

# INFANTRY NEWS



THE 1989 INFANTRY Conference will be held at Fort Benning 10-13 April 1989. An agenda is now being developed.

All correspondence concerning the conference should be addressed to the Office of the Secretary, ATTN: CPT Megahan, U.S. Army Infantry School, Fort Benning, GA 31905; AUTOVON 835-1727/3731, commercial (404) 545-1727/3731.

INFANTRYMEN should use the Infantry School's Army Correspondence Course Program (ACCP) to further their professional development and to reinforce their training experience.

Infantry courses are available for professional development and skill progression in tactics, weapons, maintenance, leadership, and operations. In many cases, successful completion of courses earns promotion and retirement points.

DA Pamphlet 351-20, Army Correspondence Course Catalog, contains a complete listing of ACCP courses and enrollment criteria.

THE INFANTRY SCHOOL has developed a three-phase progressive marksmanship training program consisting of preliminary rifle instruction (PRI), downrange feedback (known distance/modified field fire), and field training.

In the PRI phase, the fundamentals of rifle marksmanship and safety are taught. Downrange feedback is a practical application phase that gives soldiers an opportunity to put the fundamentals into practice using known distance targets and modified field fire target engagements.

In the field firing phase, trainfire range firing completes the critical transition from known distance shooting by applying fundamentals for quickly engaging combat targets. Additionally, the soldiers fire in

a simulated chemical environment and during periods of reduced visibility.

An effective unit rifle marksmanship sustainment program should incorporate quarterly training from all three of these phases with particular emphasis on the fundamentals.

The phases of rifle marksmanship training, training objectives, and lesson outlines are covered in detail in the Basic Rifle Marksmanship (BRM) program of instruction (POI) (Supplement 3 to POI 21-114). The new FM 23-9, M16A1 and M16A2 Rifle Marksmanship, will address establishing a correct unit rifle marksmanship sustainment program. The manual is scheduled to be fielded during the second quarter of Fiscal Year 1989.

THE NEW MC1-1C personnel parachute has a no-porosity nylon material in its canopy that results in a smoother landing. A modification of the standard MC1-1B, it has a rate of descent of 14.6 feet per second. This is much slower than the current MC1-1B, which has a standard of 21 feet per second.

The chute, which was developed by the JFK Special Warfare Center and School to meet the needs of Special Forces and Ranger units, also has a good forward drive and faster turning.

Because resupplying is difficult during Special Operations missions, Special Forces soldiers and Rangers carry as much as 120-130 pounds of equipment. With conventional parachutes, this extra weight means harder landings that increase the chances of personal injury and equipment damage.

## 1988 INDEX

The 1988 index to INFANTRY has been prepared separately and is available to anyone who requests a copy. Please address your requests to Editor, INFANTRY, P.O. Box 2005, Fort Benning, GA 31905-0605.

The chute's forward drive of eight to ten knots—an increase of two to four knots—will enable a parachutist to maneuver faster and easier around dangerous ground obstacles such as trees and boulders. The forward drive modification was achieved by removing more than 59 square feet of material from the back of the chute. This gives it the recognizable appearance of the letter H.

The MC1-1C uses the standard MC1-1B harness, pack tray, deployment bag, and packing procedures. It is designed to be as reliable and easy to maintain as its predecessor.

The fielding of the parachutes began last summer.

A RAPID-FIRE 81mm mortar system called the TMT81 is being developed by the French Army. It will be mounted in both the French AMX10P (mechanized infantry vehicle) and the VAB (motorized infantry vehicle).

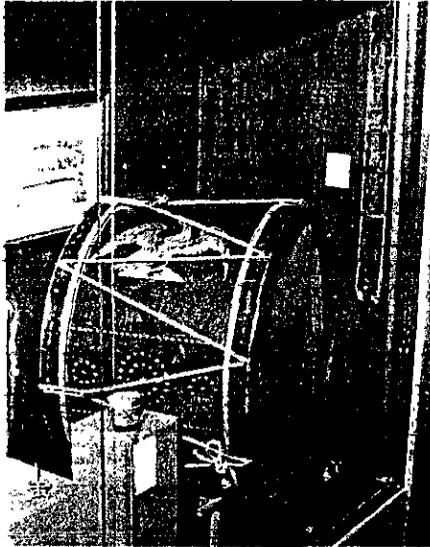
The mortar system has four automatic function modes—loading, unloading, rapid fire, and single round. In the burst mode the weapon is capable of a maximum rate of fire of five rounds in four seconds or a continuous rate of fire of 30 rounds per minute. The vehicle carries 90 81mm mortar rounds and a crew of four.

The TMT81 will fire four varieties of munitions, including all the 81mm munitions currently in service in the French Army that do not exceed 512mm in length. Its gas-evacuation system also serves as an NBC overpressurization protective system. With current French munitions, the mortar has a range of 6,000 meters.

THE NATIONAL INFANTRY Museum is continuing the revision of its exhibits, with work now being done on

the portrayal of 19th century infantry activities in both war and peace.

A separate exhibit on display is one on military music that includes items from every period. The oldest piece in the music collection is a drum major's baton carried by a soldier of Great Britain's 122nd Regiment of Foot in the Revolutionary War. The newest is a violin made



from ammunition boxes and decorated with shoe polish by a U.S. soldier while serving in Vietnam. Also included in the display is an important collection of World War I liberty and patriotic songs in sheet music form.

This exhibit recognizes the important role that music has played in support of the infantryman through the years—inspiring patriotism and the fighting spirit.

The drum and fife were used in the American Revolution to call attention to news being broadcast by the town crier, to muster the local militia, to accompany drills, and to sound signals. Will Diamond and Jonathan Harrington, the drummer and fifer at Lexington in April of 1775, were often told that their duties—battle signals and music for troops to march by—were more important than two more guns in the firing line.

With few exceptions, military leaders have always recognized the importance of music. Robert E. Lee once said, "I don't believe we can have an army without music," while Baron von Steuben, as soon as he had completed his *Manual of Arms*, wrote a regulation on "the Different Beats of the Drum."

The drum remained the principal signal instrument for the infantry until the Civil War, when trumpets and bugles became standard for almost all troops. During that war, bandsmen were mustered in and paid solely to furnish military music. Later on, in addition to playing for dress parades, guard mount, morning colors, reviews, funerals, and the like, band musicians served as stretcher bearers and medical corpsmen. Some manned muskets in battle.

Patriotic songs reflect the thoughts and feelings of Americans during periods of crisis. These songs help to foster patriotism in the Army and the populace and instill a sense of the importance of the cause in each particular war. Usually sentimental, they have a powerful effect on the emotions of their listeners.

The photograph shows part of a display in which a drum of the Civil War period is featured.

THE ARMY'S ADVANCED Antitank Weapon System-Medium (AAWS-M) is a step closer to production. The contractors in the AAWS-M competition have demonstrated their respective systems during flight tests at Redstone Arsenal and are eligible to be considered for full-scale development.

Ford Aerospace, Hughes Aircraft, and Texas Instruments have met the minimum requirements by successfully engaging six of ten mandatory targets during proof-of-principle flight tests.

Based on the test data and on proposals the companies have submitted, the Army will select one contractor team in early 1989 for full-scale development of AAWS-M. Ford is teamed with General Dynamics, Hughes with Honeywell, and Texas Instruments with Martin.

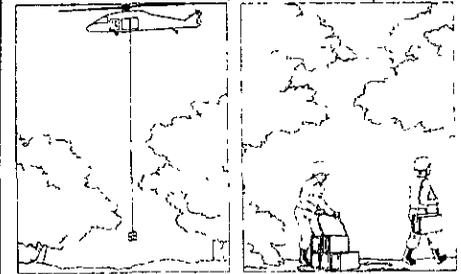
AAWS-M is intended as a one-man-portable, medium range, antiarmor weapon that will replace the Dragon and give the soldier substantially greater capabilities than the Dragon provides.

A NEW ROTOCRAFT ammunition delivery system is being developed by the Natick Research, Development, and Engineering Center. It would consist of two parts, a lowering device and manportable

modules. Loads would be lowered to the drop zone on a rope from a helicopter flying at altitudes too low for parachute drops. This concept is presently being developed for use with the UH-60 helicopter to deliver up to four 450-pound loads of small arms ammunition per sortie.

The manportable module is a harness and shoulder strap system that quickly adjusts to fit any small arms ammunition case. It permits one person to carry one case of ammunition easily. The harness can be secured around an ammunition case with quick-release buckles. Once a load is delivered, the harness unhooks for reuse.

Two methods of dropping a load from a helicopter are being investigated. The first, called a "sky genie," uses friction on a rope wrapped around a cylinder to control the rate of descent. The amount of friction can be adjusted, but the rope must be precut to a length equal to the altitude of the helicopter at the drop zone.



When the end of the rope passes through the "sky genie," the load is free of the craft and the rope falls to the ground with the load.

The second method employs an automatically controlled brake that maintains a constant drop speed. Rope is supplied on 50- to 100-foot spools and can be quickly attached to the brake device. Both of these settings can be made while a helicopter is approaching the drop zone. The brake automatically controls the velocity of the load until the exact length of rope reels out to touch down.

The rotocraft ammunition delivery system can deliver six case bundles of small arms ammunition accurately without requiring a helicopter to land or stop, thereby reducing the aircraft's vulnerability to ground fire.

THE 1988 NATIONAL Infantry Ball was held on 19 November 1988 to celebrate the 213th anniversary of the U.S. Infantry. The host, Major General Michael F. Spigelmirre, Chief of Infantry, presented the 1988 Doughboy Award to General (Retired) Frederick J. Kroesen for his many years of distinguished service to the Infantry.

General (Retired) William J. Livsey was the evening's guest speaker, and a special presentation was made to General Arthur E. Brown, Jr., retiring Vice Chief of Staff of the Army, in recognition of his outstanding career as an infantryman.

Participants in the program included the 3d U.S. Infantry (The Old Guard) and the 82d Airborne Division Chorus.

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THE AMMUNITION for the M16A1 and M16A2 rifles has raised some questions in the minds of soldiers in the field. The M16A1 fires M193 ball ammunition (plain copper-colored projectile), and the M16A2 fires M855 ball ammunition (green-tip projectile).

The questions are: Is it safe to interchange this ammunition? If it is, what about accuracy?

Live fire tests were conducted recently at Fort Benning by the U.S. Army Marksmanship Unit (USAMU) to answer these questions and to verify the safety versus accuracy statements that appear in the final draft of the new FM 23-9, M16A1 and M16A2 Rifle Marksmanship.

As always, safety is of the utmost importance, and USAMU tests verified that it is safe to fire either the M193 or the M855 round from any currently serviceable M16 rifle, A1 or A2. The exterior dimensions of the two cartridges are the same, and both will function safely in either rifle.

As to accuracy, once again the tests verified the FM's position. M193 ammunition fired from the M16A2 rifle displayed an accuracy comparable to that of M855 ammunition out to 400 yards (366 meters), the maximum range of the tests. Beyond that range, the heavier (62-grain, steel-penetrator-tipped) M855 projectile, coupled with the increased barrel twist (1:7) of the M16A2 may result in smaller shot groups, greater wind resistance, and

better penetration over the lighter (55-grain, solid-lead-core) M193 projectile.

On the other hand, M855 ammunition fired from the M16A1 rifle displayed accuracy problems as close in as 25 meters. Most of the M855 rounds fired at this range from the M16A1 made keyhole-shaped bullet holes in the targets (indicating that the rounds yawed and pitched at the moment of impact). At longer ranges, testing showed a further loss of accuracy. F-silhouettes engaged at 100 yards (91 meters), for example, indicated a 70 percent probability of hit (PH). E-silhouettes engaged at 100 yards (183 meters) showed a 30 percent PH. The same targets engaged at 300 yards (274 meters) resulted in a 24 percent PH.

This loss of accuracy beyond 100 meters with the M16A1 is due almost entirely to barrel twist. The M16A1 rifle barrel, with a twist of 1:12, simply does not give enough spin to the M855 projectile to stabilize it before it begins to drift away from its intended trajectory. Elongated bullet holes in targets at 25 meters showed this instability.

Although bullets that hit targets at ranges beyond 25 meters produced round holes (indicating stable flight characteristics), the damage had already been done, as shown by the enlarged shot groups. By the time the M855 projectiles fired from the M16A1 reached stability, they had yawed and pitched themselves out of a group size that could have been expected if M193 rounds had been fired from the same weapon.

Although care should be taken to fire the appropriate ammunition in each rifle, M855 and M193 ball rounds can be interchanged safely. While the M16A2 rifle can deliver accurate hits out to 500 meters (according to the FM) using either round, the M16A1 rifle cannot deliver acceptable PH beyond 100 meters using M855 ammunition.

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A REACTIVE ARMOR applique system has been developed that will significantly increase the protection of tanks and armored fighting vehicles when fired upon by shaped-charge warheads.

The system is made up of tiles in two sizes, each containing a relatively insen-

sitive explosive that reacts with a jet from an incoming shaped charge warhead and reduces its effectiveness before it reaches the main armor of the vehicle.



One of the tiles is a one-foot square metal box, two inches thick that contains reactive armor plates and explosive. The other consists of the same material but is 50% larger.

The tiles were demonstrated to be safe under all test conditions.

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THE 6th INFANTRY DIVISION (Light), headquartered at Fort Richardson, Alaska, is establishing a museum dedicated to the history of the division and of the U.S. Army in Alaska.

Authentic 6th Infantry Division documents, uniforms, and other historic items are needed.

Anyone associated with the 6th Division or the U.S. Army in Alaska who is willing to donate or lend such items may contact LT Robert Magrino or SFC Millard Bonner at (907) 862-2186 or 863-6197. The address is Commander, 6th Infantry Division (Light), Division Historian, ATTN: AFVR-PTM-T, Fort Richardson, AK 99505-5200.

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ALL ACCP STUDENTS should review their course records and check them for accuracy.

The Institute for Professional Development recently underwent a computer software conversion intended to improve ser-

vice to students of the Army Correspondence Course Program (ACCP). Following the conversion, however, it was found that some student records were incorrectly changed; for example, RYE dates were erroneously computed or changed, multiple issue of materials was directed, and the like.

All students are urged to report any discrepancies or problems to IPD. For prompt correction of any problems, contact Mrs. Margaret Burton, Chief of Student Services, at AUTOVON 927-3085 or commercial (804) 878-3085.

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A NEW RESERVE COMPONENT training strategy has been adopted by the Army. The strategy plans the training of the Army National Guard and the U.S. Army Reserve well into the 1990s. It serves as a framework to match the quality of RC training to the quality of Army equipment and training technology.

A major focus of the strategy is on developing leaders and training RC soldiers in their military occupations. It also emphasizes unit training and evaluation, planning and managing training, and training support.

The Army has already begun implementing the new RC training strategy with about 30 initiatives that require little or no cost and with selected high priority programs.

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THE RESERVE COMPONENT Training Net (RCTRAIN-NET) sponsored by the Army Training Board, provides a forum for the exchange of ideas, concepts and questions through a computer teleconferencing network.

The network is, or soon will be, available to all RC trainers who have access to a computer, a modem, and the appropriate software. The service is free except for the cost of a local telephone call.

Trainers at most major Army Reserve Training Commands have already received information packets that include local telephone access numbers and a user identification issued by the Army Training Board.

For more information, users and potential users are invited to contact LTC

William Boylan or LTC Ron Fritz, U.S. Army Training Board, ATTN: ATAB-C, Fort Monroe, VA 23651-5320, or call AUTOVON 680-4357/4358 or commercial (804) 727-4357/4358.

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ACTIVE GUARD/RESERVE (AGR) members need to keep their personnel management officers and career advisors informed of their *current* home addresses.

Bad address information not only causes problems for AGR members in receiving routine mailings from ARPERCEN but can jeopardize their promotion consideration as well.

If they are in doubt, enlisted AGR soldiers may write to Commander, ARPERCEN, ATTN: DARP-ARE-C, 9700 Page Blvd., St. Louis, MO 63132-5200; and officer members should write to the same address, substituting DARP-ARO-C in the attention line.

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COMBAT ARMS SOLDIERS in the U.S. Army Reserve may affiliate with any combat arms regiment that is part of the U.S. Army Regimental Affiliation System (USARS), consistent with their branch or MOS.

Under the guidelines of AR 600-82, The U.S. Army Regimental System, combat support, combat service support, special branches, and Corps of Engineers soldiers are automatically affiliated with the branch or corps to which they are assigned.

Procedures for requesting affiliation with a combat arms regiment are being worked out by the Army Reserve Personnel Center (ARPERCEN). Additional information will be published as it is made available.

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THE JOINT STRATEGIC Deployment Training Center was activated 1 October 1987 at Fort Eustis. The Center's mission is to develop and present resident and nonresident deployment training to selected officers, civilians, and noncommissioned officers charged with planning and executing operations plans.

The focus will range from simple unit tasks to detailed strategic movement planning.

Three courses are to be taught initially at the Center. Two of these—the Surface Deployment Planning Course and the Air Deployment Planning Course—began in the first quarter of Fiscal Year 1989.

The Surface Deployment Planning Course is a two-week resident course, designed in building block fashion to take a unit movement officer or NCO from the home station to the port of embarkation, and from the port of debarkation to the marshalling area in the theater of operations. With an emphasis on planning, coordinating, and executing unit movement plans, the course is built around four annexes: Movement Planning, CONUS Highway Operations, Rail Deployment Operations, and Marine Terminal Operations. The course is highlighted by extensive practical exercises.

The Air Deployment Planning Course is a three-week course that produces qualified air load planners. This course is designed for company grade unit movement officers and unit movement NCOs from all services, as well as DoD civilians involved in the movement planning process.

The course emphasizes hands-on exercises to instruct the students on hazardous cargo considerations, the preparation of unit equipment and personnel for movement, and the Civil Reserve Air Fleet.

Extensive practical exercises are used to teach detailed load planning, cargo and passenger manifest preparation, cargo loading, and CH-47 slingloading. Graduates are able to plan all aspects of unit strategic air deployment worldwide.

Both of these joint courses are open to unit movement personnel, in the rank of sergeant and above, of all services and all Army branches and components, including the National Guard and the U.S. Army Reserve.

The third course, Strategic Deployment Planning, is programmed to begin during the second quarter of FY 1990.

Students may enroll through their training offices to TRADOC. Further information is available from Janice Neff, AUTOVON 280-2161.