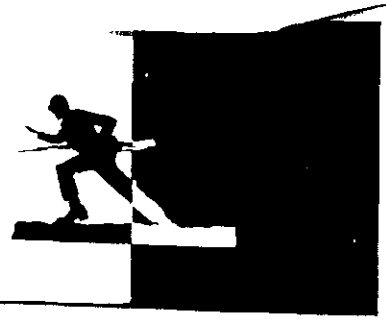
INFANTRY NEWS



IN THE ARTICLE titled "Echo Company: The Fifth Player" by Captain Michael S. Hackney, which appeared in our July-August 1985 issue (pages 20-24), we said that Captain Hackney had commanded an antiarmor company in the 25th Infantry Division.

As a reader can tell by the biographical data at the end of the article, Captain Hackney is assigned to the 24th Infantry Division.

We apologize to Captain Hackney and to the 24th Infantry Division for placing him in another unit.

THE EXPERT INFANTRYMAN BADGE Test manual, DA Circular 350-85-3, because of publication problems, will not become effective until 1 January 1986. (See INFANTRY, March-April 1985, pages 15-17.)

The current test using AR 672-12 (1 May 1983 with Change 1), Decorations, Awards, and Honors, Expert Infantryman Badge, and DA Circular 672-83-12 (1 July 1983), Decorations, Awards, and Honors, Expert Infantryman Badge Test, has been extended to 31 December 1985.

A HOT LINE FOR THE ARTEP mission training plan (AMTP) has been established in the Directorate of Training and Doctrine. The number is AUTOVON 835-AMTP (2687), or commercial 404/545-2687.

Units involved in the AMTP field trials are encouraged to use this line to leave messages that pertain to the Infantry School's prototype AMTP 7-247J-10 (Mechanized Infantry Platoon and Squad) and the supporting drill manual, FC 7-21. Units not directly involved in the AMTP field trials may also use this line to comment on or ask questions pertaining to any other USAIS ARTEP product.

The Collective Training Branch, Training Division, DOTD, will return your call within two working days. Callers who require immediate information regarding the AMTP or other ARTEP products (except for light infantry division products) should call AUTOVON 835-4848/1317, or commercial 404/545-4848/1317.

Comments or questions concerning light infantry division products that require immediate responses should be addressed to the Light Infantry Task Force at AUTOVON 835-5298/5620, or commercial 404/545-5298/5620.

THE FOLLOWING NEWS ITEMS were submitted by the Directorate of Combat Developments:

• **Small Unit Radio (SUR).** The current small unit transceiver (SUT) program — AN/PRC-68 — was ended by Department of the Army during the fourth quarter of Fiscal Year 1984. The SUT was too expensive ($2,500) and was not consistently reliable in an operational environment.

The Infantry School was then designated the proponent for the new SUR, which will be a non-developmental item (NDI) of equipment and considered a near-term substitute for the AN/PRC-68.

The SUR will cost approximately $1,500 and will have certain operational characteristics, such as external tuning, longer battery life, and 2,320 channels, that were not available in the SUT.

INFANTRY HOTLINE

To get answers to infantry-related questions or to pass on information of an immediate nature, call AUTOVON 835-7693, *commercial* 404/545-7693.

For lengthy questions or comments, send in writing to Commandant, U.S. Army Infantry School, ATTN: ATSH-ES, Fort Benning, GA 31905.

A Request for Proposal (RFP) was presented in August 1985 to identify potential SUR candidates, and a test leading to a SUR selection will be conducted during this last quarter of this calendar year. The SUR is scheduled to be fielded in the fourth quarter of Fiscal Year 1986.

• **Combined Arms Mission Area Analysis.** The Directorate is preparing to undertake a combined arms mission area analysis in Fiscal Year 1986. Preliminary coordination has been made and methodology has been developed; modeling and analytical support will begin during the first quarter of FY 1986. The analysis is expected to run for several months.

All TRADOC schools are expected to participate in the analysis, with the major contributions being made by the maneuver proponent schools. This is the first time a mission area analysis has been developed from a combined arms viewpoint, and it is expected to yield significant results in the fields of training, doctrine, and materiel deficiencies.

THE COMBINED ARMS AND TACTICS Department of the Infantry School has given us the following doctrinal literature update (see INFANTRY, March-April 1985, pages 38-40):

• **FM 7-7J, The Mechanized Infantry Platoon/Squad (BFV).** Estimated DA pinpoint distribution in January 1986.

• **FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force.** Final draft forwarded to CAC for approval, September 1985. Estimated DA pinpoint distribution in June 1986.

• **FC 71-6, Battalion and Brigade Command and Control.** Distributed in August 1985.

• **FM 90-4, Air Assault Operations.** Coordinating draft, August 1985.

• **FM 90-8, Counterguerrilla Operations.** Final draft forwarded to CAC for approval, July 1985.

• **FM 7-93, Long Range Surveillance Unit (LRSU) Operations.** Coordinating draft, September 1985.

Queries concerning the School's doctrinal literature program should be directed to Mr. Jim Gallagher, ATSH-B-ID, telephone AUTOVON 835-7162/4919 or commercial 404/545-7162/4919.

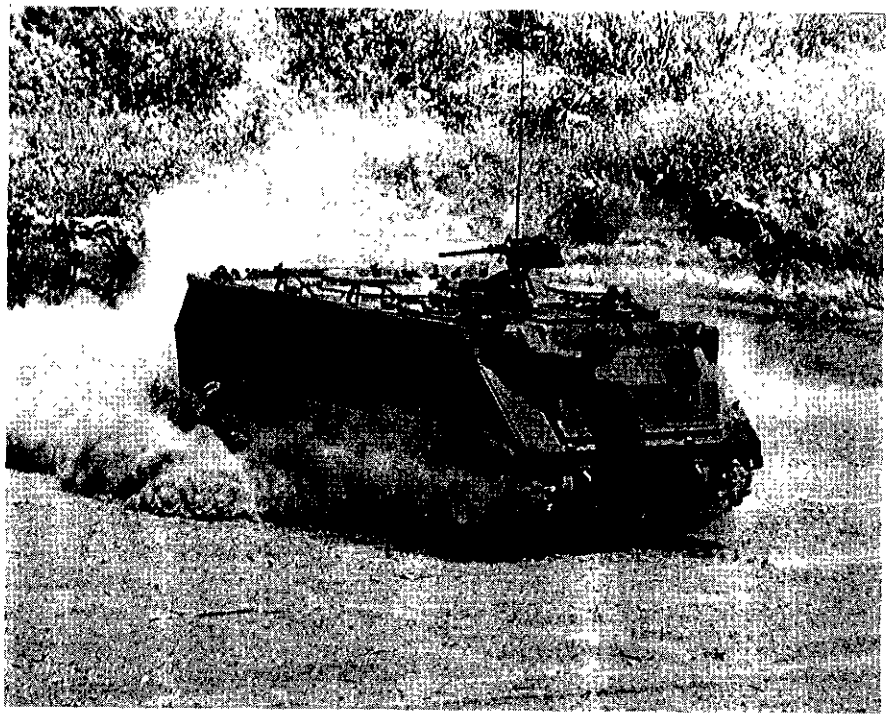
THE ARMY'S FLEET of M113 vehicles is again being modernized, and the new M113A3 vehicle is scheduled to start rolling off the production line in February 1987. It has a projected price tag of $225,000 a copy, which is about $65,000 more than the M113A2, but a number of extras have been added to give it a better combat capability. (See INFANTRY, January-February 1985, page 10.)

The new vehicle will have a 275-horsepower power train, which will give it better dash and cross-country speed and improved fuel economy, and will permit the addition of bolt-on space laminated armor inside the vehicle to improve troop survivability. In addition, the fuel tanks have been moved outside the vehicle, which will reduce the fire hazard within the vehicle in the event of a hit. The fuel tanks are now bolted on the rear of the vehicle and are protected by armor shielding.

The fuel tanks are identical and interchangeable, and can be rapidly replaced in the field if they are damaged. An automatic fuel control system permits the vehicle to operate even if one of the fuel tanks is damaged.

The removal of the internal fuel cell has increased the internal stowage space of the vehicle by 16 cubic feet; this added space can be used for additional ammunition or more crew equipment.

The M113A3 will have a steering yoke instead of steering laterals; this is expected to improve maneuverability, make the vehicle easier to drive, reduce driver fatigue, and make for safer operation. It has a maximum speed of 40 miles per hour and an average cross-country speed of 22 miles per hour. Its 95 gallons of diesel fuel give it a cruising range of 300 miles.



The M113A3.

Modernization kits — engine, transmission, external fuel tanks, and internal spall suppressive armor system — will be purchased by the Army this fiscal year and next to upgrade a number of its M113A2s. The modernization work will be done at Army facilities.

THE ARMY IS REVAMPING its mortar structure. For example, the 120mm mortar will replace the 4.2-inch mortar in certain units, and the improved 81mm mortar and the 60mm lightweight company mortar systems will be fielded in all light infantry battalions and companies in the light infantry, airborne, and air assault divisions. Here is what the mortar structure will be:

TYPE UNIT	BATTALION LEVEL	COMPANY/TROOP
Armor and mechanized infantry battalions (modernized J-series TOE)	Six 120mm mortars	None
Standard infantry battalions	Four 120mm mortars	Three 81mm mortars (H-series TOE)
Light infantry battalions in the light infantry, airborne, air assault, and mountain divisions	Four 81mm mortars	Two 60mm mortars with crews
Ranger battalions	None	Two 60mm mortars with crews
Armored cavalry squadrons (Div)	None	Three 120mm mortars
Armored cavalry squadrons (ACR)	None	Two 120mm mortars

THE DIRECTOR OF THE National Infantry Museum has furnished the following news items:

Members of the 7th Armored Division honored their comrades on Memorial Day, 30 May 1985, with a floral tribute at the Museum. The standing arrangement in the shape of the Division's patch, was placed at the Division's monument on the Museum's grounds by Lieutenant Colonel Lon Maggart and Command Sergeant Major Felix Helms (both from the 2d Battalion, 69th Armor, which is stationed at Fort Benning) in the presence of some 200 visitors.

Memorial Day observances at the Museum also included the reading of a poem written by the late Medal of Honor recipient Audie Murphy. The framed poem, which Murphy wrote in 1948, is a recent gift to the Museum and has been added to its Medal of Honor collection.

The German section of the Museum's Foreign Gallery has been expanded through the display of a number of ceremonial items that belonged to Field Marshal Hermann Goering, commander of the *Luftwaffe* during World War II. One of the items is a diamond-studded baton, embellished with gold and silver emblems, and inscribed (translation), "The Fuehrer to the first Field Marshal General of the Air Force, Hermann Goering, 4 February 1938." Also displayed are a diamond-circled medallion, a large gold and silver document case, and a gold-hilted sword that was presented to Goering by the Italian Premier, Benito Mussolini.

Another piece of Nazi memorabilia recently given to the National Infantry Museum is a linen table napkin that belonged to Hitler's Minister of Foreign Affairs, Joachim von Ribbentrop. The fine linen napkin, delicately embroidered with a design that features the Nazi emblem, will be displayed along with pieces of china, also from the Nazi period.

The reference library at the Museum continues to grow. Unit histories are a valued part of the collection, and several have been received in recent months. A substantial number of works on the American Civil War, including books on Generals Grant, Sherman, and Sheridan as well as on specific campaigns of the war, have also been received. Other donations include books on uniform items from the World War I and Vietnam War periods.

The 5th Annual Infantry Museum Road Race will be held at Fort Benning on 12 October 1985. The race, one of the largest road races in the Southeast, has raised approximately $50,000 for the Museum during the past four years. The entry fees are $5.00 per individual and $35.00 per seven-man team.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to help 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, telephone AUTOVON 835-2958 or commercial 404/545-2958.

THE PRESIDENT OF the United States Army Infantry Board has given us the following news items:

• **Extended Cold Weather Clothing System (ECWCS).** This system was developed as a result of a continuing program to design an integrated individual fighting system that reduces the weight of a soldier's load while giving him better environmental protection over a wide range of climatic conditions. (See INFANTRY, September-October 1984, page 6.)

The ECWCS is a head-to-toe cold weather clothing system that weighs less than the current Standard A cold weather clothing but gives a soldier increased protection. It consists of:

• A battle dress uniform cap and a nomex balaclava.

• Two systems of handwear — a fiber-pile trigger-finger mitten insert with a five-finger contact glove, and a five-finger polytetrafluoroethylene (PTFE) glove — that can be used with the standard extreme cold weather mitten with liner and with the trigger-finger mitten.

• The standard white vapor barrier (VB) boot with cushion sole socks and polypropylene (PP) liner socks.

• A PP long sleeve, turtleneck undershirt and PP long underpants.

• A nine-ounce fiber-pile shirt.

• A PTFE parka with hood.

• The standard field trousers.

• PTFE trousers.

• Two varieties of a removable extreme cold insulating layer (four-ounce polyester batting liners for the field coat and field trousers, used in conjunction with fiber-pile bib overalls and six-ounce polyester batting liners for the field coat and field trousers).

• The standard overwhite parka, trousers, and mittens.

• A fur ruff hood.

The Infantry Board conducted the most recent test of the ECWCS at Fort Wainwright, Alaska, from 18 February to 8 March 1985 to evaluate its military utility in an arctic environment. Soldiers from the 6th Battalion, 172d Infantry Brigade took part in back-to-back five-day field exercises, and their previous arctic experience paid immediate dividends as the temperature ranged from a high of minus 26 degrees Fahrenheit to a low of minus 70 degrees Fahrenheit.

Following the field exercises, airborne operations were conducted on a drop zone covered with four to five feet of snow.

The ability of the soldiers to perform selected MOS and ARTEP tasks while wearing the ECWCS and its compatibility with the fighting loads and other equipment carried by the soldiers were evaluated by observation, questionnaire, and interview. In addition, the Cold Regions Test Center concurrently conducted an extended wear and durability test of the ECWCS.

The test results will be used by the Infantry School in making recommendations concerning type classification.

• ***Rocket, HE, 84mm XM136 (AT4).*** As armor technology continues to improve, so must the effectiveness of the Army's family of antiarmor weapons. For some time the current lightweight antiarmor weapon, the M72A2 LAW, has been known to be

limited in both its range and its penetration capability.

Because of its concern for the increased armor threats and the rising research and development costs of lightweight antiarmor weapon systems, the Senate Appropriations Committee in 1982 directed that the Army begin testing available foreign and domestic light antiarmor systems.

From March through May 1985, the Board conducted an operational test to provide data and associated analysis on the effectiveness of the AT4, an 84mm, high explosive, light antiarmor weapon. The test results will be used to support decisions on whether the AT4 is suitable for Army and Marine Corps use.

The AT4 is a self-contained, lightweight, disposable weapon that is issued as a round of ammunition. It consists of two major components, the launcher and the cartridge. (See INFANTRY, January-February 1985, pages 9-10, and INFANTRY, March-April 1984, pages 20-21.)

The launcher is a fiberglass-reinforced smoothbore barrel equipped with an aluminum venturi, a firing mechanism, front and rear rifle-like sights, and a carrying sling. The cartridge consists of a shaped-charge, fin-stabilized projectile and cartridge case assembly.

The AT4 system includes a 9mm training device consisting of a single-shot breech and barrel assembly contained within an AT4 launcher. Nine millimeter (9mm) tracer cartridges with downloaded propellants designed to have a trajectory similar to that of a tactical round are used with the training device.

Using training strategies developed by the Infantry School's Directorate of Training and Doctrine, soldiers from the 197th Infantry Brigade and Marines from the 2d Marine Division, Camp Lejeune, North Carolina, formed a composite test platoon. They employed the AT4 in a series of realistic infantry field exercises based on Army Training and Evaluation Program (ARTEP) requirements.

The test soldiers engaged moving and stationary armored targets at ranges of 150 to 500 meters and at speeds of 0 to 15 miles per hour during daylight and darkness (under illumination). The target vehicles were M47 tanks and M114 reconnaissance vehicles known as remote controlled target vehicles (RCTV). These computer-controlled, programmable vehicles, on loan from Fort Carson, Colorado, allowed the test soldiers to fire live tactical warheads at attacking and withdrawing armored vehicles without risk to vehicle crews.

Airborne operations were also conducted using a special AT4 jump pack designed by the Natick Research and Development Center. Infantry School, Infantry Board, and Marine Corps parachutists made jumps from C130, C141, UH1, and UH60 aircraft.

Airmobile and air delivery operations using UH1 and UH60 aircraft were also conducted, as were vehicle operations using M113 and Bradley vehicles. These tests were conducted to determine the AT4's compatiblity with those aircraft and vehicles.

Throughout all of the testing phases, questionnaires and interviews were used to collect subjective data from the testers and the test participants. The results of the operational test will be used by the Infantry School and the Marine Corps Development and Education Command to support their recommendations concerning the suitability of the AT4 to fill the role of a light antiarmor weapon for the Army and the Marine Corps.

• **Optical Sights, M16A2 Rifle.** In late 1986 the Army will receive its first delivery of M16A2 rifles, but soldiers may find that they do not look like the M16 rifles they have been using. (See INFANTRY, July-August 1985, page 10.)

In September 1984 the Army awarded a contract for the design and construction of a prototype "enhanced" M16A2 rifle with an integrated sight base that would permit the mounting of either day or night optical sights. The Army's Test and Evaluation Command has indicated that the new rifles should be delivered in the desired configuration — either with the standard carrying handle or with the optical sight mounting base on the upper receiver.

The weapons that arrive in late 1986 may incorporate the optical sight feature after the Armament Research and Development Center (ARDC) has completed its evaluation of the data the Infantry Board collected during a recent test of the modified M16A2 rifle and six different optical sights.

Twenty-four soldiers and ten Marines took part in the test during the period 7 March to 23 May 1985. Each of the 34 firers was trained in the use and maintenance of the M16A2 rifle with the standard iron sights and the modified M16A2 rifle equipped with the various optical sights.

The optical sights, mounted on the rifle by commercial scope mounting rings, included both 2.5X and 6X telescopes with cross hair reticles, a 1X (unity) reflex sight with aiming point reticle, a 1X (unity) reflex sight with a 3X attachment and aiming point reticle, a 3.5X telescope with illuminated T reticle, and a 4X telescope with illuminated post reticle.

Each of the firers, using the standard M16A2 rifle with iron sights and the modified M16A2 rifle equipped with each of the optical sights, took part in a series of nonfiring target acquisition exercises during day, night, dawn, and dusk hours, and during a series of day live fire target engagement exercises.

The target acquisition exercises used live personnel targets positioned up to 1,000 meters from the observers during the day and as far as 300 meters under other light conditions. The live firing was done to collect hit data for targets engaged at known distances ranging from 50 to 580 meters, and for targets at distances unknown to the firers but which were from 50 to 300 meters downrange.

To place additional stress on the firers, a number of the exercises required that they be completed within a limited period of time.

Human factor and safety data were collected throughout the testing program.

The test results will be used by ARDC to decide whether the M16A2 rifle should be modified to permit the

mounting of an optical sight.

• **XM40 CB Protective Mask and US-10 Respirator.** The need has long been recognized for a protective mask that provides more protection against field concentrations of all chemical and biological agents in vapor and aerosol form. As early as 1974 the Army approved a requirement document for a mask to replace the M17A1 (basic field use), the M9A1 (special purpose use), and the M25A1 (combat vehicle crewman) protective masks. In 1978, all of the services joined in approving a Joint Service Operational Requirement for a new mask.

Since then, a number of masks have been developed and tested, including the XM29 unimolded silicone facepiece with integal lens; the XM30 family of masks with the single bubble polyurethane lens; and the minimum change/minimum risk (MC/MR) mask design, which combined desirable features from the M17A1 and XM30 masks.

A refined MC/MR, designated the XM40, and the British S-10 respirator were evaluated during tests in 1983 and served as the basis for modifications that evolved into two XM40 designs and the US-10 respirator.

Each design is a family of protective masks that includes masks for basic field use (XM40A, XM40B, US-10), for special purpose use (XM40A and B SPM, US-10 SPM), for use by armored crewmen (XM42A and B, US-12), and for use by air crewmen (XM41A and B, US-11).

The basic XM40 mask design includes a silicone rubber faceblank with molded-in head harness buckles, inturned peripheral seal, six-point adjustment head harness, rigid lenses mechanically attached to the faceblank, a front and a smaller side voicemitter, and a cheek-mounted filtration canister that can be interchanged with the side voicemitter and worn on either side.

The XM40SPM is similar to the basic design, but its side voicemitter has been replaced with an additional inlet valve assembly and filtration canister. The XM42 also parallels the basic design and allows the armored crewman to hook up to his vehicle's on-board gas particulate filter unit; in addition, it has an internally mounted microphone and can be connected to a vehicle's communication system.

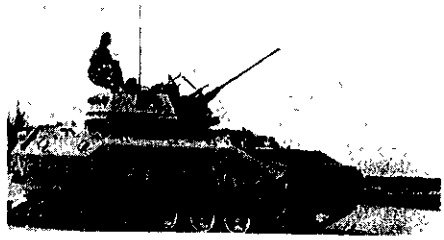
Variations between the XM40A and the XM40B designs are basically dimensional. The design configurations of the US-10 family of masks parallel those of the XM40, but the masks are molded from a chlorobutyl elastometer compound and have patented rigid binocular lenses.

The operational effectiveness of the XM40 and US-10 field masks and their variants for special-purpose use and for armored crewmen was compared with that of their respective standard counterpart masks — M17A1, M9A1, and M25A1 — during a test conducted by the Board from 19 February to 7 June 1985. The testing was done under tactical conditions in a simulated chemically contaminated environment. It involved soldiers from mechanized infantry platoons, 81mm and 107mm mortar sections, and TOW sections, drivers of tracked and wheeled vehicles, mechanics, parachutists, and EOD personnel.

The test participants alternately wore their standard protective masks and, in turn, each of the corresponding masks from each family of masks while performing combat and combat support tasks. Exercises included negotiating an obstacle course, conducting wheeled and tracked vehicle operations, employing and firing individual and crew-served weapons, and conducting platoon level field exercises and EOD and airborne operations.

Data was collected in the areas of functional performance, compatibility, training, human factors, safety, logistical supportability, reliability, availability, and maintainability. The test results will be used in arriving at a procurement decision.

BRADLEY INFANTRYMEN from the 3d Infantry Division were the first in Europe to use their vehicles and onboard weapons in live fire aerial gunnery training. The training took place at Todendorf on Germany's north coast.



Bradley crewmen from throughout the division were selected by their units to attend the week-long exercise, which was preceded by a week of ground gunnery training at the nearby Putlos training area. Air Defense Artillerymen served as technical advisors.

Several Bradley master gunners and crew members recorded and compiled data on all Bradley crew firing performances. This information will be forwarded to Department of the Army to be used in Bradley aerial training improvements.

THE VOICE OF THE ARMY NATIONAL GUARD is open for business, providing toll-free information to any Guard member who wants to know more about a wide range of current subjects.

The information is available 24 hours a day; the number is 1-800-245-0055. A similar, but more limited, service had been available to Guard members in the past but under a different telephone number.

The calls are answered in the National Guard Bureau with a recorded introductory message and instructions for selecting a topic of interest. Those who wish may leave a short recorded message or question at the end of the presentation.

The system can be activated only by touch tone telephones. Those individuals who dial the toll-free number with a rotary or pulse phone will hear only the introduction and will not be able to gain access to the selected topics or leave messages.

The program coordinator welcomes suggestions on the system. His number is AUTOVON 227-3065 or commercial 202/697-3065.
