



Wireless MILES on watercraft: Laser engagement training at sea

Tanks, armored personnel carriers and Humvees are the normal vehicles used in laser-based MILES combat training, but Cubic Defense Applications, Inc. has been thinking outside the box and into the briny lately. Cubic's defense systems business made a big splash recently when it tested a wireless laser engagement system on watercraft. This precedent-setting demonstration, which took place during an actual law enforcement training exercise, opens the hatch for using the wireless MILES Individual Weapon Systems (W-IWS) for maritime security training at sea.

During the exercise, held November 18-19 last year, Florida Fish and Wildlife Conservation Commission (FWC) officers raced through Port Canaveral in hot pursuit of a power boat driven by a suspect who had shot and critically wounded a federal law enforcement officer. On board the suspect's vessel were two unarmed passengers. The FWC officers were ordered to intercept the target vessel and engage the driver. The presence of the non-hostile civilians made it essential for the officers to shoot with precision.

As the pursuit vessel reached a speed of 25 knots, with white foam arcing from the bow, and the wind whipping the Stars and Stripes straight back, each officer had to point a AR-15 rifle toward the target vessel and neutralize both the bad guy and both of his vessel's engines while maintaining balance on the boat's deck. As each shooter hit the engines, the Cubic System Display Module aboard the vessel emitted a loud shriek that told the trainees the outcome of their engagement.

Brooks Davis, marketing manager for the Cubic Simulation Systems Division in Orlando, explained that the FWC Division of Law Enforcement was looking for a way to conduct firearms training with verifiable results for its more than 700 officers. In addition to preventing wildlife poaching and other duties, FWC has a port security and homeland defense role, so this training is vital. Port Canaveral was an ideal site for the exercise because it is an important port for the central coastal Florida and home to

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At top right, Steve Gamache and Fred Hedtke from Cubic Defense Applications in San Diego install wireless MILES laser engagement technology aboard the "target vessel." Above, a Florida Fish & Wildlife Conservation Commission law enforcement awaits his turn for firearms training. Above, the chase.



Officers gather on the dock in preparation for MILES training in Port Canaveral.

a new cruise ship terminal. Wildlife officers from several regions throughout coastal Florida took part in the event.

While FWC has a land-based training range, opportunities for firearms training on water are limited due to safety concerns. Officers have not been able to fire weapons on a moving boat during training.

“We’re developing our capabilities in this arena so we can properly partner with the U.S. Coast Guard and U.S. Customs and Border Protection,” said Capt. Brad Williams, chief of mutual aid operations for FWC. “I have to say that, to sum it up, we as an agency are struggling with a method to do firearms training on the water safely and efficiently. The opportunities that your company brings to the table may be the solution, not just for pursuit training but firearms training in general.”

Cubic’s MILES IWS system consists of a laser small arms transmitter and laser detectors worn on the helmet and torso. Before the training commenced, Steve Gamache, business development manager for Cubic Defense Applications, Inc. in San Diego, outfitted the officers being trained for tactical shooting skills with a MILES small arms transmitter, and provided the bad guy and unarmed civilians aboard the target boat with MILES harnesses and halos to detect laser “bullets.”

Gamache and Fred Hedtke, a principal software engineer from San Diego, also installed wireless MILES laser detectors on the dual engines of the 28-foot target vessel. Davis portrayed the bad guy driving the target vessel.

Each shooter went through the pursuit and engagement drill twice – once at close range and once at a distance.

“The shooters were to engage the driver without hitting the two others,” Gamache said. “They had to do this in five shots. Then they turned their attention to outboard motors where they also had to disable the outboard motors in five shots.”

MILES IWS passed the test with flying colors. The laser detectors mounted to the target vessel’s engines worked even when wet.

“MILES IWS had 100 percent functionality, and so did the wireless MILES detectors mounted to the engines,” Gamache said.

Florida officials are now evaluating whether to use the system for security training in other state ports.

“The officers involved in the training said universally it was the best training they ever had,” Gamache said. “It was the first time they were able to do this type of pursuit scenario because our MILES systems enabled it. The FWC instructors were pleased with the ease of use and the accurate assessments the systems gave them.”

In addition to MILES instrumentation, the event allowed Cubic to show off its new Safety & Security Management System. Each of the seven vessels participating in the training were tracked for position location using the new system as the officers rotated through five different stations where different skills were taught. Cubic’s reliable, networked Security Management System cost-effectively tracks and manages assets – including people, vehicles and supplies – using the Google Earth™ mapping service, RF technologies and Cubic technologies developed for the world’s most advanced Combat Training Centers and systems.