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The White Hull Navy

US Coast Guard's Deepwater Project Is A Modernization Effort Unlike Any Other

With an estimated \$15 billion in potential contracts up for grabs, it's no wonder US defense industries have rediscovered that "other seafaring Service."

Last August, when the US Coast Guard awarded what are essentially research contracts to three formidable industry teams, the Service and those teams embarked on a contracting journey into the unknown. In a first-of-its-kind competition—officially called the "Integrated Deepwater System" but commonly referred to simply as the Deepwater Project—Coast Guard officials invited defense manufacturers to plot the best course for modernizing or replacing the Service's fleets of cutters, patrol boats, fixed-wing aircraft, and helicopters, and to identify the communications and other electronics systems necessary to enable those vessels and aircraft to most effectively accomplish the Service's wide-ranging missions.

In the process of giving each team its sailing orders, Coast Guard officials emphasized that the total life-cycle cost—not the initial procurement cost—of the overall modernization recommendations would weigh heavily in determining which contracting team (or teams) will be invited to move into the competition's next phase.

According to the revised Deepwater competition schedule, released by Coast Guard officials in February, industry teams have until December to complete their conceptual designs, make their submissions, and move into the competition's functional design phase. Coast Guard officials will consider the recommended alternative approaches and, in May 2001, will release the Phase 2 request for proposals (RFP). Team(s) will then get time to refine the selected acquisition approaches, figure out the best way to accomplish them, and determine their total life-cycle cost. Those proposals will be submitted to the Coast Guard in July 2001; will be reviewed and further refined for six months; and, in January 2002, a winning team will be selected.

Both the concept and the structure of Deepwater are unique. In essence, Coast Guard officials are giving industry a relatively free hand in crafting the Service's long-range modernization blueprint. That's why the competition spans nearly four years from the issuance of the initial request for proposals to the final award. It's also the reason that the competing teams reflect such broad slices of the US defense industrial base. Coast Guard officials expect the winning bid to include not only recommendations for purchasing, modernizing, and equipping aircraft, cutters, and patrol boats, but also the C⁴ISR and logistics capabilities necessary to operate those assets as a coherent force.

IN DIRE STRAITS

The idea of inviting equipment and service providers to recommend not only what systems should be purchased but also giving them a relatively free hand in determining when major acquisitions should occur, turns the traditional customer/contractor relationship upside down. But, Coast Guard officials argue, they see the Deepwater arrangement as the most cost-effective and efficient way to get their Service through confined fiscal straits.

Decades of underfunding, coupled with substantial mission growth, have exacted a heavy toll from the Coast Guard's capital assets. For too long, Coast Guard officials simply tried to make do with an acquisition profile woefully out of touch with reality. For the past decade, the Service's annual acquisition account has hovered around the \$400 million mark. With some \$20-billion worth of aging ships and aircraft in its inventory, and an annual cash infusion amounting to just two percent of that equipment's value, the Coast Guard could do little more than forestall the inevitable.

By the time Deepwater contracting commences, the Coast Guard's major cutters will average 30 years old. Since it typically takes 10 years from the time of a procurement decision until a new type of vessel puts to sea, the United States Coast Guard is sailing toward the dubious distinction of operating the oldest naval fleet afloat. Today, Coast Guard

officials are quick to point out, their Service's high- and medium-endurance cutters are older than the average age of similar vessels in 38 of the world's 42 naval fleets.

It takes an inordinate amount of the Coast Guard's limited funds to keep its older vessels and aircraft afloat; simply locating replacement parts for older equipment presents its own challenges. Operating 30-year-old equipment is labor-intensive. Older vessels require crews roughly twice as large as their modern counterparts, which is why personnel costs account for roughly 66 percent of the overall life-cycle cost of a typical Coast Guard cutter.

High operating costs and comparably elevated personnel expenses are tangible reasons why the Coast Guard's Deepwater project deserves strong support. But another, no-less-compelling case for modernizing the Coast Guard can be made on the basis of mission performance.

The Coast Guard's ships, aircraft, and systems aboard those platforms lack many of the basic capabilities necessary for their crews to effectively perform their jobs. Whether involved in a search-and-rescue mission, a drug or alien interdiction operation, a peacetime military engagement, or most other types of routine action, Coast Guard crews are hamstrung by the outdated equipment they're required to press into service. As a result, the Coast Guard is the only US combative Service that would be compelled to "fight fair" against an adversary.

Antiquated power plants, deficient sensors and night-vision systems, inadequate communications gear (ships and aircraft are linked only by voice), and very limited information-gathering and -sharing equipment are among the most glaring shortcomings. Ships and aircraft often are unable to locate target vessels except under nearly ideal conditions. Even when target ships and aircraft are located, too often they enjoy a speed advantage over their Coast Guard pursuers.

LONG-RANGE PLAN

The Coast Guard Commandant, Admiral James Loy, is single-minded in his determination to even the odds between the pursuers and their quarry. Loy's boss, US Transportation Secretary Rodney Slater, shares Loy's determination to modernize the equipment used by the Coast Guard's 35,000 personnel.

The Deepwater Project "truly has a lot to do with the future of our organization," Loy told *AFJI*. "We have had a strange cycle over a 100 years or more of recapitalizing the deepwater capability. But at this particular juncture, as we look to the future, we see ourselves in fairly good shape with respect to coastal assets—the life boats, coastal patrol boats, the new sea-going buoy tenders and smaller buoy tenders coming off the [production] lines. All those contracts are in great shape—on time and under budget."

Similarly, Loy said, he is confident that the yet-to-be-designed utility boat replacements, like the shipbuilding programs now under way, will proceed smoothly. Although the Coast Guard is taking a longer-term approach to modernizing its deepwater fleet, the Service's coastal assets are being modernized with construction programs that include new self-bailing, self-righting 47-foot motor life boats from Textron Marine, a 225-foot seagoing buoy tender from Marinette Marine Corporation, and an 87-foot coastal patrol boat from Bollinger Shipyards.

REAL CHALLENGE

"Our true challenge is with our deepwater capability," Loy said. "We currently have 44 medium- and high-endurance cutters, and an array of aircraft—principally C-130s, HU-25 Falcons, and helicopters. The ships range in age from the 57-years-old cutter *Storis* and the 55-years-old *Yocona* to vessels built in the late 1970s. Those ships are still ploughing the waves of the Bering Sea and the Gulf of Alaska."

With Deepwater, Loy said, "we are seeking from the best industrial minds in the nation the very best ideas about how to produce the capability that our organization will need to conduct its business in the 2020 to 2025 timeframe. We've looked forward very carefully to define that future maritime environment as best we can—everything from the extrapolation of trend indices in the social, economic, military, and national security domains. The next order of business is to imagine what this nation will expect of its Coast Guard in that environment, and we think we've also got a good handle on that mission profile."

Even though most of that work has been completed, Loy said, "It's being validated by a variety of sources to keep it current." Remaining challenges include determining the individual competencies and skills the Coast Guard will need in

its future force and developing and fielding the equipment necessary to accomplish anticipated tasks. Not insignificantly, he added, there's strong support for Deepwater both in the Clinton Administration and on Capitol Hill.

Further, he said, "the CinCs and US ambassadors throughout the world understand what we can bring to the table... They understand that there is great value in having a Coast Guard dimension to what they are offering to the countries in their areas of operation."

LONG-RANGE VISION

All of those forward-looking activities come together in "Coast Guard 2020," the Service's long-range planning document. "That's our first real 'vision' document," Loy said. "As far as importance is concerned, to the degree the nation expects the Coast Guard to perform an array of missions in that future environment, half or more, I suspect, of the wherewithal to do those future missions [will be found in] the Deepwater Project."

A Roles and Missions review is now under way, Loy said. The participants "are doing their very best to either revalidate or adjust the mission requirement set that's currently in the [Deepwater] RFP that's on the street. We have designed the contracts such that, at the right time—somewhere between September and December—the Roles and Missions review will be accomplished and we'll be able to ladle its findings into the concept exploration phase and then the functional design phase that the competing consortia will go through."

In the process of supporting a presidential line-item budget for Deepwater this year, Coast Guard procurement officers took the unusual step of inviting officials in the Office of Federal Procurement Policy to review the Service's long-range procurement program. "They were overwhelmingly supportive" of the Service's Deepwater contracting plan, Loy said. "They thought it was the very best design work for a contract of this kind that they had seen anywhere in government. It's literally a 'best-practice' design. Of course, those persons weren't able to make judgements about the mission requirements, but the contracting acquisition procedures were validated as a first-class effort."

The Government Accounting Office (GAO) also reviewed the Deepwater contracting program, particularly the Coast Guard's plan for its legacy asset inventory. "The GAO challenged a number of things along the way, including whether we were reacting a bit early to our recapitalization requirement," Loy said. "After we had done a lot of work with them, as reflected during their testimony at my [February] authorization hearing, they're now very supportive. They understand that we've given the industry consortia all the information [needed to determine how best to handle] our legacy assets."

"For example, if the extended life of the 270-foot, medium-endurance cutter—the youngster of the fleet, so to speak—is an appropriate consideration for industry to work into their proposals, they can do that. Our idea was never to get a ship-for-ship or plane-for-plane replacement." Rather, Loy said, the idea was to let the industry teams give the Coast Guard their assessments of how best to accomplish projected missions in the environment anticipated for the future.

That might call for increased reliance on satellites and other high-flying observation platforms, rather than a large number of ships, and it undoubtedly will include sophisticated C⁴ISR assets in place of the outdated systems used today.

"Clearly, it will include technological innovations that will tend to displace people requirements on board some platforms in the interest of reducing expenses down the road," Loy said. "Our aim was simply to define our requirements and let the best minds in American industry tell us the best ways to go about accomplishing them—and to do that in such a way that we can select what we feel is the best approach from among those suggested by the competing consortia."

ROOM FOR ALLIES?

Asked about the obvious dearth of overseas representation among the competing consortia, Loy relied: "One of the things that I think is enormously important for our country is to provide some American-built competition [against vessels manufactured abroad]. Take patrol boats, for example. I think Bollinger is probably building the very best patrol boats in the world today and, at present, we happen to be the recipient of that expertise. They built our 110-foot patrol boats and are now building the 87-foot patrol boats. Bollinger is part of the Avondale consortium at the moment, and their expertise [will be reflected] in the Avondale package."

“But even at the corvette or small destroyer level, at the moment there’s nobody in the rest of the world buying US-built destroyers. If there is a possibility for a foreign military sales [FMS] dimension to this project, it’s something that we should take quite seriously for the benefit of the nation’s shipbuilding industry. When we worked very carefully with the Navy, up front, about the platforms that would likely be part of [the Deepwater Project], FMS was one of the considerations that was very carefully articulated to us.”

Discussions with the Navy also brought home the importance of Coast Guard-Navy interoperability, Loy said. “Admiral Jay Johnson [the US Navy’s Chief of Naval Operations] and I have signed a document that we call ‘The National Fleet Concept.’ As you look at the degradation curves of the Navy’s inventory as it goes out over time, what Admiral Johnson is going to hold on to is the high order of the fleet—Aegis ships and above, if you will,” Loy said. Those are the vessels the Navy will need for its power-projection and land-attack-support force of the future, as outlined in the Service’s “From the Sea” document. That emphasis will leave holes in the US’ capabilities to respond to a wide range of lower-level threats, particularly those that spring up in littoral regions.

“The ability to handle situations calling for a ‘corvette-and-below’ response is what Admiral Johnson wants me to build into the Replacement Maritime Security Cutter, because he and I both know that there will be very real needs for them in the future.” And that’s why the capabilities that will be needed to complement the Navy’s “high-end” combat vessels are included in the Deepwater specifications, Loy said.

“The potential to breed, literally, a complementary [Navy-Coast Guard] national fleet—without redundancy, without overlap—is exactly where we want that national fleet thought process to go,” Loy said. “Now, if Admiral Johnson is building a cruiser and I’m building a corvette, there’s no reason that many of the systems on board those vessels can’t be very much the same systems. As a result, if we can draw down unit prices for everything from commodes to engine parts and surface-search radars, we should be doing that for the American taxpayer. And we can then go to the Hill and represent our needs as being complementary.”

Having spent a great deal of time attempting to divine what the future holds for both Services’ seafaring warriors, Admiral Loy said he harbors “absolutely no doubt” that the Coast Guard is sailing toward a wide range of “growth mission areas. We’re finding that we’re almost at a crossroad where the ideas of military discipline and accomplishing difficult missions at sea cross the responsibility we have as the only US maritime organization with the law-enforcement authority that will be required to carry out the nation’s business at sea over the next 50 years.

“The Coast Guard is where those things come together, especially as they relate to the littorals and to responsibilities throughout the exclusive economic zone of the United States: Issues in very deep, blue-sea waters that are all about oil, fish, migrants, drugs—all kinds of issues that affect national security, in one way or another.”

For the past 209 years, Admiral Loy concluded, wherever there has been a maritime dimension to a threat against the US, the United States Coast Guard has been the Service best suited by statute and by its military and law-enforcement authority to accomplish some of the most demanding of those missions. Through the Deepwater recapitalization program, future coastguardsmen will finally get the ships and planes they need to effectively carry out their unique responsibilities.