

MTV

New Modular Tactical Vest improves Marines' combat effectiveness

Dedra Jones, Corporate Communications, USMC, June 2009

Rather than waiting for the next generation of body armor in the years to come, the Marine Corps listened to its warfighters and provided them a solution. That solution is the Modular Tactical Vest (MTV). Providing enhancements to the existing vest, the MTV will instill greater comfort and confidence in Marines' warfighting capability.

The Marine Corps contracted with Protective Products International for 60,000 MTVs, and fielded the first batch of MTVs in February to stateside Consolidated Issue Facilities. This 11-month fielding process will sustain two rotations supporting Operation Enduring Freedom and Operation Iraq Freedom (OEF/OIF). The fielding of MTVs is being complemented with a comprehensive training program conducted at each Marine Expeditionary Force.

The MTV, a load bearing vest, wears more comfortably than the existing Outer Tactical Vest (OTV). The MTV optimizes the same OTV ballistic protection and enables the Marine to easily configure components of their combat load to best meet specific mission requirements. Responding to an Urgent Universal Need Statement, submitted in 2006, Marine Corps Systems Command (MCSC) developed the MTV.

"In today's combat environment, gear requirements change quickly impacting the individual Marine's ability to successfully execute their missions," said 1st Lt. Mauro Mujica, weapons platoon commander for Lima Company, 3rd Battalion, 7th Marines. "Our mission requires us to be alert, quick on our feet and decisive. Enhancements to the current vest were needed to help us become more combat effective. I'm pleased that the Corps identified the issue with the current vest and promptly moved forward to give deployed Marines a vest that's more suitable for the situation abroad."

The OTV was not designed to carry equipment and other mission critical items during combat missions. The MTV revolutionizes body armor into a load bearing vest to better carry assault loads such as magazines, water and grenades. The Marine Corps is providing Marines with state-of-the-art technology with the combination of ceramic hard armor plates and soft armor ballistic panels. The MTV leverages the existing Enhanced Small Arms Protective Insert (E-SAPI) plates and soft armor ballistic panels.

"The MTV takes the current individual body armor design and includes additional comfort and weight distribution to a vest that cannot get much lighter until additional research from industry's Science and Technology

experts can invent lighter ballistic materials,” said Capt. John Gutierrez, MCSC’s project officer for infantry combat equipment. “The Marine Corps did not want to wait the three-five years it will take for this new technology. We decided to create the MTV knowing that its increased capabilities will make the warfighter happier, more comfortable and thus more combat effective.”

Although the MTV and OTV are approximately the same weight, the MTV will feel lighter because of improved load distribution. Increased capability, improved integration and design modifications are the three major enhancement areas contributing to the slight weight difference. Advancing a Marine’s combat effectiveness and safety is the MTV’s quick release system. This system is a single pull cord that instantly disassembles the vest □ typically used during escape situations when someone is trapped in a vehicle rollover or weighed down in deep water.

“Getting Marines out of the vest is mission critical,” said Petty Officer Third Class Chad Jorge, who served in combat as a hospital corpsman for 1st Battalion, 9th Marines. “In today’s combat environment, most Marine injuries occur from snipers and improvised explosive devices (IEDs). When you are hit by one, every second counts.” Jorge knows what he is talking about. He has been deployed twice during OEF and OIF efforts, serving in Afghanistan in 2004 and Iraq in 2005.

“IEDs are constant threats in OEF/OIF,” said Jorge. “What you see on television pales in comparison to the actual moment when your vehicle hits an IED and rolls over. A lot of people are shaken up, disoriented or injured. The quick release system allows the wearer to rapidly get out of the vest to increase mobility.”

Along with added protection, mobility is an important safety factor, not only for the MTV, but for any future generation of body armor. The Marine Corps is jointly working with other services, industry and various government labs to push technology to the next stage.

“As technology continues to leapfrog, so will improvements to body armor,” said Gutierrez. “The next generation of body armor will offer significant advancements to existing solutions.”

The Marine Corps wants a more flexible armor solution, getting away from the hard ceramic plate. The desired next generation solution includes a 30 to 50 percent reduction in weight and while covering more of the torso area.

“Technology will always continue to advance, as will the Marine Corps’ ongoing efforts to provide increased protection and comfort to help the Marine become more combat effective,” said Gutierrez. “The Marine Corps is committed to provide the best available protective equipment to the warfighter in combat. Today, part of that equipment is the MTV.”

Putting the MTV to the test... Marines talked, the Corps listened

“Ensuring the safety of Marines during operational efforts is our top priority,” stated Col. Ed Smith, MCSC’s product director for combat equipment and support systems. “We will always do whatever we can to rapidly get the right equipment to our Marines. We listen to their experience as they translate requirements to us, and then we ensure they are given the best options available.”

Involving more than 100 Marines, MCSC conducted a rigorous three-week field evaluation of the Modular Tactical Vest (MTV) at Camp Lejeune.

“Having been deployed for eight months to conduct combat operations in Afghanistan, I can honestly say the Marine Corps really put the evaluators and the MTVs to the test during those three weeks,” stated Gunnery Sgt. Charles Baker, anti-armor platoon commander for weapons company, 1st Battalion, 9th Marines. “I am happy to see that the Marine Corps took the time to get input from those who have been on the battlefield and know what the warfighter needs to be more effective in combat.”

The field evaluations included realistic environmental and situational scenarios. Test events included a forced march, movement to contact, rifle range, emergency exit drills and military operations on urbanized terrain facility maneuvers. Additional testing was conducted at other government laboratories. Overall design, fit, comfort, ease of assembly and the quick release design were key characteristics favored by 89 percent of the Marines.



The load bearing Modular Tactical Vest optimizes the same Outer Tactical Vest (OTV) ballistic protection, wears more comfortably than the OTV, and enables Marines to easily configure components of their combat load to best meet specific mission requirements. *(Photo by Dedra Jones)*

Modular Tactical Vest - Prototype Only





Sgt. Alexander Wesley , an instructor at The Basic School on Marine Corps Base Quantico, exhibits the full combat load including a prototype of the Modular Tactical Vest, at the dedication of the National Museum of the Marine Corps in November 2006. *(Photo by Bill Johnson-Miles)*



While wearing the new Modular Tactical Vest, Cpl. Michael Ericson, an assault team leader with 3rd Marine Regiment, and other Marines run an obstacle course as part of a field test conducted by Marine Corps Systems Command at Marine Corps Base Hawaii, Kaneohe Bay, in December 2006. *(Photo by Lance Cpl. R. Drew Hendricks)*