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What the Coast Guard Needs: Cutters That Count

by

Lieutenant Commander C.H. Hill, US Coast Guard

The Navy must be able to conduct sustained combat operations on a worldwide scale. It has been given the money to build ships for that purpose, but it is unlikely that there will be enough people to man all the ships needed.

While the Navy can get ships but not enough people, the Coast Guard can get people, but not enough ships. At least, with its static or shrinking budget the Coast Guard cannot replace its obsolete ships and meet its increasing responsibilities in a timely fashion. Of such asymmetric problems opportunities can be made.

The Navy must both provide forces for contingencies across a wide spectrum of intensity and prepare itself to fight in an extended conflict.

What separates these cases is that in contingencies only active forces are used. In an extended conflict additional forces, including the Naval Reserve and Coast Guard, are mobilized.

Recently, the Navy has enjoyed relatively generous funding for construction, and plans call for more of the same. While naval recruiting and personnel retention have been good in the last year or two, when the economy improves it is probable that both will run into trouble. But the good years economically are the times when most money will be available to build new ships. And paying the operating and maintenance cost of an expanded and more sophisticated fleet while continuing modernization will require continued sustained growth of the budget. If a less sympathetic administration is elected the Navy will again have to choose between operations and modernization.

There is also a conflict between readiness for contingencies and readiness for general war in the way ships are manned and deployed. These differences are pointedly illustrated by the frigate. Frigates are built for convoy escort, not for battle group operations. But, because too few destroyers are built, frigates often are operated in their place, in an environment for which they were never intended. One method of providing the additional forces required for a protracted conflict at less cost is to depend on the Naval Reserve. Typically a Reserve Force combatant is manned to only a 50 percent level by regular Navy personnel. Thus, for a price in peacetime readiness, with the same number of regulars twice the number of frigates can be manned for potential wartime use.

Even so, whether frigates are part of the Reserve or are fully manned by the regular Navy, they compete for scarce manpower with those ships truly capable of battle group activity.

In a period when the country is trying to get as much defense as inexpensively as possible, the Coast Guard and the Navy could continue their simultaneous construction of the *Bear*-class cutter and the FFG-7-class frigate.

Or the Navy could lend or, at a nominal fee, lease new FFG-7-class ships to the Coast Guard. (According to *Combat Fleets of the World*, 16 *Bear* class and 61 FFG-7 class exist, are under construction, or are planned.)

Compare the characteristics of the *Bear* and the FFG-7 given in the table. The cutter is cheaper to operate because she has diesel propulsion rather than gas turbines, and her crew is much smaller. But the FFG-7 is a much more capable warship and at least marginally more capable as a Coast Guard cutter because of her higher speed, better helicopter facilities, and superior command and control facilities.

The Navy often loans ships to the Coast Guard. During Prohibition the Coast Guard operated a score or more of the Navy's destroyers. During World War II the Coast Guard, as a part of the Navy, operated 12 destroyer escorts and many other ships. For years after the war most of the Navy's small seaplane tenders served in the Coast Guard as ocean station vessels. Many of them showed up on the gunline in the Vietnamese war.

Recently the Coast Guard narrowly avoided dismemberment. A vital element of its survival was the support of the Navy. Even before that crisis there was a reawakening of interest in the wartime roles of the Coast Guard. New roles include management of a maritime defense zone, and participation in harbor defense, naval control of shipping, and mine warfare. There is also a reemphasis on the traditional role of the Coast Guard in ASW.

In peacetime a Coast Guard-manned warship will not reach the peak of task group proficiency her Navy counterpart achieves during deployment, even though Coast Guard vessels use the same training facilities as their Navy counterparts, and in fact attend refresher training more often than Navy ships do. The difference is that Coast Guard vessels train up to the point of deployment, but never get that last experience that puts the edge on a task group. So, just as with a Reserve-manned ship, it may take one or two months for a Coast Guard FFG to come to speed. However, heightened tensions are likely to signal the time for a change in Coast Guard operational priorities before conflict erupts. In addition it should be recognized that some battle group habits will have to be unlearned by Navy-manned frigates if they are to operate in what will probably be multinational convoys.

If the Navy and the Coast Guard continue to build independently, the nation would have the use of both groups of vessels in wartime; however, the force would not be as effective as it would be if the Coast Guard's ships were as battle worthy as the Navy's. As warships the *Bear* class are incomplete. They have space and weight reserved for the SQR-19 towed array and for Lamps, Harpoon, and Phalanx. But these systems will have to be installed (and before that they must be funded and manufactured), spares must be provided, and the crews must be trained both in their operation and in their maintenance. There are no plans for even one of the *Bear* class to be fitted with these systems so a cadre of Coast Guard personnel could become familiar with them.

Even if completely armed and equipped, ships of the *Bear* class will have modest value as a warship. Their speed (19.5 knots) essentially limits their utility as escort vessels to medium and low speed "economic" convoys. Their diesel engines are noisy. For their weapons delivery, the *Bear* class must depend on a Lamps helicopter. But there are so many Lamps-capable Navy ships and so few Lamps helos that it is probable that the only way a *Bear*-class cutter will get one is as a divert after another ship has been sunk. The vessels' low speed means that sprint and drift tactics are essentially impossible if they must keep up with a convoy. Even course changes to eliminate the left/right ambiguity of passive sonar systems must be limited. The lack of an active sonar means that a *Bear* will be blind in the noisy, shallow environment that is likely to be the Coast Guard's primary interest. Over the life of the class it is probable that AAW capability will become increasingly important, but the *Bear* has almost no margin for growth when all planned systems are included.

No question, the use of the FFG-7 class as a Coast Guard cutter would be a mixed blessing. Her greater speed, better helicopter facilities, air search radar, and command and control facilities make a FFG-7 more capable than a *Bear* for some Search and Rescue and Law Enforcement missions, especially in heavy weather or in a multiunit coordinated search. For such tasks, only the FFG's deeper draft place her at a disadvantage relative to a *Bear*. But demands for maintenance and training would decrease the time the ship would be available for nonmilitary missions. The Coast Guard plans on ships being away from homeport a maximum of 185 days a year, though that is often exceeded, but various naval tasks could decrease the availability of FFG-7s for other Coast Guard missions by approximately 30 days a year. As a result it would require five FFGs to replace four *Bears*. This would increase the costs considerably.

Estimated Costs FY 82

Class	Procurement	Operating (direct annual)	Lifecycle
FFG-7	\$ 309M	\$4.5M	\$347M
<i>Bear</i>	\$ 65M	\$2.5M	\$ 86M

NOTE: The estimated procurement cost for the *Bear* class includes approximately \$45M paid by the Coast Guard and \$20M paid by the Navy. Probably significant indirect costs could be applied to both classes.

The dramatic difference in costs illustrates clearly why the Coast Guard has not chosen to build FFG-7 derivatives for its own use.

(The procurement cost shown for the *Bear* class is the least of a possible range in order to insure that any inaccuracies are not in favor of the FFG-7.)

If the Navy will transfer frigates, or buy new ones for use by the Coast Guard (which in wartime, of course, means use by the Navy) both Services will benefit. Based on the costs cited above, operating five FFGs should cost the Coast Guard only about \$12.5 million more than operating four *Bears*. Some of this could be recouped from construction costs of any *Bears* not built in order to take advantage of the FFG-7.

The Coast Guard needs to increase the size of its cutter force. Indeed, the number of FFGs that could be used is constrained more by the rate at which the service could

Vessel Characteristics

Characteristic	<i>O.H. Perry (FFG-7)</i>	<i>Bear (WMEC-270)</i>
Displacement (tons)	3,605	1,780
Dimensions		
Length (ft o.a.)	445	270
Beam	45	38
Draft	24.5 (sonar) 14.8 (keel)	13.5
Aircraft	2 hangars	1 hangar
Missiles	Standard MR/Harpoon	**
Guns	1-Mk 75 76mm 1 Phalanx 20mm CIWS	1-76mm **
Fire Control	Mk92	Mk92
ASW	SQR-19 towed array 2 Lamps III SQS-56	** **
Main Propulsion	2 LM 2500 Gas Turbines 41,000 HP single controllable pitch	2 diesel 7,000 HP twin c.p.
Aux. Propulsion	28 kts (sustained) two 325 HP-10 kts.	19.5 max.
Range	4500 at 20 kts	3,850 at 19.5 6,370 at 15 10,250 at 12
Complement	185	100
Radar		
Air Search	AN/SPS-49	none
Surface Search	AN/SPS-55	AN/SPS-64(V)

**Space and weight reservation for four Harpoon canisters, Phalanx CIWS, Lamps III.

expand than by its mission requirements. Fiscal year 1985 would be a particularly advantageous time to introduce this class into the Coast Guard, for from then through FY 1988, 28 ships will receive mid-life renovations at the rate of seven a year. The resulting loss of ship time will reduce the available cutter force by almost 20 percent. If these ships are decommissioned for renovation it will free as many as 745 men for reassignment, the equivalent of four FFG-7-class crews.

The proposed alternative has the advantage of improving both the Coast Guard and the national defense while dealing with the bureaucratic realities of the current administration. Routine Coast Guard operations will provide a measure of presence in the Caribbean. The credibility of the Coast Guard's military role will be enhanced. Other Coast Guard assets would also benefit from the increased exposure of Coast Guard personnel to modern combat systems.

Building FFGs for the Coast Guard will allow continuation of a highly successful shipbuilding program, providing a mature design with a high degree of commonality with the United States, Australian, and Spanish navies.

Finally, if Coast Guard requirements are reduced in the future the vessels can be returned to the Navy, fitting easily into the existing infrastructure.

So much for the Coast Guard, but in what ways will the Navy benefit from this arrangement? First off, modern ASW ships will be operating at sea without any competition for scarce regular Navy personnel. Second, ships whose characteristics are quite familiar to the Navy will be available immediately to fleet commanders. Third, these ships will be available at no annual operating costs to the Navy.

So both seagoing Services and the nation as a whole will benefit from this arrangement and the cost to all will be modest.

If we are ever going to get to 600 ships we are going to have to start counting Coast Guard cutters. And start building Coast Guard cutters that count.

Lieutenant Commander Hill is executive officer of the high endurance cutter *Duane* (WHEC 33).



Pomp, Circumstance, and Military Pageantry

“There is a great deal of significance to a change of command. The ceremony itself is steeped in tradition with a pomp and circumstance that can be traced back to the displays of military pageantry warriors have put on since the dawn of history. But the ceremony is more than pageantry. It is more than an excuse to bring out the flags, the band, and the best uniforms.

“There is an inherent meaning to these traditional occasions. Such a ceremony is a most significant occurrence in the life of a command, whether held on the fantail of a destroyer, the deck of a submarine, or the ramp outside an aircraft hangar. The change of command serves as the visible symbol of the orderly passing of the authority and responsibility of command from one officer to another.

“The traditional aspects of the ceremony emphasize to all those present, crew and guests, the special trust and confidence placed by the Navy in the principals in the ceremony, the incoming and outgoing commanders. The event also focuses attention upon the command itself, emphasizing the unique place each organization has in the overall structure of the Navy.”

—Excerpted from the remarks of Captain David L. Self, US Navy, upon being relieved as President of the Naval War College by Rear Admiral James E. Service, US Navy, 14 October 1982.