Training Notes

Training Optimizes SLM Effectiveness

GARY L. BARBER

Editor's Note: *This article was first published in the March 2008 issue of* Army AL&T Online.

Over the last several decades, a suite of shoulder-launched munitions (SLMs) has been fielded to provide Soldiers with the capability to defeat light armored vehicles, bunkers, and other field fortifications. Recent reports from the field, however, indicated that the performance and purposes of these munitions were not well understood, and often surprised and impressed Soldiers when they were implemented.

After investigating these reports via the Center for Army Lessons Learned, post-combat surveys and interviews with Soldiers, the Project Manager Close Combat Systems (PM CCS) — life-cycle manager of U.S. Army SLMs — learned that most Soldiers had minimal training in using these munitions, and that misapplication was a major factor in their mixed reactions. Other Soldiers were not even aware that some of the newer firepower existed, which led to numerous operational needs statements, all calling for redundant capabilities. Clearly, there was a need to get the word out to the field and address Soldiers' concerns.

Range of SLMs Available

For many years, the M136 AT4 Light Anti-armor Weapon has been the primary lightweight anti-armor weapon for close combat operations for the U.S. military. Its High-Explosive Anti-Tank (HEAT) warhead is capable of penetrating armored combat vehicles with devastating effects. An improved version, the AT4-Confined Space (CS), was fielded in limited quantities to provide the same HEAT warhead capability and to allow Soldiers to safely engage targets from enclosed spaces.

The M141 Bunker Defeat Munition (BDM) was fielded in the late 1990s to defeat light infantry threats protected by masonry walls (concrete and brick) and field fortifications (caves and earth/timber bunkers). It employs the same High-Explosive Dual-Purpose rocket as the U.S. Marine Corps' Shoulder-launched Multipurpose Assault Weapon and is capable of destroying a wide variety of urban targets. Originally intended to be used as a contingency item, the BDM proved to be an excellent choice to provide an antistructure capability for light infantry forces in current conflicts in Iraq and Afghanistan.

Finally, the M72 Light Attack Weapon (LAW), ideal for conditions where Soldier mobility is paramount, was no longer being issued to regular Army units. The M72 LAW also uses a HEAT warhead to defeat lightly armored targets. Further advances to the M72 LAW had been developed and fielded to other services but were not available for the Army.

A Soldier reviews the procedures for firing an AT4 with members of his company during a practice target shooting exercise at Saber Range in Iraq.

SSG Dallas Edwards, USAF

Photo courtesy of Mark Trexler, Talley Defense Systems

Under a trainer's supervision, Soldiers at Fort Campbell, Ky., prepare to fire live rounds on armored vehicle targets with the M141 BDM. Soldiers must first complete training and qualification on the M136 AT4 before they can train with the BDM and other SLMs.

Training Enhancements to Provide Increased Effectiveness

With the approval of the Army SLM Strategy in 2005, the Vice Chief of Staff tasked PM CCS with the formulation of an SLM new equipment training (NET) team to educate deployed units on the capability and availability of existing SLMs. PM CCS and the U.S. Army Infantry Center (USAIC) began to examine SLM training enhancements that will help educate units on the capability and availability of existing SLMs, emphasize the importance of safe handling and operations, and assist in establishing a basis for a long-term training approach to support future SLM capabilities. In addition, the Army was asked to examine ways to reduce the number of full-up tactical munitions used for training purposes. To achieve these objectives, PM CCS pursued a multifaceted approach and established a NET team, which was made up of representatives from PM CCS; USAIC; the U.S. Army Armament Research, Development and Engineering Center; and the contractor, to ensure that Soldiers have the latest instruction and training on SLMs before going into combat. The SLM NET team began efforts to communicate with deploying units and establish priorities for training.

Rapid Acquisition Process Is Launched

To quickly acquire the critical training support and resources needed to establish a successful training program, PM CCS requested that an urgent contractual action be approved to immediately streamline the acquisition process.

"As a result of that urgent contractual action, we were able to quickly pull together a NET team, including trainer certification, as well as the training support materials. It really expedited the contracting process, allowing us to get this training to the Soldiers quickly," noted Santo Lombardo, chief of the PM CCS Pyrotechnics and SLM Division.

Once the NET contract was awarded, the team rapidly completed instructor certifications, acquired necessary training aids from the contractor and updated the training support packages. Within two months after contract award, the NET team was on the ground training their first unit — Soldiers from 4th Brigade Combat Team (Airborne), 25th Infantry Division, Fort Richardson, Alaska.

Since that first training session, the SLM NET team has conducted many more events at locations including Fort Campbell; Fort Lewis, Wash.; and Fort Polk, La. Classes have expanded to host as many as 75 Soldiers, and more than 12 training events at 10 different locations have been completed, both CONUS and OCONUS. Seventeen brigade combat teams with more than 1,095 Soldiers have also been trained.

"We conduct surveys after each NET event," said Lombardo. "Soldiers have provided great feedback, which we have used to further refine both our training approach and our training strategy for the future. It's great to see the process working."

The Army's Best Kept Secret

From the initial training feedback, it was clear that many Soldiers were not aware that the M141 BDM even existed. There were numerous instances, videos and reports of the M136 AT4 being used to engage insurgents protected by walls or other similar structures. There were also reports of Soldiers employing the M141 BDM minutes after reading the operator's manual.

"The AT4, which is primarily designed for armor, was being used against structured targets," stated COL Ray Nulk, PM CCS. "The BDM had a similar situation. It's meant for structured targets, but was being used against armor. So, the feedback we received was that these systems were not effective. Soldiers should get the proper instruction to help them determine the right tool for the right job."

"People just weren't aware that the technology exists in the Army inventory that can take out urban, field-expedient-type targets," said Lombardo. "From an urgent release of the AT4-CS, a modified version of the M136 AT4, we learned that Soldiers liked the fact that they don't have to expose themselves to enemy counterattack when they fire it from the safety of an enclosure. We think we're addressing a lot of the users' concerns by fielding these two systems to support today's combat operations."

Training the Trainer

Current SLM training consists of a block of instruction for M136 AT4 training and AT4 qualification with a 9mm subcaliber training launcher. Successful qualification with the AT4 would also qualify the Soldier for BDM and other SLMs. Collaborating with the Picatinny Arsenal Munitions NET team and Talley Defense Systems (contractor for the BDM), the SLM NET team introduced a training program that would provide theater-bound units with comprehensive information and experience they could take into the field and propagate among their units.

As part of the SLM NET, Soldiers receive train-the-trainer instruction on all SLMs. The students participate in both classroom and hands-on training, including firing subcaliber trainers with realistic backblast and noise to emphasize safety. The training events culminate in a live-fire demonstration showing Soldiers the

proper effects of each weapon.

Eventually, this ad hoc training solution will be transitioned to the Army institutionalized training. All aspects of SLM safety, employment and doctrine will be incorporated into standardized classroom instruction for Army basic, NCO, and leadership courses.

New Weaponry on the Horizon

Since the approval of the Army SLM Strategy, the M141 BDM and AT4-CS have become Army Programs of Record and have been incorporated into Army doctrine. The M141 BDM, M136 AT4 and the existing inventory of the M72 LAW are all available for use, while the AT4-CS will be materiel released in 2008 for the Army. In response to urgent operational needs from the field, the Army is releasing a limited quantity of the improved M72 LAW, called the M72A7.

"We are finally in synch from a warfighter, requirements and an acquisition perspective," said Nulk. "We are putting together long-term production contracts that will be flexible enough to support dynamic changes in both warfighting and training requirements. We are addressing the users' immediate needs by urgently fielding critical warfighting capabilities and providing critical training."

In addition, the Army is striving to reduce training and logistical complexities associated with multiple SLMs. A new munition, called the Individual Assault Weapon (IAW), will address the need for a multipurpose munition that will ultimately weigh as little as 10 pounds and provide lethal effects against threats protected by a variety of structures, field fortifications, and light armored vehicles at distances up to 300 meters.

"The IAW will be a single, multipurpose system that will replace a myriad of capabilities found in individual SLMs," said Lombardo. "Capabilities will also include the ability to fire from inside an enclosure, protecting the Soldier from small arms and other counterfire. Once fielded, the IAW will be a combat multiplier by providing superior firepower down to the lowest organizational levels."

This new SLM capability will not be available until approximately 2011, further emphasizing the importance of support and sustainment of currently fielded systems. "We need to listen to and support our Soldiers," concluded COL Nulk. "We have changed a paradigm that has existed for many years. We owe it to our country, our men and women on the battlefield and to ourselves to make sure that each Soldier has the best equipment, training, and support needed to win the fight. We hear you loud and clear and are executing to meet your needs."

Gary L. Barber is the U.S. Army SLM Project Officer for PM CCS at Picatinny Arsenal, N.J. He has a B.S. in mechanical engineering from the New York Institute of Technology and an M.S. in mechanical engineering from the Stevens Institute of Technology. Barber has more than 15 years of systems acquisition experience, is an Army Acquisition Corps member, and is Level III certified in both program management and systems planning, research, development and engineering.

EIB Testing:

A Different Way of Thinking

75TH RANGER REGIMENT PUBLIC AFFAIRS

The 2nd Battalion, 75th Ranger Regiment at Fort Lewis, Wash., recently conducted Expert Infantryman Badge (EIB) training and testing immediately after redeployment from its most recent combat tour. The methodology for preparation and testing was a little out of the Army's norm. There were no details for extensive site preparation, no sand bags to be filled, no camouflage nets erected, and no signs to be made. This EIB had minimal individual test stations and no ready lines or post-test holding areas. Most of the testing was conducted in lanes and replicated combat conditions as much as possible. The battalion conducted all planning and coordination required to conduct this EIB while deployed, and it obtained approval to conduct the testing under the new concept from the EIB committee at the U.S. Army Infantry Center, Fort Benning, Ga.

The purpose of EIB training and testing, which has not changed from its inception in the 1940's, is to create an evaluation that tests the individual skills required to survive on the battlefield and to ensure proficiency of the individual Soldier to support collective training. For at least the past 25 years, maybe longer, this has equated to EIB training and test sites which consisted of individual test stations. This allowed for refresher training just prior to conducting the individual tasks. Although this is certainly adequate

Courtesy photos

One of the tasks on Lane A is to conduct a ballistic breach with a shotgun.