

INFANTRY NEWS



THE M4 CARBINE will soon replace selected pistols, submachineguns, and M16 rifles in certain Army units. The M4 is a lighter and more compact variant of the M16A2 rifle, with essentially the same capabilities out to a range of 500 meters. It is capable of semi-automatic and three-round burst fire. The M4 has an integral accessory mounting rail at the top of the receiver and a removable carrying handle similar to the one on the M16A2 rifle. When the carrying handle is removed, the rail can be used to mount day and night optic devices and sights.

Eventually, selected M4s in infantry units will be modified to include a mounting rail above, below, and to each side of the barrel to allow several accessory configurations.

The M4 will replace, on a one-for-one basis, all .45 caliber submachineguns, selected .45 caliber and 9mm pistols, and selected M16A1 and M16A2 rifles. The pistols carried by infantry commanders, executive officers, and operations officers will not be replaced. Fielding of the M4 is scheduled to begin in early 1995.

Units of the U.S. Special Operations Command will get the M4A1, which is identical to the M4 except that it is capable of semi-automatic and full automatic fire. Fielding to these units has begun and should be completed in January 1995.

AN IMPROVED RAIN SUIT is scheduled for fielding in the first quarter of Fiscal Year 1996 to replace the current wet-weather parka and trousers. The suit (parka and trousers set) features:

- Reduced bulk (a compact self-storage package) and weight (1.3 pounds).
- Improved wind and rain protection and durability.
- Improved flexibility and breathability.
- Compatibility with the current field jacket liner.
- Woodland camouflage pattern.

The rain suit has undergone extensive tests and has been well received by the soldiers participating in its testing.

This is one of the many improvements made possible by the Soldier Enhancement Program (SEP). The SEP

was established in 1989 as a means of improving the combat effectiveness of Army infantrymen through the development of lighter, more lethal infantry weapons and improved equipment.

The SMAW-D BUNKER defeat munition (BDM) was recently type classified for limited procurement after undergoing tests against other candidate systems. The SMAW-D is a disposable version of the U.S. Marine Corps' SMAW (shoulder-launched multipurpose assault weapon) system.

The BDM—a stand-alone, single-shot munition fired from a disposable tube (like the AT4 and the M72A3)—is capable of defeating earth and timber field fortifications. The complete munition, in the unpackaged carry mode and including a night sight mounting fixture, weighs only 16 pounds. It will be carried and operated by a single soldier.

This munition is intended for fielding to contingency forces, beginning in Fiscal Year 1996, to fill a capability gap until the MPIM (multipurpose individual munition) is fully developed.



BRADLEY CORNER

The Bradley Modernization Program is designed to update and improve Bradley fighting vehicles so that the Bradley will remain the infantry's primary fighting vehicle system through the year 2010.

This two-part program consists of the Bradley A2 Operation DESERT STORM (ODS) improvements, and the Bradley A3. Contractors will retrofit A2s to A2ODS configuration in unit motor pools, and more than 1,600 M2/M3A2s will be remanufactured to produce A3 Bradleys.

The A2ODS variant incorporates six needed improvements:

Bradley Eyesafe Laser Range Finder. This range finder enables the crew to determine target ranges from 200 to 9,990 meters within plus or minus 10 meters. It is integrated into the vehicle's integrated sight unit (ISU) and applies automatic super-elevation to the weapon system.

Precision Lightweight GPS Receiver/Digital Compass System (PLGR/DCS). The PLGR gives the crew three-dimensional positioning (longitude/latitude, grid location, and elevation). Working with the DCS, the PLGR indicates turret azimuth, direction, distance, and way points with "steer-to" indication, all shown on independent commander and driver displays.

Battlefield Combat Identification System (BCIS). The BCIS gives the crew a means of interrogating suspected vehicles to determine whether they are friendly or unknown. A series of visual and audible signals—symbolizing friend, un-known, or friend-in-sector—help reduce fratricide.

Missile Countermeasure Device (MCD). The MCD enables Bradleys to

deter thermal-guided antitank guided missiles (ATGMs), thus improving crew survivability.

Improved Vehicle Restowage. Restowage consists of bench seats, mounted water ration heater, electric engine access door lift, outside stowage for personal gear, and three 25mm hot boxes that contain 50 rounds each of linked ammunition.

Driver Thermal Viewer (DTV). The DTV provides the driver with improved day-night visibility in all weather and dust conditions. In addition, its 40-degree field of view and its range allow the driver to detect potential targets at more than 1,200 meters.

The near-term improvements on the A2ODS vehicle will serve as the logical progression to the future Bradley A3, which will add the following systems:

Improved Bradley Acquisition System (IBAS). The IBAS provides direct-view optics, charged coupled device (CCD) TV, and a second-generation FLIR (forward looking infrared) for extended target detection, recognition, and identification. The IBAS incorporates a full-resolution digital fire control system that provides dual-target tracking, automatic super-elevation and target lead, auto gun target adjustment, and automatic boresight. With an integrated dual-launch capability, IBAS will accept the future antiarmor missile system-heavy (AMS-H) TOW replacement.

Commander's Independent Viewer (CIV). The CIV enables the vehicle commander to scan the battlefield, day or night, independently of turret orientation. The system also allows the commander to hand off a target to the gunner electronically and continue to scan the battlefield using the CIV's

CCD-TV or second-generation FLIR.

The 1553 Databus. This assembly incorporates modern digital technology that eliminates point-to-point connections and many turret components found on earlier Bradley variants (A0, A1, A2, and A2ODS).

Digital Core Electronics Architecture and Vehicular Command and Control Operating System (VCOS). The VCOS improves command and control and also digitally integrates the vehicle's acquisition, survivability, mobility, and sustainability functions. The system displays graphics, maps, and the battlefield situation on independent displays for the vehicle commander and the squad leader in the rear of the vehicle. In addition to tactical information, the squad leader's display gives him a forward view of the battlefield through either the CIV or the IBAS.

The fielding of the A2ODS variant is scheduled to begin in Fiscal Year 1996 and the A3 in Fiscal Year 2000. The Bradley Modernization Plan improves infantry capabilities and the vehicle's compatibility with the M1A2 Abrams tank, which will make the Army's combined arms team a formidable force well into the 21st century.

Comments or recommendations on the Bradley Modernization Program may be submitted to the following:

*Infantry User Representative
Bradley Proponency Office
1st Battalion, 29th Infantry
Ft. Benning, GA 31905
DSN 784-6201 or (706) 544-6201*

*TRADOC System Manager-BFVS
Commander, U.S. Army Infantry Center
ATTN: ATZB-BV
Ft. Benning, GA 31905
DSN 835-5355 or (706) 545-5355.*

The MPIM is not expected to be available until Fiscal Year 2001, at the earliest.

THE SGI AFFILIATION Program is designed to help units stay up to date on

the latest doctrine and developments at the Infantry School.

Regiments can now establish a "one-on-one" dialogue with Infantry School small-group instructors. This program will parallel regimental affiliations with each participating regiment being

assigned a small-group instructor as its point of contact.

Persons interested in the program may write to: Commander, USAIS, CATD, Tactics Division, Fort Benning, GA 31905.

THE BATTLE LABORATORIES of the U.S. Army Training and Doctrine Command (TRADOC) have grown, in a little more than two years, from conducting only materiel experiments to creating doctrine, training, and force design for the Army of the future.

Resources will now be turned toward Force XXI, which will examine the redesign of the force, from the individual soldier all the way to echelons above corps. The battle labs will look at all the battlefield operating systems, not just maneuver.

The labs were able to begin work on Force XXI largely because of the lessons learned from an Advanced Warfighting Experiment (AWE) conducted in April 1994 at the National Training Center (NTC), during which a brigade-level task force took on the NTC's opposing force.

The task force was made up of two infantry battalions, an armor battalion task force, and the 194th Separate Armored Brigade, with the 3d Brigade, 24th Infantry Division, serving as the brigade headquarters.

All of these forces received near real-time information on the NTC battlefield through the digitized communication systems of the armor task force, along with the limited digital capability of other brigade elements. The experiment proved the value of digitizing Army units, and also taught the battle lab community how to conduct future experi-

ments properly, design analytical systems to study the results, involve the testing community, and train while experimenting at the combat training centers.

Over the coming 18 months, various battle labs will conduct about 90 experiments, nearly all of them connected to Force XXI. Some of the larger experiments will further examine digital com-



munications and their effects on organizational design, tactics, and training. A major AWE will involve infantry forces during a rotation at the Joint Readiness Training Center in November 1995. The AWE will explore digitization issues in a dismounted environment.

Because of budget constraints, the battle labs do not concentrate on devel-

oping major weapon systems but work toward modifying existing capabilities or systems through technology.

The close partnership between TRADOC and the Army Materiel Command (AMC) helps keep the Army current in technological developments. Each of the battle labs has a full-time AMC materiel developer, who provides technical advice, on-the-scene acquisition expertise, and liaison with industry. This experimental and cooperative approach has greatly shortened the time it takes to acquire and field new capabilities.

Six battle labs became operational in 1992:

- Early Entry Lethality and Survivability, Fort Monroe, Virginia.
- Battle Command, Fort Leavenworth, Kansas.
- Dismounted Battlespace, Fort Benning, Georgia.
- Mounted Battlespace, Fort Knox, Kentucky.
- Combat Service Support, Fort Lee, Virginia.
- Depth and Simultaneous Attack, Fort Sill, Oklahoma.

Since then, two offshoots of the Battle Command Battle Lab have been activated. One of these, at Fort Gordon, Georgia, experiments with hardware for battle command, and the other, at Fort Huachuca, Arizona, studies intelligence, electronic warfare and information warfare operations.

Our Address Has Changed!

The new mailing address for INFANTRY is:

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Fort Benning, GA 31995-2005