

Enabling the Warfighter — Marksmanship in Combat Zone Simulations

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The C-130 struck the tarmac hard, with tires screaming and engines whining. Everyone snapped awake. When the ramp opened, it revealed snow-capped peaks rising high above the valley floor. A cool breeze filled the back of the aircraft, a welcome relief from the oppressive heat of my last two locations, Kuwait and Qatar. I grabbed my rucksack and weapon and moved toward the ramp.

Sound like the opening chapter of an adventure novel? Not quite. But it was the beginning of a very important venture for the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), located in Orlando, FL. Onboard the flight were three Soldiers who travel around the world, aiding other Soldiers in combat zones by fielding them with the Laser Marksmanship Training System (LMTS).



Soldiers train with LMTS at Aberdeen Proving Ground in 2005. (U.S. Army photo.)

The LMTS uses modern technology to improve Soldiers' marksmanship fundamentals. It can be used to improve unit/institutional, indoor/outdoor, multi-lane, small arms, crew-served and individual marksmanship. LMTS is lightweight, low cost, easily transportable and uses self-sustained power sources. No fixed facilities support is required.

The LMTS equipment suite includes the following:

- MP-400 laser transmitters that emit an eye-safe laser pulse when the Soldier squeezes the trigger.
- Targets that detect the laser pulse at extended range in direct sunlight (from 1' to 70').

- A scoring device that controls target function and captures and displays training results, allowing a coach to diagnose a shooter's performance.
- Use of the M68 Close Combat Optic, M145 Machine Gun Optic and other optics.
- A laser alignment device that enables Soldiers to boresight their assigned weapon.



The 3rd Infantry Division was the first Active duty division to field the LMTS in August 2004 at Fort Benning, GA, before the division deployed to *Operation Iraqi Freedom (OIF)*. (U.S. Army photo.)

Using their own weapon in the dry-fire mode, Soldiers can improve their ability to engage and destroy the enemy by refining their marksmanship fundamentals through a series of exercises including the reflective target exercise, interactive dry fire, and grouping and zeroing. A computer scoring device is used during the grouping and zeroing exercise, combined with a visual display or shot placement and grouping. After these results are analyzed, a coach can then determine if the Soldier is properly implementing marksmanship fundamentals or if his or her technique needs to be refined.

Currently, a Soldier places a dime on his barrel during preliminary marksmanship instruction. If the dime stays on when the Soldier squeezes the trigger, that means he is doing well. If the dime falls off, it indicates failure to maintain a steady position or use proper trigger control. With the technology LMTS brings to marksmanship training, a Soldier can actually see where his rounds would have impacted on a properly scaled target, thus demonstrating much more accurately the proper application of all the fundamentals.

In addition to rifle marksmanship, LMTS is used to improve a Soldier's ability to effectively employ the M9 pistol, the M249 Squad Automatic Weapon and the M240B Machine Gun. A marksmanship instructor can also use LMTS to train Soldiers on tasks such as alternate firing positions, rapid magazine changes, multiple target engagements and reflexive fire. The technology and equipment found in LMTS allows an instructor to use his imagination to create numerous shooting drills, incorporating stress and challenging a Soldier's ability to effectively employ his weapon. LMTS is a recognized training device and is part of the U.S. Army Infantry School's (USAIS's) Basic Rifle Marksmanship strategy. LMTS is found in Appendix C of *FM 3-22.9 Rifle Marksmanship*.

The first paragraph of the LMTS manual reads, "An effective unit marksmanship program reflects the priority, emphasis and interest of commanders and trainers." This statement not only applies to the squad leader but also to all leaders, no matter what their level of command. The ability to engage and destroy the enemy with a weapon is the most basic skill a Soldier learns. And, it starts with learning marksmanship fundamentals during Basic Combat Training. While it may be easy to say you know the fundamentals,

they are hard to employ, especially under stress and at distance. Soldiers who have engaged the enemy in combat know this very well.

Leaders know and understand this as well. In August 2003, former Vice Chief of Staff of the Army GEN John Keane directed that the technology and capability demonstrated in the LMTS be used throughout the Army to provide Soldiers an additional capability to refine their marksmanship skills. The Army National Guard and Army Reserve have used LMTS as a marksmanship enabler for several years and have found that the training device has improved the marksmanship ability of Soldiers who have used it properly. Since 2002, the U.S. Military Academy has used LMTS and has had 100 percent M16A2 qualification for more than 1,100 cadets. The first major Active Army Fielding to the 3rd Infantry Division began in August 2004; they received their LMTS devices during their predeployment training for *OIF* and subsequently deployed the LMTS into theater.

In early 2005, PEO STRI developed an aggressive and rapid fielding strategy to get LMTS to units who are deploying or had deployed to Iraq and Afghanistan. The mission of providing the Army with training devices, simulations and simulators belongs to PEO STRI. LTC Scott Pulford, Product Manager for Ground Combat Tactical Trainers (PM GCTT), PEO STRI, is responsible for LMTS and all ground tactical virtual simulations, such as the Engagement Skills Trainer 2000 and the Virtual Combat Convoy Trainer. Beginning in May 2005, PM GCTT, working with representatives from the U.S. Army Training Support Center (ATSC), USAIS, the Army Reserve and the Army National Guard began fielding LMTS to our warfighters.



Soldiers and civilian contractors train with LMTS at Camp Doha, Kuwait, in May 2005. (U.S. Army photo.)

New Equipment Training (NET) began at the Training Support Center in Kuwait for units engaged in *OIF* and at Combined Joint Task Force-76 in Afghanistan in support of *Operation Enduring Freedom*. NET consists of a 4-day “Train the Trainers” course in which Soldiers learn to install, operate and maintain the LMTS; employ the system; and understand the feedback LMTS provides. In both Kuwait and Afghanistan, Soldiers from Combat, Combat Support and Combat Service Support units completed the NET courses. Several units, such as the 173rd Airborne Brigade, United States European Command, and the 1st Brigade, 82nd Airborne Division, were fielded their LMTS suites for continued use in theater. In addition, throughout 2005, PM GCTT continued to work with its industry and government partners MPRI Inc., ATSC and USAIS, to field LMTS to Army installations around the globe. From the 2nd Infantry Division in Korea to the 10th Mountain Division at Fort Drum, NY, and Fort Polk, LA, Soldiers have incorporated the LMTS into their marksmanship training with positive results. PM GCTT will continue to field LMTS at major Army installations during FY06.

The motto of PEO STRI is “All but war is simulation.” This could easily read “All simulation is preparation for war.” It is why Soldiers train. As the Army continues to fight the global war on terrorism, virtual training devices such as LMTS will be used by Soldiers as they prepare for combat. The fact that improved marksmanship may save a Soldier’s life underscores the reason it was created and the need for such a training device.

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