

Marine News

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COMMITTED TO CRITICAL CREW COMMS

The last thing that military workboat operators want to worry about is reliable communications. With David Clark Company, they won't have to.

Edited by Joseph Keefe

Knifing through the waters of the Chesapeake Bay, not far from the Zodiac Milpro factory in Maryland, the company's new ZH-1300 MACH II OB Interceptor demo boat shows the nimble maneuverability normally associated with smaller craft. Among the crew members on board is Jeanne Metayer, Technical Project Manager for Zodiac Hurricane Technologies. Metayer recently transferred from the Zodiac office in Singapore to Vancouver, BC, in order to work on the development of the new ZH-1300 Interceptor.

"The 13-meter ZH-1300 is the newest and largest boat of our Zodiac Hurricane range. It addresses the

needs of end users in the military patrol boat market for bigger platforms, speed, handling and stability," said Metayer. All of those intended missions are greatly enhanced by employing reliable, robust and versatile communications equipment. And, that's where David Clark comes in.

To stay out in front of the ever-increasing demands of the patrol boat market segment, Zodiac Milpro has partnered with several leading companies in equipping the ZH-1300 OB. These companies include Simrad for the navigation suite, Seakeeper for gyro stabilization to eliminate boat roll, SHOCKWAVE shock-mitigating seating, Current Corp for the

■ Alex Burton of Zodiac Milpro pilots the ZH-1300 OB demo boat on the Chesapeake wearing a David Clark digital communication headset.



latest in day/night vision camera systems technology and, of course, the David Clark Company for its digital communication system.

Crew-to-Crew Communication

"Special forces, commandos, coast guard, law enforcement – what's common to all of them are that communication is critical to their missions. Communication is not something they should have to

worry about, so having a reliable system such as the David Clark digital intercom system is very important to them," said Metayer. The decision to partner with David Clark Company was an easy one, as the two companies began doing business together shortly after David Clark helped pioneer the marine intercom communication system category over 15 years ago.

As the workboat market has evolved, both Zodiac Hurricane

Technologies and David Clark Company have managed to stay ahead of the curve. "Zodiac was among the first to adopt our Series 9500 wired headset communication system many years ago. We have learned a great deal from them about the RHIB/HSC market. Much of that knowledge and insight went into the development of the Series 9900 wireless and the Series 9100 digital intercom systems," said Bob Daigle, Marine Systems Product Manager from David Clark Company.

In this case, the ZH-1300 OB Interceptor is designed for mission-critical operations including marine counter-terrorism (interception, boarding, and Special Forces insertion), border security, law enforcement and fire support. Based on proven 9- and 11-meter MACH II hull models, the larger size allows for higher payloads and more deck space to meet the needs of military and professional users, while also providing better seakeeping and higher speed capability in rough water conditions.

The vessel is propelled by four 350 HP Mercury engines. "The ZH-1300 OB has a maximum speed of 55+ knots in full load conditions. And with a 1,893 liter (approx. 500 gallon) fuel capacity, she can traverse 350 nautical miles at 35 knots," said Metayer. With those kinds of capabilities and speeds, the last thing crewmembers want to fiddle with is a balky comms system. With David Clark, they won't have to.

■ Jeanne Metayer, Technical Project Manager, Zodiac Hurricane 13-meter product line.

Mission-Ready Design & Technology

The ZH-1300 OB features the patented MACH II (Military Air Channeled Hull II), a hallmark of Zodiac design. Doug Hemphill, Technical Director at Zodiac Hurricane Technologies, explains, “The MACH II hull is more efficient than a standard Deep V hull and more dynamically stable compared to stepped hulls. This combination allows for higher speed, better fuel economy and excellent maneuverability.” As with all Zodiac Milpro craft, the ZH-1300 also incorporates a patented Durarib collar design combining foam and air technology to provide robust strength and impact resistance.

The critical importance of clear communication in the patrol boat sector cannot be underestimated. The communication challenges at 55+ knots in high winds and rough water conditions are daunting. “The digital communication system is a game changer,” said Metayer. “It is very valuable on high speed boats like ours. The system discerns between noise and speech to enhance clarity. This makes communication very effective as opposed to standard ‘hot-mic’ intercom and makes for a very quiet ride, even at speeds in excess of 50 knots.”

Ease of communication is further enhanced with an integrated momentary push-to-talk (PTT) switch, intuitively located on the headset microphone bracket. The conveniently located PTT provides simultaneous mic/flex boom adjustment and transmission – saving critical seconds in stressful situations. Voice transmissions are also improved by the advanced, M2-H electret microphone for optimal noise cancellation and speech clarity.

Wired and Wireless Communication Flexibility

One of the primary benefits of the David Clark Digital Intercom System is the flexibility to integrate both wired and wireless communication capability. Wireless flexibility is critical for RHIB/HSC patrol boat crews as it allows crew members to move around the vessel untethered to the headset stations, and to disembark if necessary to board another vessel while maintaining constant communication with crew members.

The ZH-1300 OB is fitted with a dual console which features a pilot and navigator in the forward

positions, and communication and team commander positions at the aft console, all with drop-down, shock-mitigation seating. Additionally, the craft features seven shock-mitigating jockey seats – one in the far forward position and three duo seats in the rear aft. All headset stations are compatible with wired and/or wireless capability, providing maximum versatility for mission-specific configuration requirements.

Digital System Installation and Configuration

Boat builders require ease of installation and setup, especially those serving the military and government sectors such as Zodiac Milpro. Because the system operates on Power-over Ethernet (PoE), all cabling, with the exception of the radio interfacing, is Cat5E. This common communications cabling contributes to ease of installation. “A real concern among military and first responder end users is system configuration complexity,” said Daigle. “We’ve designed the Series 9100 Digital system for ease of use and configuration to meet the needs of diverse mission protocols.” Because the system uses a web browser type graphic interface for programming, it can be configured by any technician with a laptop and Ethernet cord. “The installation and integration of the Series 9100 intercom system on the ZH-1300 OB was easy and smooth, facilitated by comprehensive and clear installation manuals,” said Hemphill.

Ongoing Support

Zodiac Milpro and David Clark Company each have over 20 years’ experience in serving the RHIB/HSC military and law enforcement markets. They also share a common commitment to product service and support for their respective customers. “David Clark has proven to be very responsive to customer and special requirements, including military radio interface and system installation assistance. Their worldwide support is also an important factor in military/professional applications,” said Hemphill. He adds, “Ultimately, the most important characteristic is the performance of the equipment. There have been no problems and the feedback from customers has been positive with regards to quality of communication and simplicity of use.”