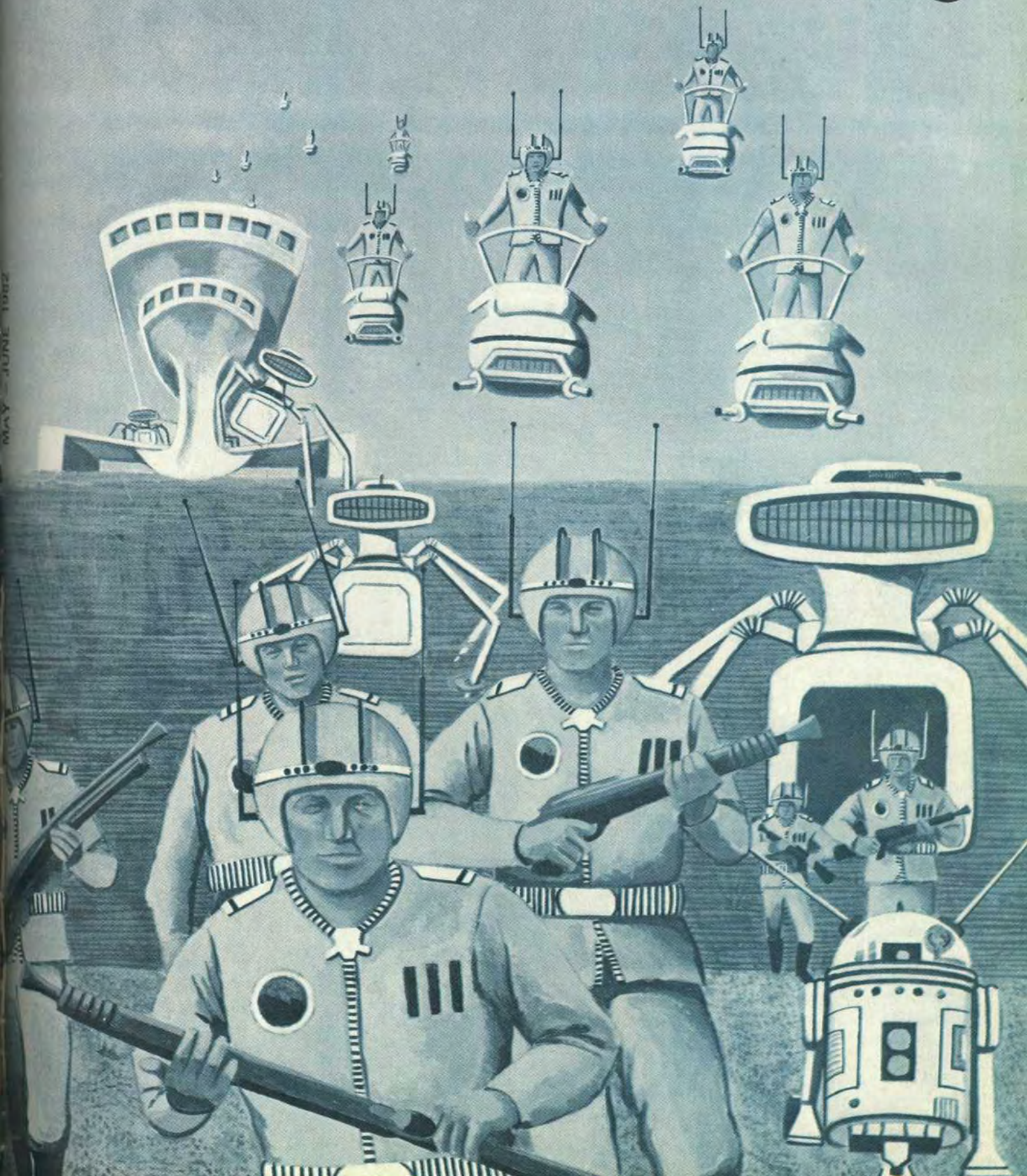


Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM



MAY - JUNE 1982

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Infantry

A PROFESSIONAL JOURNAL FOR THE COMBINED ARMS TEAM

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FRONT COVER

Amphibious operations belong to the Army's past — and to its future. The cover is an artist's conception of an amphibious landing some time in the 21st century. Original painting by Charles Willis.

USAIS

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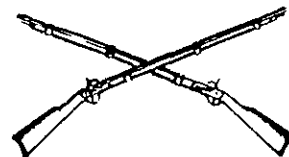
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Commandant's NOTE



MAJOR GENERAL SAM WETZEL

STANDARDIZATION — PHASE II

The Army Standardization Program, directed by the Chief of Staff of the Army (CSA), strives to abolish the modification of basic tasks that can be performed to the same standard in like units regardless of geographic locations. In a wider sense, the objective of the program is to standardize within the Army those procedures used to maintain, operate, and fight with major systems. This program includes two phases. Phase I focused on standardizing combat unit crew vehicle preoperational checks, and training management. Phase II is a continuing effort to improve Phase I actions and to add crew drills for new weapon systems, support procedures, and training management.

The Infantry School's goal in the Army Standardization Program is to ensure that no obstacles exist that will prevent *coordination among unit commanders, MACOMs, and other service schools*. The program also seeks to obtain the greatest possible economy in the use of combined resources and efforts.

The USAIS Standardization Committee (which is composed of subject matter experts and points of contact for each USAIS Directorate and Department) aids all commanders by eliminating time wasted relearning local modifications to basic tasks that can and should be conducted the same way throughout the Army.

The Standardization Committee has reviewed the revised load plan for the M113A1, the M106A1 and M125A1 mortar carriers, and the M220 TOW missile carrier. These revised supplemental load plans were finalized

and approved at TRADOC in mid-February 1982.

Currently, as a means of "checking the system," a Standardization Studies Program is studying specific standardization topics and identifying those actions necessary to achieve the standardization of certain basic soldier tasks. The initial standardization study topics are the construction of M60 machinegun range cards; FDC procedures for the 4.2-inch mortar; battlesight zeroing the M16A1 rifle; and engaging targets with M203 grenade launchers (hold of weapon).

An updated list of references for these Phase I topics was identified as having standardized procedures and crew drills for the following major weapon systems:

- Mortars.
- TOWs (except ITVs).
- Recoilless rifles.
- Machineguns.
- Dragons.

Since Phase II is a continuation of Phase I, it is "open-ended," and it is ensuring that standardized procedures are incorporated into the ITV crew drills (six separate functional areas). This is also true for the BIFV (38 separate functional areas).

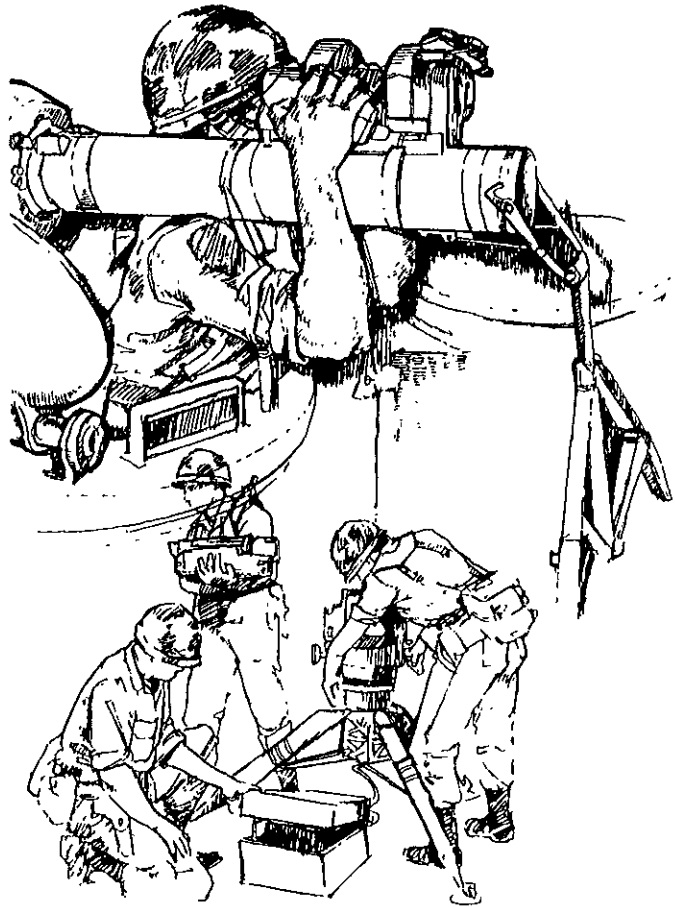
USAIS and the Army Training Board (ATB) are also developing a series of light and mechanized infantry battle drills. These fire team and squad level drills are designed to form a bridge between Soldier's Manual (i

dividual) and ARTEP (collective) training. When published, these drills will support the standardization of training and evaluation in the Army.

Finally, to further employ the Army Standardization Program and reduce personnel turbulence, the Infantry Liaison Team (ILT) will seek feedback from all the units it visits to determine what procedures and tasks require standardization emphasis.

Our standardization efforts must evaluate and develop the full use of various ideas and concepts and should not impede unit abilities. Some officials advocate different standardization programs to provide for the needs of different major commands and geographical areas. However, the advantages of different programs for different needs must be set against the difficulty of coordinating the many such programs for the entire Army. As an example, selected procedures may be standardized within a unit in Europe, but when the soldiers from that unit are redeployed to stateside they may not be familiar with the procedures that are SOP to their new units. This is confusing to the soldier and inefficient to the unit mission.

The bottom line in accomplishing these standardization goals is for each of us to use the manuals and references already published and currently in the field. The greatest detriment to the standardization effort is the popular practice of locally modifying some procedures or adding others that often duplicate the more efficient standard that is already available and practicable. The Army Standardization Program, Phase II, will provide the necessary uniformity to enhance our potential combat power through heightened flexibility and readiness. Think Combined Arms!



INFANTRY NEWS



THE NATIONAL INFANTRY MUSEUM opened its doors at Fort Benning in 1959. Since then, tens of thousands of visitors from every state and from many foreign countries have toured its displays.

The Museum is much more than a collection of things painted OD. There is a broad spectrum of items on exhibit ranging from oil paintings, oriental rugs, fine bronzes, and sterling silver to atomic weapons, C-rations, uniforms, dominos, and documents signed by more than half of the Presidents of the United States.

The Museum also houses one of the most complete collections of military small arms in the United States, including entire families of weapons from the first prototype to the last one issued.

To assist the Museum by providing financial and volunteer support, the National Infantry Museum Society was formed at Fort Benning shortly after the Museum opened. Membership in the Society is open to anyone who is interested. The cost is \$2.00 for a one-year membership, or \$10.00 for a lifetime membership. All Infantrymen are encouraged to join the Society, which, over the years, has contributed so much to the National Infantry Museum.

Additional information about the Museum and the Society is available from the Curator, National Infantry Museum, Fort Benning, Georgia 31905; commercial telephone 404/545-4762 or AUTOVON 835-4762.

AS THE BRADLEY Infantry Fighting Vehicle reaches the field, units must seriously consider storage and maintenance facilities for both the vehicle and its firing port weapons (the M231 5.56mm).

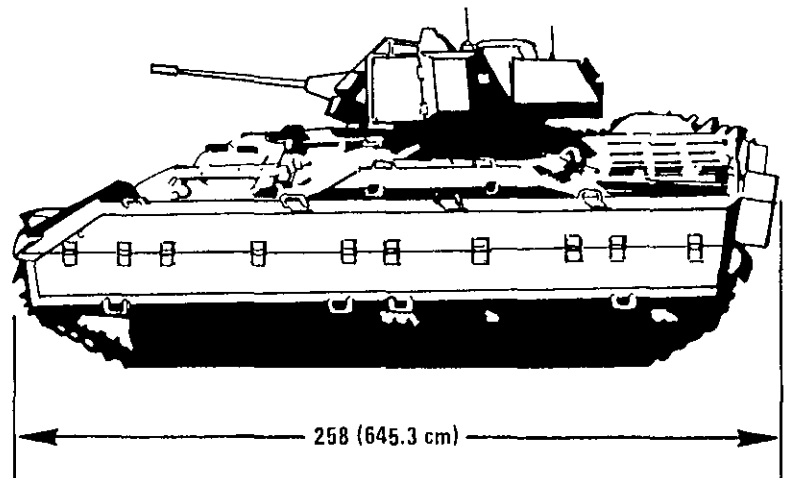
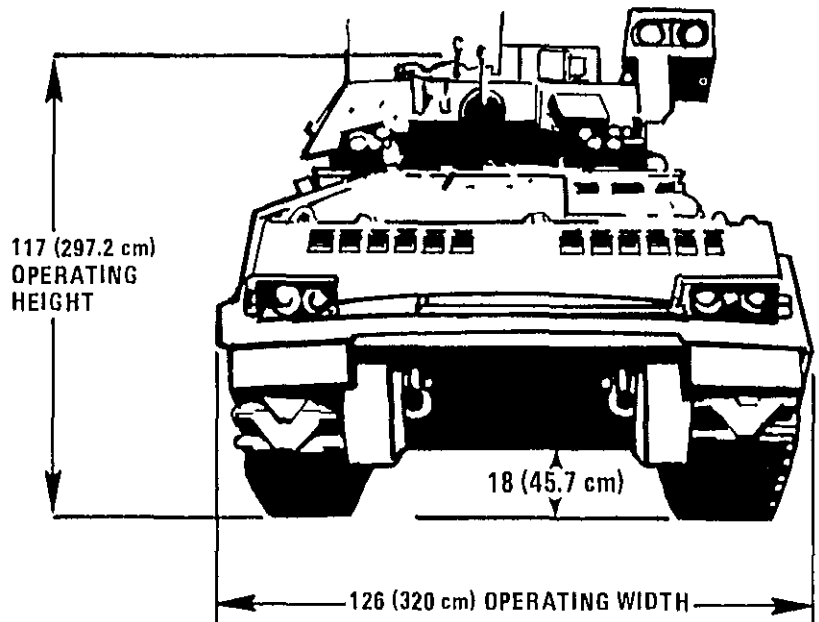
Maintenance bays in motor pools,

for instance, should have a height clearance of at least 10 feet, because the vehicle measures 116 inches from tread to turret. The operating width of the Bradley is 10.5 feet, so some modifications to the present maintenance facilities may be necessary.

The significant characteristics of

the Bradley are:

- Operating height: 117 inches.
- Operating width: 126 inches.
- Total length: 258 inches.
- Weight, combat loaded: 49,000 pounds.
- Weight, less fuel, crew, and OVE: 40,650 pounds.
- Ground pressure, combat load-

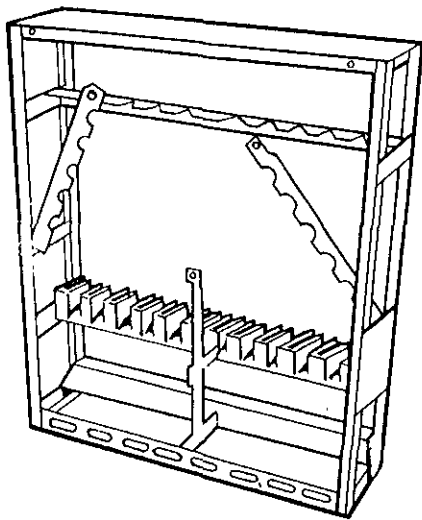


ed: 7.4 pounds per square inch.

As the M88 armored recovery vehicle will also be issued to mechanized infantry units under Division 86 TOEs, the concrete flooring both inside and outside the motor pool bays must be strong enough to support its weight. The thickness of the flooring should vary from nine inches of reinforced concrete for hardstands to ten inches for bay floorings.

The BIFV has six M231 5.56mm firing port weapons and one M240C 7.62mm coaxial machinegun that must be secured in unit arms rooms. The Bradley Cavalry Fighting Vehicle (BCFV) has the M240C but does not have the firing port weapons.

The firing port weapons will fit the current M12 weapons rack, which is designed to take the M16 rifle. They can be put in the rack in either their extended or normal mode.



M-12 Rifle Rack.

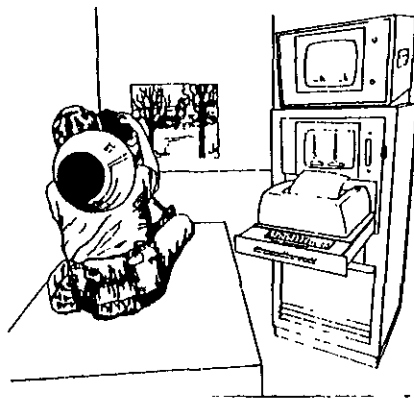
There is no weapons rack for the M240C; these weapons should be stored in wall lockers or in some other configuration according to a unit's local physical security SOP.

THE DIRECTORATE OF TRAINING DEVELOPMENTS at the Infantry School has given us the following item, which should be of interest to the infantry community:

About a year ago, the Project Manager for Training Devices (PM-

TRADE), working with the United States Marine Corps, began an exploratory program aimed at developing a high fidelity Dragon gunnery training system.

The system consists of a student station with platform and a simulated Dragon weapon, a three-dimension model board with a scale model tank that moves in response to commands from a micro-processor, and an instructor's station with a keyboard and monitors that provide real-time



information relating to the firing and simulated flight of the Dragon and its round.

When a gunner fires the device, he hears the initial explosion of the rocket motor. He also experiences a weight loss as the simulated rocket leaves his firing position, and his sight picture is momentarily obscured by simulated smoke. The gunner must overcome these launch problems and must smoothly track his target, ignoring the simulated missile that he can see in his sight.

Included in the simulation are the sounds of the round's thrusters firing and of the round's explosion as it hits the target. In addition, in his sights the gunner can see his rounds strike.

The device, known as the Simulated Tank Antiarmor Gunner System — Dragon (STAGS-D), will become the mainstay of gunner training for the entire antiarmor family of weapons, including the TOW and the Viper. The final version will incorporate the latest video tape and video disc technology and will be adaptable to the fire-and-forget weapons that are now being planned.

The STAGS device should be in the field by January 1984.

THE ARMY'S ELECTRONICS TECHNOLOGY and Devices Laboratory is developing a family of silent, lightweight power sources that operate on the principle of thermoelectric energy conversion.

Two of its G-79 thermoelectric generator units were successfully used in Germany late last year. They were used to heat and light a motor pool garage and a field tent.

The G-79 is only one of a family of portable power units, ranging in power from one-half to 10 kilowatts, that are being developed. The units are known collectively as the Silent Lightweight Electric Energy Plants (SLEEP).

Because there are no moving parts in the heart of the generator, its thermoelectric converter, it needs no lubrication or regularly scheduled maintenance. And it cannot be heard beyond 100 meters.

The generator is expected to be fielded by 1988.

ONE NEW DECORATION and three new service ribbons are now available for award or wear by qualified Army personnel. Interim Change I02 to AR 672-5-1 contains the criteria for earning the Army Achievement Medal, the NCO Professional Development Ribbon, the Army Service Ribbon, and the Overseas Service Ribbon.

The Army Achievement Medal may be awarded to any Army member who, while serving in any capacity with the Army in a noncombat area after 1 August 1981, distinguishes himself by meritorious service or achievement of a lesser degree than required for the award of the Army Commendation Medal. It will not be awarded to general officers.

The NCO Professional Development Ribbon can be worn by soldiers who successfully complete certain designated NCO professional development courses. All active

enlisted members of the Regular Army, the Army National Guard, and the Army Reserve are eligible for this award. Completion of the primary, basic, advanced, and senior level courses designated in the interim change qualify an individual for the award.

The Army Service Ribbon can be worn by soldiers who successfully complete their initial entry training. All active members of the Army, including the Reserve Components, are eligible. Officers can wear this ribbon when they successfully complete their resident basic course, and enlisted soldiers when they successfully complete their initial MOS-producing course.

The Overseas Service Ribbon is authorized for wear by a soldier when he successfully completes an overseas tour in accordance with the provisions of AR 614-30. But the ribbon is not authorized for overseas service that is already recognized with another service ribbon such as the Vietnam Service Medal. Numerals are used to denote second and subsequent awards of the ribbon.

No orders will be published awarding the ribbons, because they are authorized for certain types of service or schooling. Soldiers who meet the qualifications outlined in the interim change to the regulations may immediately purchase and wear the ribbons.

Reservists who need further information should read AR 672-5-1 and its changes or talk with their unit personnel officers. Members of the IRR should contact their personnel management officers or NCOs at RCPAC.

LIVE FIRE GUNNERY will be a major element of Bradley Infantry Fighting Vehicle (BIFV) training. The present concept calls for a mechanized infantry unit to conduct service firing three times a year — once for qualification, once for sustainment, and once during its ARTEP. To lessen the time and expense involved in this annual requirement, subcaliber firing and training devices will be

used to meet a unit's gunnery needs.

Together, the Infantry and Armor Schools have developed FM 71-999A (Draft), *Infantry and Cavalry Fighting Vehicle Gunnery*, which takes into account the different gunnery requirements of the two vehicles caused by the firing port weapons on the BIFV.

The gunnery program will not be cyclic. Therefore, all squads will not have to start the program at the same point. Rather, each commander will have to determine his unit's level of proficiency and adjust his program accordingly.

BIFV training will also include a master gunner program, which will be similar in many respects to its armor counterpart. Accordingly, the BIFV master gunner will play a major role in BIFV gunner training and in support of turret and fire control maintenance. He will serve as his unit commander's expert on BIFV gunnery, and will perform the following gunnery functions:

- Assist his commander in preparing an annual BIFV gunnery program and in conducting live fire BIFV gunnery.
- Administer individual and collective gunnery skill tests.
- Assist teams, squads, and platoons in their pre-fire gunnery training and in their gunnery and battle drills.
- Assist vehicle commanders during pre-firing checks, boresighting, and zeroing.
- Supervise and manage the use of the conduct-of-fire trainer (COFT).
- Help his commander to analyze individual and collective gunnery performances.
- Help his commander to identify potential gunners among his Skill Level 1 soldiers.

The master gunner will also be responsible for giving commanders and staff officers an evaluation of the state of readiness of the unit's BIFV mounted weapon and fire control systems. He will see that operator maintenance checks, services, and alignments are accomplished on those systems; he will evaluate the consequences of improper operation or

lack of proper maintenance on those systems; and he will plan for the availability of the BIFV for training purposes and for combat based on the estimates of the time needed for scheduled services, inspections, and repairs at organization and direct support levels, to include any automotive requirements. The master gunner must be able to translate his evaluations into appropriate training and operation plans.

The turret maintenance functions of the master gunner will require considerable scrutiny and evaluation as the BIFV's mechanic program evolves. As it is now planned, the turret mechanic (MOS 45T) will merge with the automotive mechanic (MOS 63T) at Skill Level 3. Consequently, motor sergeants in units equipped with BIFVs will have the training they need to supervise both turret and automotive maintenance. Previously, the inability of motor sergeants in MOS 63C to supervise tank turret maintenance effectively detracted from the quality of the maintenance that was being performed.

Since mechanized infantry units presently do not have master gunners, provisions must be made to incorporate the BIFV master gunner requirements into the mechanized battalion's operations section as a separate position and also into the new equipment training effort. The authorization is expected to be one sergeant first class in the battalion S3 section and one staff sergeant, who would serve as an assistant platoon sergeant as an additional duty, in each line company.

THE FOLLOWING NEWS ITEMS were submitted by the U.S. Army Infantry Board:

- **Pistol Test.** The 9mm pistol program manager recently asked the Infantry Board to conduct a hit probability test on several 9mm pistols that were being considered for adoption by the military services. This was part of a testing program directed by the Army's Materiel Readiness Command.

Thirty-five representative tes

soldiers were used in the Board's test. They were both male and female, and both left- and right-handed firers. Some were expert shooters from the U.S. Army's Marksmanship Unit.

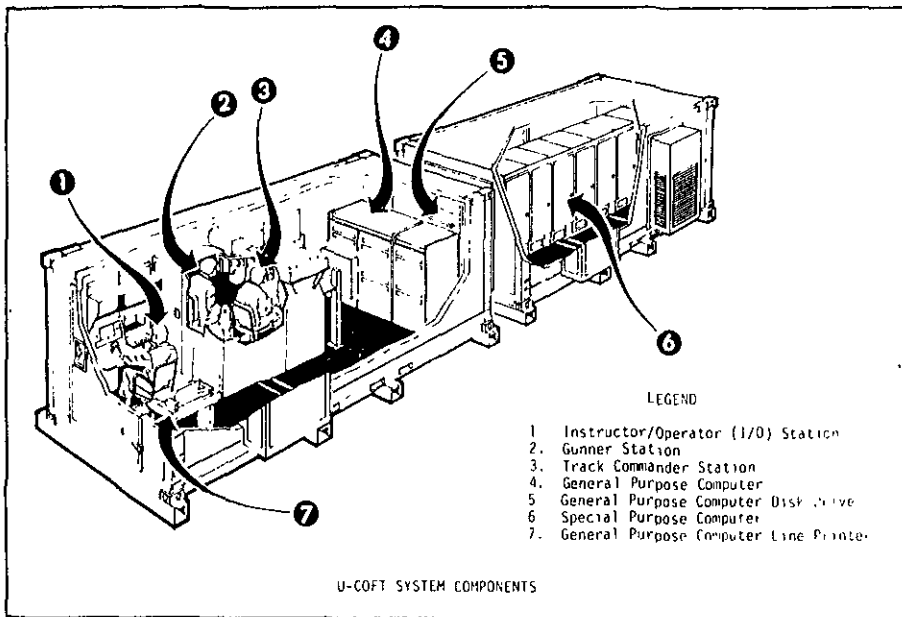
The test soldiers completed familiarization training, fired a known distance course, and then fired on a computerized combat pistol course that was built by the Board. The course had seven lanes with ten targets on each lane at distances ranging from 13 meters to

50 meters. A computer controlled the range's operation and gave immediate hit, miss, and round count data. The course was used to collect hit probability data on the 9mm pistols as well as on the control pistol, the .45 caliber M1911A1 weapon.

The test manager was Captain Charles Pavlick; his assistants were Sergeant First Class Ronald Waldheim and Staff Sergeant Eric Malone.

• **FVU-COFT.** There is a need for a training device that can be used to correct anticipated training deficiencies when the Bradley infantry and cavalry fighting vehicles are fielded. The Board conducted an operational test on such a device, the Fighting

period, the groups were evaluated on the BIFV using live ammunition and firing the main 25mm gun, the coaxial machinegun, and the TOW. The results will be used to recommend, if warranted, the continued development of the FVU-COFT.



Vehicle Unit Conduct of Fire Trainer (FVU-COFT) to evaluate the effectiveness of the training program.

Two groups of test soldiers were trained, one group on the FVU-COFT and the other on the BIFV. Upon completion of the training

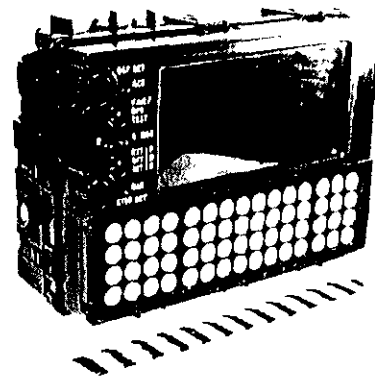
• **DMD/MBC.** The Board conducted a concept evaluation program (CEP) test of the Digital Message Device/Mortar Ballistic Computer (DMD/MBC).

The test evaluated the usefulness of a digital message device after it was

The managers for the operational test were Captain Raymond Jones, Captain James Cambron, and Lieutenant Michael Allison. They were assisted by Sergeants First Class Harlan Selle, Alphonso Millender, and Bruce Smith.

modified and programmed to function as a mortar ballistic computer.

Infantry School mortar instructors were used as test soldiers, and each independently computed firing data for both the 81mm and 107mm mortars. Each computation was timed



The DMD/MBC as tested by the Infantry Board

and evaluated for accuracy.

The Infantry School will use the results of the test in future procurement decisions concerning the mortar ballistic computer.

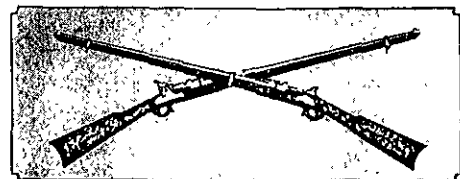
The test manager was Captain Noble T. Johnson, and his assistants were Sergeant First Class Theodorick Garner and Staff Sergeant Robert Taylor.

• **Brown Boot.** Recently, the Board was tasked to conduct an operational test of a new rough-out brown leather combat boot.

The soldiers selected to take part in the test of the new boots were Ranger Department instructors, initial entry trainees, and members of combat, combat support, and combat service support units. The Ranger instructors wore the new boots daily. Other test soldiers alternated wearing the new boots with their regular black boots. Half of the basic trainees wore the new boot while the other half wore the black boots for a complete 13-week training cycle.

The Board was directed to end the test before its scheduled completion date because numerous manufacturing defects and failures with the soles of the boots had become apparent.

The test manager was Captain Timm Prouty; his assistants were Sergeants First Class Doyle Alford and William McLeod.



FORUM & FEATURES



Amphibious Warfare School



CAPTAIN ERNEST W. COOLER III

The art of amphibious warfare is uniquely suited to the United States Marine Corps. Or perhaps it is the Marines who are uniquely suited to the art of amphibious warfare.

The Corps began studying this form of carrying the battle to the enemy before World War I, and the ensuing years brought the problem of executing amphibious landings into sharper focus. At the time, the future of the Marine Corps seemed to include the employment of this infant art in the protection of U.S. interests in the Pacific. By 1934 it had become apparent that Marine officers needed formal training in amphibious warfare, and the Marine Corps Amphibious Warfare School (AWS) was established.

The School should be of special interest to Army officers, because each year several of them are selected to attend along with officers from other services and other nations.

The Amphibious Warfare School (the equivalent of the Army's branch officer advanced courses) is conducted once each year by the Marine Corps Development and Education Command at Quantico, Virginia. It begins in late August and lasts for 39 weeks. Each class consists of about 190 officers, including about 14

foreign military officers, an occasional U.S. Navy officer, and several U.S. Army officers of various branches.

Just what is it that these Marines do for 39 weeks in AWS that would interest an Army officer? For one thing, an Army officer who graduates from the course receives credit for attending an advanced course. For another, the instruction he receives and his association with the Marines make it a valuable experience.

Unlike an Army officer advanced course, the AWS places more emphasis on staff-oriented tasks than on the maneuver and administration of a company. The principal objective of the course is to train officers to operate as members of a staff in the various elements that make up a Marine Air-Ground Task Force (MAGTF). The instruction focuses on developing the students' background knowledge of the various types of Marine Corps units, their organizations, and their missions.

After the basic building blocks of amphibious operations and of the MAGTF have been established, the last four months of the school are devoted primarily to the tactical employment of these elements in the form of Marine Amphibious Units

(MAUs), Marine Amphibious Brigades (MABs), and Marine Amphibious Forces (MAFs). During this time, the students occupy different staff positions and work on various kinds of operations.

Although precise staff planning is demanded, equally important is a firm understanding of the enemy threat that exists on the potential battlefields of the world. To foster an appreciation for the Threat's present capabilities, the School's faculty members take advantage of the resources of the intelligence community in the Washington, D.C., area for the School's guest lecturer program. These guests present the basic Threat capabilities and also keep the students informed of the latest innovations in Soviet technology, tactics, and doctrine.

ELECTIVES

Another interesting and valuable diversion from the classroom routine is provided by the electives program. For at least six hours per week, the students have an opportunity to broaden their horizons in several fields by taking up to three elective courses. The topics range from third

world terrorism to the Civil War, from mechanical forces on the modern battlefield to Infantry MOS improvement. Still other courses offer graduate credit in management from George Washington University.

These electives allow the students to conduct extensive study in areas that either improve the skills they already have or to open entirely new fields of interest. During one of the elective periods, all students must take a course in effective writing, with the emphasis on grammar and composition in military writing.

The physical fitness portion of the course consists of two hours set aside daily for lunch and what is called the Physical Excellence Program. These two hours, usually from noon until 1400, are normally spent in the gym or out running three to ten miles. Those who choose not to run or work out are subjected only to the disapproving glances of their peers.

As with most things, however, a day of reckoning comes in the Marine's routine of physical training (or lack of it, as the case may be), for once in the fall and once in the spring the Physical Fitness Test (PFT) is administered. While the scores are nor-

mally as expected from good Marines, the few who have spent an hour or two too many in the lunch line instead of in the gym must embark upon a "conscientiously applied program of physiological metamorphosis" and retake the test later. The PFT itself consists of bent-leg situps, pullups, and a three-mile run.

Throughout the course, the best lessons for Army officers come not from studying the mechanics of backloading and crossloading amphibious shipping or even Napoleon's maxims of war. Rather, they come from the daily association with the officers of the Marine Corps, of our other sister services, and of our allies.

The benefits of having Marines and Army officers get a close look at each other are obvious. And the benefits of having some Army officers who understand the inner workings of MAUs, MABs, and MAFs cannot be disputed. But the real treasure found in this school is the appreciation the Marines have for their traditions. This is a quality that until recently was all but lost in the Army, but which now seems to be enjoying a renaissance.

Any Army officer who wants to at-

tend the AWS should have a good background in TOW assignments and a solid understanding of how the Army intends to win the next war.

The Army's Military Personnel Center selects the officers to attend the course. An Infantry officer who is interested, therefore, should request the AWS in lieu of IOAC on his preference statement, because his chances are a lot better if Infantry Branch knows that's what he wants.

Further information on the school can be obtained from the various assignment officers at MILPERCEN or from the Director, Amphibious Warfare School, MCDEC, Quantico, Virginia 22134.

CAPTAIN ERNEST W. COOLER III, a 1973 ROTC graduate of Clemson University, is now serving as an Assistant Professor of Military Science there. He has completed the Airborne and Ranger Schools and the Marine Corps Amphibious Warfare School. He has served as a platoon leader in rifle, support, and TOW platoons with the 3d Armored Division and as a company commander in the 1st Infantry Training Brigade at Fort Benning.

ANGLICO

MAJOR WILLIAM R. JONES



feature

ANGLICO. Air and Naval Gunfire Liaison Company. A special kind of United States Marine Corps unit that does not support its own kind. Rather, it exists to support U.S. Army or Allied units when those units operate with or near a Marine air-ground task force — usually in amphibious operations — or when they are to be sup-

ported by U.S. Navy or Marine Corps air elements or by naval gunfire.

An ANGLICO is made up of supporting arms specialists. It has its own vehicles, radios, and cryptographic gear and can support the committed elements of an Army division. Its members are organized into teams that can co-locate with each Army

command level from a company on up. Thus, a brigade platoon contains enough Marine Corps and Navy personnel to support the committed elements of one Army brigade. If necessary, a team can be shifted from one platoon to another.

When a full ANGLICO deploys to support an Army division, the

ANGLICO commander — usually a Marine Corps lieutenant colonel who is a ground officer — acts as the division's naval gunfire officer. Its executive officer — a Marine Corps major who is an air officer — becomes the division's air officer. Enough enlisted personnel accompany these two officers to provide clerical and communication support at the division command post. A headquarters platoon also deploys with the ANGLICO to give limited communication and motor maintenance support to the various teams. At the brigade level and below, though, the supported unit must provide the bulk of the communication and motor maintenance support for the ANGLICO teams.

A brigade platoon also has two officers: a Marine major (an air officer) and a Navy lieutenant. These officers serve, respectively, as the brigade's air liaison officer and its naval gunfire liaison officer. They help the brigade staff plan for and execute any naval air and gunfire support that will be given to the brigade commander.

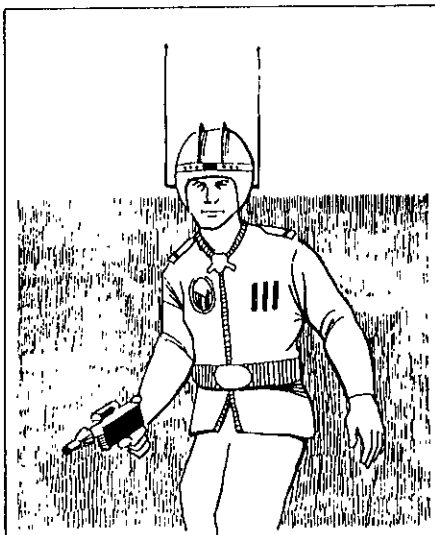
Two officers also head a battalion team. One is a Marine captain (air officer), who serves as the battalion's air liaison officer, and a Navy lieutenant, junior grade, who performs the duties of the battalion's naval gunfire liaison officer. The ANGLICO can also offer the commander of a committed Army battalion certain other assistance, if it is needed: a Marine first lieutenant air officer, who, with his tactical air control party, can act as a forward air controller, and a Navy lieutenant, junior grade, who can head up a spot team for shore fire control.

All of the ANGLICO teams are tied to each other by a liaison radio net, which not only strengthens their liaison function but also gives the supported unit a backup radio net for passing along vital information or support requests.

The Marine Corps is testing the universal spotter concept as well as proposed tables of organization and equipment to support that concept. Under it, one officer would be trained

to control air, naval gunfire, and artillery support for a committed battalion or company. No longer would there be a separate officer to control each type of fire support.

If approved, a Marine Corps artillery lieutenant would head the company team, which would be known as



a firepower control team. He and six enlisted Marines would replace both the tactical air control and the shore fire control parties that are now sent to a committed company.

The battalion team would also change from its present organization. While two officers now head that supporting team, only one, a Marine captain (an air officer who has also been trained in controlling naval gunfire), would head a supporting arms liaison team. He would be aided by seven enlisted Marines, the senior of whom would be a naval gunfire specialist.



MAJOR WILLIAM R. JONES, USMC, is a 1969 graduate of the U.S. Naval Academy. Following his Basic School course, he attended flight training at Pensacola, Florida. He has flown helicopters, tactical jet aircraft, and the AV-8A "Harrier" aircraft. He recently completed a tour with the 2d ANGLICO, during which he worked with units of the 82d Airborne, the 101st Airborne (Air Assault), and the 7th Infantry Divisions, as well as allied units.

The results of the test program are scheduled for release in 1983.

Today's ANGLICOs — the 2d ANGLICO at Camp Lejeune, and the Separate Brigade Platoon, 2d ANGLICO, at Camp Pendleton — are operationally controlled by the two Fleet Marine Force commanders. Although there may be some room for confusion in their titles, the two ANGLICO organizations are separate and distinct entities; they differ in structure as well as in support capabilities, and they answer to two different force commanders.

Whenever possible, the 2d ANGLICO works closely with the 82d Airborne Division during its Army Training and Evaluation Program (ARTEP) exercises. This serves to keep the Marines up-to-date with current Army tactics and with any changing emphases within the Army's XVIII Airborne Corps.

ANGLICOs exist solely for the use of U.S. Army and Allied forces when they work with naval supporting arms. Their teams provide essential communication links for naval air and gunfire support as well as on-hand liaison personnel and controllers.

All of the Army's infantry commanders should be aware of this Marine Corps organization, for there are many areas of the world in which Army units might be committed with no support except from naval units. When Army commanders "think combined arms," therefore, they would do well to include naval air and gunfire support in that thinking.

EMBARKATION



CAPTAIN JOHN D. McGUIRE

The global mission of today's Army, combined with the Navy's amphibious capability, makes it imperative that our company and battery commanders learn some of the things they will have to do to become "soldiers of the sea."

Many of the Army's units, primarily infantry companies from Fort Bragg and Fort Campbell, are being taught each year in a one-week course at Little Creek, Virginia, the basic amphibious skills they will need. Marine and Army instructors at the Landing Force Training Command, Atlantic, provide training in amphibious raids and assaults, along with the peripheral skills needed to perform these operations.

During their week at Little Creek, the soldiers are also introduced to shipboard life, and usually find that it requires a few adjustments on their part. Without some insight into these changes in their lifestyle, the soldiers can have problems on board ship. But there are some things their units can do to help ease this transition.

As a first step, an advance party from the troop unit should go aboard a day or two ahead of the rest of the unit, especially if the ship is docked at a pier. (If the ship is anchored some way out, or if time does not permit the unit to send an advance party, then the first group of soldiers to go aboard should perform the same functions.)

The advance party should consist of at least one officer, one senior noncommissioned officer, and four to six soldiers. (This team is not the same as the ship's platoon, which is a detail assigned to help the Navy load

vehicles, supplies, and equipment.)

The officer in the advance party should provide liaison with the ship's executive officer (XO) and with the ship's first lieutenant, a naval officer who shares many responsibilities in getting the troop unit aboard in a safe and orderly manner.

The advance party's first step should be to tour the particular areas of the ship that must be inspected before the unit arrives, such as the troop berthing (sleeping) spaces, the heads (latrines), the troop administrative office, and the messdeck (dining facility).

The party should check the berthing spaces for cleanliness and habitability; it should note any breakages; and it should conduct a complete inventory of all the materials (racks, mattresses, pillows) that the unit will use.

The inspection team should make sure that all the toilets, urinals, sinks, and showers are serviceable and that toilet paper and cleaning gear are available. The general cleanliness of the area is also important to note, as is any breakage.

Failing to perform these checks could lead to confusion, poor morale, and a bad working relationship between the soldiers and their Navy shipmates. Moreover, the unit might be presented with a bill when it departs for any breakage that the advance party failed to note.

The next task of the advance party is to find out in what ways (and in what numbers) the soldiers will be needed to augment the Navy personnel in certain daily functions. The advance party officer, for instance,

should ask how many soldiers are needed to help during mealtime on the messdecks. (The rule of thumb calls for one messman per 20 troops.)

It is common, also, for the embarked unit to assign NCOs, on a rotating basis, to assist the Master-at-Arms force with any disciplinary matters that involve the troops.

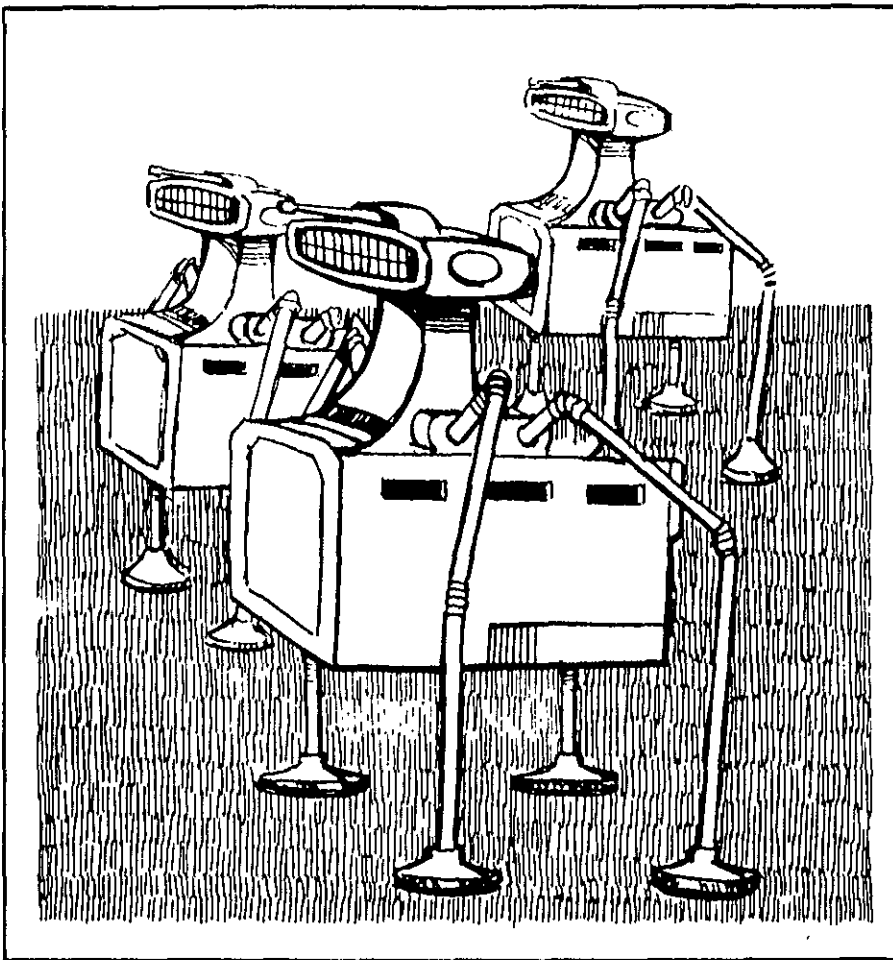
Other specific areas of interest for the advance party officer include:

- Linen distribution and turn-in.
- Weapon stowage.
- Ammunition, pyrotechnic, and demolition stowage.
- Troop meal hours.
- Restricted areas.
- Smoking regulations.
- Entertainment for the troops (movies, library, and weight room.).
- Shipboard drills (abandon ship, man overboard, and general quarters) and liferaft serial assignments.
- Berthing for officers and senior NCOs.
- Special reports required by the ship.
- Hours for sick call and dental call.

Of special interest and concern for the advance party is the protocol involved in the billeting and messing arrangements for the officers and the senior NCOs.

The officers from the embarked unit will be billeted in "Officer's Country" and will take their meals in the wardroom, where certain rules of etiquette must be observed, especially those that involve the ship's captain.

The laws of the sea, by tradition and by Navy regulation, hold the captain responsible for the ship and for the actions of the crew: He is regard-



ed as master of all that happens within his realm. Accordingly, several customs honor his position.

When he enters the wardroom, for instance, all officers rise. The evening meal (and sometimes the noon meal) begins only when he arrives or sends his consent; all officers stand behind their chairs until the captain asks them to be seated. If an officer is late or must be excused from the table, he asks the captain for permission to join or leave the mess. The captain's seat at the table is left vacant in his absence. If a movie is to be shown in the wardroom after the evening meal, it starts at his direction. And on the bridge of the ship there are chairs on both sides reserved only for him.

Certain procedures also govern the accommodations for the noncommissioned officers. Senior NCOs berth and dine with the ship's chief petty officers (CPOs). The chiefs are part of a very distinct entity within the Navy's enlisted rank structure, a fact that is apparent in their shipboard

lifestyle. Their mess is similar to the wardroom, and, like Officer's Country, it is considered off-limits to all others except for those on official business.

Having made these preparations, the advance party should be ready when other members of the unit board the ship.

First, the soldiers are guided to their compartments, which should have been assigned to maintain unit integrity as much as possible.

Weapons stowage has first priority. Rifles may be secured either in individual rifle racks, with locks, on each soldier's bunk, or in an armory to accommodate all weapons.

Crew-served weapons are always kept in an armory, while all ammunition, pyrotechnics, and demolitions are secured in a special locker provided by the ship's gunner's mate.

When the bunks have been made (with the linen distributed by the advance party) and when personal gear has been stowed in wall lockers, the

troops are briefed on the particulars of their new home, and then they carry out the plan of the day.

The senior Army commander on board is normally designated the commanding officer (CO) of troops. He is responsible for the actions of all the troops aboard the ship, regardless of their unit. In this capacity, he answers to the captain of the ship in the same manner as does a naval officer assigned as a department head (engineering, deck, operation). The CO of troops is presented at meetings as deemed necessary by the ship's CO or XO. He also assigns additional duties to junior officers — such as the duties of laundry officer, mess officer, and billeting officer.

Once the unit is aboard, its training and the ship's work are carried out according to their respective schedules. Physical training, preventive maintenance, and essential military matters are carried out to keep the troops busy and to prepare them for the coming mission. Daily inspections of troop berthing areas and heads are conducted to make them as habitable as possible.

For the uninitiated, life aboard ship is a learning experience. The troops absorb nautical terminology quickly: Doors become hatches, stairways become ladders, and floors become decks. (Marines use these terms ashore as well as aboard ship.)

A cardinal rule for all sea-going soldiers is to treat the ship like what it is — the sailors' home. If they do, it will soon seem like their home, too, instead of merely a form of transportation. In a short time, all hands will look forward to the impending amphibious operation or the first liberty port.

CAPTAIN JOHN D. McGUIRE, USMC, a 1974 NROTC graduate of the University of South Carolina, has served as an instructor at the Landing Force Training Command, Atlantic. He has also served as a rifle platoon commander, a 106mm RR platoon commander, and a company executive officer with the 2d Marine Division and as a staff officer in the G-3 section of the III Marine Amphibious Force headquarters

Chain of Command



DANDRIDGE M. MALONE

The chain of command lays out very clearly the line of legal authority from the President of the United States right on down to you. It spells out who has authority to issue orders to who. It identifies for anyone, at any level, who is in charge. And, finally, it identifies who is responsible for getting tasks done and for taking care of the people who do them.

A chain of command is an absolute essential for getting done, in an organized way, any task that requires the effort of more than one person. That is a flat-out fact of any organized effort. What this should tell you, as a leader, is that here is a leadership fundamental. Knowing how the chain of command works is an absolute essential in figuring out how to know what to do, and how to get it done.

But for now, never mind the links of the chain that run up through those upper levels of leadership to the President. Think instead about the links in the company. And call this the leadership of the unit — the captains, lieutenants, sergeants; the nervous system; the channel of communication that coordinates and controls; the thing that puts together skill, will, teamwork, all that equipment, and all those weapons; the thing that focuses combat power.

Why is the chain of command so important? Well, as with almost anything else in the Army, if you want to know the real reason or purpose of something, go to the battlefield, where the unit fights. The why for anything about the Army must always be answered there.

In the company, on the battlefield, there is no time for silly arguments

and discussions about who takes orders from who, or which orders to follow, or what the objectives ought to be, or what standards should be established. Any of this wastes time, and destroys the quick, smooth coordination that the unit must have if it is to win in the deadly business of delivering steel. On the battlefield, the formal chain has been established by law and TOE; leaders have been appointed by the commander to hold designated leadership positions; and authority, responsibility, and obedience are facts. All that's settled. What the chain of command does on the battlefield is COMMUNICATE.

Somewhere in a leadership class you probably spent considerable time on the techniques of how people communicate. But this is not really that kind of "communicate." This is communicate, as on the battlefield. And there, the chain of command is the main channel, the prime line, of the communications — the information — that must flow among all the parts of the company so that it can fight as a unit, as a whole "thing."

The chain of command coordinates and controls. And to do this, it must move information up and down among the levels of leadership of the unit. The chain of command moves battle information — quick, clear, clean, complete — and only the critical, and only the truth. It is the nervous system of the unit. And if the chain has breakdowns or failures, then the unit will go to pieces, and lose, and die. This simple fact of the battlefield explains many things.

It tells you why there are prescribed hand and arm signals. It tells you why

there is a prescribed language for the radios and telephones, and why experienced leaders will discipline this carefully. It tells you why you should learn, use, and make instincts out of the estimate, the troop leading process, and the five-paragraph field order. These are the main messages in the language of a chain of command communicating in battle. And, finally, it tells you why older, wiser, experienced leaders are always so concerned about "working through the chain." The reason is simple. What these leaders know is that the development, functioning, and maintenance of the chain of command, in peacetime, is the major determinant of whether the unit will survive and win in battle.

LINK

As a leader, you are a link in the chain of command. You already know this, but it means far more than just a green tab or a position on the organizational chart or a picture on the day room wall. When that unit fights, you do many things, but the most important thing you do is communicate — get, process, and move information, both up and down.

In a smoothly functioning chain of command that is working hard at delivering steel, there are only two kinds of information moving downward in the chain, and two kinds moving up. Flowing downward are orders, the things that control. Once in a while, you might get a whole, written-out, five-paragraph field order, brought by a runner. More often, you'll get a

fragmentary order, coming over the radio from your leader as he makes the inevitable changes and adjustments called for in that final step of good troop leading procedure. The other kind of information moving downward is planning information, the kind that you as a subordinate need for your planning, for coordinating with other parts of the unit, and for figuring out, ahead of time, what to do next.

Moving upward in the chain, there are, first and most important, such reports as enemy sightings, and status reports, and SITREPS, and locations. Reports tell the unit's brain about what's happening inside the unit — what all the parts are seeing and doing, and what kind of shape they're in. More important, these reports moving upward describe the progress in carrying out the orders that came down before.

The second kind of information moving upward are requests for support — which parts of the unit need more of what to carry out their orders. It is these requests that can bring to bear the awesome power of the combat support units.

And so, very simply, that's what happens when the chain communicates and the unit fights: two kinds of information moving down and two kinds of information moving up. Now, this information doesn't just flow along, like through a pipe. It is carried by many things — messages on paper, runners, hand and arm signals, smoke grenades and flares, radios and telephones. And, most often, at your level, by men yelling and shouting and calling to each other.

This is how the chain of command communicates. The chain of command is what tells a unit what to do. And the chain of command is what gets it done.

You, as a leader, are vital, critical, as battle information flows up and down the chain of command. Again, the most important thing you do, as a link in the chain, is COMMUNICATE — get, process, and move information. And right here, let's

develop some how-to's about these three tasks.

First off and flat out, you, as a leader, must be expert in the nomenclature, functioning, operation, and maintenance of any piece of communications equipment and any communications procedure used or likely to be used at your level. This is far more important to you as a leader than being expert with your individual weapon. There is no qualification badge for being expert in communications. That's one of the things that any leader is expected to be.



Getting information does not mean waiting until it is given to you. If it is needed, you get it. From above or below. This says that you, as a link in the chain of command, need to be thinking constantly about what information is needed by the link above you, and by the link below you. Getting does not mean just receiving. What you get, from above or below, may have errors in it. Or you may not understand it. In either case, think, and compare what you get with what you already know and remember. If it does not seem right, or if you do not understand it clearly, go back to where you got it and check.

A remote unit radio set up on a hill somewhere can pass on, unchanged, all the information it gets, going up or going down. But remote units aren't links in the chain of command. You, as a leader, are supposed to process the information to use it and to do things with it. If you get a five-

paragraph field order, you process the information in it by running it through the estimate. Then you move that information on when you issue your own orders.

Most of the time, good processing requires that you cut out some of the information you get before you pass it up or down. This is tricky. Remote unit radios cannot do it. To cut out the right things, and do it right, you have to know the information needs of the link above and the link below. Then you can answer this question: Which information is "need to know," which is "good to know," and which is "nice to know"? If time is critical and things are moving fast, then cut out the nice and the good.

Processing also means that you must often change information. You don't change the meaning or the truth of the information, but you often have to change the words, or the language, or the way the information is carried, so that the next link up above or down below can understand it. In effect, you translate. A fragmentary order comes down to you as a bunch of words on the radio, and you translate that into a hand and arm signal for the next link below. The meaning of the words and the signal is the same. The words on the radio and your arm both say "Attack!"

Moving information means you don't sit on it. If you make a conscious decision to stop some item of information while you are cutting down and translating, that's fine. But, if you know the information needs of the links above and below, then you know what is critical. And if what you have is hot, then it has to move with speed and accuracy, like a reflex action in the nervous system of a well-trained athlete.

Speed is determined mainly by how important you think communication are and by how expert you are with communications equipment, procedures, and techniques. And accuracy — accuracy is determined not by you, but by the link that receives the information you pass on, up or down.

There is one simple, critical rule right here, particularly applicable in the tricky business of moving orders downward: Always check to see that an order is understood. An affirmative nod or a "Roger" on the radio is often not enough. When there is time, and you're moving a critical order, ask the link on the receiving end to say back the information you sent. And further, if you're good, you won't quit there. You'll watch to see what happens as a result of the information you sent.

The chain of command coordinates and controls; orders and planning information flow down; reports and requests flow up; and each link in the chain gets, processes, and moves information. Fighting the battle takes only a short time. Getting ready to fight is a full-time, long-term, every day activity, with a multitude of tasks to be accomplished. The chain of command is what gets both things done. Time spent studying and talking about how the chain communicates will not be wasted.

DANDRIDGE M. MALONE, a retired Infantry colonel, is a prolific writer, having published numerous articles, books, and technical reports. He holds a master's degree in social psychology from Purdue University and has completed several military schools including the Armed Forces Staff College and the U.S. Army War College. In addition to his Infantry leadership assignments, he also served in either staff or faculty assignments at the U.S. Army Command and General Staff College, the U.S. Military Academy, and the U.S. Army War College.

ALASKAN SCOUT



CAPTAIN WALTER E. WRIGHT

Throughout military history many types of scout or reconnaissance units have been organized to gather intelligence information for their commanders. In Biblical times Moses sent scouts into the Promised Land to find out what it had to offer, and every major military unit since has had its scouts working ahead of its major combat units. In the history of the United States, the cavalry scouts of the Indian wars come readily to mind as some who moved swiftly over long distances and under harsh conditions.

Scout units have always been the eyes and ears of the tactical commander. When used properly they have been responsible for many successful operations, but, when misused, for some major military disasters.

Each combat maneuver battalion has organic scout or reconnaissance units and also uses non-organic scout units when they are available. These units, with ground, mounted, or aerial scouts, are highly trained and motivated to see that the commander

gets the information he needs.

In the tradition of these special units, one can be called unique in the total Army force — the Alaskan Scout. These soldiers are members of the 207th Infantry Group (Scout), Alaska Army National Guard, which was organized in 1942 as the Alaska Territorial Guard (ATG).

The ATG, consisting primarily of Eskimos and Indians scattered among the numerous villages along the islands and the coastal periphery of western Alaska, was organized to meet any Japanese threat to the Alaskan territory. These native soldiers served patriotically and, since the ATG was never federalized, without pay from 1942 to 1947. In 1948 the Alaskan units became part of the Army National Guard system with the scout battalions designated the 297th Infantry.

In its present organization there are five scout battalions and a group headquarters. The 1st, 2d, and 3d Battalions are "pure" scout units headquartered in Nome, Bethel, and

Kotzebue, respectively. Each of these units is made up of a number of scout companies scattered over a geographic area equal in size to several of the lower 48 states.

The basic scout unit is the five-man scout team consisting of a team leader, a radio telephone operator, and three scouts or observers. Its missions are primarily reconnaissance oriented rather than combat oriented. For special operations such as ambushes, raids, or direct combat action, two or more scout teams are organized as a patrol to accomplish the mission.

The teams report their observations to their respective company headquarters, which pass the intelligence information to the battalions. From the battalions, the information is passed to the group headquarters and then to the Army Force Commander in Alaska, whose headquarters then sends it to other units within the state.

Each scout company has from 10 to 20 teams, depending upon the population in the company area.



These scouts provide a valuable service to the commander of the Army forces in Alaska.

These scout companies are also unique in that they have female soldiers who are authorized to perform medical, supply, administrative, and communication activities but not active combat missions.

The 4th Scout Battalion, located in Juneau and along the southeast Alaska panhandle, is organized somewhat differently. It is similar to a light infantry unit in that it has light crew-served weapons such as M60 machineguns and 81mm mortars. The unit also has six LCM8 landing craft.

The 5th Scout Battalion, in Anchorage and Fairbanks, is a mechanized unit and has both M113 and M577 armored vehicles. This unit has more ground mobility than its sister units and heavier firepower with its .50 caliber machineguns and 107mm mortars. It can be considered a cross between an armored cavalry and a mechanized infantry unit and is responsible for covering the state's interior road network and for helping to defend the various military installations in the interior.

The group headquarters company has a company headquarters, a group headquarters, a communication platoon, an airborne detachment (to perform long range reconnaissance patrols and pathfinder missions), and an aviation detachment (with 18 UH-1 and 4 CH-54 aircraft). Each battalion has an aviation section with

two UH-1 and one UV-18 Twin Otter fixed-wing aircraft, and the 4th and 5th Battalions also have combat engineer platoons.

Because of their scattered locations and specialized missions, these scouts have to rely on aerial resupply or live off the land. But because many of the scouts are subsistence hunters, whalers, and fishermen, they are able to live and operate in a harsh arctic environment that usually defeats other soldiers.

All of these scouts provide a valuable service to the commander of the Army forces in Alaska. They perform their military reconnaissance missions every day during their normal activities along the western periphery and routinely report sea and air activities. They also report or turn in items with a possible intelligence value that they find washed up on the beach or floating off the coast.

As members of the Army National Guard system, the scouts have to meet the same requirements their counterparts in the other 49 states and Puerto Rico do, conducting 48 drill assemblies and a two-week annual training period each year. Because of a heavy summer employment cycle and the need to train during the winter months, the Alaska National Guard conducts its drill and AT periods between September and April instead of during the summer,

as most Guard units do. This schedule also coincides with the winter training cycle of the Active Army units in Alaska.

During this annual training period, many field training exercises and other joint training maneuvers are conducted that allow the National Guard and Active units to work together. Such cooperation helps to forge the bonds of strength and mutual respect between these units that guard the northwestern frontier.

The members of the Alaska Army National Guard — the Alaska Scouts — are a unique element of the U.S. Army. These soldiers live and operate in a harsh environment that does not forgive human error, and they perform their mission year round in defense of their homeland, their state, and their nation.

CAPTAIN WALTER E. WRIGHT, a 1973 ROTC graduate of the Virginia Military Institute, is now assigned to the National Training Center, Fort Irwin, California. He has previously served with the 172d Infantry Brigade and the 101st Airborne Division (Air Assault). He holds a master's degree from Western Kentucky University and has completed the Infantry Officer Advanced Course.

Feather Merchant

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Forum and Features



BRIGADIER GENERAL JAMES E. SHELTON

The other day I used the term 'feather merchant.' When a lieutenant asked what it meant, I didn't have a good answer for him. After thinking about it, I decided to try to define it.

A feather merchant is a person who wants you to believe that he really cares when he really doesn't. He declares himself a "people" guy because that's the "in" thing to say. Yet he gives only a dollar, or maybe five, to a fund drive, while his soldiers sign up for a 20-dollar a month payroll deduction.

A feather merchant looks outward, not inward; he worries only about the image, not about what's really going on. When he has a visitor and that visitor is clearly influential or senior to him, he starts his donkey drills and eyewash, because he doesn't adhere to any professional standards daily — he only cares when someone is looking.

The feather merchant never hears the beat of the drum. He just watches other people, particularly those he thinks might get ahead, and he falls in step with them. He's always listening and watching. His thinking ability is short-circuited, because he's always in the receiving mode, antennae constantly moving, trying to determine from the signals he receives where he should go next.

The feather merchant likes big plans, the thicker and more detailed the better. And woe be to a subordinate who gets caught, usually by someone else, like the IG, for not complying with the plan: The feather merchant probably hasn't even read it, but he's willing to crucify the little guy who's not complying, even if his

own inadequate guidance is to blame for that little guy's failure to comply.

The feather merchant likes to look at his own signature, but he doesn't like to sign it often, because when he signs a paper that's supposed to mean he has read it and accepts responsibility for it.

The feather merchant checks his record brief twice a week for errors and calls MILPERCEN monthly to see if his most recent letter of commendation has arrived. He believes in awards — so much so that he has his subordinates continually writing him up for one. And he feels the same way about theirs: if one of them wants one, he can write his own recommendations.

The feather merchant won't sign a lost or damaged property statement, because someone has to pay for government property that is lost or damaged. Of course, he's not signed for any property. He lets someone else, usually at a lower rank, sign for it instead.

The feather merchant likes the word "patriot." After all, isn't he one? He has taken an oath to defend his country, to accept hardship and

privation for its good. What are all those *civilians* doing for their country? Here he is — a patriot — and they're taxing *his* base pay, too!

Everybody who works for a feather merchant knows where all the trouble is — at higher headquarters. At least, that's what the feather merchant says. (Of course, we can't say it in writing, but if it weren't for "them" maybe we could get our jobs done.) The damn higher headquarters is full of idiots! Because a feather merchant is usually frustrated in this regard, if he happens to be a colonel he likes to browbeat the lieutenant colonels and majors at that higher headquarters.

He also keeps his eye on the adjacent units to see if they're getting more than his unit is. Statistically, he can always prove they are, and that's why his staff gives him daily statistical updates for his massive ring binder. Besides, his boss may ask him a question.

Isn't it good we don't have any feather merchants serving as officers in our Army? I'm glad we live by the code of Duty, Honor, Country. I guess the Russians have all the feather merchants.



BRIGADIER GENERAL JAMES E. SHELTON has served in various staff positions, and his command experience ranges from company to brigade size elements. He presently commands the U.S. Army Fourth ROTC Region with headquarters at Fort Lewis, Washington.



RIFLE ZERO

CAPTAIN EVERETT MAYFIELD

There has been a good deal of discussion recently — in print and otherwise — about the Army's marksmanship training program and whether that program is turning out soldiers who can shoot accurately. Judging from much of that discussion, it is not. And one of the major problems with the program seems to lie in the fact that the soldiers do not really know how to zero their rifles.

There is far more to zeroing a rifle than merely firing it on a 25-meter range to obtain a battlesight zero. Basically speaking, zeroing, as well as all other aspects of shooting, involves five components — ammunition, target, distance to the target, weapon, and firer. Because none of these are absolutes, though, the degree to which each varies from a theoretical norm has a certain amount of influence on the overall probability that a soldier will hit his target.

Ammunition

Fortunately, ammunition is the least variable of the five components. The current service round, for example, the M193 5.56mm ball cartridge, is accurate enough so that it plays virtually no part in a soldier's hitting or missing a man-sized target. By Government specifications, the ammunition must fire a four-inch shot group or smaller at 200 yards. The round does that. In fact, it can be expected to fire a group with a mean radius of just over two inches at 300 yards when fired from a test rifle that

is secured firmly in place.

Besides, the ammunition is manufactured according to strict quality control standards, and samples from each lot are fired frequently so that its performance can be monitored. Great care is taken in packing, storing, and handling the ammunition to protect it from the effects of climate. An occasional faulty round might be encountered, but the vast majority of soldiers will probably never be aware that such faulty ammunition exists.

Target

For the soldier in combat, his target will almost always be enemy personnel. There may be occasions when he will need to fire at something else, but usually his intention will be either to hit another man or to suppress that man's fire. The opposing soldier may represent a perfect target — standing erect and motionless 100 meters away — or he may be a target that is extremely difficult to hit — only a small portion of his body may be exposed, or he may be moving.

Distance to Target

The distance to a target is a critical element, because the amount of error from a misplaced shot increases with the range and is influenced by three things. First, the simple deviation of a round from a straight line increases with the distance so that a round that misses dead center by three inches at

50 meters will be off by six inches at 100 meters and by twelve inches at 200 meters.

The second factor is the force of gravity, which affects the flight of the bullet more as the range increases, because as the bullet loses velocity it drops more over a given distance.

Finally, the most critical factor is the simple fact that a soldier in combat will seldom know exactly how far away his target is. On a known distance range a soldier is told the exact distance, and on a qualification range he can figure it out easily enough. But in combat he may miss a seemingly sure kill because he has not accurately estimated the range. All too often even experienced shooters misjudge ranges and miss their targets completely.

The Rifle

The M16 rifle itself is another component that must be considered in any discussion of proper zeroing procedures. The M16 is capable of delivering its rounds on a target at the ranges at which a soldier can expect to engage an enemy. It is true that, mostly because of its light weight, short barrel, and loosely mated upper and lower receiver groups, it cannot fire the tight shot groups that a target rifle can. But it was not designed to be a highly accurate target firearm; it was intended to be an effective combat weapon, which it is.

It should be kept in mind, though, that any time a soldier is issued a rifle

must be familiar with it and aware of where his rounds will hit when he fires it. The only way he can do these two things is to get as accurate a zero as possible and to fire the rifle as often as he can.

The Firer

But the soldier who is firing the rifle is by far the greatest variable in the zeroing process. To begin with, a rifle fits each person differently, and this alone causes each soldier to view a rifle's sights from a different angle. Each soldier is also built differently and assumes a position that is a little different from that of any other soldier when he aims his rifle. Some soldiers put their eyes quite close to the rear sight of the rifle when they assume a firing position; others do not. If a soldier does not position his eyes in exactly the same place on the rifle every time he sights, his rifle's zero will change, because there will be a change in the angle at which he will view the alignment of the sights. The aiming point on his target will also change.

Even with the rather obvious differences between soldiers and between rifles, there are still some widespread misconceptions about zeroing a rifle. Some people think it is possible for one soldier to zero a rifle for another. Some even think that an especially good marksman should be able to zero the rifles for, say, an entire platoon, when the fact is that a soldier cannot even use the same setting to zero two different rifles he plans to fire himself; he must go through the zeroing procedures for each one.

As a first step toward improving marksmanship, then, both trainers and soldiers must understand all of these variables and the ways in which they affect zeroing a rifle. Some other tips might also help. From tests conducted by the U.S. Army Marksmanship Unit (AMU) at Fort Benning, for instance, if a soldier is forced to take a new rifle and does not have an opportunity to zero it, he might be better off to center the rear sight as prescribed in Field Manual 23-9 and fire the rifle with it centered.

At the same time, there are other things a soldier should know. Although the Army's training centers teach otherwise, the AMU has said that it takes from 32 to 35 clicks to traverse the rear sight on an M16 rifle from the right to the left side. The training centers teach that there are only 32 clicks on the rear sight of any M16 and that the proper way to center it is to move it all the way to the left and count back 16 clicks to the right.

Since there can be a variation of at least three clicks from rifle to rifle — and possibly even more — the training centers are teaching our soldiers to use a technique that has a considerable degree of error built into it. When this error is added to those caused by the normal variations encountered from weapon to weapon, the probability of zeroing different rifles with the same sight setting becomes quite remote. Of even more concern is the fact that most soldiers in the Army do not know what this means to rifle marksmanship.

NOT GOOD ENOUGH

There is no question that it is possible to hit a man 300 meters away with the M16A1 rifle, but "possible" is not good enough. We must attain something more. Our doctrine and our training programs must make certain that when a soldier fires his rifle he does so with a high probability of hitting what he shoots at.

All the factors mentioned earlier work against a soldier when he is firing; when other variables enter the picture his chance of a successful shot becomes even smaller. For instance, he may have to contend with wind, poor light, limited time to aim and fire, and fear or excitement. The very moment when all these things are working against him is the time when he most needs to be able to fire accurately.

Even if a soldier is firing under ideal conditions and is employing the fundamentals of marksmanship flawlessly, he will only hit what his rifle's sights and bore are lined up to hit. He may place all the rounds from a 20-round magazine within a 2-inch group at 300 meters, but unless the rifle is zeroed, that group will be off the target. And, of course, in combat he will seldom, if ever, have ideal conditions under which to fire.

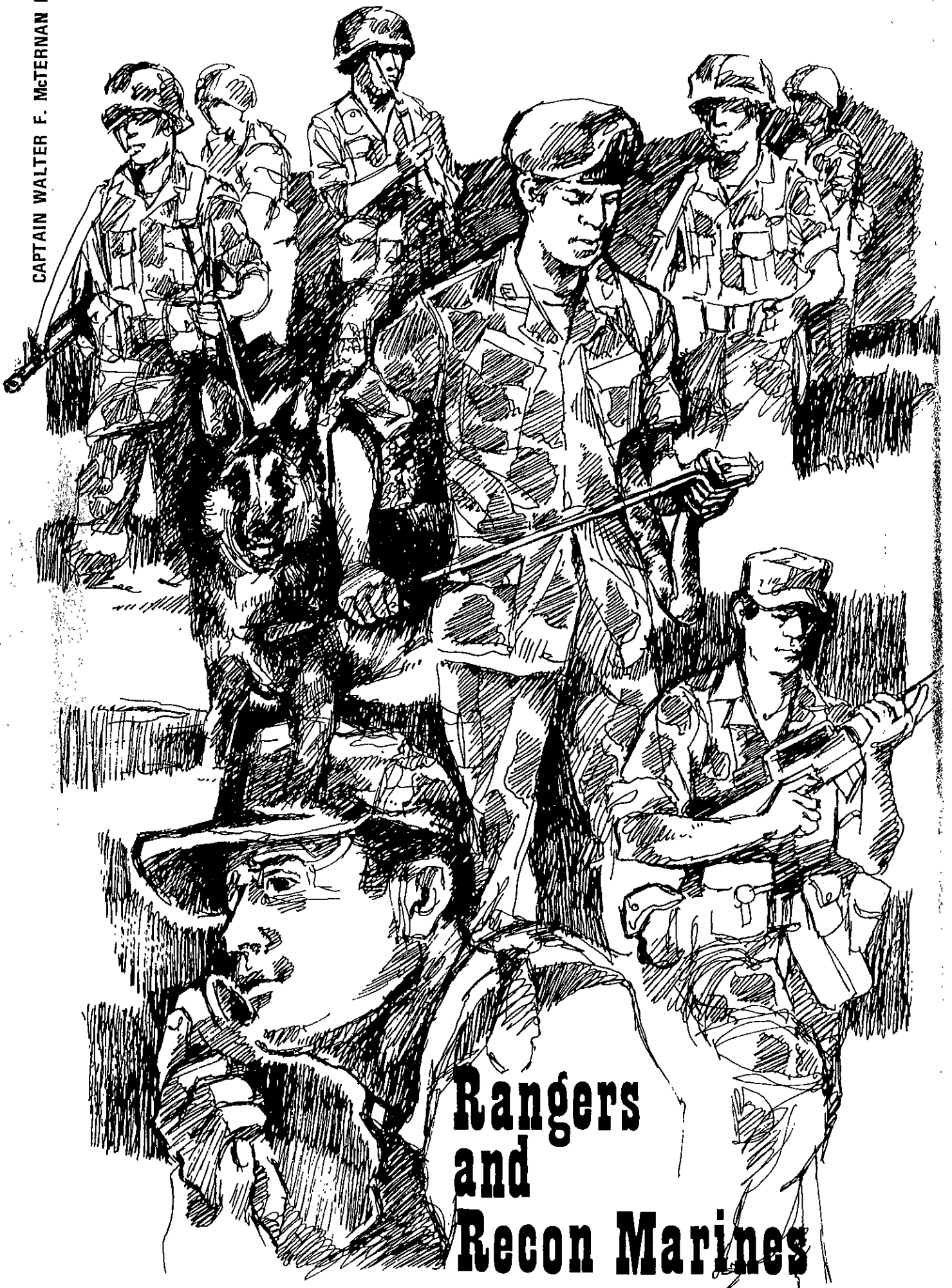
This means that in his initial marksmanship training, and in all the training that follows, the soldier must be made aware of the importance of a properly zeroed rifle. He must receive his training and guidance from personnel who understand the subject well enough not to perpetuate misinformation.

The particular point that needs to be disseminated throughout the Army is that to be a good marksman, a soldier must zero each rifle he fires. The confusion on this point has given too many soldiers an unfounded and undesirable lack of confidence in their basic weapon, the M16A1 rifle.



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CAPTAIN WALTER F. McTERNAN III



Rangers and Recon Marines

Whenever U.S. Marines and U.S. Army soldiers get together to argue over which service is better, the argument is likely to include a discussion of the relative merits of Marine reconnaissance units and Army Ranger units. Whether they ever admit it or not, they may find that there are many similarities between these specialized units and few differences.

While many people in the Army know something about the Army's Rangers, they probably know little about the Marine Corps' reconnaissance units. Both types of units date from the World War II era, and both are considered elite units.

Rangers rank among the best-trained soldiers in the world. Many soldiers in all kinds of units are Ranger-qualified, but there are only two Ranger battalions, the 1st and 2d Battalions (Ranger) of the 75th Infantry, both formed in 1974.

The missions of these Ranger battalions include conducting decentralized and limited combat operations anywhere in the world — raids, special operations, and long-range tactical reconnaissance, going in by air, sea, or land.

Soldiers must volunteer if they are to serve in either of these battalions, but not everyone who volunteers is necessarily accepted. First, they must submit to a records check, an interview, and a physical fitness test. They have to score at least 350 out of 500 points on the Army's physical readiness test. Before reporting to a battalion, the soldiers who are accepted must complete the basic airborne course. Then, after reporting, the new members must undergo the four-week Ranger indoctrination program (RIP). In it, they are given intensive instruction in unit standing operating procedures, weapons, and other essential military subjects.

All noncommissioned and commissioned officers must be Ranger-qualified before they join one of the battalions. Those below the rank of sergeant are sent to Ranger School at Fort Benning after they have had some experience in a platoon.

Every Ranger receives comprehensive training in a wide variety of martial skills, and the members of the battalion's reconnaissance platoon are given additional training in SCUBA (self-contained underwater breathing apparatus) and HALO (high-altitude, low-opening). All participate in an intensive physical training program that is designed to keep them in top condition.

Similar missions, similar training, and similar selection procedures apply to the Marine Corps' reconnaissance units.

The Fleet Marine Forces contain two types of reconnaissance units: force reconnaissance companies (Force Recon) and division reconnaissance battalions (Recon Battalions). Each of the Marine Corps divisions (three active and one Reserve) has a Recon battalion. Only two Force Recon companies are now in the force structure — one active and one Reserve. Consequently, to compensate for shortages in Force Recon capabilities, each Recon Battalion of the First and Third Marine Divisions has one "deep reconnaissance platoon." These platoons

are responsible for assuming the force reconnaissance mission in their operational areas.

Basically, the mission of both kinds of units is to conduct amphibious reconnaissance missions. The Marines define amphibious reconnaissance as "an amphibious landing conducted by minor elements, normally involving stealth rather than force of arms, for the purpose of securing information, usually followed by a planned withdrawal."

But there are minor distinctions in the missions performed by these two types of units. The primary mission of a Force Recon company, for instance, is to conduct pre-assault and deep post-assault reconnaissance operations in support of a landing force and its elements, while the primary mission of a Recon Battalion is to conduct ground reconnaissance and surveillance in support of a division and its supporting elements.

This difference can be important in terms of who is being supported by a reconnaissance unit. Theoretically, the landing force supported by elements of a Force Recon company need not be made up of Marines, though it usually is; it can be made up of U.S. Army or allied units, as well as Marines.

VOLUNTEER

To join one of these special units, a Marine, like his Army counterpart, must volunteer. The unit then screens his service record to determine his suitability, conducts an interview to ascertain his maturity, and administers a physical fitness test to evaluate his level of fitness and his motivation.

Selections are made from the volunteers on the basis of their physical and medical qualifications and a mental screening conducted at company level. This latter requirement is principally to evaluate attitude, temperament, and judgment. The decision to accept an applicant ultimately rests with the unit commander, whose principal concern is the Marine's resourcefulness, motivation, and maturity — all vital qualities in a man who must operate behind enemy lines as part of a small team.

Once accepted, a new Recon Marine begins a rigorous and intensive training program that consists of both basic and advanced individual and unit training. He attends the reconnaissance indoctrination program (RIP), in which he is introduced to basic reconnaissance skills and unit procedures.

Later, he normally attends the Amphibious Reconnaissance Course (ARC) at one of the Landing Force Training Commands. This course stresses basic individual and basic unit training. When he completes these two courses, the Marine becomes a member of a reconnaissance team, and back at his unit he and his teammates continue to receive extensive training in such subjects as scout-swimming, patrolling, intelligence, small-boat handling, communications, initial terminal guidance procedures, insertion and extraction procedures, and rough terrain mastery skills, such as rappelling and mountain climbing.

In addition, a Recon Marine may be chosen to attend such Army or Navy schools as Ranger, Airborne, Pathfinder, HALO, and SCUBA. Then he can share what he has learned in those schools by cross-training fellow Marines who have not had the opportunity to attend.

In the reconnaissance unit itself, a concentrated, demanding physical training program is conducted to see that the reconnaissance Marines are fit enough to operate independently and to move on foot over rough terrain carrying all their weapons, equipment, and supplies with them. The unit's PT program also emphasizes swimming (both surf and open water), running, and marching with heavy rucksacks.

FEW DIFFERENCES

It is apparent, then, that when Recon Marines are compared with Army Rangers, there are few differences and many similarities. Unlike its Marine counterpart, the Ranger battalion is designed to wage offensive combat, but its mission does include long-range tactical reconnaissance, which is the major task of the Marine reconnaissance unit. And subsidiary reconnaissance missions, such as the capture of prisoners, for example, are compatible with the missions of a Ranger battalion or elements of it.

Another minor difference is in training. Although the members of Army Ranger and Marine reconnaissance companies receive extensive training, the Rangers usually get more formal schooling than the Recon Marines do. Additionally, because of their wide-ranging missions, Ranger units receive a lot of specialized military training, such as cross-country skiing.

Formal schooling for the Recon Marines is more limited. Many members of a Force Recon company and a deep reconnaissance platoon are qualified military parachutists, and as many as possible are SCUBA-qualified as well. In the letter companies of the reconnaissance battalions, as many Marines as possible are also trained in

these special techniques. Although reconnaissance units use all available spaces allotted to them in courses that teach skills and techniques that are applicable to reconnaissance operations, these spaces are few in number. And because the Marine Corps does not operate its own special schools, it must rely on a necessarily limited number of slots in the special schools run by the other services, such as the Army's Ranger and Airborne and the Navy's SCUBA.

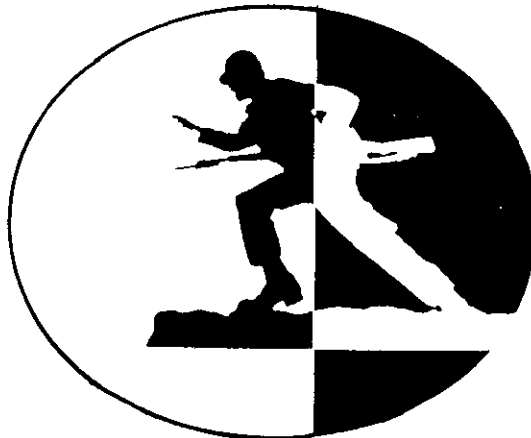
Actually, the similarities between these Army and Marine units are most striking. The men of both kinds of organizations are trained to operate behind enemy lines in the performance of their duties, and both use similar methods of finding the kind of men they need to fill their ranks, men with a high degree of physical stamina and presence of mind.

They also conduct similar training programs to prepare their men for their duties in the field. While their respective missions may differ, their methods of entering an objective area are often the same; members of both train to enter combat by parachute, by helicopter, by rubber boat, by foot, or by fin. The combat skills required are often the same as well. Both organizations are able to accomplish their missions because of their high state of training and because of the quality of their members.

Physically rugged volunteers, Army or Marine, these men have flair, esprit, self-confidence, and aggressiveness, and these traits will enable them to succeed at their difficult tasks on any future battlefield.

Elite is the word for them — Rangers or Recon Marines.

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A SOLDIER

SUSTAINMENT TRAINING

The United States Army's approach to training has passed through several distinct phases during the past fifteen years or so. It was about that long ago that the Army's trainers came to the realization that performance oriented, or hands-on, training should be student- and not instructor-centered and that students learned better, in most cases, by actually doing the training tasks. At the same time, the instructors realized that a student's proficiency in a particular skill had to be verified, again preferably by having the student actually do it.

But many trainers did not appreciate all the ramifications of the tasks, conditions, and standards as they were spelled out in the Soldier's Manuals and the ARTEPs, which were then new on the training scene.

This attitude has begun to change. There is now a growing realization that if a soldier is expected to maintain his proficiency in a specific skill, he will need to be trained in that skill more often than once a year. What the Army needs today, many trainers believe, are training programs that are designed to sustain a soldier's proficiency rather than the kinds of annual training programs the Army uses.

Unfortunately, this idea is still not universally accepted throughout the Army. Nor is the idea of evaluating a soldier's proficiency several times a year, although this latter point is one that has been made repeatedly in several recent studies of the Army's training methods and programs.

Admittedly, the idea of sustainment training is an abstract one. No one can say for certain just how often it should be conducted. And it may nor may not sufficiently recognize just how important individual intelligence, motivation, or job knowledge are to a training program.

Take, for example, a class on training a soldier to set the correct headspace and timing on a .50 caliber machinegun. Fifteen years ago, such a class would have been largely instructor-oriented and a training inspector would have looked for an attendance report — to make sure all the soldiers who were supposed to be present were actually present — and for suitable training aids. The inspector probably would have been more concerned with the instructor's method of presentation than with what the students were getting from the class.

Five years ago, an inspector looking at the same kind of class would have made sure the proper tasks, conditions, and standards were being taught, and that the class had been scheduled on a prescribed frequency, perhaps once a month, or as often as that particular unit commander had determined it was needed. In addition, most inspectors would have felt that if the training was to be effective, everyone in the unit had to be present at the same time. Thus, the training inspector would have concentrated on verifying the training schedule and on determining personnel accountability.

Now consider three typical soldiers in today's Army who need the same instruction on setting the correct headspace and timing on the .50 caliber machinegun. You, their unit commander, have said that you want this particular bit of training to be conducted every month.

One of the three soldiers, let's call him Smith, is a highly motivated young man, probably Category III or Category IV, not well coordinated physically but certain that one day he will be the Sergeant Major of the Army. He listens carefully, and will practice something over and over again if he does not completely understand it. If you say you want him to do something, he will do it. Smith probably needs to practice headspace and timing once every six to eight weeks, rather than every month.

Next is Rogers, by every statistical measurement a "super soldier." He is a high school graduate and ranks either in Category I or Category II. Unfortunately, he is not mature and appears to have little desire to learn or to perform any better than he has to. It seems that half of what goes in one ear comes out the other without ever being interrupted by his brain. He is not necessarily a bad soldier, only an immature one. If you really want Rogers to know headspace and timing, you will probably have to refresh his skills at least once every two weeks.

Hernandez is the third soldier. He knows little English and prefers to read and speak in his native Spanish. Since you don't know Spanish, you really don't understand him. For certain, he doesn't understand you.

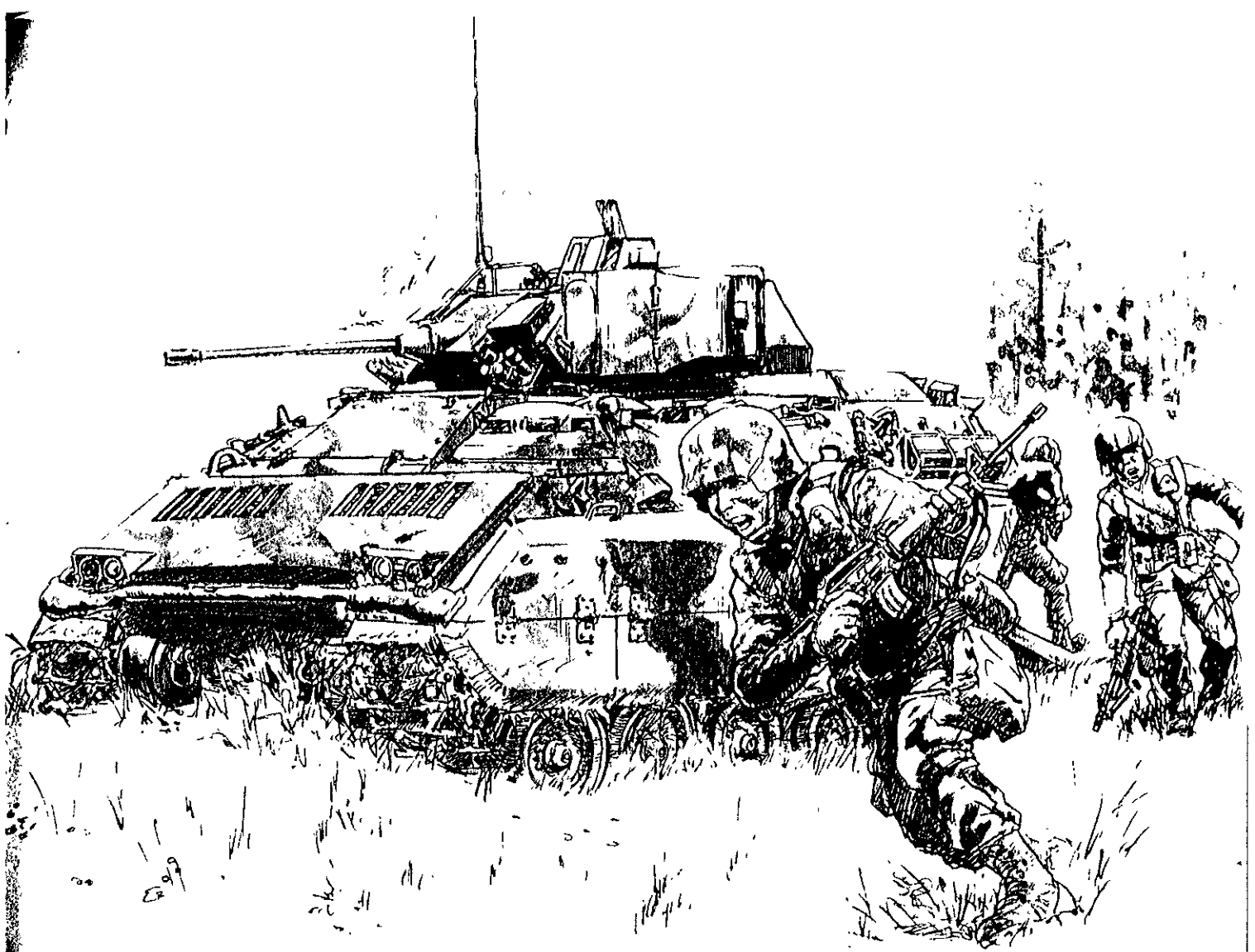
Each of these soldiers represents a particular training challenge, and they point up the fact that your carefully thought out sustainment training program for a particular skill simply will not give you trained, motivated soldiers. With that program, you are not training one of them often enough, you are probably training another more often than necessary, and you really cannot evaluate the training the third one needs until you find a satisfactory way of communicating with him. What can be done?

Too many of today's trainers, it is sad to say, are still process-oriented. That is, they make sure that the training schedule is correct, that all the soldiers scheduled to receive the training are accounted for, and that the instruction is presented in an organized, effective manner. The training itself, therefore, is procedural rather than substantive. In too many instances, training programs are designed to pass training inspections rather than to ensure that the soldiers, and the units, actually become proficient in the individual and collective skills they will need to survive on the battlefield.

We sometimes forget, too, that it is just as important for officers to practice their skills more frequently and to develop for themselves a sustainment training package as it is for Smith, Rogers, and Hernandez to practice setting headspace and timing. The Army simply has not paid enough attention to the training and sustainment of leader skills across all three areas of combat, combat support, and combat service support.

MAINTAIN STANDARDS

Sustainment training to a level of consistent proficiency, then, is a useful concept when it is contrasted with our current annual program in which proficiency only



reaches an occasional peak. It seems far better to reach a "high school" standard every few months and to maintain that standard all year — assuming it is the desired level of proficiency that permits a unit to accomplish its combat mission — than to train once a year up to a highly proficient but transitory "graduate school" level.

Admittedly, sustainment training is far more complex than this proposition suggests. It must be recognized, though, as being product-oriented, not process-oriented with different critical paths for monitoring, and its design must be sensitive to the various methods that are associated with training for different kinds of skills. Thus, the sustainment of crew proficiency on the ITV at night under a high stress situation while the crew is tired requires one kind of sustainment training. A second, different type of sustainment effort is needed for fairly complex MOSs such as that of track and turret mechanic (CMF 63).

There is nothing intrinsically wrong with training to the "graduate school" level. In fact, there is merit in giving a battalion an opportunity to do a full-blown combined arms live fire exercise or a division a chance to deploy on a Reforger exercise. In either case, whether or not the battalion or division can maintain a high level of proficiency over a period of time, it is important for the offi-

cers and noncommissioned officers in those units, during what is probably a formative period in their military careers, to take part in exercises that duplicate as closely as possible actual wartime requirements.

But the danger is that infrequent repetitions of an exercise will be translated into a belief that because the unit has reached a "graduate level" of proficiency that level reflects the unit's actual continuing level of training proficiency. This is certainly not the case. With the degree of turnover and personnel turbulence we have now, a unit can do well only those things it can do every few months, that is, to meet the "high school" standards.

While we need a real sustainment training program to maintain our standards, we must realize that the real purpose of sustainment training is to maintain a consistent level of proficiency. Furthermore, the frequency of our sustainment training programs must depend upon the nature of the skills in which our soldiers must be trained.

It is equally important for sustainment training to establish a measurable degree of proficiency that is to be attained at a specified frequency, a frequency set often enough that a unit commander simply cannot afford to neglect it.

In developing his particular training requirements, today's trainer can choose from a broad array of training

support items such as MILES (Multiple Integrated Laser Engagement System). But a major factor in determining what and how much to use must be the motivation of the unit commander, specifically the battalion commander. What he believes to be important is, by definition, important to the unit. Therefore, our commanders must be educated and trained in the use of the various training support items if we are to improve and further refine the sustainment of skill proficiency.

There is, of course, a great deal of training instinct involved when a trainer starts to choose his support material. Thus, if he wants to use some form of tactical

engagement simulation to sustain his soldiers' firing skills, he can choose from a number of target arrays, each of which can give him a distinctly different training challenge for his small units or crews.

The challenge to the trainer, then, is to ensure the quality control of the training environment so that the result will be well-executed battle drills as well as detailed after-action reviews that can be used to reinforce the training process.

Multiple repetitions of training events are exceedingly useful. For the average small unit live fire exercise, for instance, it is better for all concerned if the unit is first per-



mitted to conduct a dry run of its SOPs and procedures — in brief, a review of its battle drills. Then it should be given a chance to run, over the same course, an abbreviated live fire exercise in which it uses a reduced amount of ammunition. This kind of exercise should be used to point out to the unit's leaders and to the soldiers themselves the difficulty of properly controlling and distributing their fires, and it can be used to correct or to strengthen the unit's SOPs, if either is needed.

Finally, the unit should be put through a second live fire exercise, this time using its full allotment of ammunition. By now, the unit should be more than ready to demonstrate its competence, and its members should be brimming with confidence in their ability to run the exercise as it should be run. The unit should also conduct the same exercise, using live fire and the same training situation, at least twice during darkness.

The ammunition requirement for all of this is really not as high as it may seem. Four repetitions of an exercise do not necessarily require four times as much ammunition. In fact, the total will be closer to twice the usual allocation, because a unit will normally do a much better job of controlling and distributing its fires as it repeats the exercise. A unit doesn't have to fire a lot of ammunition to determine whether it has a serious control problem.

Evaluation is also a vital aspect of training, and each commander's evaluation program must be suited to his unit's mission and to his style of command.

One of the most difficult decisions a commander must make is to determine how often he is going to conduct external evaluations of training. Assume, for example, that in a certain division setting the headspace and timing of the .50 caliber machinegun is considered an absolutely vital task that must be sustained by all soldiers at a high level of proficiency. Assume, too, that that particular division commander believes the task is important enough that the proficiency of 10 percent of the soldiers must be evaluated on a random, no-notice basis once every three months.

With the division using a 10 percent figure, the brigades will undoubtedly establish a 15 percent figure, while a battalion's policy could range from 10 to 20 percent. As a result, somewhere between 35 and 40 percent of the time an echelon higher than the company will be verifying the proficiency of a company's soldiers in a very specific task.

This can be an intolerable situation for a company commander, because his training time is actually being governed by external evaluations. Having higher headquarters tell our young leaders not only what to do but also how to do it in great detail is not the best way to develop their confidence. And this kind of situation can only amount to a stressful command environment in which there can be little, if any, positive feedback.

What standards do we expect a unit to maintain? The Army now believes that 60 to 80 percent skill mastery is enough for qualification or verification of individual task proficiency in the SQT. But frequently, on evaluations such as the no-notice annual general inspection evalua-

tion, the Army's trainers are dismayed if a soldier does not reach a similar high level of proficiency.

Because proficiency can be maintained in just so many skills at one time, it would seem that a sliding scale of expectations is needed. Thus, the Army itself, or a unit's chain of command, should determine some sort of order of preference and the amount of warning that will be given before testing a certain skill proficiency. Thus, the standard set for the no-notice evaluation of a particular skill should differ from the standard established for a 48-hour notice, which, in turn, would differ from the standard set for a two-week notice. And any raising of a standard must be accompanied by additional resources (time and chain of command understanding included), or there will be a definite challenge to the leader's integrity.

Many commanders have a lurking desire to use training evaluations to inculcate a competitive spirit in their units. All commanders want to develop the highly competitive team camaraderie that is characteristic of good units. This is desirable. But when it is incorporated in the evaluation of an intensive training program, overt competition can be destructive. For this reason, the criterion-referenced nature of training should be stressed. That is, a unit should be able to do a task to the condition and standard required. It should not enter the picture whether one unit is better than another in terms of exceeding particular tasks, conditions, and standards. What is important is that units are suitably proficient in all of the tasks, conditions, and standards required by the training program.

There are most definitely times and places for tough, overt competition. But training and evaluation exercises are neither the time nor the place. Those exercises should be devoted to the development of competent and highly confident units that will be prepared on short notice to execute their general defense plan missions.

OVERVIEW

The current training system has great potential for highly effective proficiency training at the squad and crew level. The competence of the squad leader or tank commander is absolutely critical to successful training. This competence, combined with a supporting environment that can produce a disciplined, motivated soldier, is without question the essential variable in the sustainment of the requisite level of training proficiency.

To take full advantage of the new training support equipment now becoming available, proficiency in a range of skills, including crew proficiency, must be developed. These skills involve the use of ammunition as well as tactical engagement simulations both during the day and at night. The skills should include exercising the mobility and survivability that have been built into the combat system, as well as demonstrating proficiency in the integration of direct and indirect fire to achieve a desired battlefield effect. None of our current tank or antitank gunnery exercises really stress proficiency in this broad range of skills.



A detailed analysis of each echelon's collective task training requirements is badly needed. It may not be an efficient, effective use of resources, for example, to conduct a battalion task force road march without having previously exercised the component parts. The point is the subordinate echelons have many collective tasks that they need to accomplish well to ensure quality training. Furthermore, by sub-dividing the training into collective enabling tasks, the entire leadership chain can focus on training and evaluating the units on those enabling tasks and thereby increase the efficiency of their evaluations.

Similar logic applies to the exercise of integrated skills for officers. It may provide a warm, comfortable feeling to have a brigade or division headquarters in the field and effectively moving. But this is only an enabling skill in the execution of the much more important system integrating tasks — such things as the integration under stress of the division's maneuver, terrain reinforcement, and fire support systems. Too frequently, attention is paid to the movement of the headquarters, with its supporting elements, and not to the actual training situation. This is particularly true given the disturbing variation in the level

of training attained by our combat, combat support, and combat service support units.

As a general proposition, the Army as a whole has far more knowledge of the training requirements of its maneuver units than of its supporting units. Yet with the attrition that can be expected if war comes, the supporting units may have the decisive effect on its eventual outcome. These units must be able to regenerate combat power. The Army has much to do to develop this proficiency through combat service support exercises.

The modernization of the force is a significant event in any unit. As new equipment is made available, it becomes a major task to apply its capabilities to the general defense plan. For example, the receipt of a counter-mortar radar can cause a reevaluation and subsequent readjustment of an entire fire plan. The improved TOW vehicle can require a significant increase in professional training for our officers. All of this must be taken into consideration in the analysis and design of a training program to make sure a unit is not overlooked.

REQUIREMENTS

Special training requirements for conducting sustainment training itself also develop from the characteristics of the training system. For one thing, the proficiency of those who are going to conduct the training must be maintained regularly. Another recognized requirement is the sustainment of the battalion training management system (BTMS) in the context of the training objectives, resources, and programs of the particular chain of command.

A deliberate training policy decision is also needed in listing those requirements for maintaining unit training proficiency that can be institutionalized provided they are done often enough. One example of this would be understanding the difficulty involved in preparing a strong point. It is extremely difficult and time consuming, for instance, to put in a company strong point. It is probably not necessary that a company dig in every three or four months to maintain its proficiency, but there must be a system to ensure that there is either a CPX or an extensive professional discussion of the problem, or that it is actually done on the ground once a year. The particular chain of command must determine what is appropriate and, at intervals, jog the institutional memory.

The chain of command of a unit undergoing range training should be given the opportunity to provide any enabling task training to the soldiers. Thus, training support material can be issued to a squad or section leader so that he can train his soldiers or refresh their memories in the firing skills before the actual firing.

Another difficult training policy issue is how to centralize the evaluation of leader proficiency. At what echelon should specific requirements be established?

Who should conduct the training and for what purpose? This is a delicate issue of command policy that needs to be weighed against the centralization of sustainment training, planning, and execution, and against the scope of the command evaluation program itself. Needless to say, each must complement the other in reflecting the policy of the senior commander.

Learning Resource Centers at the battalion level have proved quite useful, when they were established properly. Each should have a trained monitor and should have the multiple capabilities of the training system (individual or group MOS study), the education system, and some aspect of entertainment (library, written, or audio-visual material). Sustainment training in some critical areas can be accomplished at the LRCs. With a new item of equipment or a new maintenance responsibility, for example, contract sustainment training can be provided by a skilled technician. At the same time, soldiers who have difficulty in reading should receive some help in improving their reading skills. This could be offered by the LRCs, provided they received the proper command attention.

EVOLUTION

The Army's training system has improved considerably over the years. The present system of multi-echelon integrated training is designed for the sustainment training of a force that has to be ready for combat on short notice. A supply of competent officers and NCOs is almost a precondition for executing this intensive training program.

The intensity of any training program is such that it must have total support. In other words, there must be a reinforcing system of annual general inspections, including the training proficiency tests, both scheduled and no-notice. There must also be solid equipment maintenance programs; continuing command attention to and discussion of the training management process; scheduled and detailed command training reviews; and time for assessing the programs, the available resources, and their results. In addition, there must be reinforcement by the chain of command and detailed professional discussions of the unit's training program.

Total system also implies the support of the community that surrounds the training process of the unit. This means there is a high order of discipline in all the things a unit is engaged in. It means there is an aggressive sports program to reinforce unit cohesion through company or battery competitions. And it means that barracks, motor pools, dining facilities, and family quarters are upgraded to a standard of excellence consistent with what is expected from the soldiers.

What is perhaps most important is that all the parts of the program must mesh if it is to produce the competent, confident young American who believes in his heart that he belongs to a skilled, tough, proud, disciplined, ready force that truly cares.



One-On-One tactical training

With its new Multiple Integrated Laser Engagement System (MILES), the Army can now conduct more realistic training exercises than ever before. Through the lasers and sensors on the weapons and the soldiers, MILES gives the soldiers a more realistic idea of what their fate would be if the combat were real. But even with MILES there are still some limitations.

One of the problems is that usually only a few soldiers in any unit really get involved in an action at a given moment on a particular piece of ground, while the best the others can do is to hear the sounds of the action or see it from various distances and perspectives. Thus, in a movement to contact training exercise, the platoon

JERRY D. FREEBLE
DAVID L. HANNAMAN
ROBERT H. SULZEN

leader, the squad leaders, and those in the point element may get some valuable training, while the rest of the platoon's members may benefit very little.

Another problem with unit combat simulations is that, given the variations in circumstances, it is difficult if not impossible for trainers to use any uniform standard to determine if a soldier is really doing well or simply doing the best he can.

The question for trainers, then, is how can all soldiers be given the opportunity to test their individual combat skills within a MILES exercise, and how can they be properly trained in those skills before the unit-to-unit MILES experience?

SMALL ARMS COMBAT TRAINING

To answer that question, a team from the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and its contractor, the Human Resources Research Organization (HumRRO), developed a one-on-one training technique that was designed to provide repeated opportunities for infantrymen to practice their individual skills so that they could better participate in collective MILES exercises.

The technique the team developed called for pitting one infantryman armed with a rifle against another armed with hand grenades. The confrontation would take place on a measured lane according to two different scenarios: a grenadier in the attack versus a rifleman in the defense, and a rifleman in the attack versus a grenadier in the defense. The team then tested this new

technique at Fort Campbell in April 1981, using nine squads from the 101st Airborne Division (Air Assault). The squads were relatively small, averaging five soldiers each, not including the squad leaders.

(The team elected to use riflemen against grenadiers in this tryout because of a need to force grenade training and because of certain logistics considerations. But the same technique can be employed using riflemen against riflemen, with or without grenades.)

At Fort Campbell, the team set up its training area as a test lane with numbered markers on trees about ten meters apart. The line of markers let the graders for the attacker note the distances at which the opposing soldier took action. It also served to restrict the attacker's avenue of approach to an area five meters to either side of the markers.

This set-up added standardization by confining all the action to the same area. To add still more standardization, each rifleman was given only 20 rounds of 5.56mm blank ammunition, and each grenadier only four training grenades with fuzes.

Each grenadier was fitted with a MILES helmet and a torso harness so that the graders could keep track of any hits made by the riflemen. The rifles had MILES transmitters attached to them. (The riflemen did not wear MILES equipment, because their opponents had only grenades.) The usual MILES procedures for assessing grenade casualties were applied to the training — a grenade exploding within five meters of an exposed soldier was considered a hit.

The testing team was interested in getting the answers to two questions: What would the soldiers learn? And

would the training be motivating? These questions were straightforward on the one hand, yet extremely complex on the other; the answers were as expected in some cases, but surprising in others. What the soldiers did learn in a short time, though, was startling.

RIFLEMAN ATTACKS

During the rifle attack training, the rifleman was directed to proceed down the relatively narrow lane and to eliminate an enemy soldier who was armed with grenades and who occupied a one-man position. The attacking soldiers learned several things.

An attacking rifleman, for example, soon found he needed a practical approach to the concept of cover and concealment. At first, he would proceed cautiously down the lane until he spotted the grenadier, who had usually spotted him first. If he took cover behind a tree, the rifleman might find himself exposed to a grenade that had landed a few feet away. He would then realize that it was better to prevent the grenadier from detecting his exact location because, even though he did not have to worry about rifle fire, he could still be eliminated by grenades.

The value of three- to five-second rushes also became apparent when the grenadier showed confusion as a result of not knowing where the attacker was going. A confused grenadier would throw his grenades only where the rifleman had been last.

Along with this lesson, the rifleman learned the value of suppressive fire. Often a rifleman would fire a couple of rounds to make the grenadier duck, and he would then make a quick rush to some other cover, leaving the grenadier bewildered as to his exact location. The riflemen who took the training agreed that they had to be unpredictable, both to survive and to engage the grenadiers successfully.

With only 20 rounds available, conserving ammunition was essential, and this led to one-on-one tricks. One rifleman, for example, pretended he was out of ammunition, or that his rifle was jammed, by noisily working the bolt. When the grenadier stood up in his position to get a better throw at his apparently helpless victim, he was hit. Another rifleman fired a few rounds to make a grenadier keep his head down, but instead of finding a different position to fire from, he rushed the foxhole. When the grenadier popped up to see where the rifleman had gone, he was staring at the business end of an M16 rifle.

News of such tricks spread, and ingenious variations were evident from that point on, including the best trick of all — not falling for tricks.

RIFLEMAN DEFENDS

When a rifleman acted in a defensive role against a grenadier who was attacking, the rifleman learned additional skills. The rifleman would make sure that he used



cover and concealment properly until he had a good target. His use of suppressive fire was also interesting. He might hold his fire until the grenadier was in an awkward position and then pin him down, leaving him unable to do anything except throw grenades wildly. Soon, the rifleman could predict the behavior of the grenadier. For instance, one grenadier was behind a tree 25 meters away and did not have a clear throw. When a grenade sailed toward the rifleman, he ducked, but the rifleman knew the grenadier would probably rush for a better place. When the rifleman popped up, he was aiming at that "better place" instead of at the grenadier's previous location.

GRENADIER ATTACKS

Some interesting variations of the tricks occurred when a grenadier attacked a rifleman, because cover and concealment were important. A smart grenadier would proceed stealthily until he spotted the enemy or was spotted himself. If he could not effectively throw a grenade from this location, he would make short erratic rushes to a better position or break contact and approach from a better angle. He quickly found that while a thin tree might protect him from M16 fire, it might not give him the opportunity to throw his grenades properly.

One enterprising soldier discovered that his grenade could be used in an indirect way rather than in the direct line-of-sight, fast-ball approach. The trick involved spotting the rifleman in the foxhole, withdrawing a few meters to cover — hidden completely from the rifleman — and pitching a grenade in a high arc over the trees, achieving an air burst a few feet over the foxhole. Cooking off the grenades became standard after the first few members of a squad had theirs thrown back at them.

Another trick was to use more than one grenade at a time to suppress or confuse the rifleman. A grenade might be thrown from an awkward position in the general direction of the foxhole to cause the rifleman to duck. While the rifleman was down, the grenadier could get set for a well-aimed throw without fear of being hit.

Another way to use the grenade in a suppressive role was to throw one and maneuver to a better position while the rifleman ducked. It didn't always have to be a grenade, either. A clump of dirt or a rock would work, too, if the rifleman wasn't onto the trick.

GRENADIER DEFENDS

During training with grenades in the defense, cover and concealment could be used to the greatest possible advantage, because a grenade's origin wasn't as obvious as the muzzle flash from a rifle. Even when a rifleman knew a grenadier's position, if the grenadier anticipated the movement or the actions of the rifleman, he could be extremely effective with his grenades.

For example, the rifleman might fire a few rounds to get the grenadier to duck, and then he would maneuver to

a position from which to shoot him. But a battle-wise grenadier would have a grenade waiting for the rifleman at the next likely tree, and the grenade would blow up just as he got there. Once again, rocks instead of grenades were sometimes used to confuse the rifleman.

In another situation, a rifleman's trick led to counter-tricks by the grenadier. One of the grenadiers threw a grenade at a rifleman, but instead of rolling away, the rifleman charged the grenadier's position. The rest of the grenades exploded harmlessly behind the charging rifleman, who ran up and shot the grenadier. When that rifleman went back to his squad with his new-found tactics, the next few grenadiers suffered the same fate.

A platoon sergeant who was watching these charges talked quietly with a defensive grenadier for a moment and another trick resulted: The next time a rifleman charged, the grenadier, instead of throwing his grenades to explode ineffectively behind the rifleman, pulled the pin of one and set it just forward of the parapet of his foxhole and then ducked deep into the hole. As a result the confident rifleman ran up to the foxhole just in time to be hit by the grenade. That effectively ended the indiscriminate banzai charges.

MOTIVATION

By the end of this test, it was clear that the soldiers had become combat wise and that they had been motivated by the training. A high degree of motivation was expected, partly because of the "cops and robbers" nature of the training, but it was originally feared that poor performance and repetitiveness, both unavoidable in the technique, might adversely affect troop motivation. Surprisingly, these predicted pitfalls only increased motivation.

Success and pride showed on the faces of the soldiers who were especially good, and it was obvious, in many cases, that the other members of their squads viewed them in a better light. But failure was also motivating; those who performed poorly wanted to go through the training again to redeem themselves in the eyes of their comrades.

BENEFITS

Some additional and unexpected benefits also came from the training. In one case, for example, a squad leader acting as grader for attacking grenadiers watched one of his fire team leaders throw four grenades without once hitting the rifleman. The fire team leader was closing his eyes and throwing the grenade quickly after pulling the pin, and the squad leader soon realized that a fear of having the grenade fuze blow up in his hand was at the root of the problem. With that knowledge, the squad leader was able to give the soldier some corrective training and eliminate the problem.

Another squad leader was puzzled when one of his soldiers who had scored as an expert during his annual rifle qualification did no better in this training than others



CSC Commander

CAPTAIN JOHN NIXON
CAPTAIN CRAIG BENEDICT

Today's mechanized infantry battalion is undergoing a tremendous upheaval as all its resources and new equipment are being gathered for the great leap into Division 86. But Division 86 is several years away and, meanwhile, there are some unsolved problems in the present structure of the mechanized infantry battalion. The most controversial of these problems may be the delineation of the duties and responsibilities of the combat support company (CSC) commander.

The CSC commander has a unique and challenging position. He controls more firepower than any other company commander in the battalion, but instead of simplifying his job this firepower only complicates it because of the wide variety of vehicles, weapon systems, and military occupational specialties in the company. This organizational challenge, coupled with unclear guidance from the training and doctrinal literature, can leave the CSC commander confused as to his roles and duties on the battlefield.

Essentially, he is a kind of utility man for the battalion; he can be assigned to act either as a tactical commander or as a staff officer, or as

both at the same time. As utility man, he must know all the possible ways his company's assets can be employed, he must receive precise instructions, and, above all, he must be flexible.

Among his most difficult tasks are training and maintenance, because the CSC company includes soldiers with many different kinds of specialties. Besides being responsible for the sustained training of scouts, tank killers, and mortar men, he may also be responsible for training air defenders, tankers, and ground surveillance radarmen. This means that he must be knowledgeable in each of these specialty areas.

A continual assessment of unit training, coupled with long range planning, can ease his training pressures and it will also help if the commander can see to it that only strong platoon leaders are assigned to the special platoons to act as his primary assistants. He simply cannot control all the training and its evaluation single-handed; the training must be decentralized if the soldiers are to be prepared to perform their duties.

When it comes to maintenance, the CSC has the smallest man-to-vehicle ratio in the battalion. A CSC com-

mander, therefore, may often feel that he spends most of his time in the motor pool or talking to the support maintenance battalion about the status of his downed weapon systems.

Although such training and maintenance concerns are a part of the responsibilities of any company commander, with the CSC commander they are unique in their variety and must be treated uniquely.

TACTICAL ENVIRONMENT

But the real problems arise when the CSC commander moves from a garrison to a tactical environment. TOEs, SOPs, and Army regulations guide the CSC commander's garrison duties, but neither doctrine nor policy covers him when he goes to the field. There he can be used either as a maneuver commander or as a special staff officer.

In a tactical environment, there are some missions that his company can do better than a mechanized infantry company, and in these situations, he can be used better as a maneuver company commander. In the defense, for example, a CSC can provide the security force for a battalion, using



who had scored much lower. The soldier's explanation was that on the range the targets didn't shoot back.

This concept of practicing individual skills in training situations where the targets shoot back, as they did at Fort Campbell, can be applied to training with other infantry small arms as well.

Some more systematic research and data analysis are needed before the specific improvement in skills from this training can be scientifically confirmed. But this type of individual training could overcome some of the difficulties associated with collective or unit training and also prepare individual soldiers better for such training.

In addition, the information regarding each soldier's individual ability to detect enemy forces at varying distances can help squad leaders and other trainers identify individual deficiencies, determine future training requirements, and assign individual responsibilities during unit missions. Another benefit is the insight the squad

leaders often obtain during their participation in one-on-one training.

Such training is practical because it does not require special terrain or a large amount of MILLES equipment or of time; each run requires about five minutes per soldier. Two fire teams can practice attacking and defending in an hour on a single exercise lane.

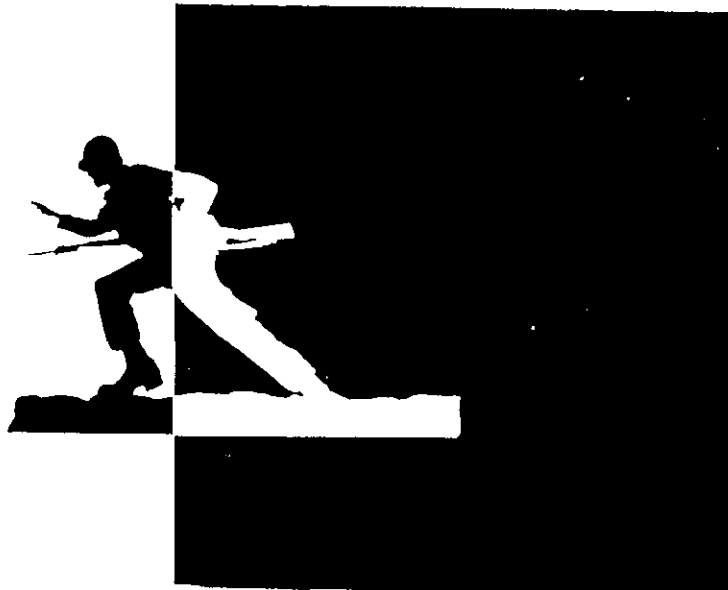
ARI will supply provisional scoring forms and draft rules of play to any unit that is interested in adapting the method to its own training needs. With further tryouts and an accumulation of lessons learned in the field, ARI could develop a standardized method with a set of progressive training standards.

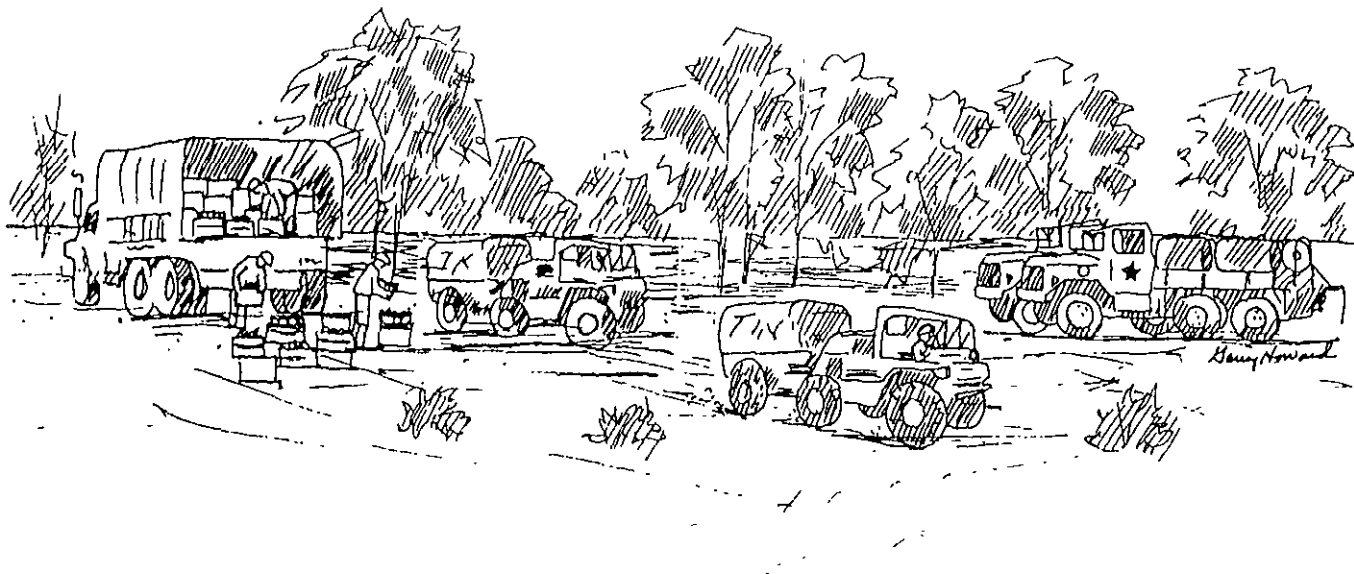
Any recommendations, questions, or requests for additional information or documentation regarding this training technique should be addressed to Dr. Stanley Bolin, Project Director for Performance Standards Research, ARI, 5001 Eisenhower Avenue, Alexandria, Virginia 22333. Dr. Bolin can be reached by telephone at AUTOVON 284-8694.

JERRY D. FREEBLE, a Research Assistant with HumRRO, assisted in the development of the training techniques and with their field tryout at Fort Campbell.

ROBERT H. SULZEN, a Research Psychologist with ARI, has an extensive background in engagement simulation research. He was ARI's technical monitor of the contract under which these training techniques were developed.

DAVID L. HANNAMAN, a Senior Scientist with HumRRO, originally conceived and developed the one-on-one training techniques discussed here. He served for three years on active duty as an Army infantryman, including a one-year tour in Vietnam with the 25th Infantry Division.





its strong antiarmor assets (with additional security) and its reconnaissance assets to find and destroy the enemy forward of the FLOT (forward line of own troops). And if a battalion task force has an extended front, the CSC can be used to defend part of that front, providing particularly effective coverage of an armor avenue of approach. The CSC might also be assigned to act as a reserve unit, as a counterattack force, or as a counterinsurgency team.

In the offense, with augmentation, the company can act as an advance guard in a movement to contact, among other roles. The scouts' mobility, coupled with the TOW's long-range overwatch capability (again, with additional security), makes the CSC an ideal choice for such missions.

As a staff officer, a CSC commander is often not used properly. Because of his special qualifications, he should be considered a valued member of the battalion staff. He certainly should be treasured as an

advisor in the employment of any or all the special platoons in his company, and he could be used to establish and operate an alternate battalion tactical operations center (TOC). He might also be required to act as a re-transmission station between the battalion's forward elements and the main TOC, and he is an excellent choice to become a liaison officer to adjacent or higher units. (Although all of these are possible jobs for the CSC commander, he should not be given more than one of them at a time.) The selection of the right mission for him must be made on the basis of the mission of the battalion and the abilities of the CSC and its commander.

Whether the battalion commander chooses to use him as a staff officer or as a maneuver commander depends entirely on the situation and cannot be defined in field manuals or ARTEPs. But he should not be neglected, and his duties and responsibilities should be precisely spelled out for each operation. Above all, the

special knowledge and experience that he has should be used to the fullest extent to help the battalion accomplish its mission, whatever that mission might be.

CAPTAIN JOHN NIXON, a 1977 graduate of the U.S. Military Academy, is a training management instructor at the Infantry School. He, too, has completed Airborne and Ranger training and the Dragon trainer course. He has served as a rifle platoon leader and an antitank platoon leader with the 25th Infantry Division in Hawaii.

CAPTAIN CRAIG BENEDICT is commander of Company C, 1st Battalion, 58th Infantry, at Fort Benning, Georgia. A graduate of Southern Methodist University, he was commissioned in 1975 through the Officer Candidate School and has completed Airborne and Ranger training. He has served as a mechanized infantry rifle platoon leader, a scout platoon leader, and an operations instructor at the Infantry School.

INFANTRY and TANKS

CAPTAIN GUY C. SWAN III

As an Armor officer attending the United States Army Infantry Officer Advanced Course, I was surprised to find that many of my infantry colleagues had had little experience working with tanks. In particular, the officers just coming from airborne, air assault, Special Forces, and Ranger assignments knew little about employing and supporting tanks within a company team. At the same time, I found that those officers who had recently served in mechanized infantry battalions had an exceptionally good knowledge of combined arms operations.

As one of 12 Armor officers in the class, I was constantly pumped for information on the use of tanks. The instructors did a good job teaching the general employment of tanks as part of the combined arms team, but seemed to take for granted a level of experience that many of the officers did not have. Because of this, I answered many questions from my classmates about the real nitty-gritty problems of what tanks can and cannot do for the company team commander.

OPERATIONS

First and foremost, the tank is the *primary* tank-killing weapon system on the battlefield today. But because there is so much emphasis in today's infantry training on antiarmor guided missiles, this function of the tank is sometimes obscured. The company team commander, therefore, should

think of his tanks as his main tank-killers, and then supplement them with his antiarmor weapons as a particular situation requires.

All U.S. tanks also have sophisticated ranging and sighting components as part of their fire control systems. Their laser rangefinders, for example, can help the team's leaders set up their range cards, especially for their TOWs, Dragons, and machineguns.

For battlefield illumination, most tanks still carry high intensity xenon searchlights, even though tankers don't like to turn them on for fear of compromising themselves. Certainly a tank's survivability is jeopardized whenever its searchlight is turned on, even in its infrared mode, but a team commander can use the light if he is careful. Perhaps the best way is to put the tank in a turret-down defilade position and reflect the light off the cloud cover. Although this method may sound odd, it can provide adequate illumination if the cloud cover is right.

Another piece of useful equipment on the tank — one that is often neglected in combined arms training — is the external telephone. An infantryman who is using the phone actually becomes a kind of fifth crewman for the purposes of observation and target acquisition. (For safety, the infantryman should remain clear of the rear of the tank and walk to the right flank where the tank commander can see him.)

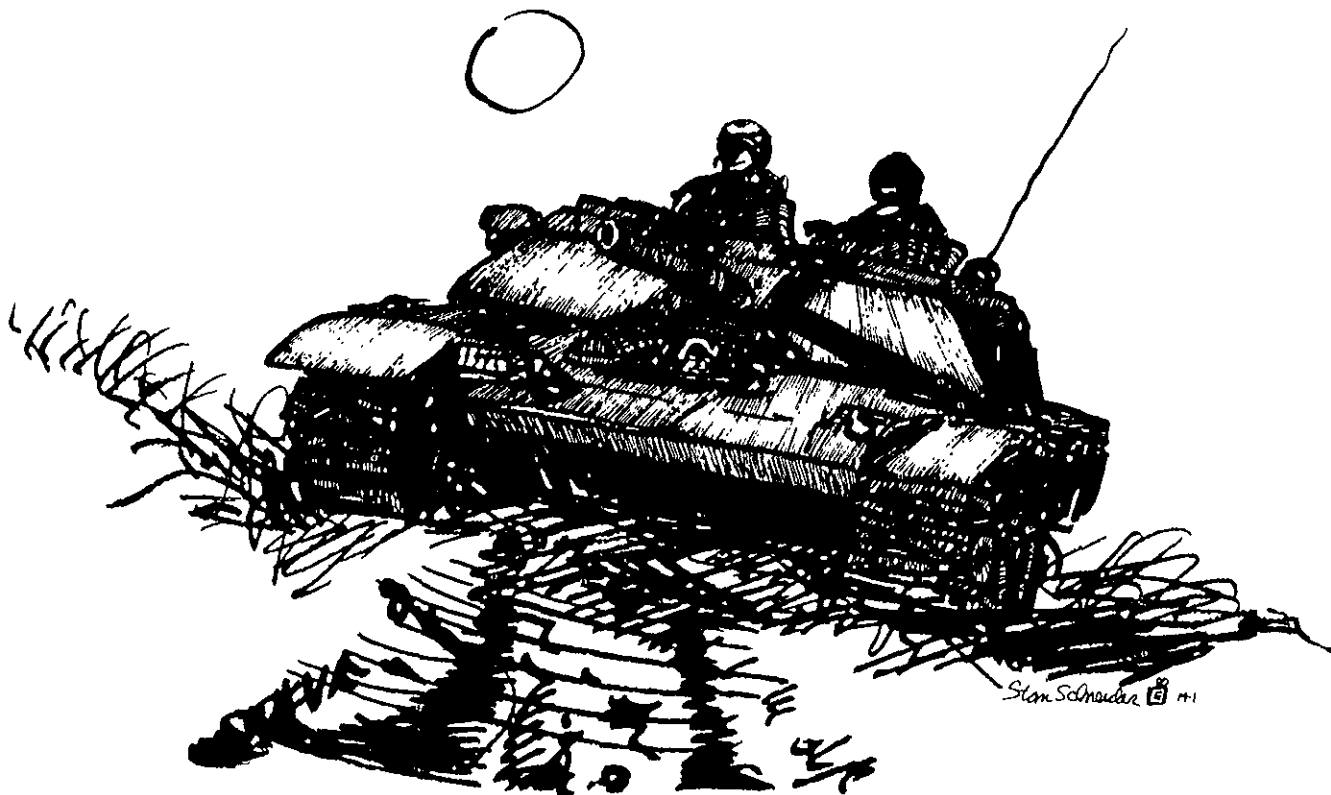
The team commander must always make it a point to know the personnel

situation in his attached tank platoon. While a rifle squad can still function if a man is missing, a tank crew must have all its members to accomplish its mission. Because each crew member is responsible for certain critical tasks, the loss of one man can render the crew virtually ineffective. Therefore, tankers should not be used to man observation posts and listening posts except under emergency circumstances, although in certain situations they can and should be used to observe from their vehicles where they can take advantage of their sighting equipment and their .50 caliber machineguns.

In combat, as well as during some training exercises, infantry soldiers may have to be transported on the tanks. The infantrymen must maintain "three-point contact" at all times, and should climb onto a tank at the right rear sprocket or over the right front slope if it is either an M60 or an M48 tank, or over the left front slope if it is an Abrams tank. The tank commander should be able to see all of the soldiers before they climb aboard.

Finally, the tank platoon leader should be used as the team's armor advisor in much the same way the FIST team leader is used as the team's fire support advisor. The team commander should seek his advice on how he can best support the team's scheme of maneuver before making his final decision on how the tanks will fight.

The attachment of a tank platoon will create a number of logistical



problems that the company team commander will have to deal with. Tank turrets, for example, are hydraulically operated and need fire retardant hydraulic fluid. Tank brakes, unlike those on the M113A1, are also hydraulic and require brake fluid. While the tank platoon normally carries these fluids as well as oil and extra grease, the team commander and his executive officer should be prepared to get additional amounts if they are needed.

Repair parts for the tanks could also become a problem, particularly if the team's maintenance people do not plan for them. Today in Europe, some mechanized infantry companies are carrying certain key high-use tank parts on their PLL stockages.

Ammunition will also require some additional planning. Both the M48A5 and the Abrams tanks mount variations of the M2 .50 caliber machinegun that require the same close-link ammunition an infantry company's organic machineguns use. The M60 tank, however, mounts the M85 machinegun, which fires open-linked

.50 caliber ammunition that has been especially designed for it. (Almost all U.S. tanks also mount the M240 coaxial machinegun, but its 7.62mm ammunition is the same as that used in the M60 machinegun.)

Ammunition for the tank's main gun, on the other hand, is quite bulky and can take up a large part of the team's resupply space. Careful attention must be paid to how the team's ammunition resupply vehicles are loaded.

MAINTENANCE

When a tank platoon is attached to a mechanized infantry company, the commander of that company assumes responsibility for the tank platoon's organizational maintenance support. There are some steps a team commander can and should take before his team has to move out to lessen some of his maintenance worries. He should be sure his team's mechanics are aware of the basics of tank maintenance, since they will be the

ones who will have to repair the tanks. They might even visit a tank battalion maintenance setup and get some maintenance pointers they can use later. The company motor sergeant should certainly add some tank manuals to his library of maintenance and repair parts manuals, keeping in mind that tanks have separate manuals for the turret and the hull. The company executive officer and the motor sergeant should also see about getting any special tools the team may need.

Once in the field, the team commander must see to it that the tank platoon leader supervises the preventive maintenance procedures in his platoon; tanks require frequent maintenance checks if they are to operate properly.

Thrown tracks can be an embarrassing problem in training and a costly one in combat, and tanks have a nasty habit of throwing their tracks more frequently than other armored vehicles do. This problem can be reduced only if track tension is checked constantly and if proper ter

range driving techniques are enforced.

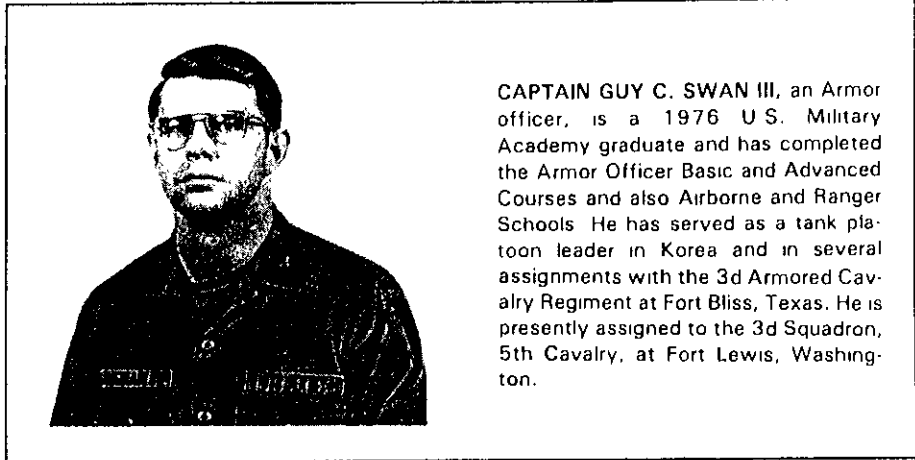
Because the team's organic M578 light recovery vehicle cannot recover tanks, the commander should plan to use operating tanks to recover disabled ones. Armor units do this fairly routinely, and the operator's manual prescribes the procedures for doing it safely.

CONCLUSION

Many of the things mentioned here may be old hat to experienced mechanized infantry officers. But for those officers who have had little or no mechanized infantry experience,

this advice may help to stimulate their thinking on the complexities of combined arms operations in general and

on tank-mechanized infantry operations at the company team level in particular.



CAPTAIN GUY C. SWAN III, an Armor officer, is a 1976 U.S. Military Academy graduate and has completed the Armor Officer Basic and Advanced Courses and also Airborne and Ranger Schools. He has served as a tank platoon leader in Korea and in several assignments with the 3d Armored Cavalry Regiment at Fort Bliss, Texas. He is presently assigned to the 3d Squadron, 5th Cavalry, at Fort Lewis, Washington.

TOW Training

CAPTAIN STEPHEN BELLENE
CAPTAIN JOHN N. DAVIS

The goal of our TOW training is to develop a TOW gunner who can hit tank targets, stationary or moving, in a tactical situation at ranges out to 3,000 meters. The best way to train a TOW gunner, of course, is to let him fire TOW missiles at heavily armored tank-like targets. Obviously, this is impractical. As an alternative, the Army has developed several training devices for use in training TOW gunners to hit targets without actually firing missiles. But these devices do not allow for tactical training, especially of tactical leaders. In fact, the training devices have numerous deficiencies.

The M-70 trainer, for instance, is the main training device for the TOW. It allows a gunner to track a moving target board, usually

mounted on a quarter-ton truck, and it scores him with a hit or a miss. But this tracking is normally done over ideal terrain with no obstacles such as trees, brush, power lines, or bodies of water between the gunner and his target. The target moves laterally to the firer on a smooth surface at a steady speed, providing the best exposure and tracking conditions. Obviously, no unit tactical training is possible with this device.

The Sony TV Trainer (TVT) provides a video tape recording of a gunner's performance as he tracks a target for a specific length of time. A detailed critique can be made when the tape is played back, but no hit or miss can be registered, and no immediate feedback can be given to the gunner. Again, this trainer cannot be

used for tactical training.

Although dry tracking may be good for individual practice, it provides no way for anyone else to evaluate a firer's ability to hit a target. One version of dry firing is available in Realtrain; a sighting device affixed to the launch tube allows an evaluator to track the target as the gunner does. This system does provide some realistic field training, but its evaluation is highly subjective. The quality of the results all too often depends on the evaluator's qualifications and judgment.

Laser instrumented training, on the other hand, offers a commander a good way to train his TOW crews tactically in a force-on-force exercise. It does something that no other TOW training aid can do: it rewards good

tactics and penalizes poor tactics. A TOW crew can now "kill" or "be killed" as a result of its own tactical prowess.

The most up-to-date laser instrumented system is the Multiple Integrated Laser Engagement System (MILES), which is being used at the National Training Center, among other locations. With it a commander can design his own training, and this is certainly the most effective way to do it. Any commander who gets a chance to use MILES should take it.

But MILES is not yet widely available. Meanwhile, there is an older system in use at Fort Hood that units at other locations can also use, under certain conditions, to train their TOW gunners. It is called the Weapons Engagement Scoring System (WESS).

Developed in the early 1970s, the WESS consists of an eye-safe laser, a laser detector assembly, a processing and control unit, a crew indicator panel, and a power supply. The laser itself is attached to the launching tube where it can be boresighted with the optical sight. The control unit is wired to the trigger mechanism. When the gunner fires, the control unit activates the laser, and this sends an infrared message containing the unit's identification number, the mode of fire, and the weapon type to the control unit.

If the attacking gunner has kept his sight on his target and if his target has not taken evasive action, a complete message is received and processed, and the control unit records a kill by lighting an orange strobe light and

disarming the laser. If, on the other hand, the attacking gunner has "lost" his target, or if the target vehicle has taken effective evasive action, the complete signal will not be received, and the control unit will not record a kill.

While WESS was designed for testing with late 1960s technology, its principles of operation are basically the same as those of MILES.

For more information on the

WESS and on how it can be made available, major commands may write to the Commander, TRADOC Combined Arms Test Activity, ATTN: ATCAT-OP, Fort Hood, Texas 76544, or call AUTOVON 737-9113/9994.

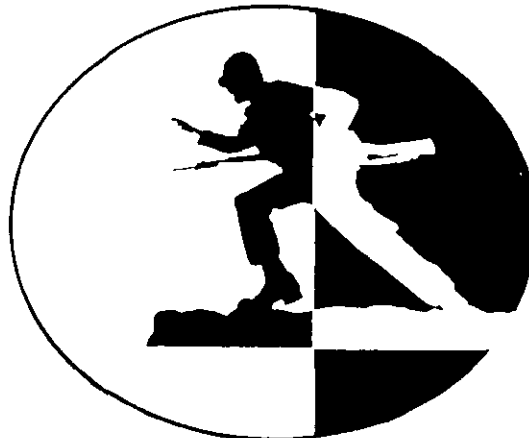
Instrumented training provides a solution for many of the problems of TOW training. It offers no tricks or games. But it does offer a solid proven way to improve TOW training.



CAPTAIN STEPHEN BELLENE is a graduate of the U.S. Military Academy, and when he prepared this article he was attending graduate school at the University of Virginia in preparation for an assignment as an instructor at the Academy. He has served as a mechanized infantry platoon leader and a company commander with the 2d Battalion, 12th Cavalry at Fort Hood, Texas.



CAPTAIN JOHN N. DAVIS, USAR, presently inactive, is a graduate student at the University of Pennsylvania. He is a 1975 graduate of the U.S. Military Academy and has completed Airborne School and the Air Defense Officer Basic Course. He has served with the 1st Cavalry Division and as Technical Program Coordinator with the TRADOC Combined Arms Test Activity at Fort Hood.



ENLISTED CAREER NOTES



REENLISTMENT POLICIES

Soldiers in all grades and MOSs now face new reenlistment rules.

One new policy — the Dual Component Option — deals with in-service recruitments and makes it easier for departing Regular Army soldiers to fill Reserve slots. Also included are new reenlistment and reclassification rules that should help the Army stay up to strength in certain critical specialties.

With the Dual Component Option, soldiers can now enlist in the U.S. Army Reserve 10 days before they begin their terminal leaves, or within 10 days before they are eligible to return from overseas. Service members who have finished their six-year military obligations no longer have to enlist within 24 hours of their ETS.

The new option helps soldiers who want to reenlist but who are not at the separation or transfer point or at another military agency at the time of their ETS. It also aids those who are not at the separation or transfer point for as long as 24 hours, such as overseas returnees. The option prevents a break in military service by letting these soldiers continue in their USAR status.

The new reenlistment and reclassification rules are also expected to improve the imbalance in certain specialties. Soldiers of all grades are barred from reenlisting or reclassifying from a shortage MOS to a balanced or overstrength one. But the policy does permit soldiers to reenlist in their own MOS vacancies, whether they are short, balanced, or overstrength.

One restriction specifically prevents staff sergeants and above from reclassifying from one shortage MOS to another, but sergeants and

specialist fives are now allowed to move from one shortage specialty to another on reenlistment. The only soldiers who are permitted to reclassify to a balanced or surplus MOS are those who become medically unqualified for duty in their present skills.

The rules may be tightened even further — sergeants and specialist fives who reenlist for a second or succeeding term may be placed under the same restrictions that now govern staff sergeants.

AIRBORNE PROMOTIONS

Temporary promotion procedures have been established for airborne soldiers in certain understrength positions to give them a better chance for promotion. Under the procedures, to be effective until 1 August 1982, promotion authorities will deduct 50 points for promotion to SGT/SP5 and 25 points for promotion to SSG from the monthly Army-wide promotion cut-off scores. This procedure pertains only to soldiers assigned to authorized positions calling for special qualification identifiers (SQIs) "P" (Parachutist), "S" (Special Forces), and "V" (Ranger).

The procedure is expected to increase promotion possibilities for several specialties that now face limited promotion opportunity because of Army-wide MOS overstrengths. These specialties are primarily in the combat support and combat service support fields.

Because the MOSs affected may vary from month to month, soldiers should check with their local personnel offices to see whether theirs are included.

Soldiers who are promoted under the temporary program will not be

allowed to move to a non-jump status assignment until they have completed a normal tour. Soldiers who are voluntarily removed from those assignments within one year of promotion will be involuntarily reclassified into a shortage MOS.

SOCAD IN EUROPE

Soldiers who are stationed in Europe may now take advantage of SOCAD, the Servicemembers' Opportunity Associate Degree Program.

Those who enroll in SOCAD receive college credit for their military training and experience while they work toward an associate's degree. They agree to follow a set curriculum with a "home" college or university. When they are assigned to a post away from that home institution, they continue their studies at another SOCAD institution that is a part of the same curriculum network.

Credits earned at these other institutions are sent to the home college or university, and it is from this institution that the soldier ultimately receives his degree.

Five institutions offer 11 SOCAD curriculum networks for more than 25 European posts. These curriculum networks are automotive maintenance, aviation maintenance, communications electronics, data processing, diesel maintenance, food service management, law enforcement, management science, office management, transportation technology, and a flexible curriculum for soldiers who are pursuing a general studies-liberal arts option.

About 44 institutions are already offering 16 SOCAD curriculum networks to soldiers stationed in the continental United States. These curricula include civil engineering, com-

munications media, computer maintenance, digital electronics, and medical records.

Soldiers who are interested in the program should ask their local Education Centers for more information on enrollment.

GENERATOR OPERATORS

The Army is looking for highly motivated soldiers who would like to become operators of electrical generators of 500 kilowatts or larger.

The U.S. Army Facilities Engineering Support Agency (FESA) offers a one-year course at Fort Belvoir, Virginia, to qualified soldiers. Those who complete this course are awarded primary military occupational specialty (PMOS) 52E (prime power production specialist) with an additional skill identifier in either mechanical (52), electrical (53), or instrumentation (54).

Applications are now being accepted for the class scheduled to begin 26 July. To be eligible, an applicant must be in the rank of SGT/SP5 or below, must agree to serve at least three years after completion of training, must have a GT/ST and EL score of 115 or higher, and

must have passed the basic math and science proficiency test administered through local post education centers.

For more information on the course and instructions on how to apply, any soldier who is interested should write or call the U.S. Army Facilities Engineering Support Agency, ATTN: Chief, Training Branch (FESA-MT), Fort Belvoir, VA 22060; telephone 703/664-5235/5241 or AUTOVON 354-5235/5241.

UNQUALIFIED FOR BERLIN

Of the soldiers who arrive for duty in Berlin each week, an average of three are not qualified for their assignments. These soldiers must then be reassigned somewhere in Europe, and this means that the Berlin Command loses its replacements. It also means that U.S. Army Europe (USAREUR), or another overseas command, must find a place for them.

The two primary deficiencies that make them unqualified are Article 15s in their records or GT scores below 80. MILPO message 081700Z Dec 81 reminds all MILPOs that personnel who are scheduled for reassignment to Berlin should be

screened carefully, with particular emphasis on these two criteria. AR 614-200, Table 8-2, Column 12, lists all the criteria that soldiers must meet to be qualified for duty in Berlin.

MOTOR SERGEANTS COURSE

The Army Ordnance Center and School has established an organizational maintenance supervisors' course for SGT/SP5s and SSGs in specialty 63B to prepare the students for motor sergeant positions.

The 11-week, self-paced course covers personnel management and supervision, maintenance and supply management, technical troubleshooting, tracked and wheeled vehicle and power generation equipment maintenance, materials handling equipment repair, and recovery.

The course is intended to fill a gap in training that previously existed between advanced individual training and advanced noncommissioned officer courses.

Any soldier who is interested in the course may write to Commander, Army Ordnance Center and School, ATTN: ATSL-DT, Aberdeen Proving Ground, MD 21005, or call AUTOVON 283-2779/2531.

RESERVE COMPONENT NOTES

Enlisted medical personnel in the Army Reserve are encouraged to apply for the 22-month Physicians' Assistant Training Program courses that begin in February and August 1983.

Physicians' assistants (PAs), working under the direction of a physician, provide limited medical care in combat support units and clinics. Under general supervision, they are qualified by academic and practical training to evaluate, diagnose, treat, and provide some patient services, thus reducing the physicians' workloads.

This PA training program consists of two phases. The first includes classroom instruction at the Academy

of Health Sciences at Fort Sam Houston, Texas, while clinical applications and experience at Active Army hospitals make up the second phase.

Medical personnel who are selected to attend will be advanced in rank to SGT/SP5 on the date the course starts, while those at higher ranks will retain those ranks. When they successfully complete Phase I, all students will be appointed to the rank of warrant officer. Some of them may be eligible for appointment as chief warrant officers when they complete the course.

To be eligible, enlisted medical personnel must have at least 36 months

of experience, must be a member of the Ready Reserve and not on extended active duty, must be eligible for appointment to warrant officer, and must have a high school diploma or GED equivalent, a minimum GT or ST score of 110 and a completed Clinical Proficiency Test.

Applications must be prepared in accordance with DA Letter 140-82-1, dated 1 September 1981, and must arrive at Headquarters, Department of the Army, before 1 September 1982. Additional information on the program is available from Ms. Wanda McGrew at (202) 325-8480 or AUTOVON 221-8480.

OFFICERS CAREER NOTES



BRANCH CHIEF COMMENTS

The U.S. Army Infantry Center, in coordination with Infantry Branch at MILPERCEN, has published the 1982 edition of "The Infantry Branch Newsletter." Ten thousand copies have been published and distributed to battalion level throughout the Army. We hope that each Infantry officer will see a copy and share its contents with others. The newsletter tells you what we at Branch see as our tasks for the remainder of 1982.

We cordially welcome new lieutenants as they begin their Infantry careers. About 1,000 of them in 1982 will report to active duty at Fort Benning to attend the Infantry Officer Basic Course and other military schooling before they join their units in various parts of the world.

These lieutenants should spend their early years developing the fundamental skills that will enable them to command Infantry companies. Their normal assignment progression will be to serve in the field for three years and then attend the Advanced Course. After completing IOAC, if an officer has not commanded a company, he will be assigned wherever a command opportunity exists. Our goal is to attain branch qualification for every Infantry officer, and qualification means command and attending IOAC.

It is important to note that an officer should not be assigned to a command until both he and his commander are sure he is ready to meet the test. And, because of the number of Infantry captains who are competing for commands, Infantry Branch is not supporting requests for a second command.

Post-branch qualification assignments for captains are service school instructors; ROTC, USMA, ARMR,

or USAREC assignments; or additional specialty training, followed by developmental assignments.

Majors serve tours in both of their specialties and complete staff level schooling. We advise those majors who are not selected to attend a resident course at one of the staff colleges to enroll and complete an appropriate non-resident course of instruction.

Lieutenant colonels also serve in both of their specialties. A small percentage of these officers will attend a resident course at a senior service college. Again, those lieutenant colonels who are not selected are encouraged to apply for participation in the Army War College corresponding studies program.

The remainder of 1982 will see the continued development of such new personnel initiatives as the Regimental System and the automation of preference statements. All Infantrymen should keep abreast of these actions, and stop by to visit us when they can.

COL JAMES A. SULLIVAN

INFANTRY BALL

The Tenth National Infantry Ball will be held on 13 November 1982 in Washington, D.C., and will have as its theme, "1982 — The Year of Progress." The officers assigned to the Infantry Branch, MILPERCEN, are the executive agents for the Commandant, United States Army Infantry Center, who is the ball's official host.

Once again a Distinguished Doughboy Award will be presented. This award was created in 1980 and was first presented to Mr. Bob Hope. The gold-plated, World War I helmet is presented annually to a citizen who

has made a direct, significant contribution to improving the morale and welfare of the Infantryman.

The Chief of the Infantry Branch presides over a nominating committee, which prepares a list of nominees. This list is then forwarded to the Commander of the Infantry Center for his review and final selection of the individual who will be given the award. The criteria used for selecting the recipient are:

- The award is presented to an individual, not to an organization, in recognition of his direct efforts to aid the Infantryman.
- The award is not presented posthumously, except when the recipient dies after he has been selected but before he has been presented the award.
- Active duty military personnel are not eligible.
- Civilian executives who are active in the defense establishment are not eligible.
- The individual nominated for the award must not be directly involved or organizationally affiliated with defense industry contracts.
- The recipient of the award does not have to be present to accept the award.

CHANGE OF COURSE SITE

One of the three sites that have been used for the active duty phase of the Reserve Component Command and General Staff Course has been moved to a new location. The northern site, previously located at Fort Indiantown Gap, Pennsylvania, has been moved to Wesley College in Dover, Delaware. The other two sites remain the same: at the University of Southern Mississippi in Hattiesburg and at the University of Nevada at Reno.

BOOK REVIEWS



Once again we call your attention to several fine books that we have received in recent months, all of which you should find professionally rewarding.

In the general reference category are the following:

- **WEAPONS AND TACTICS OF THE SOVIET ARMY**, by David C. Isby (Jane's, 1981. 384 Pages. \$34.95). This is an outstanding piece of work in which the author concentrates on the Soviet combat arms. Not only does he discuss Soviet weaponry in some detail, he also writes about the tactics the Soviets use with those weapons. He has included, for example, separate chapters on command and organization, the offense, the defense, and the men and equipment behind the weapons. The book contains several hundred black-and-white photographs and some 40 line drawings.

- **INTRODUCTION TO BATTLEFIELD WEAPONS SYSTEMS AND TECHNOLOGY**, by R. G. Lee (Brassey's, 1981. 198 Pages. \$15.00, Softbound). The author is the military director of studies at the British Royal Military College of Science. Although this book is one of a series of course manuals prepared specifically for use at the college, it can be most useful to anyone who wants to improve his knowledge of military weapons and equipment and how those items are designed. Self-help questions are found at the end of each chapter; the answers to the questions are grouped at the end of the book.

- **THE BALANCE OF MILITARY POWER**, edited by Ray Bonds (St. Martin's Press, 1981. 208 Pages. \$24.95). This book features the writings of four specialists and has been produced to give "facts, figures and details on one of the most

critical topics of our time, the balance of forces between East and West, between the Warsaw Pact and NATO." It does that job quite well.

- **ARTILLERY OF THE WORLD**, Second Revised Edition, edited by Shelford Bidwell (Brassey's, 1981. 246 Pages. \$49.50). This is a fully revised and updated version of the 1977 publication, which ranked with the finest of its kind. This one surpasses the previous book in several respects. There is more to the book than a mere discussion of artillery pieces, for there are chapters on heavy mortars, battlefield surface-to-surface missiles and their ancillary equipment, antitank guns and guided missiles, air defense weapons, and coast defense artillery, of which there are not many pieces left. The book also includes a glossary of terms, a directory of manufacturers of artillery equipment, and an index.

- **THE FIGHTING MAN**, by Peter Young (Rutledge Press, 1981. 240 Pages. \$29.95). The author is one of England's distinguished soldiers. Now on the retired rolls, he has gained prominence as one of his country's foremost military historians. In this book, he concentrates his attention on the men who served in the ranks of the world's military forces from the time of Alexander the Great to the present, and on their tactics, their weapons, and their achievements. When you have finished the author's narrative turn again to Haim Laskov's introduction. It is an outstanding piece of writing about today's infantryman — what he can expect on tomorrow's battlefield, how he should be trained and led, and the importance of leadership.

Here are a number of other books in various categories:

- **THE JEEP**, by J. G. Jeudy and Marc Tararine (Editions Vilo, 1981.

272 Pages. \$21.95). In this profuse v illustrated book, the authors pay homage to one of the world's great military vehicles, the American jeep. They discuss its ancestors, its history and the origins of the word itself, the jeep in World War II, and the jeep in the French Army. They also give their thoughts on the jeep's future, which seems dim in the light of recent vehicle tests in the United States and abroad. It appears the venerable old warhorse may be on its way out.

- **FORT BLISS**, by Leon C. Metz (Mangan Books, 1981. 180 Pages. \$34.95). You could almost call this book a labor of love, for the author who has lived in El Paso since 1952, long has had an interest in western history. Here he combines a good narrative with photographs from the collection of Millard G. McKinney (also a recognized authority on western military history) to tell the story of Fort Bliss from its founding in 1849 by Major Jefferson Van Horne and units from the 3d Infantry Regiment to the present day. The narrative is aided by numerous side-bars of information that are peripheral to the main story. The photographs are simply outstanding. Today, as the author points out, "Fort Bliss is one of the oldest, largest, and most important military bases in the United States."

- **THE SHARP END: THE FIGHTING MAN IN WORLD WAR II**, by John Ellis (Scribner's, 1980. 396 Pages. \$17.95). Drawing on a host of secondary sources, the author, a British military historian, attempts to show how British and American ground combat soldiers reacted to wartime stimuli. In general, he has done a good job, and his book is worth an infantryman's study. But the U.S. Army's ground combat soldiers fared a lot better in northwest

Europe than Ellis claims. One thing does come clear: the war was not the same for the combat soldier in the different theaters of operation.

• **THE FALL OF FORTRESS EUROPE, 1943-1945**, by Albert Seaton (Holmes and Meier, 1981. 218 Pages. \$24.50). The author is also a British military historian who has written extensively in the field. In this book, he looks at the war from the German viewpoint, and at the failure of Hitler's *Fortress Europe* to hold out against the onslaughts of the Allied armies from east and west. Seaton lays most of the blame on the German military system and its high-ranking generals. To Seaton, "the single common factor amongst the high-ranking generals that came to terms with Nazism was that they were eager for advancement and, notwithstanding what any might have said after the war, they had at one time been Nazi supporters and admirers of Hitler; few among them were men of political or strategic perspicacity or of any great strength of character, for ambition or lack of courage blinded most of them to the demands of conscience and moral responsibility." As a result, he feels, they never understood Germany's military limitations or the strength of the coalition of people that formed to oppose them.

Now for a number of our longer reviews:

AT DAWN WE SLEPT: THE UNTOLD STORY OF PEARL HARBOR, by Gordon W. Prange (McGraw-Hill, 1981. 875 Pages. \$22.95). Reviewed by Colonel Robert G. Clarke, Office of the Joint Chiefs of Staff.

The late Professor Gordon W. Prange spent 37 years researching and then writing this book. In his smoothly flowing narrative, he examines in great detail the political and military events surrounding the Japanese attack at Pearl Harbor on 7 December 1941. His is a fascinating story told lucidly and completely.

The author's effort has added a rich dimension to an important military issue. He has cut through most of the knotty issues and clearly puts

to rest several popular myths about the attack. At the same time, he has unearthed valuable new material to give us a better understanding of what really happened.

This book is an epic worthy of a place in every military professional's personal library. It is undoubtedly the most definitive work yet on this major event in U.S. history.

ELECTRONIC WARFARE: ELEMENT OF STRATEGY AND MULTIPLIER OF COMBAT POWER, by Don E. Gordon (Pergamon Press, 1981. 104 Pages. \$16.00) Reviewed by Lieutenant John J. McGrath, Fort Benning, Georgia.

The more that is revealed about ULTRA the more apparent becomes the complete failure of German strategic intelligence during World War II. ULTRA, essentially, was electronic warfare, and its importance to the Allied war effort is just now coming to the fore.

The author is a serving U.S. Army officer who has had extensive experience in both the intelligence and electronic warfare fields. He has written this book because he believes that NATO must control the electromagnetic spectrum, both on the strategic and the tactical levels, if it is to win the next war. He uses historical examples, the present missions of the U.S. armed forces, and the threat posed by Soviet electronic capabilities to back up his main point. He succeeds quite well.

Since 1973, the U.S. Army has been revamping its intelligence capabilities to meet the threat of extensive electronic warfare operations. The author has been deeply involved in that effort. His book, thus, is meaningful and authoritative, one that should be read by all professional soldiers.

CHOSIN: HEROIC ORDEAL OF THE KOREAN WAR, by Eric Hammel (Vanguard, 1981. 457 Pages). Reviewed by Major J.F. Holden-Rhodes, United States Army Reserve.

The author, as he puts it, is interested in "the men who fight battles, and not in their leaders, nor particularly in the battles themselves." He was trying, he says, "to find a subject by which I could impart a depiction of the agony of defeat." With superb skill, he accomplishes his objective in this book. His weaving of men, crises, and numbing cold leaves the reader in awe of this feat of arms in which soldiers and Marines fought an epic struggle to survive.

The book has no pictures; it does not need them. The author has painted a word story that one can compare favorably with the dramatic photographic work of David Douglas Duncan, who portrayed the fighting in Korea. Maps do appear at the appropriate times to further the story's flow.

Hammel's book is highly recommended to both the soldier and the Marine.

SOVIET-AMERICAN RELATIONS IN ASIA, 1945-1954, by Russell D. Buhite (University of Oklahoma Press, 1981. 254 Pages. \$14.95). Reviewed by Major C.T. Guthrie, Army Advisor, Washington Army National Guard.

This book is not for the casual reader of foreign affairs. Rather, it should be read by the student of international politics who has some background knowledge of Asia.

The author describes Soviet post-World War II expansionist efforts in Asia, which included establishing hegemony in Mongolia, Sinkiang, and Manchuria; controlling the Kuril Islands and Sakhalin; dominating Korea; assuring a militarily weak Japan; and establishing a Chinese client state under communist control.

U.S. response to the Soviet Union's moves during this period rose from a desire to limit Soviet expansion. Although U.S. policy makers accurately interpreted Soviet goals in the area, those same officials failed to properly define vital U.S. national interests. Because of judgment errors, the U.S. militarized its major nation-

al interests, which ultimately led to wars in Korea and Vietnam.

The author argues that neither Korea nor Southeast Asia represented vital U.S. interests. If the reader accepts this, then he will have to agree that the author has established strong support for his argument.

Unfortunately, some of the author's conclusions seem thinly based on reality, and his argument that U.S. policy toward Asia did not have to be re-examined after Korea and again after Vietnam seems shallow and somewhat controversial. Still, his book is worth the consideration of any student of Asian affairs.

SOVIET PERCEPTIONS OF MILITARY POWER: THE INTERACTION OF THEORY AND PRACTICE, by John J. Dziak (National Strategy Information Center, 1981. 72 Pages. \$5.95). Reviewed by Captain Don Rightmyer, USAF Directorate of Soviet Affairs.

The title of this excellent monograph regrettably clouds the fact that the subject being discussed is the Soviet view of military power as well as how the Soviets write and think about it. There is a great tendency in the West to think that the Soviets perceive military power as we do. This is not accurate, and the author blasts holes in the concept.

He first looks at the development of Soviet military power since the October Revolution of 1917 and shows that a military buildup has been underway in that country over several decades, not just during the last 10 or 20 years. He then examines the system that formulates and implements Soviet military doctrine and operations. He rejects any argument that "hawk/dove" elements exist in the Communist Party's senior leadership. He also holds that the writings of Soviet military officers cannot be dismissed as being different from the Party's intents because all military publishing houses are controlled by the Party's Central Committee. Thus, military writings, open or restricted, represent the beliefs of the Party or

they would not be printed.

This book, then, examines a critical but little understood factor of the Soviet military establishment — its idiom and what the Soviets mean by such terms as doctrine and strategy.



The author provides a concise, clear explanation of these key elements in Soviet military thought. Without understanding these, one cannot hope to grasp the meaning of Soviet military writings.

The book is well documented and contains a glossary of the different Soviet institutions involved in their doctrine formulation process. It is just the right length to allow a reader to digest it several times.

WAR ON THE EASTERN FRONT, 1944-1945: THE GERMAN SOLDIER IN RUSSIA, by James Lucas (Stein and Day, 1980. 214 Pages. \$16.95).

It's a little hard to describe this book, or to establish its value to a military reader. It is not a history of the war on the Eastern Front; it does not follow any particular chronological arrangement. It is, simply, as the author puts it, "a random selection of personal experiences" drawn from interviews, diaries, unpublished manuscripts, and the like. A few selections are drawn from official German documents and handbooks.

Most of the events took place between 1944 and 1945, and much of the material can be found in the series

of German pamphlets produced by the United States Army after World War II, pamphlets that were based on the German experiences against the Russians.

Some of the most interesting sections of this book are those that deal with the German use of self-propelled guns and rocket artillery, and the German solutions to the problem of winter warfare.

CREATING THE ENTANGLING ALLIANCE: THE ORIGINS OF THE NORTH ATLANTIC TREATY ORGANIZATION, by Timothy P. Ireland (Greenwood Press, 1981, 245 Pages). Reviewed by Colonel James B. Motley, Office of the Secretary of Defense.

This is a well-written book, organized into a brief introduction, six chapters, an eight-page conclusion, and a five-page bibliography. It amply fulfills the author's purpose, which is to provide insight into "the importance of traditional intra-European politics in shaping the particular nature of the U.S. commitment to Europe through the North Atlantic Treaty and NATO."

Ireland, an adjunct assistant professor at the Fletcher School of Law and Diplomacy and coordinator of the International Relations Program at Tufts University, suggests that U.S. historians traditionally concentrate on the development of the Cold War when they analyze NATO. This kind of analysis, Ireland argues, overlooks the fact that the United States' commitment to western Europe through the Atlantic Alliance was designed to accomplish two goals: to counter Soviet subversion and to enable western Europe to recover from the devastating effects of the war and then recreate a balance of power in Europe.

The theme of this book is that in order to restore western Europe as a "balancing factor" against the Soviet Union, the U.S. had to press for the inclusion of West Germany in programs for European recovery and defense. But to satisfy France and

other west European countries against the threat of German revanchism, the U.S. had to involve itself in European affairs. Thus, the "German question" did much to determine the scope and structure of the U.S. commitment to NATO and is really the rationale behind the continuing U.S. presence in NATO.

This is a highly recommended book for both the specialist and the general reader.

OUR ENEMIES THE FRENCH: BEING AN ACCOUNT OF THE WAR FOUGHT BETWEEN THE FRENCH AND BRITISH, SYRIA, 1941, by Anthony Mockler (Shoestring Press, 1981. 252 Pages. \$18.00). Reviewed by William Brooks, Wrightsville Beach, North Carolina.

The French are probably the most politically perverse people in Europe, and they seem to become even more perverse when a discussion turns to World War II. This book, which is objective but onerous as far as the Free French are concerned, will probably never make the best seller lists in France, because it does cast a shadow on certain of these forces.

After France surrendered to the Germans in June 1940 and after a quasi-fascist government was established at Vichy, the question arose as to which of the several French governments that soon came into being in various parts of the world would claim the allegiance of France's many overseas territories.

Syria was one such territory. Occupied by the French Army of the Levant — a heterogeneous force composed of Frenchmen, Foreign Legionnaires, Senegalese, Moroccans, Algerians, Tunisians, Syrian tribesmen, and Lebanese levies — it was commanded by General de Verdilhac.

In May 1941, the Germans began sending armed support through Syria for the Iraqis to use against the British. German pilots based in Syria also attacked British troops in Iraq and the Trans-Jordan. The British, with their eyes on Syria and Lebanon,

decided that the time had come to invade Syria and, scraping together a force of Australians, British, Free French, and Arab troops, entered Syria on 8 June 1941. They felt, apparently, that the troops of the Army of the Levant would come over to the Free French. Unfortunately for the British force, the soldiers of the Army of the Levant were not only anti-German, they were also anti-British and, especially, anti-Free French.

The Army of the Levant vigorously opposed the British invasion for 34 days and almost won out in the end. Eventually, though, it succumbed to the larger force.

The author describes the campaign with all the zest and emotion of a bayonet charge. His robust style is ideally suited to explaining the extraordinary circumstances and the characters that figured so prominently in the campaign. The book is scholarly, objective, and highly entertaining, and it places the 1941 campaign in Syria in its true historical perspective.

ILLUSTRIERTE GESCHICHTE DES I. WELTKRIEGS, by Christian Zentner (Sudwest Verlag, Munich, 1980. DM 48). Reviewed by Brigadier General Wolfgang Gerhardt, West German Army.

Because of more recent events, publications on World War I have appeared rather sparingly in the past few years. It is laudable, therefore,



that this illustrated history of World War I has just entered the book stores.

From the beginning, Germany, because of its geographic position in the

center and threatened on two fronts, had to take the initiative. The Schlieffen Plan was the initial operation that sought a strategic decision in the west so that Germany could have a free hand against Russia in the east.

The optimistic hope that the soldiers would be "home for Christmas" did not materialize; victory was not in sight anywhere. The war became harder and harder. When Moltke's strategy of destruction failed, the strategy of fatigue by Falkenhayn followed. In the drumfire and relentless attacks, the enemy would be bled white.

The book gives credit to all of the nations and men involved. The text is enlivened by numerous pictures and well done maps. A neat bibliography, a timetable, and an index complete this fine work of military history.

World War I was the first great war in which our fathers and grandfathers took part, not to forget the women who also served the war effort on both sides. It is hoped that the author will find an English-language publishing house that will distribute this book well beyond the German borders.

FACING REALITY: FROM WORLD FEDERALISM TO THE CIA, by Cord Meyer (Harper and Row, 1980. 433 Pages. \$15.95). Reviewed by Doctor Joe P. Dunn, Converse College.

Partly in response to the outpouring of exposes and diatribes against the Central Intelligence Agency in the early and mid 1970s, several high ranking CIA leaders, including William Colby, Richard Helms, Vernon Walters, and Lyman Kirkpatrick have offered their memoirs in defense of the intelligence profession. This one by Cord Meyer may be the most interesting account. Meyer served in several high positions from 1951 until he retired in 1977 and is the Agency's only three time winner of its highest award, the Distinguished Intelligence Medal.

Meyer traces his life from his World War II days through postwar

leadership in the United States Federalist movement and the American Veterans Committee and on through his CIA career. Among his revelations are the story of Radio Free Europe and Radio Liberty, his battle against false "disloyalty" charges during the McCarthy era, the CIA's perspective on the Chile and Angola affairs, the Watergate morass that nearly engulfed the Agency, the Congressional investigations of the mid-1970s, and an introduction to KGB activities in the United States. Throughout, Meyer offers frank commentary about individuals and activities.

This is one of the more captivating books I have read lately, and I highly recommend it for both intelligence buffs and laymen.

THE GREAT WAR, by Correlli Barnett (Putnam's, 1980. 192 Pages. \$19.95).

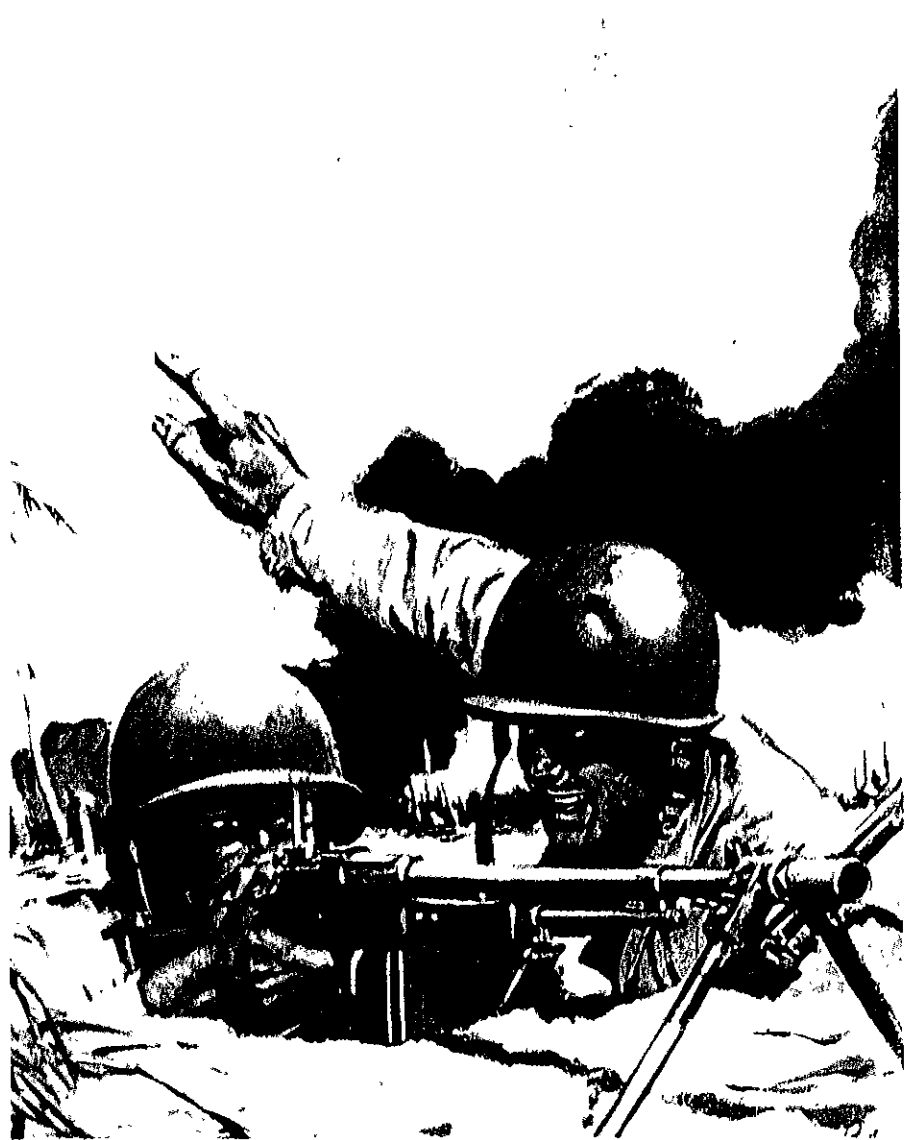
In 1964, Correlli Barnett, a British military historian, acted as a consultant to and co-author of a British television series called "The Great War." This book, with its fast-moving narrative and hundreds of illustrations, is undoubtedly a by-product of that series.

Barnett devotes most of his narrative to the British and German armies on the Western Front. The United States Army's efforts are barely mentioned, and then only disparagingly. The French Army is featured in one short chapter — the battle at Verdun.

Barnett does provide a good overview of the war, its principal leaders, and its major events. More important, perhaps, are the illustrations, which are truly outstanding. Alone, they are worth the price of the book.

AN INFANTRYMAN'S JOURNAL, 1942-1966, by John F. Hummer (Ranger Associates, 1981. 185 Pages. \$12.95). Reviewed by Captain Harold E. Raugh, Jr., Fort Benning, Georgia.

This is the candid, personal nar-



rative of John F. Hummer and of his service in the United States Army from World War II through Vietnam.

He served with the Rangers during World War II and was discharged from the Army when the war ended. Disenchanted with civilian life, he re-enlisted in 1946 and was sent to Korea in 1949. He was transferred to Tokyo in that same year. After war broke out in 1950, he trained troops on Okinawa before returning to Korea and to combat, where he earned a battlefield commission and served as a platoon leader. He was temporarily retired for disability reasons in 1960 but was recalled to active duty in 1963. He was in Vietnam in 1965 and 1966 as commander of a military history detachment. He retired in 1966.

Hummer kept a meticulous journal

throughout his military career, and he does a superb job of describing the sights and experiences of combat and world travel, as well as the evolution of the Army from the sands of North Africa to the jungles of Vietnam. His down-to-earth narrative, supplemented by some excellent photographs, is recommended to infantrymen everywhere.

MAN O' WAR: THE FIGHTING SHIP IN HISTORY, by Richard Hough (Scribner's, 1979. 239 Pages. \$14.95). Reviewed by Rear Admiral George L. Phillips, United States Navy, Retired.

The distinguished British naval historian, Richard Hough, here con-

memorates fifteen of the world's most noteworthy fighting ships that in their time gloriously fulfilled their missions and left their mark on naval tradition.

This illustrious roster, from Britain's ARK ROYAL of 1587 to the USS NEW JERSEY of the present age, brings to life the feel of battle and the smell of gunpowder in a way that is typical of Hough's style and talent.

We follow Howard and Drake as they harry the mighty Spanish Armada up the Channel, Jones in the rotten hulk BONNE HOMME RICHARD, Nelson in the VICTORY, Porter in the ESSEX, Worden in the MONITOR, Togo at Tsushima, Beatty and Forbes at Jutland, Mountbatten in the KELLY, as well as the JAVA, the SARATOGA, the BISMARCK, and the NEW JERSEY of living memory.

This is a splendid roundup of those gallant men-of-war that made the first team in the game, who fully deserve their honored places in naval history. May their glory never fade. And while we miss Farragut at Mobile Bay, Dewey at Manila, Schley and Sampson at Santiago, and Harwood versus the GRAF SPEE at Montevideo, we can be confident that they would have approved this worthy book.

THE ENTIRE PEOPLE'S WAR FOR THE HOMELAND'S DEFENSE WITH THE ROMANIANS, by Major General Doctor Ilie Ceausescu (Bucharest: Military Publishing House, 1980. 375 Pages). Reviewed by Alexander S. Birkos, Mount Shasta, California.

The author's purpose is to provide English readers with a general survey of the growth and development of the concept of a nation at arms through two millenia of Romanian history. About half of the book deals with contemporary Romanian military affairs and its link with Communist Party policies, and with the development of the theory of "the entire people's war" (nation at arms) as an

organic element of Romanian military doctrine.

General Ceausescu stresses the importance and relevance of this doctrine for the strategic defense of Romania. Although readers may be frustrated by the poor English syntax, the book does offer a good starting point for anyone who wishes to pursue a detailed study of Romanian military affairs. Not surprising is the almost total absence of references to the Soviet Army.

Currently, the Romanians appear to be placing some emphasis on civil defense organizations, paramilitary training for youth, and the formation of so-called "patriotic guards" to support the defense missions of the Army.

While intended only as a general survey to promote discussion and further research, this book is a useful addition to the literature on East European military history.

RECENT AND RECOMMENDED

SOUTH PACIFIC HANDBOOK. By David Stanley. Edited by Bill Dalton. Tuttle, 1982. 544 Pages. \$11.95.

FEDERAL RECORDS OF WORLD WAR II. Two Volumes. Compiled and originally published by the United States National Archives, 1950. Republished by Gale Research Company, 1982. \$75.00 for the set.

THE MILITARY BALANCE, 1981-1982. 22d Edition. By the International Institute for Strategic Studies. Facts on File, 1982. 133 Pages. \$17.95.

DEFENSE MANPOWER PLANNING: ISSUES FOR THE 1980s. Edited by W.J. Taylor, Jr., E.T. Olson, and R.A. Schrader. Pergamon Press, 1982. 278 Pages. \$10.95. Softbound.

A BRIEF HISTORY OF THE 7th MARINES. By James S. Santelli. History and Museum Division, USMC, 1980. 83 Pages.

PRE-INVASION BOMBING STRATEGY: GENERAL EISENHOWER'S DECISION OF 25 MARCH 1944. By W.W. Rostow. University of Texas Press, 1981. 166 Pages.

WITH THE OLD BREED AT PELELIU AND OKINAWA. By E.B. Sledge. Presidio Press, 1981. 326 Pages. \$15.95.

STRATEGIC MINERALS: A RESOURCE GUIDE. Published by the Council on Economics and National Security. A project of the National Strategy Information Center, 1981. 105 Pages. \$5.95. Softbound.

HANDBOOK OF THE NATIONS. 2d Edition. Originally compiled and published by the United States Central Intelligence Agency as The World Factbook — 1981. Republished by Gale Research Company, 1981. 225 Pages. \$32.00.

MILITARY AIRCRAFT OF THE WORLD, 1981 EDITION. By Gordon Swanborough, Scribner's, 1982. 224 Pages. \$16.95.

RIOT CONTROL: MATERIEL AND TECHNIQUES. 2d Edition. By Rex Applegate. Paladin Press, 1981. 332 Pages.

WORLD WAR II PHOTO INTELLIGENCE. By Roy M. Stanley II. Scribner's, 1981. 374 Pages. \$39.50.

DWIGHT D. EISENHOWER: SOLDIER AND STATESMAN. By B. Alton Lee. Nelson-Hall, 1982. 379 Pages. \$21.95.

WATERLOO: THE HUNDRED DAYS. By David Chandler. Macmillan, 1980. 224 Pages. \$18.95.

SUEZ: THE DOUBLE WAR. By Geoffrey Powell and Roy Fullick. Hamish Hamilton, 1979. 227 Pages. \$22.50.

WITH THE GERMAN GUNS: FOUR YEARS ON THE WESTERN FRONT, 1914-1918. By Herbert Sulzbach. The Shoe String Press, 1981. 256 Pages. \$19.50.

ARMIES IN THE SAND: THE STRUGGLE FOR MECCA AND MEDINA. By John Sabini. Thames and Hudson, 1981. 223 Pages. \$16.95.

B-26 MARAUDER AT WAR. By Roger A. Freeman. Scribner's, 1979. 192 Pages. \$14.95.

AVENGER AT WAR. By Barrett Tillman. Scribner's, 1980. 192 Pages. \$17.50.

INFANTRY LETTERS



DESERT TOW FIRING

Dear Sir,

Recent operations at the National Training Center at Fort Irwin, California, indicate that TOW missile gunners who have been trained in temperate climates have problems when they are introduced to the extremes of the desert. The vast expanses of flat terrain and the mirage effect caused by intense heat rising from the desert floor combine to pose a difficult target acquisition problem. If a few simple desert gunnery techniques are used, however, the TOW can be employed in the desert as effectively as in other climatic conditions.

To reduce the mirage effect and eliminate any glare caused by direct sunlight, it is important for the TOW to be on higher terrain firing downward at a target. This gives the target a solid background and allows the gunner to get a true sight picture. It is not enough for the TOW to be just off the ground, mounted on a vehicle.

The TOW range card is critical in the desert, but because of the vast distances with few identifiable terrain features, a simple range card cannot be constructed just by using a map. Once it selects its primary and alternate firing positions, the crew must sight the weapon and walk the directions of fire, just as the machinegun crews walk their final protective fire lines. Known range marks must be made at 1,500 meters and at 500-meter intervals past 3,000 meters. This will keep the gunners from firing at a target that they can see at up to 8,000 meters but cannot hit at more than 3,000 meters. This will also help ensure a first round hit and will not compromise a firing position or waste a missile.

These techniques will improve the weapon's accuracy and the crew's ability to acquire a target. The techniques are also applicable to other

optically-sighted ground weapons such as the Dragon and a tank's main gun.

WALTER E. WRIGHT
CPT, Infantry
Fort Irwin, California

BATTALION OFFICER SCHOOL

Dear Sir,

I read with great interest Captain Walter A. Schrepel's article, "Battalion Officer School," in the January-February 1982 issue of *INFANTRY* (page 34). His idea has great potential and if such a school is planned, monitored, and executed well by the battalion commander, the executive officer, or the S-3, the units would earn high dividends in terms of junior leader or officer development and job satisfaction.

But a key element in junior officer development, which Captain Schrepel barely touches on in the last paragraph of his article, is timely, frequent, and meaningful counselling. Many company and battalion commanders — raters and senior raters — seem to overlook this responsibility with a resultant decrease in junior officer development, job satisfaction, and trust in and respect for their superiors.

Today's Army encourages regular counselling and feedback, and we insist that soldiers be counselled by their team or squad leader, and the squad leader by his platoon leader. But who counsels the platoon leader? Unfortunately, the meaningful counselling of junior officers seems to be the exception rather than the rule.

If more company and battalion commanders took the time and saw it as their duty (which it really is) to counsel their junior officers and assist them in their professional development, they would have more cohesive

and effective units, in addition to more proficient and confident junior officers.

In a unit where junior officers are counselled regularly, and in which a battalion officer school is instituted, there is no doubt in my mind that the result will be a highly-proficient, productive, motivated unit in which all officers willingly work together and altruistically lead their soldiers in accomplishing any mission or goal.

HAROLD E. RAUGH, JR.
CPT, Infantry
Fort Benning, Georgia

SERIOUS DOUBTS

Dear Sir,

I would like to make several comments about Lieutenant Mitchell E. Toryanski's article entitled "The Five-Degree Method" (January-February 1982, page 32).

First, I appreciate the fact that until the Army fields a laser range finder a soldier needs a way to determine distances on the battlefield. But I have serious doubts about the advisability of having someone casually strolling around the battlefield to determine how far away the enemy is from his position.

Even if the hand-held laser range finder is not forthcoming soon, we still have many ways to determine distances on the battlefield. Among these are the range finders on the M60 and M1 tanks and the methods of intersection and polar coordinates, which are basic map reading skills.

The most effective way to make sure our soldiers can estimate distances is through training. If we, the officers and noncommissioned officers, make our soldiers practice estimating distances during training, they will become quite good at it.

Let's not get into the business of cre-

ating unnecessary casualties by teaching methods that provide more exposure time than is required to perform the mission.

JOHN M. DIXON
MAJ, Field Artillery
Fort Knox, Kentucky

MORE MILITARY HISTORY

Dear Sir,

In an officer's basic and continuing education, he is subjected to a constant flow of information, ranging from things that are nice for him to know to things that are necessary for his professional growth. Unfortunately, though, a void remains where military history should be.

As a member of at least the second oldest profession, the officer has available to him more than 3,000 years of recorded accounts of warfare, and he must draw upon this vast body of knowledge to be proficient in his profession — to sharpen his mind and his sword.

While few of us may feel, as General George Patton did, that we have fought our battles in an earlier time, this feeling of *deja vu* on the

battlefield is one that undoubtedly is strengthened by a heavy diet of military reading. The fact that the Romans were defeated at Cannae in 216 B.C. takes on added interest and significance when we realize that the tactics the victorious Hannibal used are still valid.

Only through a self-imposed regimen of professional reading and through the addition of important texts to his personal library, can he who would wage war learn about it.

Although the principles of war may appear dry at first, they take on shape and flesh as additional readings elaborate upon and bear witness to their continuing validity in warfare. Certain specific texts (and the list here is by no means exhaustive) should find their way into the officer's mind and onto his bookshelf.

The West Point Atlas of American Wars is a must for the basic library. Its maps and explanations add to the web of learning, and for the small unit leader the works of S.L.A. Marshall are a must. They provide a vivid insight into the workings of *Men Against Fire*. A new book, *The Face of Battle*, written by an author who admits to never having seen that face, does a superb job of painting the face

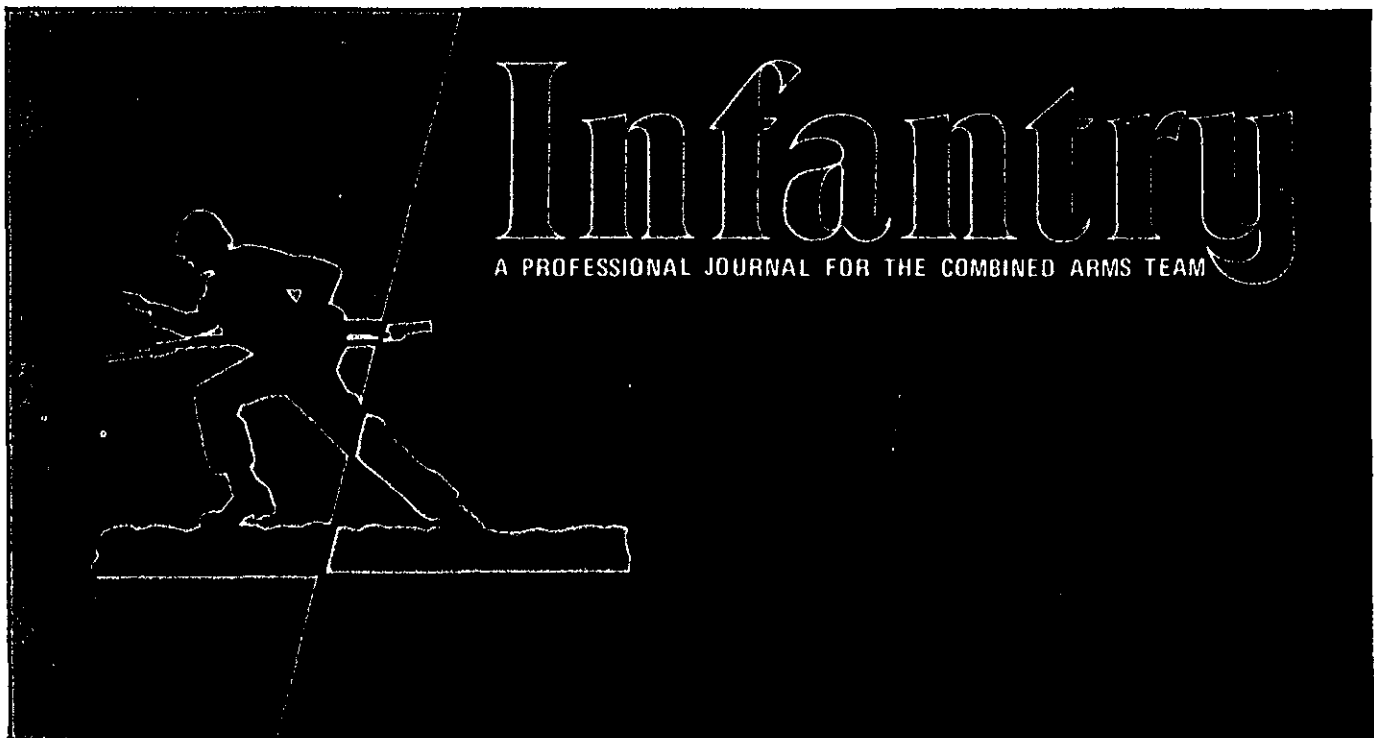
of war in three different battles.

For each of the many military specialties, there are basic texts that should be read and re-read: For the Intelligence officer, *The Codebreakers*; for the Armor officer, *Brazen Chariots*; for the Infantry officer, *Company Commander*; and for the PsyOps officer, *War On the Mind*. For all, there is a most interesting and provocative work entitled *On the Psychology of Military Incompetence*.

I would argue that the study of military history is as well served by novels as by biography. Some of the best coverage of the Vietnam war is to be found in fiction. *The Lionheads*, *Fields of Fire*, *A Rumor of War*, *The Grunts*, and *Sand in the Wind* all effectively add to the learning experience.

Ranging farther afield, *On the Banks of the Suez* provides a masterful insight into the Israeli war machine and presents a superb picture of internal politics of the conflict and their effect upon a war that appeared for a time to be a near thing for the Israeli Defense Force.

The price that we as officers pay for not becoming deeply involved in learning about our profession is too



awesome to contemplate. The officer corps, as the orchestrators of war, cannot afford again to spin our wheels *On the Treadmill to Pearl Harbor* or to reach for *A Bridge Too Far*. History provides little space for losers.

J.F. HOLDEN-RHODES
MAJ, USAR
Placitas, New Mexico

MILITARY HISTORY SYMPOSIUM

Dear Sir,

The Department of History at the U.S. Air Force Academy will host its Tenth Military History Symposium 20-22 October 1982.

The theme of this symposium will be "The Home Front and War in the Twentieth Century." Session topics will include the task of forging national unity and mobilizing public opinion in total war; the mobilization of men, money, and materiel for total war; the social effects of war on civil liberties, civil rights, and the role of women; and the interplay between limited war and domestic politics.

For further information please write or call me at the Department of History, U.S. Air Force Academy, Colorado 80840; AUTOVON 259-3230, or commercial 303/572-3230.

JAMES R.W. TITUS
MAJ, USAF
Executive Director

VEHICLE MARKINGS

Dear Sir,

Two items in your September-October 1981 issue especially caught my attention.

First, Lieutenant Noyes B. Livingston's "Vehicle Markings" was most enlightening to an artilleryman. The information that a three-digit number on a Soviet armored fighting vehicle (AFV) can be used to single out commanders is valuable for the best use of terminally guided munitions such as the Copperhead and the Hellfire. Vehicles in column or line formations whose numbers are visible to a forward observer can alert him to the best targets to attack with his resources. It would also be of great

value to any AT crew in selecting the best targets in a group of AFVs. The destruction of the unit leadership at platoon and company levels puts an increased burden on the higher echelons to command and control individual sub-units.

Lieutenant Livingston's suggested vehicle marking system would be a great command and control measure for mechanized units to use, and it would reduce unnecessary radio traffic in moments of combat.

Another interesting item in that issue is the letter by William Befort in which he advocates firing LAW rounds from the M202 "Flash" quadruple 66mm incendiary rocket launcher. I mentioned the same concept for battery antiarmor defense in an article in the *Field Artillery Journal* ("Defending the Battery," May-June 1979). Needless to say, no one has acted upon that suggestion, but I hope someone will act upon Mr. Befort's idea; then maybe we can get such weapons issued to field artillery batteries also.

LARRY A. ALTERSITZ
CPT, Field Artillery
Pittsburgh, Pennsylvania

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From The Editor

INFANTRY ASSOCIATION

Plans are under way at the Infantry School to revitalize the United States Infantry Association, which has been dormant for almost 30 years. The new Association's primary objective will be a simple one: to recognize professional Infantrymen and other interested people who share the camaraderie of our branch and our profession of arms.

The initial planning calls for all present INFANTRY Magazine subscribers to be charter members. Further details will follow in future issues of the magazine.

DEPARTURE

With this issue I leave the editor's desk and the fine staff that has supported me during the past year. I move on fully confident that my successor will continue the fine traditions that have been established over the years by the other professional Infantrymen who have been fortunate enough to have their names in the masthead.

DRK

BATTLEFIELD

*Above me shines a Judas moon
Its malevolent rays
Poking through the fleshless arms of a
burnt-out tree
A soldier hates the swollen moon.
He hates the open ground.
Night is kind. It hides and swallows us.
But this reveals, is a spotlight in the
wings
Waiting to point, to shout: There!
It picks out bushes, trees, shrubs —
Us.
As we lie in the black, burnt grass
Tightly watching the approaching murmur
of men,
Willing our stillness to hide us.*

*No innocent walks here. Innocence died
In a place like this.
Instead, shadowed figures glide,
Clash in a burst of noise
Litter the ground
With their human debris
And leave.*

*Yet the moon still shines
On a field of battle.
A starkly desolate
Beautiful
Place.*

(By Charles Lotter)