



# TEAM ORLANDO UPDATE

## ***PM TRADE Develops Next Generation of LOMAH Technology***

By **DOLLY RAIRIGH GLASS**

The location of miss and hit technology (LOMAH) has existed for many years, but late last summer/early fall, the Project Manager for Training Devices (PM TRADE) Target Modernization team saw their concept to modularize and streamline LOMAH become a reality when it passed its government acceptance test (GAT). PM TRADE, an organization of the U.S. Army's Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), is the new system's materiel developer, and since that GAT, they have been busy fielding two additional LOMAH ranges, demonstrating LOMAH's training potential and gaining momentum for their modernized LOMAH technology.

This LOMAH projectile locating system for small arms marksmanship triangulates the location of rounds fired on or near targets to support basic rifle marksmanship training, which increases rifle range efficiency, improves training effectiveness, and saves training time for commanders and soldiers.

An important part of this technology is its ability to give immediate feedback to the shooter, thus helping to identify what adjustments must be made to "zero" his/her weapon. James Todd, the project director/lead systems engineer for target modernization, PM TRADE, conceptualized the improvements and is the driving force behind this modularized LOMAH system.

Over the last five years, Todd and his team have been standardizing the small arms ranges to a common set of standards, as part of the Future Army System of Integrated Targets, and utilizing a common, government-owned target control system called Targetry Range Automated Control and Recording (TRACR). They felt now was a perfect opportunity to take their TRACR system and extend its functionality to include LOMAH.

The Army has a pass rate of only 40 to 45 percent during qualification, and from test data observations, it appears that a significant contributing factor is that weapons are not zeroed. Zeroing a weapon means making sight adjustments on the weapon that align the round's point of impact to the soldier's point of aim.

"When we went to Fort Benning, they gave us 16 hard-luck cases, who wouldn't have graduated if they did not pass qualification," said Todd. "When we brought them to the range, they were all downtrodden and wouldn't even make eye contact."

Using LOMAH, this group shot to confirm their zero first with 20 rounds, and then went straight to the qualification round. In the first attempt, 11 of the 16 passed, and a 12th would have passed but had a weapon malfunction. Based on the feedback from the LOMAH system, the five that didn't pass spent time with the range cadre to review some basic skills, and they all passed after



An important part of the new LOMAH technology is its ability to give immediate feedback to the shooter, thus helping to identify what adjustments must be made to "zero" his/her weapon. [Photo courtesy of Team Orlando]

a subsequent attempt. "At the end, we had 16 smiling kids on the top of the world," Todd said.

The team presented their product and findings to the PEO STRI, Dr. James Blake, as well as to Brigadier General Michael Lundy, deputy commanding general, Combined Arms Center-Training (CAC-T), during a visit he made to PEO STRI earlier this year. Lundy saw the potential in the modular LOMAH and inquired about retrofitting an existing Forces Command range to modernize it. In February, both Todd and Michelle K. Garcia Gomez, a systems engineer for target modernization, joined Lundy at Fort Eustis, where Lundy himself tried out the LOMAH technology.

"His first group of shots was a tight group, but to the left and a little high," said Todd. "The LOMAH data was interpreted for his shots and the adjustments were made to the weapon. He followed up by hitting dead center on his next two shots, and after firing his third shot, he said, 'It's a flyer!'" The LOMAH data confirmed what Lundy already knew—his breathing was off and it sent his shot slightly high, although still on target.

The LOMAH technology has reached outside of the Army and has the interest of some of their Team Orlando partners, especially the Marine Corps. They've also discussed it with the Navy, plan to meet with the Air Force, and think that the Federal Law Enforcement Training Center is another potential user.

Savings is a key word these days—especially in this fiscal climate. Through immediate feedback, this new LOMAH technology speeds up the training for quicker qualification and scales back what used to be three days of training on multiple ranges to one day of training on one range. The efficiency of the LOMAH technology gives the Army, and other services, a better way to train their warfighters in small arms marksmanship while saving time and money. ★