Commandant's NOTE

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BRADLEY MODERNIZATION—MAKING A GREAT SYSTEM BETTER

The United States Army has long enjoyed dominance on the modern battlefield. Our technological edge has enabled us to dominate the night, deliver precise, lethal long-range fires, and deploy heavy forces across distances that were beyond planners' wildest dreams three decades ago.

While we were establishing a comfortable lead, however, our potential adversaries were not napping. Advances in night vision technology, infrared systems, communications, and weapons have begun to close the gap. The issue was further complicated with the collapse of the Soviet Union and the dissolution of the Warsaw Pact. Suddenly, many state-of-the-art systems that were once limited to the Soviet Union and its closest surrogates became available to virtually any nation—or organization—that had the money to buy them. This proliferation of sophisticated equipment, combined with our mission to deploy around the world, makes it increasingly probable that deployed U.S. forces will have to cope with opponents whose target acquisition, night fighting, and weapons systems approach parity with our own. How do we meet this challenge? We do it simply through continuous, unrelenting modernization, and one of the first steps in that direction is the Bradley Modernization Plan.

The Bradley is an ideal candidate for modernization initiatives, since it is a combat tested and proven system that has been around since 1982 and will remain the primary infantry and cavalry fighting vehicle up to and beyond the year 2020.

The modernization plan is driven by the Army imperatives to maintain land force dominance, meet a congressional mandate, and develop an affordable acquisition strategy. We can maintain our land force dominance by retaining task force compatibility with the M1 Abrams tank, by maintaining our technological advantage on the digitized battlefield, and by achieving target acquisition and identification out to the full range of our weapon systems. We must adhere to the congressional mandate to retain our industrial base while beginning to upgrade the basic Bradleys. Finally, the use of existing technologies will enable us to arrive at an affordable acquisition strategy that meets the materiel needs of the force.

Given this outline of the parameters of the modernization plan, where do we want to go, and how will we get there?

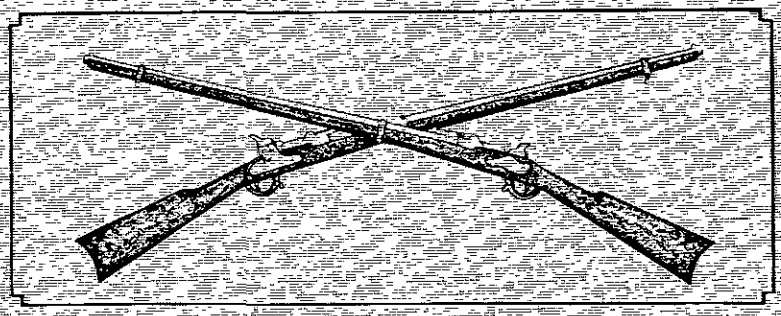
In its end state, the Bradley fleet will consist of 6,724 vehicles, at four different levels of configuration. Of the basic early-issue Bradleys—referred to as the A0 model—2,005 will be allocated to the training base and to late reinforcing and roundout units until the vehicles are scheduled for future upgrades. Of the remainder, 1,684 will be upgraded into A2 models. The A2 will include such improvements as a 600-horsepower power train, 30mm ballistic protection, spall liners, ammunition restowage, and brackets to accept external reactive armor tile. The experiences of U.S. forces in Operation Desert Storm (ODS) have given rise to still further improvements to the A2, known as A2 ODS. These improvements will include a laser rangefinder, a global positioning system (GPS) and other navigational aids, a driver thermal viewer, a combat identification system, and a missile counter-

measure device. ODS restowage improvements will include bench seat configurations for increased soldier effectiveness after long movements, external stowage, and mounted ration heaters. As part of this upgrade, 1,433 Bradleys will be reconfigured to ODS specifications.

The final level of the modernization plan will be the A3 Bradley, which will include 1,602 fighting vehicles. The upgrades that earmark this vehicle will consist of improved core electronic architecture, second-generation forward looking infrared (FLIR) sensors, state-of-the-art command and control software, an independent thermal viewer for the vehicle commander, ballistic fire control, and a battalion set of armor reactive tile for initial entry forces. A significant feature of the A2 series improvements will be the increased lethality afforded by the TOW IIB missile and an improved round for the 25mm Bushmaster main gun. A number of the A2, A2 ODS, and A3 Bradleys will be allocated to the training base to ensure that soldiers will be trained on the same types of vehicles to be found in their future units.

These improvements to the Bradley fighting vehicle are impressive, and their effectiveness will be assured by corresponding changes in the training and the doctrinal literature that will support the Bradley force. The Bradley Master Gunner Course will reduce the current shortage of master gunners in units by improving the students' training and managerial skills, with particular emphasis on the preliminary, basic, intermediate, and advanced phases of Bradley gunnery. These skills will be reinforced in unit conduct-of-fire trainer (U-COFT) simulators, starting in the preliminary phase of training. The fielding of new equipment training (NET) teams to units as they receive the improved Bradleys will facilitate the transition of crews to the new equipment; this is significant for infantry units whose Echo companies are converting from M901 improved TOW vehicles (ITVs) to Bradleys. Important changes to tactics and techniques, as well as the latest information on gunnery skill testing and performance checklists, will soon appear in Change 1 to Field Manual 23-1, *Bradley Fighting Vehicle Gunnery*.

The end result of these modernization and training initiatives will be a Bradley force that has the command and control, mobility, lethality, survivability, and sustainability to match the M1A2 Abrams tank fleet that complements it. Without these upgrades, the Bradley force could well find itself confronting a future adversary without the technological edge that assures us of first-battle victory, such as we attained in the Gulf War.

The lessons of history bear examination; they have often been learned at terrible cost in terms of human life, destroyed materiel, and tarnished national prestige. We have heard a great deal about Task Force Smith—the first battle of the Korean War—which has come to represent the consequences of unpreparedness, but this lesson is wasted if we fail to realize that such catastrophes can often—and only—be prevented by timely planning and action. That is why the Army has undertaken the project of Bradley modernization.

The sheer military might of our Nation has often served to deter aggression, and the only way to remain a credible deterrent force is to demonstrate that our will and our capabilities far exceed those of a potential aggressor. The Bradley Modernization Plan will insure the United States Army's ability to deploy, fight, and win the first time out, against anything an adversary can throw at us.