

INFANTRY NEWS



THE 1988 INFANTRY Conference is scheduled to be held at Fort Benning, Georgia, 4-7 April 1988. Additional information will be published as it becomes available. Meanwhile, points of contact at the Infantry School are Major Almero or Captain Knutson, Office of the Secretary, AUTOVON 835-5023/3611; commercial (404) 545-5023/3611.

DOCTRINAL MANUALS have been published recently by the Infantry School for light infantry squads/platoons, companies, and battalions.

Since these manuals are new instead of rewrites of existing manuals, they are not on the DA Form 12 used to distribute Army publications. Light infantry units and other users must specifically request them in the desired quantities on DA Form 17 from the U.S. Army Publications and Printing Agency in Baltimore.

The applicable publications are FM 7-70, Light Infantry Squad/Platoon (PIN 060698-000); FM 7-71, Light Infantry Company (PIN 062462-000); and FM 7-72, Light Infantry Battalion (PIN 061593-000).

Mission training plans are also being completed and will soon be available for distribution: Mission Training Plan for the Light Infantry Squad/Platoon (ARTEP 7-17-10-MTP); Mission Training Plan for the Light Infantry Company (ARTEP 7-17-30-MTP); and Mission Training Plan for the Light Infantry Battalion (ARTEP 7-17-MTP).

THE S-1 HANDBOOK—The Adjutant's Call—is scheduled for

distribution this fall. The book, TC 12-17, was written by former adjutants in a frank and honest manner, one captain talking to another, sharing his own experiences.

The book is specifically designed to help an adjutant succeed in his first 60 days on the job, but it will continue to serve as a ready reference throughout his tenure. It contains examples and checklists covering all areas of an adjutant's responsibilities, both in peacetime and in war.

Initial distribution of this training circular will be to each brigade- and battalion-sized organization in the Active Army, Army Reserve, and Army National Guard.

THE NEW COMBAT BOOT is the only one that will be issued to Active Army and Reserve Component personnel beginning 1 January 1988. The U.S. Army Natick



Research, Development and Engineering Center, designed the boot and recommended it for adoption

by the Training and Doctrine Command after testing six candidate boots in a four-month walk-off during 1983. The new boot went on sale in Army Military Clothing Sales Stores in July 1986.

It is a water resistant, black leather boot with a smooth, low gloss finish. Its deep lug tread sole is specially designed to provide superior traction and durability and to resist the accumulation of mud and stones. It features a quick donning speed-lace enclosure, a padded comfort collar, a resilient box toe, and a replaceable heel. The ventilating insole was re-engineered with a new three-layer honeycomb weave for loft and a non-woven nylon blend cover for more comfort.

The new boot fits 90% of all soldiers (male and female) because it is available in 133 sizes, 22 more than the old boot.

Unstructured field use tests of first article quantities were conducted at Fort Campbell, Fort Ord, Fort Polk, and Fort Carson in 1986. User surveys indicate this boot is superior to the old boot in comfort, fit, durability, and water resistance. It has met with high acceptance by the soldiers since its introduction in 1986. The price is \$52.57.

A PROTOTYPE ROBOTIC antiarmor system is being built for the Army—the teleoperated mobile antiarmor platform (TMAP). The award of a 14-month contract is part of a program to develop a small, agile antiarmor weapon system that can be remotely controlled by one infantry soldier. The system is lightweight, yet rugged enough to negotiate a battlezone to gain attack position against enemy armor.

TMAP is an earth-hugging, pitch



Artist's Concept of TMAP

articulated vehicle. Smaller than a golf cart, it measures about six feet long by four feet wide by four and one-half feet high. Its sturdy body is mounted on a four-wheeled chassis having an unusual diamond shape—one wheel in the front, one in the rear, and a twin-wheeled middle axle. This configuration and the segmented body let the vehicle maneuver over rough terrain and give the weapon platform stability.

From a remote location, a single soldier, using a portable control unit carried as a backpack, guides TMAP through fiber optics and radio frequency communication links. Once a target is selected, the soldier directs TMAP into position

and launches the attack.

The Infantry School, in conjunction with the Army Development Employment Agency (ADEA), is investigating the use of this system. As part of early user test and evaluation, force development test and evaluation will be conducted on TMAP during the first quarter of Fiscal Year 1988 at Fort Lewis, Washington.

TMAP is designed to employ various weapons and surveillance packages (to be contracted separately), thereby extending the engagement range of these systems while providing greater standoff protection for the operator.

THE NATIONAL INFANTRY Museum has received a diary kept by a United States Army corporal who served with the 339th Infantry in Russia in 1918 and 1919. This gift is especially valued because it gives information about a controversial episode in our military history about which little has been written. The diary begins on 14 July 1918 when the corporal left Camp

Custer and ends on 7 July 1919 with "Got that long looked for discharge paper today. This finishes my soldier days."

The daily entries are brief, but they illustrate the range of a soldier's thoughts and activities in that place and time. He mentions such personal things as letters from home (and lack of letters from home), pay day, YMCA and Red

Cross activities and services, boredom, and rare good baths. He notes days on which his unit was fired upon, casualties, moving to different locations, going to Vicker's machine-gun school, going out on "skees," and the winter snow and ice that closed the rivers until spring. He also copied some of the company songs in the back of the book.

An M16 Multiple Gun Motor Carriage has been transferred to the Museum from the Anniston Army Depot and an M9 pistol, one of the Army's newest weapons, from the Rock Island Arsenal. A Model 1917 helmet worn by a member of the 57th Infantry Philippine Scouts who was killed in the Battle of Longoskawayan Point on Bataan (28-31 January 1942) has been donated, as well as an M1 helmet and liner used in the Korean War. Stained glass panels depicting the shoulder patches of the 6th Infantry Division and the 44th Infantry Division have been hung with others already on display. Among other items of interest received recently are an officer's long "Beaver" overcoat and other uniform pieces, photographs, and postcards of Fort Benning in the 1920s, Honduran jump wings, and a number of good books.

In addition to these transfers and donations, the Museum recently purchased a U.S. Army Infantry Rifle Team trophy for 1905. A sterling and brass medallion, it lists the members of that team, the captain of which was Major Zerah W. Torrey of the 24th Infantry Regiment.

The display commemorating the 200th anniversary of the signing of the constitution has been expanded. The art gallery now contains 19 documents that relate problems faced by this country in its early days and the measures taken to overcome them.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership

or \$10.00 for a lifetime membership.

Additional information about the Museum and the Society is available from the Director, National Infantry Museum, Fort Benning, GA 31905-5273; AUTOVON 835-2958 or commercial (404) 545-2958.

THE DIRECTORATE OF COMBAT Developments, U.S. Army Infantry School, has provided the following item:

JANUS. Much of the analysis in the Directorate is done with the aid of a computer simulation called JANUS, which is a high-resolution, interactive, stochastic computer program that simulates battlefield situations and conflicts. The JANUS model is not a training tool but an analysis system for testing the effectiveness of doctrine and tactics, force structure, and weapon systems.

Before JANUS, the Infantry School used three-dimensional terrain boards with the various weapon systems represented by miniatures. An hour of simulated combat could take as long as 60 hours of real time. With JANUS, one hour of simulated combat takes about three hours of real time. This kind of speed allows the study of many different alternatives. Moreover, with JANUS, many different types of terrain can be used.

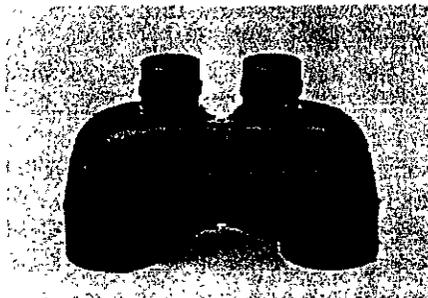
JANUS simulates the fighting of individual soldiers and armored vehicles in units from squad size to brigade. Each system is depicted on a computer graphic display with a specific symbol that denotes what type of system it is. The JANUS model accurately represents mounted and dismounted operations, Field Artillery, Engineer operations, weather, NBC conditions, obscuration, Army Aviation, and U.S. Air Force tactical air support.

Studies conducted on JANUS to date include the BFV (Bradley Fighting Vehicle) Block II COEA (cost and operational effectiveness and analysis), the BFV CV-CPOA

(combat vehicle-combat performance operational assessment), and the UAV O&O (unmanned aerial vehicle operational and organizational) Plan.

Although several other schools and centers have the JANUS model, the Infantry School is the only TRADOC school whose facility has been certified for major studies. The Infantry's ability to simulate how well present systems and tactics work and to evaluate the effectiveness of new systems and tactics give it an advantage in the development of an effective fighting force. (See also JANUS items in *INFANTRY*, March-April 1985, page 8, and January-February 1986, page 9.)

A U.S. ARMY BINOCULAR contract has been awarded for 72,000 M-22 7 x 50 military binoculars. The M-22 binocular incorporates the latest in optical technol-



M-22 7 x 50 Military Binoculars

ogy, including a target acquisition reticle and laser protection filters.

Deliveries are scheduled to take place between January 1988 and January 1991.

The U.S. ARMY INFANTRY Board has provided the following notes:

Bradley Fighting Vehicle System (BFVS) Advanced Survivability Test Bed (ASTB). Proposed survivability improvements to the Bradley Fighting Vehicle System are designed to counter the proliferation of modern threat weapons and their effect upon the survivability of the vehicle and its crew and squad. Because it

is apparently impossible to prevent all penetration by these threat weapons, survivability improvements are being designed to prevent the catastrophic loss of the BFVS and to provide increased protection for the crew and squad during operations.

During the period 15 June through 15 July 1987, the Board conducted a concept evaluation program (CEP) test of the effects of the BFVS Advanced Survivability Test Bed (ASTB) modification on the operational effectiveness of the BFVS. The ASTB modifications included increased armor protection applied to the hull and turret; a spall liner applied to the interior of the vehicle; restowage of ammunition, BII, and TOE equipment; external stowage compartments for the 25mm ammunition and TOW missiles; external fuel cells; the relocation/redesign of fire suppression handles; and a reduction in the number of firing port weapons from six to five.

Two nine-man Bradley Infantry Fighting Vehicle (BIFV) squads compared the performance of the BFVS ASTB vehicle with that of a standard BIFV during a series of mobility exercises and crew drills. The test examined vehicle performance (acceleration, maximum speed, cross-country speed, hill-climbing ability, obstacle negotiation, and braking distance), the impact of the ASTB modifications on the current logistic support system, the training requirements, the time required to reload weapons, soldier and vehicle interface, and safety. The Infantry School will use the test results in its examination of the feasibility of incorporating BFVS ASTB modification characteristics into future BFV systems and other combat vehicles and the trade-offs necessary to obtain these characteristics.

M249 Machinegun Modifications. Following the fielding of the M249 machinegun in 1984, some units reported problems with the weapon. The problems involved operational performance, reliability, maintaina-

bility, safety, and human factors characteristics. In the summer of 1985 the Army halted production of the M249 until a plan for corrective action could be developed and implemented.

In December 1985 the Board tested and reported on a set of quickly accomplished short-term fixes involving zeroing procedures and minor hardware changes. These short-term fixes have since been adopted and the hardware changes have been made to all the M249s on hand in the Army and the Marine Corps. In July and August 1986 the Board conducted a second test of additional modifications designed and selected by the materiel developer, the combat developer, and the manufacturer. In addition, the manufacturer in Belgium made a technical evaluation of the modifications under the supervision of the Armament Research, Development, and Engineering Center (ARDEC).

In December 1986 ARDEC recommended the adoption of a set of final modifications selected from among those tested by the Board. These modifications were organized into a kit consisting of a buttstock assembly, a barrel assembly, and a snap-on heat shield. Current plans are to incorporate all of the modification kit features into future M249 production. All weapons already in the inventory will be modified with a new buttstock assembly and a snap-on heat shield. Barrel assemblies will be replaced only to the extent that funds permit. The barrels that are not replaced along with the buttstock assembly will be used until they are no longer economically repairable.

To confirm that the fixes and modifications applied to the M249 are sufficient, the Board conducted a concept evaluation program (CEP) test of the modification kit during the period 1 July through 10 August 1987. Gunners from the 82d Airborne Division participated in a series of fire and maneuver exercises, tactical road marches, and airborne operations using three ver-

sions of the M249—newly issued weapons with all the modifications applied; unit weapons with the complete modification kit applied locally; and unit weapons modified only with the buttstock assembly and the snap-on heat shield. Test results will be used to support a decision on the production of the M249 modification kit.

Small Unit Radio (SUR) AN/PRC-126. The fielding of the AN/PRC-68 small unit transceiver (SUT) began in January 1982, but it was terminated in November 1983 because of deficiencies noted in the field.

In May 1985 a decision was made to replace the SUT with a low-cost (nonmilitarized) radio for combat support and combat service support units and a hardened radio for combat units. The Board conducted a customer test of the hardened radio for the Communications and Electronics Command (CECOM) during the period 13 July through 26 August 1987.

The hardened AN/PRC-126 small unit radio (SUR) is a handheld transceiver designed to replace the current AN/PRC-68, AN/PRT-4, and AN/PRR-9. The SUR weighs about 35 ounces, has an internal speaker/microphone, and comes with a handset and two antennas. It is designed to be interoperable with AN/VRC-12 series radios and the AN/PRC-77 radio. It has a capability for more than 2,000 usable externally tuned frequencies and four preset frequencies, and it has a design range of 3,000 meters with its long antenna or 500 meters with the short antenna.

Personnel from two mechanized infantry squads used the SUR while operating over wooded and urban terrain. Performance data was collected regarding transmission range, transmission clarity, frequency interference, presetting and changing frequencies, and human factors. Exercises were conducted that required ground-to-ground, ground-to-air, and air-to-air communications. CECOM will use the test results as

part of the acceptance criteria on the contract for the AN/PRC-126.

Ported-Coax Intrusion Sensor (PINTS). The Joint Service Intrusion Detection System (J-SIDS) was developed to detect theft by breaking and entering and theft of weapons from arms rooms in the continental United States. The Facility Intrusion Device System (FIDS) was a natural outgrowth of J-SIDS and is designed to detect intrusion of the most sophisticated nature in all types of DOD facilities.

In June 1987 the Board conducted a concept evaluation program (CEP) test of the Ported-Coax Interior Sensor (PINTS), a component of FIDS, to assess its operational effectiveness, interoperability, and adequacy of operation.

The PINTS is connected into the FIDS control console for power, command/control functions, and reporting of alarms/status data. PINTS itself consists of a system electronics unit (transmitter, receiver, and processing electronics) and a sensor transducer set (one to four pairs of ported-coax cable). In operation, a radio frequency signal is generated and radiated between one or more pairs of ported-coax cable. If the signal is disturbed, an alarm is sounded at the FIDS console. The detection zone is confined to the region in the immediate vicinity of the coax cables and is defined by their spacing, location, and length.

PINTS was installed as part of the facility intrusion detection system at Eglin Air Force Base, Florida, to protect operational buildings. While skilled and unskilled intruders attempted to enter the buildings protected by PINTS, data was collected on the system's functional performance, human factors, safety, reliability, and operational availability. The Military Police School will use the test results in support of the TRADOC position at the Milestone II In-Process Review.