

# INFANTRY NEWS



A RAPIDLY DEPLOYABLE DIRECT FIRE assault/antitank weapon capability is needed to help ensure the survivability of early-entry forces in contingency operations. Currently, there is a substantial gap between the rapid direct fire capabilities of the early entry light forces and those of the follow-on heavy forces.

Early entry forces rely heavily on limited strategic transportation assets (C-5, C-17) to deploy the heavy forces into theater. During the critical assault phase of a rapid force projection operation, light forces are most susceptible to artillery fires and armored forces. It is during this phase that early entry forces require an organic, rapidly deployable direct fire weapon system to counter armored threats. The line-of-sight antitank (LOSAT) system can provide this capability.

A LOSAT advanced concept technology demonstration (ACTD) will be conducted to evaluate the improved operational capabilities of the early-entry or forced-entry force that is armed with the LOSAT. The 82d Airborne Division will be the demonstration unit.

The LOSAT system consists of a kinetic energy missile and its IBAS-based fire control system, mounted on an expanded capacity HMMWV (high-mobility multi-purpose wheeled vehicle).



The line-of-sight antitank (LOSAT) system and its fire control system, mounted on an expanded capacity HMMWV.

The system will provide improvements in the firepower capabilities of light forces as an assault support and antitank weapon. This capability makes LOSAT more lethal against high-value targets, including heavy armor and bunkers.

The Dismounted Battlespace Battle Lab at Fort Benning will conduct three Battle Lab Warfighting Experiments to assess the military utility of the LOSAT system, beginning in Fiscal Year 2002:

- **The tactical deployability experiment, Fort Bragg, North Carolina.** It includes a roll-on, roll-off test of the LOSAT system on a C-130 aircraft, a low-velocity airdrop of two

systems from a C-130, an external air transport of a LOSAT system using a CH-47 helicopter, and an external air transport of a LOSAT fire unit using a UH-60L.

- **The lethality live-fire experiment, White Sands Missile Range in New Mexico.** A platoon of LOSATs will deploy to the range, one section of two systems will roll off a C-130 or C-17, and the other section will be airdropped. The platoon will conduct a tactical road march to a live-fire range, where it will engage appropriate threat armored vehicles and bunker fortifications, during both day and night.

- **The force-on-force operational assessment, National Training Center at Fort Irwin, California.** The entire LOSAT company will deploy as part of a heavy-light brigade combat team and participate in force-on-force operations against a world-class opposing force.

At the conclusion of a successful ACTD, the XVIII Airborne Corps will receive a "go-to-war" residual capability of 12 LOSAT systems, with all associated personnel and equipment. One hundred forty-four missiles will be delivered during the extended two-year

## LOSAT ATTRIBUTES

- **Line-of-sight precision engagements.**
- **Kinetic energy lethality (5,000 feet/second).**
- **Countermeasure resistant.**
- **Multiple target engagements.**
- **Four ready-to-fire missiles, plus eight stowed rounds.**
- **Three-man crew.**
- **C-130 through C-5 transportable; CH-47/UH-60L sling loadable.**
- **Second-generation FLIR (forward-looking infrared)/day TV.**
- **Situational awareness through applique.**

user evaluation period. *(Prepared by Captain Paul J. Hurley, Dismounted Battlespace Battle Lab.)*

ADVANCES IN LOAD-CARRYING equipment (LCE) will soon make things easier for Infantrymen in the field.

The All-purpose Lightweight Individual Carrying Equipment (ALICE) pack has served the Army well over the years in many conflicts. But the time has come to retire it and produce a rucksack that exceeds the capabilities of the earlier existing technology. Changes in load-carrying equipment, along with new information from soldier performance research, will increase the soldier's ability to fight and win on the modern battlefield.

The proponent for the new rucksack is the Infantry School's Directorate of Combat Developments (DCD). Design and testing is being done by the Army's Soldier Systems Command (SSCOM) and the Natick Research, Development, and Engineering Center (NRDEC), along with the U.S. Army Research Institute for Environmental Medicine.

The test agencies conducted a study in which 2,000 soldiers and marines were surveyed to determine specific deficiencies in the ALICE system and requirements for a new load-carrying system. SSCOM then hosted a "muddy boot" meeting at Fort Benning with representative senior NCOs from various units to discuss requirements for a new load-carrying system.

It was determined that the new system, to be called the Modular Lightweight Load-Carrying Equipment (MOLLE), would be designed to increase soldier performance on the battlefield. The initial fielding of the system is scheduled for Fiscal Year 1999.

The MOLLE will increase comfort, reduce fatigue, and increase soldier efficiency. For example, the MOLLE adds a waist belt that allows a soldier to shift the weight from his shoulders to his hips and back again.

The system's removable components and pockets will enable a soldier to tailor his load specifically to the mission at hand, reducing weight and improving his ability to perform. Many of the

component pouches (such as easily accessible pockets fitted for specific gear) were based on recommendations from soldiers in the field.

The use of the waist belt has been shown to improve performance in many mission specific tasks, including negotiating obstacles (climbing over walls, low crawling, operating in urban conditions); moving from standing to prone positions for weapon firing; and conducting individual movement techniques. The ability to take the pressure off his shoulders when they begin to ache will give the soldier more energy and improve his ability to fire a weapon, accurately throw a grenade, or perform other mission-related tasks.

The MOLLE currently uses a single-padded waist belt, which is compatible with both the load-bearing vest (LBV) and the ruck. When a soldier doffs the ruck, the frame quickly detaches from the LBV, which remains on the soldier as his fighting load.

A soldier's ability to tailor his load to his mission has been a concern for some time. Units have different missions, which require different equipment. Even soldiers in the same unit need different equipment, depending on their positions and primary weapons. The improved LBV, in addition to being lighter and more comfortable (made of nylon mesh), will be issued on the basis of squad position so that each soldier has a basic load of ammunition and pockets for his specific needs.

Follow-on improvements to the MOLLE will include the development of pockets and components specific to a military occupational specialty. These pockets can be removed and interchanged, based on the soldier's comfort, unit standing operating procedures, or special mission requirements.

The tailorability of the MOLLE will help decrease the bulk that has been associated with the ALICE/LCE. The MOLLE will allow the soldier to remove or add components (outside pockets, SINCGARS pocket, detachable patrol pack, or sleep system) based on mission need. This will reduce the soldier's silhouette and load, making the pack less likely to catch on tree branches, obstacles, and other snares.

The hydration system will now be included in the system. The hydration pocket doubles as a pocket for a rear-body armor plate, increasing a soldier's comfort and maintaining protection while he is wearing body armor with his rucksack. An outside pocket of the MOLLE system was developed specifically to hold a claymore mine so that a soldier does not have to waste time rummaging through the large internal compartment. Behind the claymore is a removable bandolier capable of holding six 30-round magazines that can be slung for extra ammunition or used to resupply an entire squad. A soldier returning to the objective rally point for resupply will always know where the extra ammunition is in the ruck. And because the ruck can be slung, it will carry enough for many other soldiers.

The main ruck has a smaller, easily accessible internal pocket designed to carry the radio. This pocket can be removed and slung and will keep the radio from sinking to the bottom of the ruck. Another benefit of the MOLLE is the ability to move the main ruck on the frame so soldiers carrying heavy equipment can adjust the ruck to increase comfort and ease of carriage.

In addition, the new Interceptor body armor is being designed in parallel with MOLLE and will be compatible with all its configurations. All of the MOLLE pockets can be attached to the Interceptor as well. In fact, the MOLLE may not be necessary for some missions, such as room clearing and short duration missions, because the magazine, grenade, and SAW ammunition pouches and all other pockets can be directly attached to Interceptor and used with the MOLLE patrol pack.

The MOLLE system is currently being tested in different environments to determine how it meets the needs of the soldier. Many of the improvements and modifications that have been made from the original design have come from the soldiers in the field who have tested this equipment.

Like other new equipment, the MOLLE will require training, because it is a high-tech system designed to improve the lethality and survivability of the 21st century soldier. The system

will continue to improve throughout its life cycle through technical improvements, the changing needs of the soldier, and, most important, the suggestions and recommendations from soldiers in the field who use it daily

Comments, questions, concerns, and recommendations may be sent to: [cpalmer@Natick-emh2.army.mil](mailto:cpalmer@Natick-emh2.army.mil) or to Natick R, D, and E Center, ATTN: SSCNC-IC (Chris Palmer), Natick, MA 01760-5019.

THE SOLDIER INTERCOM will soon reduce the confusion that reigns during dismounted close-combat operations for Infantrymen in limited visibility environments. This commercial off-the-shelf item (similar to a walkie-talkie in size and shape) will begin fielding in August 1998.

The Soldier Intercom is meant as an aid to communications within the squad, allowing all members of the dismounted Infantry squad to talk to one another and to their squad leader in any situation. This solves the age-old tactical problem of how to communicate when hand and arm signals are not practical.

The value of "internal" communications on vehicles and within sections or platoons is not disputed. Until now, however, the dismounted Infantry soldier has not been able to capture the tactical advantage that an "intercom" capability provides. Finally, the dismounted Infantryman will benefit from the same capability that mounted forces have had for years—the ability to talk within the squad.

The Soldier Intercom has a short range (approximately 700 meters) and is designed to be used in a "horizontal

communications" mode. It will not be fielded to headquarters elements, nor is it designed for use by those elements. In addition to its short range, it does not have a secure communications capability.

The commander on the ground has long had the ability to communicate effectively with his subordinates through various devices. But during periods of limited visibility, or when voice or hand-and-arm signals are not practical, the lowest level leader has not been able to communicate with his soldiers without physically moving from position to position. Additionally, the individual Infantry soldier has been unable to report critical information without using hand-and-arm signals or voice communications. This intercom solves these critical dismounted Infantry operational problems.

The Soldier Intercom will be fielded with a headset that provides hands-free listening and a push-to-talk button that can be placed anywhere on the soldier's uniform or equipment. The headset is designed so that a soldier does not have to remove it to put on or take off his helmet. Additionally, the intercom will be fielded with two rechargeable batteries, each with an operational life ranging from 24 hours to 42 hours, an adapter that allows for the use of either disposable or rechargeable AA batteries, and a carrying case that attaches to the load carrying equipment, along with one six-port battery charger per platoon.

The short range of this piece of equipment minimizes the "bleed-over" effect that units may experience when working close to each other.

During operational testing by elements of the U.S. Army Special Operations Forces, this piece of equipment

performed extremely well and was well received by dismounted soldiers and commanders alike. Commanders found that being able to talk to the dismounted Infantryman, no matter how many organizational levels down, greatly enhanced their ability to control the operation and keep informed of situational changes. This improved situational awareness enabled him to make rapid and informed decisions that directly influenced the outcome of the mission.

This new piece of equipment will prove highly beneficial to all dismounted Infantry soldiers. Infantrymen will become more lethal and agile as their ability to communicate within the squad improves.

Any questions concerning this program or any other program involving the dismounted Infantry soldier may be directed to Major Bill Mason in the TRADOC System Manager-Soldier Office at Fort Benning, Georgia, at (706) 545-4517, DSN 835-4517, or E-mail: [MasonW@benning.army.mil](mailto:MasonW@benning.army.mil).

THE NATIONAL INFANTRYMAN'S Association (NIA) now has a web site at: [www.columbusga.com/infantryassn](http://www.columbusga.com/infantryassn). It offers information on the history and objectives of the association, chapters, contact and membership information, awards, and current projects.

One of the current projects is the commissioning of a series of limited edition lithographs entitled "Follow the Flag—Follow Me." The first piece, now available, depicts Union troops at Antietam and bears the distinctive NIA seal. A portion of the proceeds will benefit NIA.

Check the web site, or E-mail [infantry@mail.com](mailto:infantry@mail.com) for further details.

