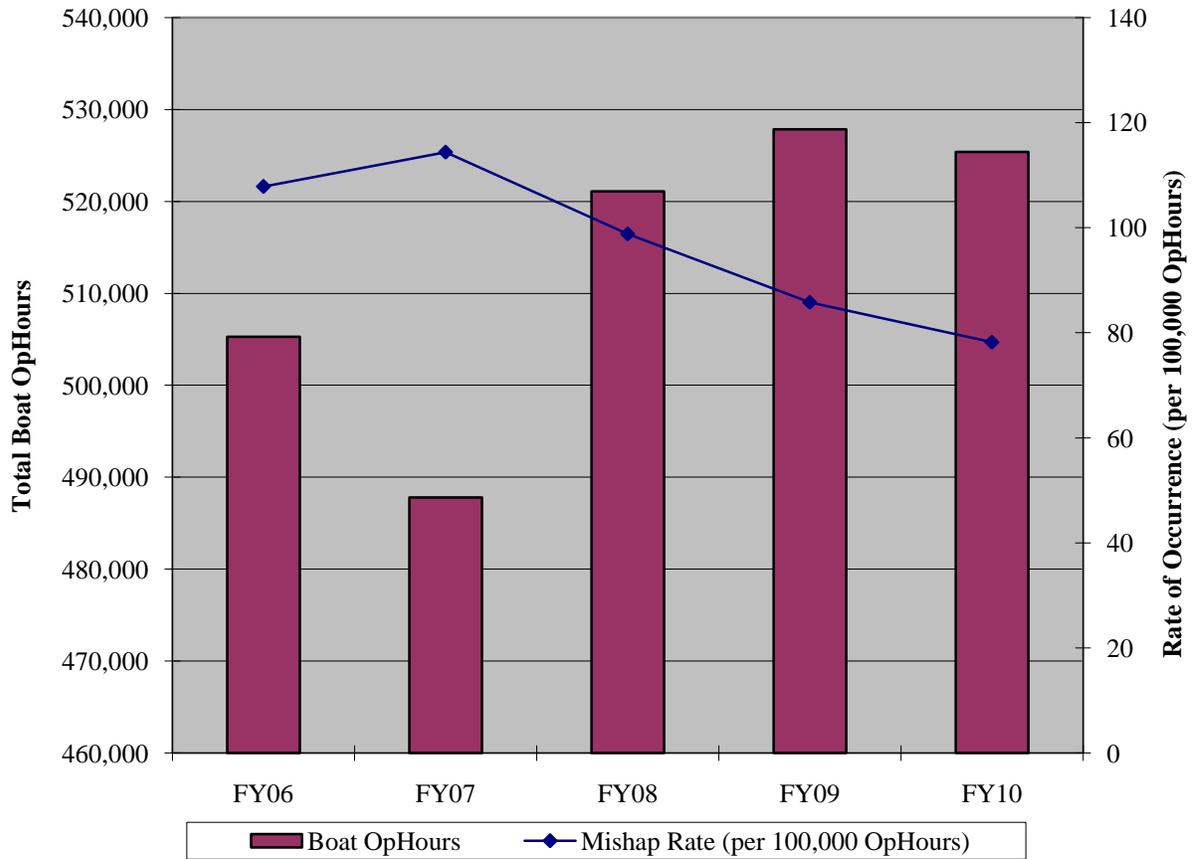


The CGC GALLATIN Class “B” Mishap Analysis board message alerted the fleet of the fire hazards associated with shipyard availability and recommended actions to mitigate those fire hazards and improve the fire program. Cutter fires have decreased almost in half in FY10 due to a change in our mishap reporting system. ALCOAST 590/10 requires that all fires onboard cutters be reported via message to the fleet within 12 hours regardless of cost. Cutters are now more aware of fires that have occurred and the corrective action taken to prevent them. Reported fires are discussed at our weekly Cutter Forces Tripartite.

Boat Forces (*Shore Based and Cutter Based Boats*)

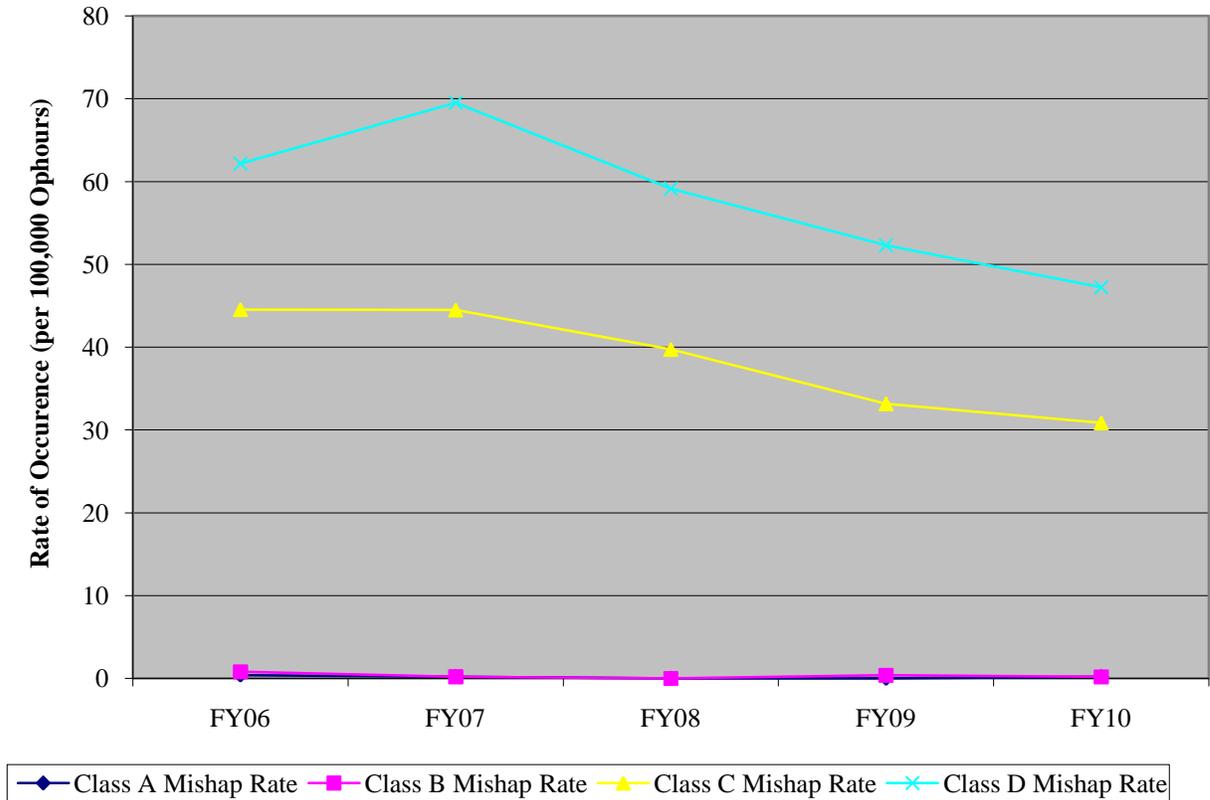


GRAPH 8: Boat Mishaps per 100K Operating Hour



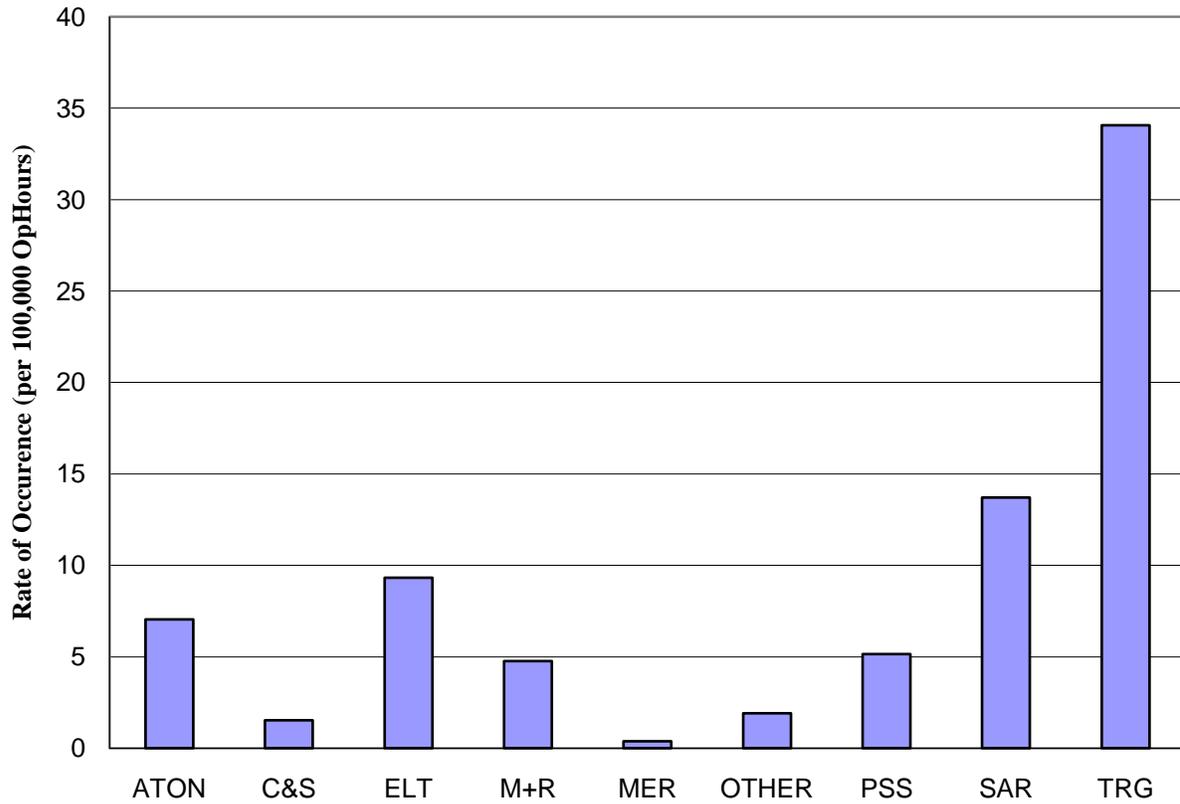
Boat related mishap rates fell in FY10 (See Graph 8) and have steadily declined since 2007. Collisions and groundings are still a major cause of boat mishaps. These mishaps have resulted in 9 hospitalizations, 299 lost work days, 1,007 days of restricted duty and property costs of over \$1.2M.

GRAPH 9: Boat Mishap Rates by Class of Mishap



The small boat communities continue to experience a reduction in mishap rates in FY10 (see graph 9). There was one Class “A” mishap in San Diego involving a 33’ SPC-LE colliding with a 24’ pleasure craft that resulted in a civilian death and 5 serious injuries. There were no Class “B” mishaps during FY10. Class “C” and Class “D” mishap rates declined slightly.

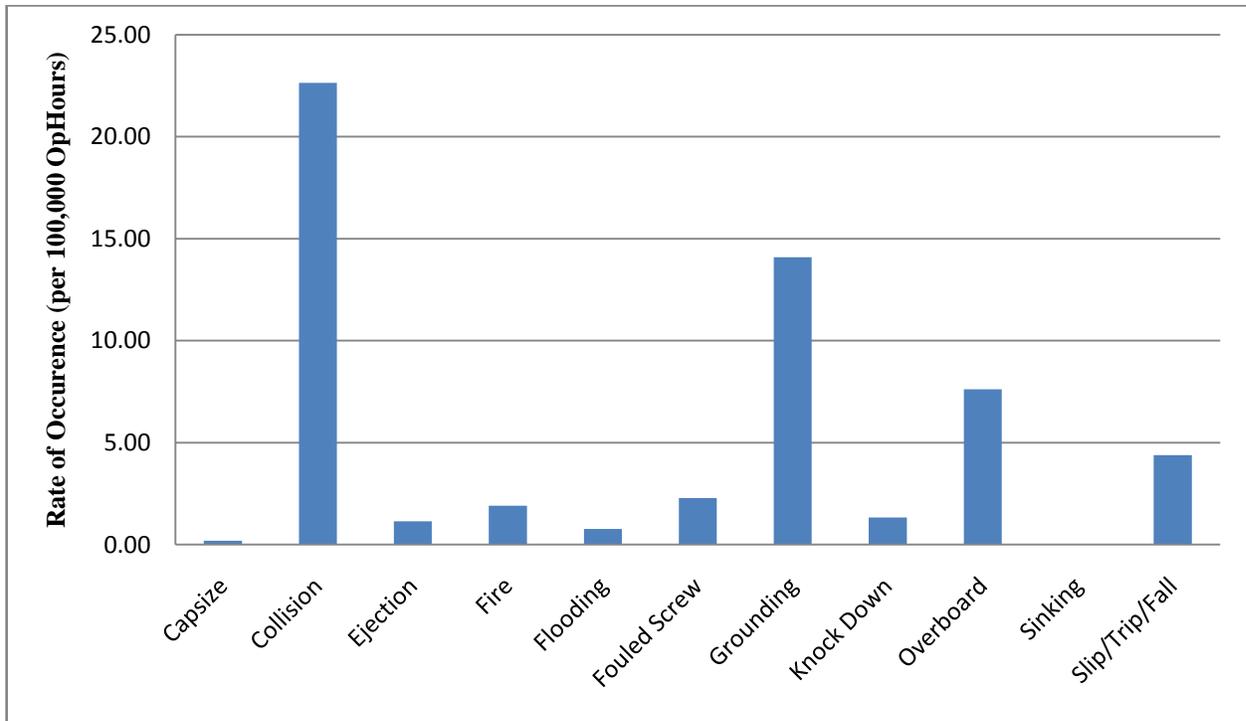
GRAPH 10: FY10 Boat Mishap Rates by Mission Type



Training mishaps increased slightly as compared to FY09. Training continues to experience the highest level of mishaps followed by the Search and Rescue and Enforcement of Laws and Treatise (See Graph 10).

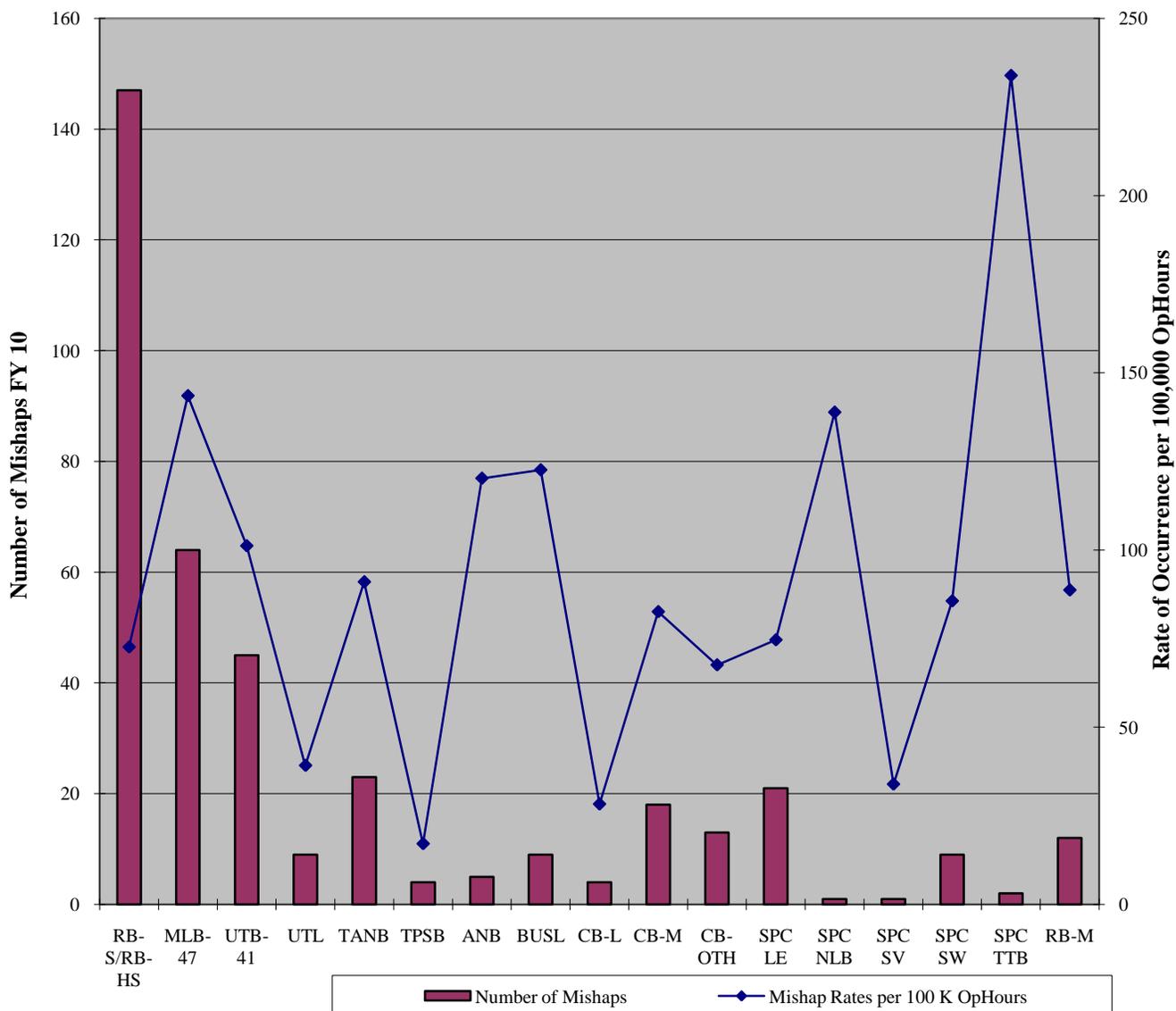
ATON	Aids to Navigation
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ELT	Enforcement of Laws and Treaties
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GRAPH 11: FY10 Boat Mishap Rates by Mishap Type



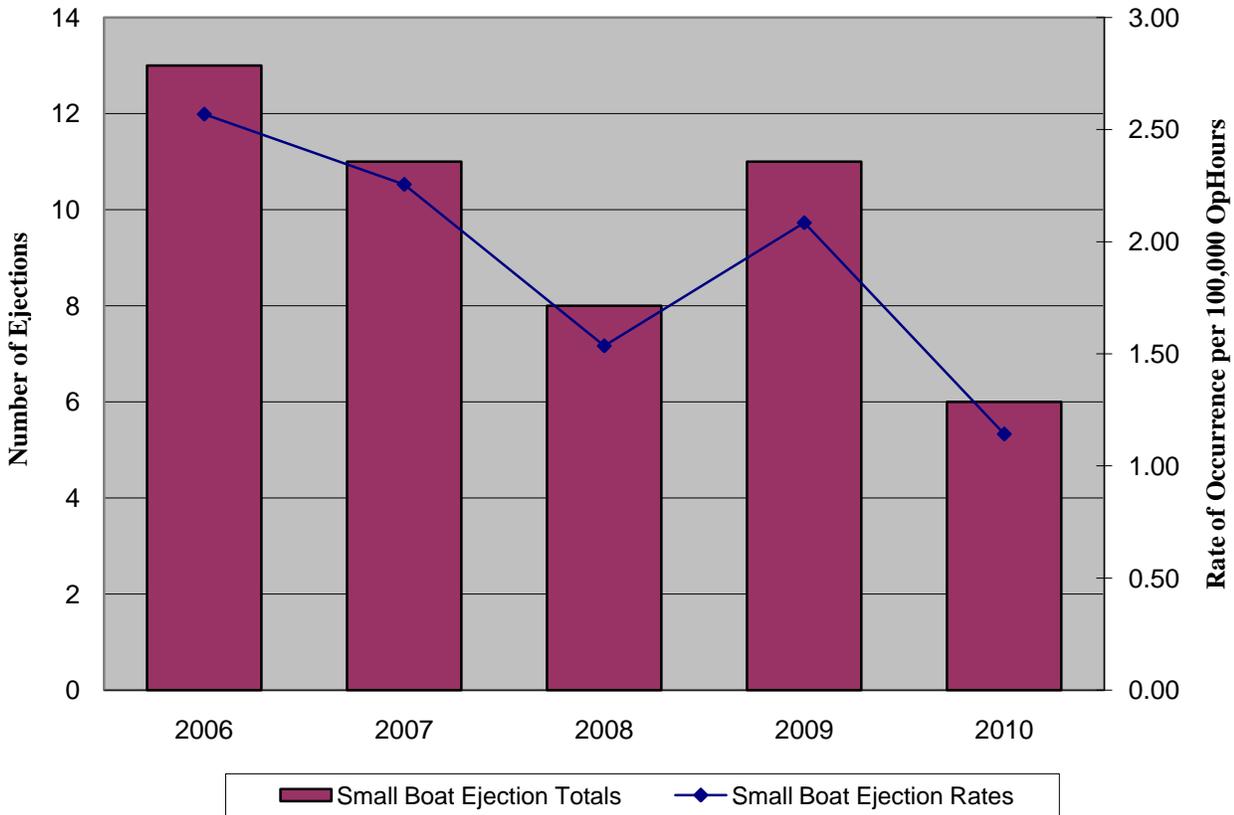
While collisions and groundings continued to decline in FY10, they still account for the largest category of boat related mishaps (see graph 11). Collisions were the result of boats colliding with vessels during ELT boarding's, hitting submerged objects and mooring evolutions. The majority of all overboard mishaps occurred during embarking or disembarking evolutions.

GRAPH 12: FY10 Boat Mishap Rate by Platform



While the RB-S (Defender Class A&B) experienced the largest number of mishaps it also has the largest number of operational hours of all boat types due to collisions and groundings. The RBS represents a total of 29% of all boats in the USCG. The SPC-NLB and SPC-TTB are new platforms and the lack of experience and proficiency is driving up the rates is also a new boat with low operational hours which accounts for its high mishap rate. Both boats experienced a total of three mishaps for FY10.

GRAPH 13: Small Boat Ejection Rates



Boat ejection mishap rates have decreased in conjunction with operational hours and decreased a third since 2009 due to decrease in mishaps involving the Transportable Port Security Boat (TPSB) (four ejections involved 02 Cutter Boat Medium (CBM), 01 Defender Class (RBS), and 01 TPSB). Additionally, the Chief, of the Office of Boat Forces CG-731, sent an article titled “*Coxswains: Cause for Action!*” in June of 09, to the Master Chief and the Gold Badges of the Coast Guard and identified human error as the major cause of ejections. It called for units to tighten up the qualifications for coxswains and hold them responsible for their actions. Reported ejections are discussed at our weekly Boat Forces Tri-Partite meetings.

List of Acronyms for 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-TTB	Special Purpose Craft-Tactical Training Boat	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)

BACKGROUND:

The TCT training program increase team effectiveness and minimizes human error in cutter, boat and command / control operations and activities. It serves the Active Duty, Reserve and Auxiliary community in accordance with COMDTINST 1541.1. TCT training is a biennial requirement (two years). If more than 24 months have elapsed since the last TCT initial or refresher course, then initial training must be repeated.

Initial training (16 hours) can be satisfied with the successful completion of: POPS Afloat School, OIC/PXO School, Coxswain C-School, Heavy Weather Coxswain School, MLB Coxswain School, and BM-A School, TCT Bridge Resource Management Course, or the TCT Correspondence course.

The TCT program is composed of TCT Facilitators, TCT District Administrators and the Training Quota Management Center (TQC). Operational units request TCT Unit Level training through their respective District Administrator who will assign a facilitator and forwards the facilitators name to TQC for orders. Personnel interested in facilitating TCT training should contact their respective District Administrator (see below). Active Duty, Reservists and Auxiliarists, Civilians are all eligible to train as TCT Facilitators. Priority will be given to personnel with an operational background. In order to become a TCT Facilitator, members must complete the TCT Facilitator course (#500688). Facilitators must also have attended a TCT course or completed the TCT Correspondence course (G0648).

UPDATE:

The TCT Cutter OPS course (500686) has recently been renamed the TCT/Bridge Resource Management Course and quotas are now managed by CG-751. This training is recommended 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.

There are two TCT Facilitator classes scheduled this Fiscal Year, May 23-27, and August 22 – 26. Both classes will be held at TRACEN Petaluma with a student capacity of 16 students each. These classes are open to all Active Duty, Reserve and Auxiliary personnel. Members are expected to facilitate at least 5 classes per year. Contact your District TCT Administrator if you are interested.

The approximate number of Active Duty, Reserve, and Auxiliarists receiving exportable, TCT Unit-Level Training was approximately 10, 607 for FY10.

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

District	Administrator	Email	Work Phone	Fax
D1 DPA	CWO Manny Zambrana	Emmanual.Zambrana@uscg.mil	(212) 668-7992	(212) 668-7975
D5 DPA Primary	CWO Sean McGarigal	Sean.McGargial@uscg.mil	(757) 271-4934	(757) 271-4968
Secondary	Lionel Crossman	Lionel.Crossman@uscg.mil	(215) 271-4936	(215) 271-4968
D7 DPA	CWO Ursula Walther	Ursula.W.Walther@uscg.mil	(305) 415-7053	(305) 415-7059
D8 DPA	CWO William Gordon	William.A.Gordon@uscg.mil	(504) 671-2142	(504) 671-2146
Secondary	Jack Granger	John.Granger@uscg.mil	(504) 671-2143	
D9 DRMC	LT Dave Uhl	David.J.Uhl@uscg.mil	(216) 902-6388	(216) 902-6044
D11 DRM	BMCS Stephen Barr	Stephen.L.Barr@uscg.mil	(510) 437-5323	(510) 437-3223
D13 DR	Jeanette Wells	tesseract1@juno.com	(253) 891-0620	(253) 891-0620
D14 DPA	CWO Ryan Omeara	Ryan.W.Omeara@uscg.mil	(808) 535-3432	(808) 535-3439
D17 DPI	Mr. Mike Folkerts	Michael.R.Folkerts@uscg.mil	(907) 463-2297	(907) 463-2273
LANT TRATEAM	BMCM Rick Olson	Richard.S.Olson@uscg.mil	(757) 641-1232	(757) 295-2210
PAC TRATEAM	LT Jorge Valente	Jorge.L.Valente@uscg.mil	(510) 437-3294	



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 POINTS OF CONTACTS:

Afloat Safety Division (COMDT CG-1134)

Division Chief, CDR Richard Hartley (202) 475-5215
Safety and Occupational Health Manager, Mr. George Borlase (202) 475-5218
Safety Specialist, LT Eric Cooper (202) 475-5217
Safety Specialist, CWO Thomas Dardis (202) 475-5208
<http://www.uscg.mil/hq/cg1/cg113/cg1134/>

Health Safety and Work-Life Service Center (HSWL SC)

Chief, Mr. Vincent Andreone (757) 628-4412
Assistant Division Chief, CDR Harrichand Rhambarose (757) 628-4426
Afloat Safety Branch Chief, CWO Andrea Currie (757) 628-4409
<http://cgweb.lant.uscg.mil/Kdiv/kseHomePage.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/>