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Cracking Macc

More vendors than ever are seeking military contracts.

By Kathy Bergren Smith, Correspondent

Everyone wants to sell boats and equipment to the government.

OK, maybe not everyone. But judging from the record number of would-be suppliers who showed up at the annual Multi-Agency Craft Conference (MACC) held in Little Creek, Va., in June, the military and other government buyers have much more equipment to choose from.

This year, in the midst of a meltdown in the recreational market, vendors included refugees from both the boatbuilding and equipment sides hoping to diversify into the government market. They joined those who have long since learned the ins and outs of the military/government market. All were told their products are in demand.

This year's keynote speaker, Capt. Charles Wolf, who is in charge of Naval Special Warfare Group 4 which operates small craft worldwide, put out a challenge to the assembled builders and designers: "There are great opportunities worldwide for combatant craft. We need new boats with new systems both manned and unmanned to perform our missions."

Wolf added that the Navy is partnering with nations across the globe for special operations, and his group is "setting up schoolhouses" to provide training to foreign forces. He stressed that the high-performance fleet he is looking to send out in the next three to five years must be cohesive and reliable. "You just can't yank an engine in Africa," he said.

Wolf's remarks were echoed by others, including Jim McMains from the Office of Naval Research Combating Terrorism Department. He spoke about the importance of high-speed, stealthy craft in irregular warfare. Integrating systems and seeking "near perfect situational awareness" will bring to an end what McMains called the "adaptation dance" between conventional forces and enemy insurgents who can quickly change tactics.

Special operations, irregular warfare, anti-piracy operations, drug interdiction, border patrol and emergency response all have one thing in common: a need for speed. At MACC, that message was loud and clear. Boatbuilders are supplying boats that go faster than ever and have longer-range capabilities.

For example, SeaArk Marine, Monticello, Ark., demonstrated its updated Commander and RAM Commander Series trailerable patrol boats. The deep-V boats have been lengthened to 25', 27' and 29' with added fuel capacity. These multimission boats have been popular with the Coast Guard, law enforcement and harbor patrols.

President John McClendon said that SeaArk has refined the boats in response to the needs of these operators.

"The features that they asked for like increased helm visibility, we gave them with the raked cabin. They want more room, which we achieved by putting the 7.5-kw gensets below decks



and, of course, high speeds, over 50 miles per hour and more like 60 for most configurations.”

SLAM DUNK

As standard operating speeds reach 70 mph for these boats, shock mitigation and ride control have taken a front seat. Numerous presentations at MACC looked at how to reduce the impact of slamming through the water.

Engineer Scott Gowing presented some ideas being developed by him and his colleagues at the Carderock Division of the Naval Surface Warfare Center in Bethesda, Md. Noting that combatant craft occupants are routinely subjected to g-forces of 7-10 when underway, they concluded that reducing wave impact on the hull would reduce the impacts. They proposed that the addition of porous panels backed by bladders could reduce impact while not increasing drag. Gowing shared the results of several tests that yielded promise for the future development of a “porous hull.”

On a far less theoretical front, highly engineered seating aimed at reducing injuries associated with riding in high-speed craft in rough waters was prevalent at MACC. Ullman Dynamics’ “jockey-style” seats were installed on many of the boats at MACC.

The Brunswick Impact RIB, a high-speed inflatable, was outfitted with Ullman seats. On a test drive through 3’ seas, Ullman’s “reflex-based muscular projection system” was a point well taken. The seats are straddled, like a motorcycle, and the passenger is able to absorb shocks through a spring and damper system that should never bottom out, even after the boat is airborne.

Shoxs Ride Stabilization, a Canadian company, debuted a new seat at MACC. “Impact reduction and shock mitigation are probably the biggest growth sectors in the government boat market,” said Marc Pettigrew, director of operations for Coast Dynamics Group LLC, manufacturer of Shoxs seats.

Shoxs seats are standard equipment on what was perhaps the fastest boat at MACC, the 38’ Apostle from Safe Boats International. The Port Orchard, Wash.-based boatbuilder created this class based on its Forced Air Stepped Technology (FAST) hull form that pushes air along the hull into chine vents, resulting in a stable turning boat even at high speed. Powered by four 350-hp Mercury outboards, the high-speed interceptor is capable of exceeding 70 mph. The Apostle is an open T-top design with 270° visibility from the helm. The boat comes standard with four weapons mounts and small arms weapons protection in the collar.

Integrated bridge technologies and the demand for more electronics capabilities were among the oft-cited challenges issued to the builders from the military. Capt. Wolf, with a Navy SEAL’s bluntness, said, “I don’t want anything else sticking off the top of the boat.” He wants controllable antennas and more “low observable attributes.”

Lockheed Martin’s COBRA, a manned or unmanned prototype vessel, features an integrated system that might satisfy Capt. Wolf. Manufactured by Moog Inc., East Aurora, N.Y., the system includes a remote acoustic hailing device (RAHD), thermal imaging, daylight camera and a listening mode. RAHD is becoming a standard item on small combat and patrol vessels. Pioneered by San Diego-based American Technology Corp., which makes the LRAD (long range acoustic device), the device is essentially a loud-hailer with capabilities of being loud enough to immobilize an approaching vessel’s crew.

Ultra Electronics Hyperspike, Columbia City, Ind., makes a small RAHD with an iPod input. The company’s A.J. Ballard said the RAHD has the potential to save lives.

“In the old days, if your vessel was being threatened, the initial response was a shot across the bow,” said Ballard. “Today, we are dealing in many different cultural settings and with an iPod programmed with warnings in as many languages as you want, we can communicate with a fisherman who may have been thought to be a pirate.”

RECREATIONAL REFUGEES

Some players from the battered recreational market are looking at the government craft sector. Grady White, Everglades and Edgewater Power Boats all brought boats to MACC. Edgewater,

of Edgewater, Fla., has worked its way into the market by selling small coastal patrol and training boats. Peter Trulow, president of Edgewater, said government boats will likely account for a third of its sales this year.

Trulow has some advice for his recreational competitors who want to get into the government market: “It is critical to have someone on staff who can navigate through this universe,” he said of government requirements. “It is a completely different game from the recreational market.”

It’s also a completely different game from the commercial market. Just ask Peter Duclos of Gladding-Hearn Shipbuilding. His Somerset, Mass., yard just completed the first of a series of 64’ patrol boats for the Navy. He said the military culture requires a learning curve.

“You really need to be aware of the needs of the military and how you can provide the solutions they need,” said Duclos.

SIDEBAR

Lockheed demos hybrid-hull prototype

Amid all the RIBs and go-fast boats outfitted with multiple outboards, one vessel particularly stood out at MACC — the Lockheed Martin COBRA.

It’s a “semi-SWATH” prototype that is aimed at becoming the “maritime pickup truck of the green/brownwater fleet,” according to Robby Harris, director of advanced concepts at Lockheed Martin.

The COBRA’s hull is a combination of a SWATH (Small Waterplane Area Twin Hull) and a catamaran. The forward third of the hull is the SWATH design. It rides below the waterline and helps keep the vessel from slamming. The aft two-thirds is a catamaran that gives the vessel speed.

“We have utilized the advantages of both designs to produce a fast ride with good seakeeping,” said Harris.

Measuring 38’6” x 11’6” x 2’6”, the COBRA is designed to be either an unmanned surface vessel for the Navy’s new Littoral Combat Ship (LCS) or it can be crewed by three. Powered by twin 820-hp Seatek diesels and North American waterjets, the boat cruises at 25 knots.

The vessel is quickly reconfigurable to change missions. “Give me a forklift or a crane, and in an hour, she can go from a troop transporter to an anti-submarine warfare vessel,” said Harris.

The aluminum prototype was built at Armstrong Marine in Port Angeles, Wash.

— K.B. Smith

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