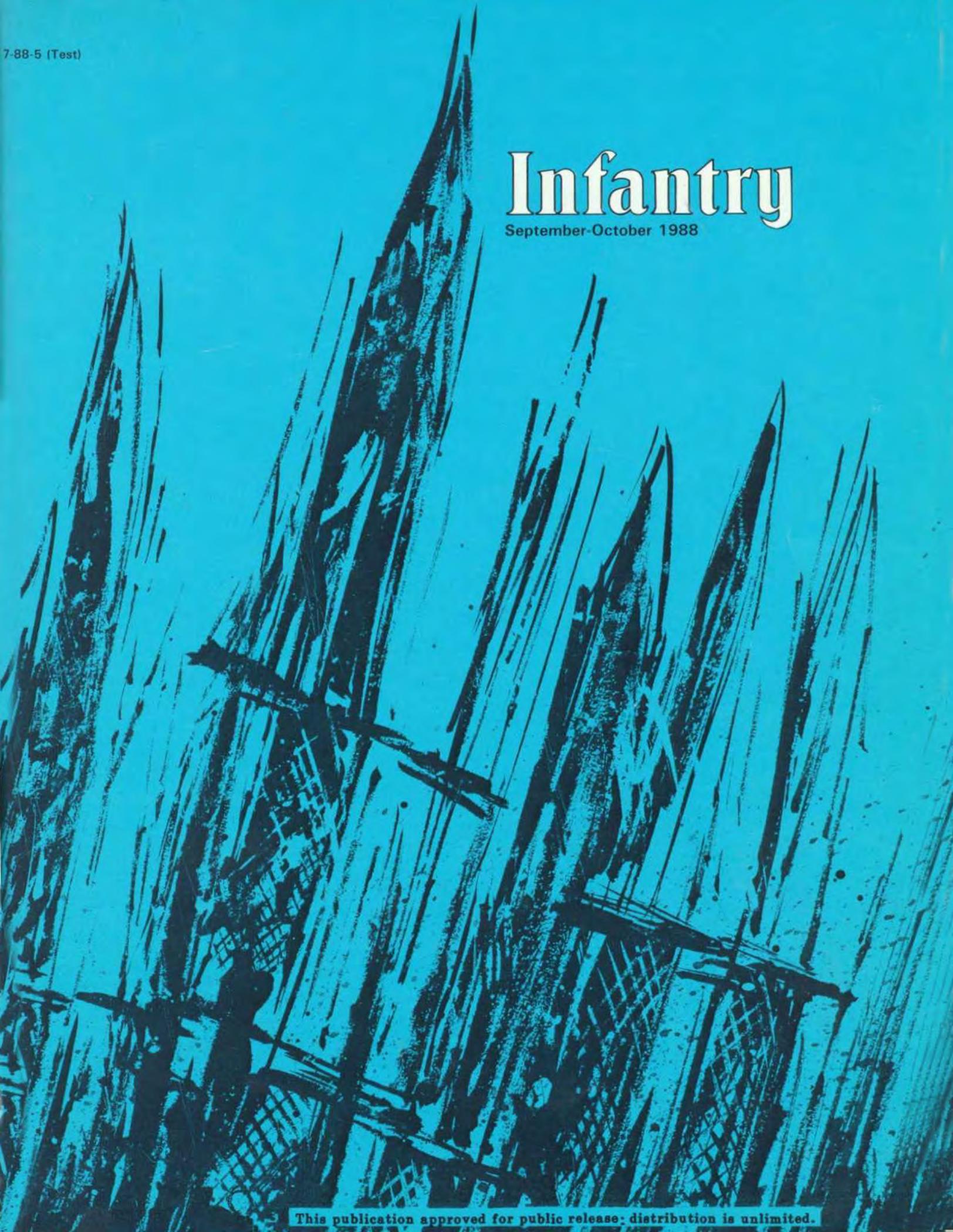


Infantry

September-October 1988



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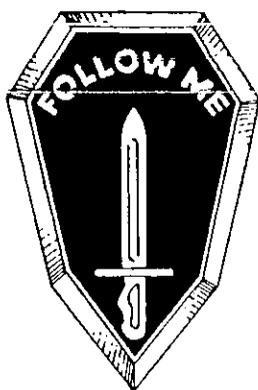
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JOHN O. MARSH, JR.
Secretary of the Army

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This medium is approved for official dissemination of material designed to keep individuals within the Army knowledgeable of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development.

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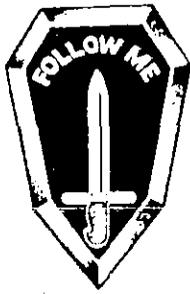
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Commandant's NOTE

MAJOR GENERAL KENNETH C. LEUER Chief of Infantry

STANDARDIZING OUR UNITS

In their times, the long bow, gunpowder, dynamite, machinegun, tank, and nuclear weapon have all been cited as the ultimate weapon that would make warfare, or at least the foot soldier, obsolete. But these predictions have never materialized. In fact, such innovations have not led to our obsolescence or really changed our ultimate goal—the control of land, the natural environment of man.

The infantry remains the basic arm of any army faced with the task of taking and controlling land. As weapons have become more effective, however, we have been forced to seek wider dispersion or risk annihilation. As dispersion increases, though, so do our difficulties of maintaining control and of coordinating the actions of our many small units, and of achieving a sufficient concentration of power at the crucial time and place to achieve victory. Thus, the organization of our units, which is the basis for their control, is a matter of major interest.

Today, the different infantry rifle company organizations currently in the field complicate our efforts to establish one infantry, and cause problems throughout the infantry community. This lack of standardization affects the soldier-students and the instructors in the training base as well as the soldiers and unit leaders in the field who must learn different organizations and variations in applying doctrine for every assignment. As we at the Infantry School review and update Field Manual 7-8, The Infantry Squad and Platoon, and Field Manual 7-10, The Infantry Company, we are looking at the organizational structures of these units to identify ways of standardizing them. Through this process, we hope to improve and simplify task organizing. Conventional wisdom indicates that the pieces and parts of organizations should be common or standardized to the greatest extent possible; that is, barring a compelling reason not to, all types of squads, platoons, and even rifle companies should be organized along similar lines.

The modernized infantry squad consists of nine men. The requirements of control frequently affect the size and organization of our infantry rifle squads, as they have since the beginning of World War II. With a squad leader and two team leaders per squad, we have the best leader-to-led ratio at this level that we have ever had.

No single criterion, however, can be the sole deciding factor. Considerations of maneuverability and sustainability vie for second place followed by mobility and flexibility, while our need for more firepower has produced new weapons that have also affected the organization, though not necessarily the size, of the

squad. Thus, size may be based on one consideration and organization on another.

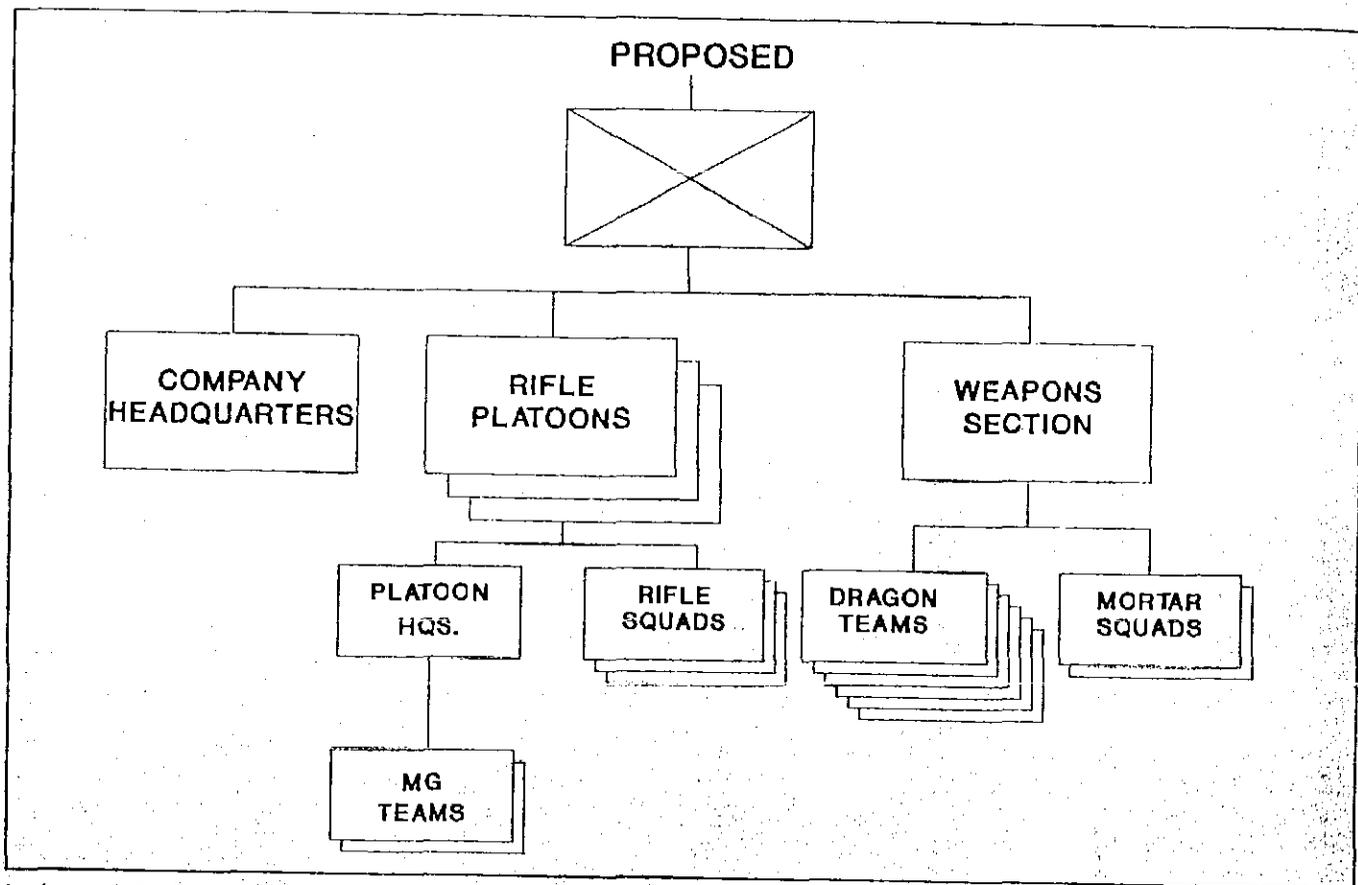
Since 1933, infantry squad size has varied from a minimum of 8 men to a maximum of 12. We have gone from no subdivisions of the squad to as many as three teams. Back in 1947, for example, we had a squad of nine men but did not doctrinally advocate splitting the squad. The general trend in small unit tactics that developed during World War II moved away from team play of fire and maneuver within the squad and toward a concept of assault fire, or fire and movement. With the increase to an 11-man squad in 1956, we went to a balanced two-team concept and employed fire and maneuver within the squad. We have come full cycle and are now back to a nine-man squad but retain the team concept as our fundamental means of fighting dismounted infantry.

Mechanized infantry (mounted in either the armored personnel carrier or the Bradley fighting vehicle) is the only real departure from the balanced team philosophy. The carrier team, with its substantial firepower, normally provides the base of fire that allows the dismount element to maneuver. But there will be situations in which the carrier element cannot provide that base of fire; then as Field Manual 7-7J, The Bradley Squad and Platoon, depicts, the platoon leader organizes to provide fire and maneuver from the platoon dismount element.

The squads of our infantry, airborne, air assault, light, and Ranger units are all pretty well established in both structure and doctrine. We do have some anomalies, though, at the platoon and rifle company level. For example, both airborne and air assault infantry rifle platoons have weapon squads. Light and Ranger platoons do not. Ranger platoons do have machinegun squads, however, and light infantry platoons without weapon squads have two machinegun teams each in their platoon headquarters. Typically, these weapon squads consist of antiarmor and machinegun teams (two of each) with a squad leader, totaling nine men.

The antiarmor teams that, with the machinegun teams, usually make up weapon squads are consolidated in the light infantry company in an antiarmor section at company level. Ranger companies have this same antiarmor capability together with a 60mm mortar section in a company weapons platoon. The 60mm mortar section in light, airborne, and air assault companies is a separate section under a staff sergeant.

Although these variances in organizational structure may not seem significant, they can have a disconcerting effect on junior



leaders transferring from one type of unit to another as well as on trainers and doctrine writers.

Since the infantry rifle squad organization (and size, for that matter) is now established as the standard, we feel the rifle platoon can also be standardized throughout the force and, in all probability, the rifle company, too—at least by TOE. Of course, we realize that a unit on the ground is not always going to be organized as the TOE developer or even the doctrine writer has visualized. For combat, leaders must task organize on the basis of METT-T. Nonetheless, as a point of departure, we should want all units to have the same basic organization.

Our current idea for standardizing the rifle platoon entails eliminating the weapon squad but retaining the two machinegun teams in the platoon headquarters (as the light divisions have now). We would then propose to consolidate all the company medium antiarmor systems (currently the Dragon) into a company antiarmor section. We feel this would improve unit Dragon training and support effective employment. In addition, because we would establish an antiarmor chain of command in the section, a growth pattern for soldiers from private to staff sergeant would give us stability and continuity.

Some spin-offs of this organization would be the elimination of a significant mobility differential within the rifle platoon. The Dragon teams are the most heavily burdened soldiers in the platoon, and a platoon can move only as fast as its slowest member. It would allow a company commander the greatest flexibility in employing his medium antitank capability and, when no armor threat existed, he would have the equivalent of an additional squad to use for reconnaissance, security, or a small company reserve. With the initiative typically demonstrated by infantry company commanders, there would be no end to the possibilities.

We are also looking at the feasibility of taking this idea one step further and joining our new antiarmor section with the 60mm mortar section. We could establish a company weapon section

or platoon, similar to that in the Ranger company today and in our rifle companies of a few years back.

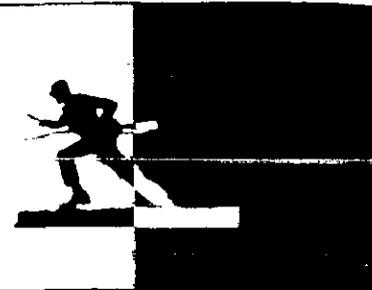
This consolidation would reduce the company commander's span of control and place the heaviest burdens in a single section. And when transportation (HMMWVs from the support platoon, and the like) was provided, it could lift the equipment and ammunition of this entire section. We are looking for at least a sergeant first class to control the weapons section, which would also provide the company with another senior NCO. Even if the Dragon teams were attached to the rifle platoons for an operation, the senior NCO would be available to control the employment of the company mortar section while insuring the correct employment of the Dragon teams.

The battalion scout and mortar platoons are standard, and although the number of TOW platoons varies by type of battalion, the critical element, the platoon itself, is also standard. A recent change we are plugging into the scout platoons is a second platoon radio-telephone operator and radios for each squad. This will allow the platoon to operate its own net and employ its squads over a greater area.

We see the infantry's training mission as a sort of pyramid with the greatest number of personnel, the young soldiers, to be trained at the base. Moving up the pyramid, the number to be trained decreases, and the experience level increases. By simplifying and standardizing the tasks and organizations at the lower level, we should be able to improve the trainability of our soldiers.

In the final analysis, we are striving to improve command and control, training, and efficiency in all our units. Although we already have very effective units, we need to standardize and simplify as much as possible. We believe that standardization should be maximized at the squad, platoon, and company levels. Significant departures in organizational structures should begin only at battalion level, if necessary.

INFANTRY LETTERS



OFFICER EVALUATION

I applaud Captain Thomas M. Jordan's effort at analyzing the officer evaluation system (INFANTRY, March-April 1988, pages 16-17). I agree wholeheartedly that the system must be interactive and directed toward mentoring, not just reporting.

I do have some reservations, however, about his methodology. I would have been more comfortable with his analysis had he explained *how* he took his sample. He says that "the results [of his sample] may be an indication of a more general problem with the [OER] system." Perhaps this is true, but perhaps not. One can extend generalizations to a larger population *only* when the limited sample is selected randomly based on scientific method.

Captain Jordan may have taken a completely valid sample, but we can't be sure since he omitted the details of his sampling procedures. Until he provides this information, we must, unfortunately, remain skeptical of his resulting analysis.

LEE J. DUFFY
MAJ, Infantry
Infantry Liaison Officer
France

KILLING ARMOR

I would like to comment on Major Richard D. McCreight's article "Killing Armor In The Middle Ground" (INFANTRY, March-April 1988, pages 14-16).

I disagree with his assumption that most of the probable armored targets for light infantry will not be "high tech" (with reactive armor). Reactive armor is far from high tech, and it can be bolted on without great expense or

design change. In fact, in roughly 18 months, the Soviets modified 75 to 80 percent of all their tanks deployed in East Germany with reactive armor.

I do agree with most of what Major McCreight has to say, but his article leaves out some points that should be addressed. The Army, for some unknown reason, has continually traded light weight for range (that is, in order to increase the range of a weapon, its weight has to increase) and has chosen systems that have a greater maximum effective range. The longer the range requirement, the more sophisticated the guidance system becomes, which in turn affects the weight of the system. The weight of the warhead is only a fraction of the total weight of the weapon. One of the results of this trade-off has been the selection of wire-guided antitank weapons.

Trading weight for range is perplexing, given some very basic considerations:

- The farther away a target is, the harder it is to detect, track, and kill even in the best of terrain.

- If the range of the weapon you are using does not exceed the range of the weapon you are trying to kill, and if your projectile (the Dragon, for example) is much slower than the enemy's projectile, you may end up on the receiving end. It doesn't matter if the target is a tank, a BMP, or a rifle.

- Most tank engagements will not occur at the maximum effective range of the main gun, nor will most engagements with medium or long range antiarmor systems take place at their maximum effective range, regardless of terrain.

I recently read an article that outlined some basic requirements for a "new" antiarmor system being jointly developed by DARPA and the Navy. The requirements were virtu-

ally identical to those initially proposed for the Dragon back in the early 1960s: The weapon must be lightweight, man-portable, with no requirement for the gunner to guide the missile to the target. It seems that the basic requirements for a light infantry antiarmor weapon don't change. A soldier has to be able to carry the weapon and its ammunition and to move out of the firing area once the projectile leaves the tube. With some basic common sense, his chances of survival are increased.

I disagree with Major McCreight's statement that most of the units that retain the M67 90mm recoilless rifle do so "by default, not by choice." After a six-month look into issues concerning the medium antiarmor weapon, I found that the units that are equipped with both the 90mm and the Dragon (the 75th Ranger Regiment, for example) train on their weapon of choice (the 90mm) while placing less emphasis on the other (the Dragon). The choice of weapons in this case is determined by a METT-T analysis. If the opposing force has little or no armor, it would be a mistake to carry the Dragon, because a Dragon round weighs much more than a round of 90mm ammunition. Resupply of ammunition is also made much easier. In addition, the 90mm gunner does not have to have "nerves of steel." He does not have to track the target until impact but can move once he has fired the round.

Developing a weapon is only half of the problem. Developing a good realistic training program, training devices, and support packages to go with the system is the second part of the task. Current Dragon and TOW sustainment training would be ideal if opposing force vehicles moved from flank to flank with no variation in speed or direction, if they were not

equipped with ammunition to shoot back, and if each vehicle had a giant red cross painted on its side.

Live fire training is equally unrealistic, more bent on achieving a high percentage of hits. After all, no commander wants to tell his boss that the seven missiles he fired this year, costing \$300,000 each, were all misses, even if his gunners received the best possible training.

We in the Army need to develop a usable weapon for light infantry on the basis of a thorough threat analysis and a consideration of what the man on the ground needs and expects.

Ultimately, trying to train away a weapon system's shortfalls is dangerous to the Army and to its soldiers. Some people delude themselves into thinking that the major problem is in the training process or in the quality of the people manning the system, and not in the weapon itself. It has taken 20 years for people to realize that the basic problem with the Dragon is the Dragon.

DEE C. CHRISTENSEN
CPT, Infantry
Fort Monroe, Virginia

FINGER DRILLS

Finger drills are a sorely misunderstood training tool. They can serve a vital role in unit training but can also become an excuse for poor training. Leaders often ignore the necessary but mundane factors in a combat operation, such as security or long foot movements. At these times, they label their failures as "finger drills" and continue to make those same mistakes.

Finger drills are combat drills, situational training exercises, or missions executed in a non-tactical environment, such as an open field. All elements of the unit are visible to everyone else. As the drill is conducted, the leader may recite aloud what is happening so that everybody understands. The emphasis is placed on the sequence of events and the coordination of actions between ele-

ments. An abbreviated schedule is often used to save time.

Finger drills provide the trainer an opportunity to explain an operation, such as the conduct of an ambush, so that everybody present can see, hear, and understand the lesson. In the Army's "Talk, Crawl, Walk, Run" method of instruction, finger drills are used primarily in the Crawl and Walk portions. Once each soldier understands his individual role in relation to the rest of the unit, they all move into the field and do a task tactically.

A primary characteristic of all finger drills is that they save the soldiers effort in executing a particular drill or operation because physical discomforts are avoided so the soldiers can learn.

But this labor-saving factor is where finger drills can hurt training. Once the unit can conduct an operation properly, it should execute that mission in a realistic, tactical environment. This includes the uncomfortable but necessary things such as security and individual movement techniques, all of which come under the heading of field discipline.

When a unit fails to maintain that field discipline, it resorts to short cuts. Thus, notional security is used, necessary foot movement is ignored, and tactical integrity is lost. Training realism is sacrificed for comfort. Then the soldiers come to expect those comforts, and combat readiness is lost. These shortcomings are dismissed as finger drills, as if they serve a useful role in training. Finger drills then become the excuse for poor training, and this happens so often that we don't even realize we're doing it.

There are a few clues that will let a leader know he is committing one of these finger drills of convenience: In a tactical environment, he often finds himself referring to "notional factors." (The positioning of security, especially, should never be notional.) He often hears himself using the phrase, "Well, in combat we would be doing such-and-such, but this isn't combat."

Leaders must look at themselves and honestly determine whether they are using a finger drill as a training tool

or merely trying to avoid an unpleasant task. Certainly, a mission will often be difficult when a large percentage of a unit is not in the field training, but that is also what we can expect in combat. If we don't improvise but continue to use finger drills in training missions, we'll end up using them in combat with tragic results.

Used properly, finger drills improve our combat readiness through effective training. Used improperly, they mask problems in field discipline and promote bad habits. The onus for recognizing the difference and doing what is best for training is on the leaders.

DOUGLAS LONG
LT
Mililani, Hawaii

BATTLEFIELD PSYCHOLOGY

Your PAST TIMES reprint of Captain Adolf von Schell's article is outstanding (see "Battlefield Psychology," March-April 1988, pages 40-44).

He had it right that men are the key element on the battlefield and that a leader must know his men (their variable strengths, weaknesses, and idiosyncrasies with emphasis on their mental or psychological characteristics) and know how to "play" their reactions to the unknown and changing conditions of battle to get them to perform and accomplish their mission.

He is also correct in pointing out that this knowledge or skill that a leader must know and know how to exercise cannot be learned or practiced in peacetime. But I think we've progressed some since von Schell's time (World War I and after). The high-tempo, stressful training at the National Training Center can, to some degree, provide the environment that will give a leader some insight into the character (in von Schell's sense) of his men and some practice in how to lead them inspirationally to mission accomplishment.

But the NTC experience is a sometime thing. How do our leaders in garrison come to know and appreciate

their men? Do the various distractions of garrison duty, or even ordinary field training, allow the closeness and intensity of relationships that are necessary for a leader to truly know his men?

If Captain von Schell's theses are correct, and they seem to jibe with my troop leading experiences, he helps explain some of our dismal performances in Vietnam—six-month command tours may allow a commander to become effective only when his "time is up." We thus fielded an Army that was continually learning the basics instead of an effective battle-hardened force.

RODERICK C. BRIGGS
LTC
Springfield, Virginia

DIVISION AND BRIGADE LINEAGES

The effort in recent years to instill esprit de corps in the combat arms is a valuable one, but it has concentrated on the histories and traditions of the regiments. Yet most veterans, when asked, point to their wartime service in a division or an independent brigade as the focus of their pride. The most visible part of a soldier's uniform is the shoulder patch, not the unit crest.

Regimental history and tradition is a positive influence on the pride and performance of a soldier, but division and brigade identification should be encouraged as well. Accordingly, the activation and retention of divisions and brigades that have no combat experience should cease, and no veteran division should be relegated to the status of an administrative command. The lineages of the combat divisions and brigades should be preserved in the organization of the Army.

From its entry into World War I in 1917 to its withdrawal from the Vietnam War in 1975, the Army has fielded 90 divisions and 7 independent brigades in battle. (This number includes the Philippine Division, since removed from the Army's rolls at the

request of the Philippine Government.) Without a general mobilization, most of these veteran outfits will remain inactive.

In order to preserve the lineages of some of the divisions, the Army has already converted some divisions to brigades. In fact, this seems to be the trend in the National Guard. Wider use of this same conversion by the Regular Army and the Army Reserve would preserve the heritage of other veteran divisions.

It is possible to reorganize the 89 divisions and 7 brigades into 40 divisions and 56 brigades that the Army could reactivate and deactivate in accordance with its most current needs.

ERIC R. SHIMER
Bethlehem, Pennsylvania

EDITOR'S NOTE: Mr. Shimer's two tables showing the veteran divisions and brigades and his proposed divisions and brigades are too long for inclusion here. INFANTRY will send copies of them, however, to anyone who writes and requests them. Our address is P.O. Box 2005, Fort Benning, GA 31905-0605.

NEW SERGEANTS

Having spent six years as an infantry noncommissioned officer, I thought Command Sergeant Major Roy C. Owens' comments on the nature of a sergeant's life over-emphasized the negative aspects ("Thoughts for a New Sergeant," *INFANTRY*, May-June 1988, pages 18-19). He seemed to forget a sergeant's third and most satisfying source of authority—his troops' respect. Only a sergeant who has earned his authority from his troops' perspective can gain prompt, willing obedience of his orders.

If a sergeant can't gain the respect of his troops, no amount of military or delegated authority will ever enable him to lead them. At best, in peacetime they will grudgingly obey his orders under threat of disciplinary

action. If they risk their lives in combat, it will be for someone else—someone who has earned his stripes.

Ironically, the Army is one of the more truly democratic institutions in the United States. Any time a leader gives an unpleasant order, he is asking for a vote of confidence. If his men trust and respect him, they will "re-elect" him with their actions.

I am not talking about a leader's popularity. Being popular and being respected are two completely different things. Soldiers recognize fairness and competence in even the sternest of sergeants, just as they also see through a "two-faced" sergeant. Any private can tell you which one he will obey the fastest, and which one he will ask for help with his problems.

I have been taught that leadership is "the art of influencing men to willingly accomplish the mission." We need to underline the word "willingly." A good sergeant won't coerce or cajole his men into doing their duties. They will perform because he has told them they should, and they believe him.

That's why we need good sergeants.

WILLIAM L. CLARDY
LT, USAR
San Luis Obispo, California

MILITARY HISTORY SYMPOSIUM

The U.S. Air Force Academy's Thirteenth Military History Symposium, "The Intelligence Revolution: A Historical Perspective," will be held 12-14 October 1988.

For further information concerning the program and registration, anyone who is interested may write to HQ USAF/DFH, ATTN: Captain Clodfelter, USAF Academy, Colorado Springs, CO 80840-5701; telephone AUTOVON 259-3230 or commercial (719) 472-3230.

MARK A. CLODFELTER
CAPT, U.S. Air Force

INFANTRY NEWS



THE U.S. ARMY INFANTRY Board has submitted the following items:

SIMATS BILL. Tests have been conducted on both the Euromissile MILAN 2 and the Swedish BILL 2 (for Bofors, Infantry, Light, and Lethal) to determine the merits of each as a supplementary interim medium antitank system (SIMATS).

SIMATS is being considered as an intermediate supplement for the Dragon system pending adoption of the Advanced Antiarmor Weapon System, Medium (AAWS-M). The test criteria for SIMATS were to be those stated in the AAWS-M required operational capability.

The Infantry Board conducted the initial operational test and evaluation (IOTE) of the MILAN 2 from 1 October through 20 November 1987 at Fort Benning, as reported in *INFANTRY*, March-April 1988, pages 6-7.

The BILL is a man-portable (118-pound), medium-range (150-2,000 meter) antitank weapon composed of a firing stand and a wire-guided, gyro-stabilized missile. The firing stand includes the launch platform and firing mechanism. Each missile is housed in a separate container that serves as the launch tube for the missile. The BILL also has a battery-powered, air bottle-cooled, thermal imaging night sight. The missile warhead is designed for top attack (fly over, shoot down) by means of a hollow-charge unit that is canted 30 degrees downward and triggered by a proximity fuse. The missile also has an impact fuse.

The Infantry Board conducted its IOTE of the BILL during the period 7 April through 15 June 1988 to assess its operational effectiveness and suitability as a SIMATS. Three antiarmor sections—nine gunners and nine assis-

tant gunners from the 2d Brigade, 10th Mountain Division—participated in the test.

All of the crew members were qualified Dragon gunners and all served as gunners during the test, firing a total of 130 missiles. Eighty reliable missiles were fired against moving and stationary targets during daylight and darkness to determine the system's hit probability. At the conclusion of hit probability firing, additional missiles were fired to assess the performance of the BILL in regard to multiple engagements. Three U.S. Army Missile Repairmen (MOS 27E) performed intermediate direct support maintenance for the test systems.

Test data regarding transportability; portability; detectability; reliability; availability, and maintainability; human factors; and safety were collected throughout the testing. The test results will be used to support a decision on whether the system is suitable for use in high-priority units.

TOW Training Strategy. The Infantry School is reviewing the TOW training program with the intent of developing a TOW training strategy for external validation. (See also "TOW Training Strategy," Major Anthony DiStefano and Sergeant First Class David L. Bouldeu, *INFANTRY*, July-August 1988, pages 33-34.)

As part of the internal validation of this strategy, the Infantry Board conducted a concept evaluation program test comparing the effectiveness of the program of instruction (POI) used with the M70E2 TOW Guided Missile Training Device (M70) with that of a POI that combined the M70E2 with MILES (M70/MILES).

The test was conducted during the period 6-22 June 1988 using two 30-man groups of one station unit training III soldiers at Fort Benning. One group was trained in

accordance with the requirements of the M70 POI; the other group was trained using the M70/MILES POI. Upon completion of their training, each of the soldiers fired a live missile at a manned evasive target tank. All live missile firing was done during daylight using the day sight from the TOW-HMMWV platform.

The Infantry School will use the live fire hit scores in developing the TOW training strategy.

Rifle Muzzle Stabilizer. In April 1985 a soldier individual weapons group was established by the Army Materiel Command. The group operates under a memorandum of agreement between the Armament Research, Development, and Engineering Center; the Ballistics Research Laboratory; and the Human Engineering Laboratory. The group's activity is monitored by the Army Materiel Systems Analysis Activity. Its charter is to quantify factors that will contribute to the improvement of infantry small arms.

In response to the infantry's requirement to improve the effectiveness of the M16A2 rifle through the addition of a muzzle device, the Infantry School requested an evaluation of a muzzle device developed by the Naval Weapons Support Center (NWSC) and an adjustable muzzle stabilizer (AMS).

Each of these devices mounts on the M16A2 rifle and directs escaping propellant gases at the proper angle to eliminate the muzzle climb and horizontal swing inherent in shoulder-fired weapons used in the automatic mode. The AMS was designed to be adjustable to compensate for variations in barrel length, ammunition lot performance, and other conditions.

The Infantry Board conducted a concept evaluation program test of these muzzle stabilizers during the period 11 April through 7 June 1988

at Fort Benning. The test compared the performance of the standard M16A2 rifle, the M16A2 with the NWSC device, and the M16A2 with the AMS in the areas of burst dispersion, hit performance, signature effects, and human factors and safety.

Twenty-one soldiers in MOS 11B used each of the systems in a series of live-fire exercises during daylight to generate data on dispersion and hit performance. Hit performance data was collected against both moving and stationary targets using both semiautomatic and burst modes of fire from the foxhole, prone, kneeling, and standing positions. Target ranges varied from 50 to 580 meters depending on position and mode of fire. Separate exercises were conducted by testers to obtain data on signature effects and to determine the compatibility of the muzzle-device-equipped rifle with the AN/PVS-4 sight and with the blank firing device.

The Infantry School will use the test results in making decisions concerning equipping the M16A2 rifle with a muzzle stabilizer.

NEW TEC LESSONS have been distributed to the field recently--29 lessons on the M23 Mortar Ballistic Computer (MBC) and 14 on the M901 Improved TOW Vehicle (ITV).

The series of lessons on the MBC are designed to teach MOS 11C soldiers to use the MBC and compute any type of fire mission. Also included is a lesson on operator maintenance.

Six of the 14 lessons on the ITV were designed for MOS 11H gunner training. The remaining lessons are on the tactical employment of a TOW section.

AN ARMY-WIDE PROBLEM has been identified by the Army Materiel Command concerning the misapplication of bolts, improper mixing of different grades of bolts in parts bins, and the lack of awareness of bolt grades on the part of supply clerks, mechanics, and their supervisors.

Equipment scheduled for maintenance will be inspected and bolts in

critical areas will be checked to ensure that the bolts called for in the technical manuals are being used.

The problem has been caused by the fact that the Army has received shipments of bolts that did not conform to contract specifications.

Soldiers with questions about bolts or their application, or those who think they have a problem that is caused by bolts, are asked to contact their AMC Logistics Assistance Representatives.

A NEW LIGHT ARMORED vehicle was recently adopted by the French Army to replace its aging fleet of jeeps. The new vehicle, dubbed VBL, will come in combat and intelligence versions. It is designed to serve as a jeep while simultaneously providing NBC and small arms protection. Depending on its role, the VBL mounts a 7.62mm machinegun or an antitank guided missile (ATGM).



The VBL has a range of 600 kilometers (373 miles), weighs 3.3 tons, and can attain speeds of up to 90 kilometers (56 miles) per hour. Despite its armor protection, the amphibious VBL reportedly has the agility and mobility of a jeep.

The first 15 vehicles were delivered to selected French mechanized and armored units in January 1988 for tactical field tests.

FRANCE AND WEST GERMANY recently announced the creation of a mixed Franco-German brigade destined to reinforce the European leg of the North Atlantic alliance.

The brigade will be composed of five battalions: one command and support battalion (mixed), two infantry battal-

ions (one German, one French), one battalion of light armor (French), and one battalion of artillery (German).

Starting with a French officer, the brigade will be commanded by a brigadier general, alternating between French and German officers every two years.

The headquarters, which will be established in October 1988, will be located in Boblingen near Stuttgart. The remaining battalions are scheduled to be in place by 1989.

THE NATIONAL INFANTRY MUSEUM will hold its Eighth Annual Five-Mile Run on the last Saturday in October. The race, the Museum's biggest fund-raiser by far, has always been very successful, thanks to the support of its sponsors and the excellent participation by runners from Fort Benning and the surrounding community. Units, teams, or individuals from other installations are always welcome. Those who want to participate should contact the Museum and register in advance.

Members of the 7th Armored Division Association placed their traditional wreath on the 7th Armored Division Monument on the grounds of the Museum. Also participating in



the presentation were members of the 2d Battalion, 69th Armor assigned to Fort Benning.

The Museum has a number of artifacts in its collection that date from the 16th and 17th centuries. Notable in this group is a double-barreled, bronze Lantaka salute cannon from the deck of an early Spanish sailing vessel. The cannon is elaborately decorated in the North African Moroccan style. In addition to these patterns and styles of design are figures of pigs, dolphins, and an alligator.

The cannon was used at the close of the 19th century against U.S. troops in the Philippines. It is suspected that such things as rocks, nails, and broken glass were used as projectiles to be thrown from the cannon into the path of U.S. Infantrymen.

When the Spanish American War drew to a close, the cannon that now rests proudly at the National Infantry Museum was selected by Chaplain Edmund Easterbrook as a prize of war and sent home with his household goods. Chaplain Easterbrook served as Chief of Chaplains during the 1920s.

Another interesting artifact is a tapestry that dates back to the 15th century. It is of European origin and tells the story of an army, thought to be invincible, that was overcome when it lost its leader. It underscores the importance of leadership, a primary ingredient of a successful military unit.

The National Infantry Museum Society, formed at Fort Benning a number of years ago to assist the Museum with financial and volunteer support, is open to anyone who is interested in joining. The cost is \$2.00 for a one-year membership or \$10.00 for a lifetime membership.

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

NEW, IMPROVED MRE's (meals, ready to eat) will be in the field by 1990. They will include seven new main entrees—pork with rice, ham omelet, spaghetti and meat sauce, meatballs with rice, tuna and noodles, ham chunks in escalloped potatoes, and chicken with rice. The popular ham slices, chicken a la king, and roast beef will still be available too.

A new side dish, potatoes au gratin, will replace beans in tomato sauce and add five ounces to the weight of the entree combination. A beverage base and a popular brand-name candy will also be included.

CAMOUFLAGE FACE PAINT has been improved. The standard face paint now comes in three-inch metal tubes with a removable cap at each end. Since two colors are contained in each tube (and to provide for all environmental conditions), a total of three tubes is needed for each soldier.

The Natick Research and Development Center has replaced the tubes with a single, reclosable plastic container. Each compact contains four colors and a mirror to help the user



apply complete coverage.

The composition of the face paint has been changed to contain infrared reflectance properties commensurate with those of the battle dress uniform system, along with 20 percent insect repellent that will provide up to eight hours of protection, instead of the two to four hours provided by the current item.

THE U.S. ARMY NATICK Research, Development, and Engineering Center is looking at new fibers that may reduce the weight of the vest and helmet in the personnel armor system for ground troops (PASGT).

One of these fibers, known as Spectra 1000, is expected to provide a 33 percent reduction in the weight of the helmet. Similar efforts are in progress to reduce the weight of the PASGT vest from nine pounds to six.

In both applications, the same level of protection and performance provided by the current fiber, Kevlar, will be maintained.

THE ROLLOVER PROTECTION System (ROPS) is being installed on M151A2 trucks to protect riders in case of accident.

The system consists of modifications including rollbars, sidedoors, shoulder belts, and changes to the truck's top, floor, and fuel system.

The modification project should be completed next summer.

THE BRADLEY INSTRUCTOR Detachment 29th Infantry Regiment at Fort Benning, was recently asked to clarify certain terms and procedures. The following response to that inquiry may also be of interest to others in the field:

Define "unmask." "Unmask" refers to that point at which the barrel of the weapon being used is free of obstructions and can engage targets—for example, when the firing vehicle moves forward enough to clear the 25mm barrel of the defensive berm.

Must engagement be terminated with "cease fire"? No. "Cease fire" is a common term that is used in a fire command, but any similar term may be used. For control of fires, a command should be given to stop the gunner from firing excessive ammunition. For timing procedures during an engagement (start/stop times), see page 10-17, paragraph 10-9a, FM 23-1, Bradley Fighting Vehicle Gunnery.

Must an inverted Z-pattern be used on area engagement? Page 4-20, paragraph 4-16a, FM 23-1, describes the Z-pattern of engagement for area type targets, which is the proper method of engagement for the coaxial machinegun. There is no gunnery crew cut for the use of the proper method of engagement of any of the weapon systems (Z-pattern, burst on target, and the others).

On the NBC task, must the vehicle button up? According to ARTEP 7-247-11-MTP, page 5-143, paragraph 1b, all vehicle hatches must be closed during an NBC attack or when operating under NBC conditions.

Define "bumping up." "Bumping up" is a USAREUR term used to specify which other weapon system to use if a weapon failure cannot be cleared. The weapon to be used depends on the type of engagement and the target array. On a training

range, it would not be practical to "bump up" to TP-T for a coaxial machinegun failure, since TP-T ammunition will damage and possibly destroy IRETS lift mechanisms. The decision to do so would have to rest with local range control authorities. As for 25mm engagements, if a failure occurs, the logical choice is to use the TOW. On gunnery ranges, however, if a weapon system failure occurs that is not due to crew error, that engagement is considered an "alibi." If the failure is due to crew error, then the crew receives no points for that engagement.

Will a Bradley commander (BC) get a "crew cut" for not adhering to conditions of the firing task if he fires gunner engagement? Not if the gunner announces that he "cannot identify" the target. Then the BC can fire a sensing round to aid the gunner in identifying the target. If the gunner still cannot identify the target, proper engagement procedures require the BC to conduct the engagement, according to page 4-4, paragraph f(3), 4-2g(2).

In the precision fire command, is the range announced prior to execution? It depends on who announces the range and whether it is announced as an element of the fire command or is a response by the gunner when he determines the range. If the BC intends to use precision fire and knows the range, he includes the known range in his fire command just before the execution element (page 4-1, paragraph 4-1e; page 4-16, table 4-1). If, however, the BC wants the gunner to determine the range, he issues his fire command without a range element, which is the cue for the gunner to determine the range. Once the gunner has determined the range, he announces that range back to the BC as a "common term" (similar to "Identified" and "On the way"). Paragraph 4-3, Precision Fire Command, is confusing and contradicts the above references. This paragraph has been completely revised in the Errata Sheet to FM 23-1. Until the issue is clarified, crew cuts should not be given on the basis of who announces the range, when it is an-

nounced, or whether it is announced.

If the BC does not give the fire command called for in the conditions of firing task, will he receive a 30-point crew cut? No. The crew receives a five-point cut for an incorrect fire command (page 10-3, paragraph 10-3a(1)).

How do Tasks 4 and 6 use two different matrices when the targets are in the same range? The scoring matrices used on the "TP-T only" tables are the same as those on the AP/TP-T tables. This was done to compensate for the time-of-flight differences between the APDS-T round and the TP-T round. On the "TP-T only" tables, APDS-T engagement ranges were shortened to match the time of flight of the slower TP-T round.

THE BRADLEY'S M242 25mm gun has experienced some malfunctions in the past. An investigation of these malfunctions by the Army Armament, Munitions, and Chemical Command (AMCCOM) has resulted in the establishment of an inspection and repair procedure for the breech assembly.

All M242s must be inspected before being declared mission capable for live fire operations. The presence of Guide Pin Part Number 12524371 in the breech assembly is critical in maintaining proper positioning of the barrel. Damage to the barrel and breech assembly could result if the weapon is fired with the pin missing.

Each crew/operator must now inspect the M242 breech assembly as a part of the preventive maintenance checks and services before operational checks to ensure that the pin is present. If the guide pin is missing, the gun is "not mission capable" and unit maintenance must be notified.

These checks and services are being incorporated into the next revision of TM 9-2350-252-10-2 as well as the semi-annual inspection in TM 9-1005-200-20&P. Organizational maintenance is authorized to remove or replace the guide pin in accordance with TM 9-1005-200-20&P, Change 1,

May 1987. The M242 serial number and total rounds count, and the serial number and rounds count listed for the breech assembly, from the DA Form 2408-4 (Weapon Record Data Card), must be transcribed and provided when requisitioning the replacement pins. If this information is not provided, the requisition will be rejected as "unauthorized."

Points of contact at AMCCOM are Mr. Stevens at AUTOVON 793-2066 or Ms. Rose Goldsby, AUTOVON 793-2108

THE INTEGRATED SIGHT unit on the Bradley's 25mm gun is sometimes damaged during its removal. As a result, the Armament, Munitions, and Chemical Command (AMCCOM) has changed the procedure for removing and installing it (see memorandum, subject: Remove/Install Integrated Sight Unit, TM 9-2350-20-2-3 dated 29 March 1988).

Basically, the procedure requires removing the 12 screws that retain the ISU to the turret, then reinstalling three screws into the lifting holes. The screws are then tightened evenly in the lifting holes to break the ISU seal from the mounting plate. The screws are removed and the lifting device is fastened with shoulder bolts to remove the ISU.

The change in procedure will appear in Change 2 to TM 9-2350-284-2-3 for the Integrated Sight Unit, scheduled to be fielded around April 1989.

The point of contact at AMCCOM is Mr. Ewing, AUTOVON 793-2583.



PROFESSIONAL FORUM



World War II History Japanese Monographs and Studies

CAPTAIN HAROLD E. RAUGH, JR.

The government of Japan, unlike that of its German ally in World War II, survived its defeat. Less than six weeks after Japan's formal surrender on the U.S.S. *Missouri* in Tokyo Bay, that government was ordered, on 12 October 1945, to establish "a bureau for investigations concerned with the compilation of sufficient data to obtain a complete historical war record." This was the seed of a historical program that eventually produced 184 Japanese monographs, a study on Japanese night combat, 13 Japanese studies on Manchuria, and a number of other studies. All of these sources were intended to be used in the preparation of the U.S. Army's official history of World War II.

The official records of the Japanese Army and Navy had been largely destroyed, either by the U.S. Army Air Force's incendiary bombing raids on Tokyo or deliberately by the Japanese themselves at the end of the war. Since few supporting documents were available for the U.S. Army to use in writing and compiling its own history of the war, therefore, the demobilization bureaus of the Japanese Demobilization Ministry summoned former officers (mainly those who had participated in the various

theaters or who had served on staffs or in specific activities) to serve as "authors" in this program. These officers had to rely upon personal recollections, diaries that had been kept, and the few available fragmentary records.

IMPORTANT

The initial drafts of the monographs produced were said to be "generally spotty in coverage and frequently inaccurate as to dates and strengths." Consequently, efforts were soon begun to revise and complete them. The late Louis Morton, who wrote several volumes on the war in the Pacific for the official U.S. Army historical series, believed that "though the series contains large gaps and the individual studies vary in quality, it constitutes the most important Japanese source on Japanese operations in the Pacific and Asia in World War II."

The overall project was originally called the Foreign Histories Program of the Foreign Histories Division, Office of the Assistant Chief of Staff, G-2/3, Headquarters U.S. Army Japan. When the Office of the Chief of Military History became interested

in this program in 1950, the Japanese Research Division was organized within the Historical Division, Department of the Army. The program was extended in 1956 and continued until its termination on 15 April 1960.

The Japanese monographs cover primarily operational topics, although several of them deal with the political background and considerations of the war, administration and logistics, naval operations, and the defense of the homeland.

The Manchurian studies are highly detailed and worth studying today. Two of them are particularly useful—"Strategic Study of Manchuria's Military Topography and Geography" and "A Study of Strategic and Tactical Peculiarities of Far Eastern Russia and the Soviet Far Eastern Forces."

The other studies that were completed include important geographical, climatic, and tactical information for operations in many Asian countries, including the Philippines, New Guinea, Borneo, Burma, Thailand, and China, as well as Soviet Russia. It is also important to note that some of these additional studies addressed subjects outside the years in which the United States was engaged

INTRODUCTION AND GUIDE (Vol. 1).
 Editor's Introduction.
 Table of Contents to all volumes.
 History of the Japanese Monograph Program.
 Guide to Japanese Monographs and Japanese Studies on Manchuria.
 Inventories of files from the Japanese Research Division.
 Collection of Japanese records, 1928-1947.
 Chronology of the Pacific War (from Japanese point of view), September 1931-
 November 1945.

POLITICAL BACKGROUND OF THE WAR (Vol. 2).
 Political Strategy Prior to Outbreak of War—five monographs.
 Planning of Japanese Invasion Operations Against the Philippines.
 Two other documents.

COMMAND, ADMINISTRATION, AND SPECIAL OPERATIONS (Vol. 3).
 Seven items, including "Principles of Night Combat" (Part 1), and a statement on
 "The Use of the Atomic Bomb."

THE NAVAL ARMAMENT PROGRAM AND NAVAL OPERATIONS (Vols. 4 & 5).
 Ten monographs, including "Pearl Harbor Operations: General Outline of Order
 and Plans" (Vol. 4).
 Six monographs, two special studies, and one document (Vol. 5).

THE SOUTHERN AREA (Vols. 6 & 7).
 Six monographs, including records of operations in the Netherlands, East Indies,
 Borneo, French Indo-China, Thailand, and Burma (Vol. 6).
 Two monographs, one group interrogation, and one statement (Vol. 7).

CHINA, MANCHURIA, AND KOREA (Vols. 8 & 9).
 Four monographs and one Manchurian study (Vol. 8).
 One monograph and "Strategic Study of Manchuria's Military Topography and
 Geography," (Vol. 9).

JAPAN AND THE SOVIET UNION (Vols. 10 & 11).
 Japanese Operational Planning Against the USSR (Vol. 10).
 Intelligence Planning Against the USSR Army (Vol. 10).
 Small Wars and Border Problems Through 1938 (Vol. 10).
 The Nomonhan Incident (Vol. 11).
 A Study of Strategic and Tactical Peculiarities of Far Eastern Russia and
 Soviet Far Eastern Forces (Vol. 11).
 Naval Operations Against Soviet Russia (Vol. 11).

DEFENSE OF THE HOMELAND AND END OF THE WAR (Vol. 12).
 Three monographs, three documents, two statements, and one interrogation.

THE SINO-JAPANESE AND CHINESE CIVIL WARS (Vols. 13, 14, & 15).
 History of the Sino-Japanese War, I (Vol. 13).
 History of the Sino-Japanese War, II (Vol. 14).
 Military Campaigns in China, 1924-1951 (Vol. 14).
 PLA Unit History (Vol. 14).
 Civil War in China, 1945-50 (Vol. 15).

in war with Japan— topics on the Japanese invasion of China, for example, as well as studies of the phases of the Chinese Civil War after World War II.

The Japanese monographs, the special study on Japanese Army night combat, and the Japanese studies on Manchuria are now deposited at the Army's Center of Military History in Washington, D.C. They vary in length from 3 to 409 pages, with an average of about 87 pages.

Forty-seven of the most interesting and informative studies have been published in the 15-volume *War in Asia and the Pacific* series (Garland Publishing Company, New York,

1980). These studies have been supplemented by 19 related documents from the Center of Military History and include statements Japanese officials made upon interrogation as well as translations of significant Japanese documents. (The basic contents of the published volumes are shown in the accompanying box.) This series complements the 24-volume *World War II German Military Studies* series also published by Garland Publishing Company (see *INFANTRY*, March-April 1988, pages 17-19).

A number of the studies not included in the published series are of potential interest to infantrymen:

Manchurian Studies:

- Volume V. Infantry Operations. (A study of infantry organization, training, tactical principles, and equipment.)

- Volume VI. Armor Operations. (A study of the formation of armored units in Manchuria, emphasizing the peculiar problems presented by the weather and terrain.)

- Volume VII. Supporting Arms and Services. (Part 1. Artillery and Antiaircraft Artillery Operations; Part 2. Engineer, Signal, and Railway Operations.)

- Volume VIII. Logistics in Manchuria.

- Volume IX. Climatic Factors. (Very important for studying the effects of cold weather on military operations in Manchuria, emphasizing the effects of extremely low temperatures on men, animals, and machines. Also important for studying other aspects of the climate such as sudden variations of temperature, precipitation, droughts, dust storms, and the like.)

Japanese Night Combat:

- Part 2. Appendix: Excerpts from Japanese Training Manuals.

- Part 3. Supplement: Night Combat Examples. (Examples of the successful employment in night combat operations of Japanese Army units of various sizes, taken from the Russo-Japanese War, the China Incident, and World War II.)

Both the 15-volume *War in Asia and the Pacific* series and the 24-volume *World War II German Military Studies* series contain a wealth of hard-to-find primary-source material. They are therefore invaluable to military historians, graduate students, and professional infantrymen who want to profit from the mistakes of their predecessors.

Captain Harold E. Raugh, Jr., recently completed a graduate program in history at the University of California at Los Angeles and is now assigned to the faculty of the United States Military Academy. A 1978 ROTC graduate of the University of Wisconsin, he has served with the Berlin Brigade, the 2d Infantry Division in Korea, and the 7th Infantry Division at Fort Ord.

CAMBs

A Better Solution

CAPTAIN MATTHEW MOTEN

An experiment in combat organization is being conducted at Fort Hood that warrants closer inspection by all professionals of the combined arms. This experiment is called the combined arms maneuver battalion (CAMB).

Armies have been task organizing since the inception of mounted combat. In World War II the trend on both sides of the front in the European Theater was to adjust their combat units into balanced combinations of infantry, armor, antiarmor, and artillery elements. And the Israelis found in 1973 that armor could not survive without infantry.

Field Manual 100-5, Operations, sets forth the necessity to "combine arms and sister services to complement and reinforce" as an imperative of the AirLand Battle. Most of our plans for the defense of Western Europe, in fact, call for the employment of task forces rather than pure battalions.

U.S. Army Forces Command (FORSCOM) units have learned that forming proper task organizations is a major factor in their successful performance at the National Training Center (NTC). Further, in order to develop teamwork and cohesion before training at Fort Irwin, brigades have begun task organizing during their train-up periods. This phenomenon, called "habitual cross-attachment," occurs on a regular basis for the purpose of allowing units to grow accustomed to working together. (See also "Extended Cross-Attachment," by Lieutenant Colonel William

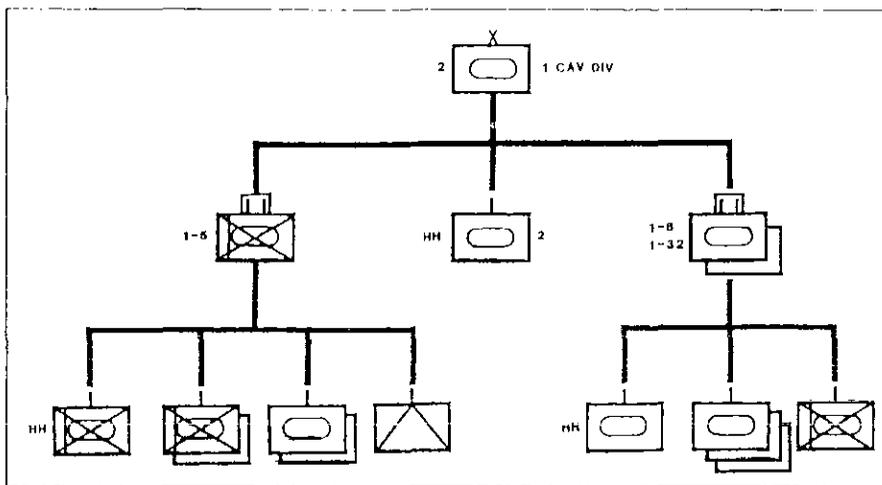
A. DePalo, Jr., *INFANTRY*, July-August 1984, pages 5-6.)

The problem with habitual cross-attachment is that it forces us to fight against countless Army systems, from personnel and administration to prescribed load lists (PLLs) and unit status reporting. In the 2d Brigade of the 1st Cavalry Division, we found that to overcome the problems involved, we needed a documented MTOE (modified table of organization and equipment). In September 1986 we

received authorization for just that.

The result is the combined arms maneuver battalion, or CAMB (pronounced cam-BEE). Our CAMBs are organized in accordance with AirLand Battle doctrine. Thus, Task Force 1-5 Cavalry is a balanced task force with a mechanized infantry base. The other two task forces, TF 1-8 Cavalry and TF 1-32 Armor, are tank-heavy, each with three tank companies and one Bradley company (see diagram).





This organization is not a "best guess" but a partial solution to any postulated combat task organization. CAMB allows us to start with a mix that will sustain a task force organization from the standpoints of support and command and control.

Our CAMBs also make further reorganization easier because their headquarters and headquarters companies (HHCs) are configured to support their respective task forces. There has been no addition of people, authorizations, or equipment for CAMB—our MTOEs did not allow it. The only cost of CAMB to date has been directly associated with the testing of the concept.

There has been some realignment of the personnel and equipment in the HHCs. First, the executive officer and the S-3 Air in the tank-heavy task forces are infantrymen while in TF 1-5 Cavalry, those slots are coded armor. Second, the CAMB MTOEs cross-level mechanics and authorized PLL stockages as well as five-ton trucks and heavy expanded mobility tactical trucks (HEMTTs) and their drivers and fuel handlers. Finally, there has been an exchange of test, measurement, and diagnostic equipment (TMDE). Because this is a zero-sum game, however, the balanced task force is left without one set of M1 adapter hardware for STE-M1/FVS and M1 break-out boxes.

The feedback from the soldiers and leaders in the combined arms maneuver battalions is generally positive. Most leaders note increases in

the ability to further task organize, in their own knowledge of combined arms, and in cohesion among all ranks. CAMB allows us to train together and to develop the teamwork and cohesion that is so crucial to winning the AirLand Battle. We *think* combined arms every day.

What makes CAMB unique and worthwhile is the MTOE documentation of the concept. The various supporting systems with which we all work are friendlier to CAMB because of the official recognition of its existence. The armor-based task force can requisition Bradley infantry fighting vehicle (IFV) parts or HM soldiers as easily as the infantry-based task force can. When we compare this to the bureaucratic struggles with habitual cross-attachment, CAMB truly begins to show its worth.

SUPPORT

Because supply and maintenance support for both M1 Abrams tanks and M2 Bradleys is in place in each of the task forces, we are better able to accommodate further task reorganization. And because of the better training opportunities we have and the improved sustainability of our tanks and IFVs, we are able to more fully exploit their combat power.

Infantry and armor leaders in the CAMBs have a better appreciation for the skills, capabilities, and employment of each other's units. They are also better able to train each other's

soldiers. Task force commanders have developed tougher standards for cross-attached companies because they more fully understand the capabilities of those units. Despite some initial fears, our infantrymen have found that their dismounted skills have not been lost, and that they now have more opportunity to train as combined arms teams. Bradley gunnery has also improved throughout the brigade, largely because of the infantrymen's relationship with the tankers, whose greatest institutional strength is their skill in direct fire gunnery.

We are not satisfied with the configuration of the HHC. In addition to needing one set of diagnostic test equipment (STE-M1) adapters, each CAMB would be better able to support itself with a standard HEMTT fleet. We have not implemented these solutions because our experimental charter was to change without any additions. One of the lessons of CAMB, however, seems to be the need to develop a common battlefield base (HHC). This base would provide command and control and support for any combination of tank and mechanized infantry companies (up to a total of five). Such a standardized HHC would require some redistribution of personnel and some limited changes in equipment authorizations.

This issue is problematic, because it is difficult to say how far one should go with the standardization of the HHCs. For instance, with varying numbers of attached companies, the mechanics in the HHC may be under- or over-employed, depending on their MOSs (military occupational specialties). Certainly it is true that one could not develop a standard HHC for all heavy battalions, because pure battalions with such HHCs would be under-resourced in some areas and "fat" in others.

A final assessment of CAMB is elusive, because we find ourselves trying to evaluate intangibles. Such an evaluation is naturally subjective. But the leaders who work with CAMB do feel positive about it. The increase in camaraderie and cohesion has improved our combat effective-

ness. There is simply no question that we are better able to task organize than our colleagues in pure battalions. Of the four ways that a heavy battalion can organize—pure, balanced, tank-heavy or mechanized infantry-heavy (depending on the battalion base), and reinforced—CAMB gives us a leg up on all of those except for “pure,” which is the least likely in any situation.

We must train and sustain as we intend to fight. CAMB is intended to organize our maneuver elements to train at the task force level in order to fight the AirLand Battle. It facilitates task organization changes on the basis of the intelligence preparation of the battlefield process and METT-T. It is a partial step toward a favorable wartime maneuver configuration, which is a far cry from no solution at

all. CAMB embraces the combined arms concept to a degree rarely seen before in the history of our Army.

Captain Matthew Moten, an Armor officer, was an assistant S-3 in the 2d Brigade, 1st Cavalry Division during its reorganization and is now a company commander in Task Force 1-5 Cavalry. He previously served as tank platoon leader, cavalry platoon leader, troop executive officer, and adjutant in the 2d Armored Cavalry Regiment.

Scout Platoon Offensive Reconnaissance

LIEUTENANT DONALD E. VANDERGRIF

The scout platoon will cross the line of departure 30 minutes before the heavy task force's lead element. The S-2 has only vague knowledge from brigade where the enemy forces are, and the task force commander must rely on his "eyes," his scouts, to find them. He tells the scout platoon leader to mark the limits of the enemy's fire sack. The scout leader replies that he has only 30 minutes in which to execute his reconnaissance before the task force moves out. The commander says that is plenty of time, the staff needed eight hours to complete the order and brief.

It is 1000 hours as the scout platoon crosses the LD, and suddenly the platoon leader's track becomes a blazing wreck; he has found an enemy kill zone. The remaining scout tracks move toward the flanks of the flaming marker and discover the left and right limits of enemy fire. Burning brightly, the scout tracks now mark the way into the enemy's engagement area.

If we continue to conduct reconnaissance this way, such failures will become commonplace before offensive

operations. Too often, we pretend that the heavy task force scout platoon is an elite advance guard that can hold the first enemy it encounters until the entire task force can arrive. Then we assume the task force can overwhelm the enemy force without any knowledge of what exists beyond that point.

OUTRIDERS

Scouts should be used instead like the outriders of the past, ranging far and wide to seek the enemy. Their best chance for success is to operate in a six-vehicle configuration. The six teams, properly trained, can raise the task force's stakes while decreasing the enemy's knowledge of the gathering storm that follows the separate teams.

In approaching a movement to contact or a hasty attack, it must be remembered that a heavy task force scout platoon is not a cavalry unit; it is the eyes and ears of the task force. Regimental cavalry units can fight for information because they have a highly trained scout-and-tank

working relationship. Thus, they can fill the role of advance guard. But if these forces are stripped away by enemy action or other missions, the task force can still create an advance guard that can defeat the enemy security elements found by the scout teams. The role of the scout platoon, therefore, is to approach reconnaissance with complete stealth and accept the fact that it may not see all of its elements again until the mission is complete.

To succeed, a task force must treat the reconnaissance phase of its deliberate attack as the blueprint to winning the offensive battle. The commander and the staff must realize that time is critical to the scouts and must give them enough time to locate and confirm the S-2's offensive intelligence preparation of the battlefield (IPB). Given that time, the scouts can find more than the regimental outpost—they can also see what is behind the security belt. The combination of flexible reconnaissance planning by the battalion staff and the scouts' execution once they cross the

line of departure enables the task force leadership to find and fight the enemy. The task force will be handing out the surprises instead of running into them.

Planning is the first step toward winning the reconnaissance phase of an offensive battle. The task force commander and his staff must develop simple, highly flexible plans and be ready to respond to the results of the reconnaissance. The reconnaissance phase itself takes place while the rest of the task force prepares for the battle. A task force commander who sends out reconnaissance after his operational plans have been developed creates two problems: There is not enough time for the reconnaissance to be executed properly or to obtain enough information, and the route and area to be reconnoitered usually constricts the scouts' freedom of action. When the scouts are packed together, the enemy's ability to confirm and kill these elements increases.

A successful task force planning process involves three parts working together to get the scouts out as early as possible with the proper support. The scouts work for the commander. The S-3 allots the assets and conducts the coordination with artillery, air assets, and adjacent units that enables the scouts to go forward. And the S-2, as the intelligence interpreter, clarifies the enemy picture and helps the commander decide on the correct course of action.

First, the commander gives the scout platoon leader as much time as possible to conduct his mission, which is carried out preferably during periods of limited visibility. Upon receiving word of upcoming operations from higher headquarters, the commander briefs the scout leader on exactly what needs to be seen in the entire sector. The commander must be specific in his intent to the scout leader but allows him as much flexibility as possible in deciding how he is going to reconnoiter the area.

Second, the S-2, who should be able to think like his commander, provides the scout leader with an effective offensive IPB. Just as important,



and despite (probably) having only limited information from higher headquarters, the S-2 wargames the way the enemy fights his defensive battle on the terrain where the battle will take place. The offensive IPB is the scout's road map to detecting the enemy's strengths and weaknesses.

Third, the task force closely analyzes its additional assets to help the scout leader in his mission. The task force S-3, though, is careful to avoid overloading the scout teams with support elements, because if those elements have never been trained to do independent stealth reconnaissance, they can be a hindrance.

The scouts themselves have been trained, for example, in engineering tasks and missions such as demolitions, breaching, route and bridge classification, and lane marking. This means that any attached engineers need only to be dropped at certain points to widen lanes or clear bypasses the scouts have found.

A scout also acts as his own forward observer, and he works with a fire support team (FIST) located at the LD to

call fire missions. Sending a FIST or a COLT (combined operations lasing team) beyond the LD with the scouts is not logical, because the slow vehicles in which these teams travel cannot keep up with the scouts.

Ground surveillance radar aids a scout who is on a screening mission, but is seldom used by a continually moving scout in the offensive. Too, Stinger teams may accompany a scout to be dropped within the defensive main belt to shoot down enemy aircraft before they ever see the task force. Other elements can aid the scout, but only if they are small and have been trained in conducting the deep scout mission.

Before the scout platoon leader executes the reconnaissance plan, he conducts his troop leading procedures. Like the task force commander, the scout leader wargames and conducts backbriefs with his entire platoon before crossing the line of departure. Ideally, the scout leader also gives operation order briefs on a sandtable followed by a rehearsal, after which precombat inspections are conducted

by the team and track leaders. While checks are being made, the scout leaders continually ask for backbriefs. These checks concentrate on what is needed for continual operation of equipment throughout the mission. Since the platoon's squads operate as separate entities, all of the scouts must know the mission and the status of the equipment.

Once they are satisfied with their plan, the scouts execute it with independence and stealth. Each of the six teams is either assigned a separate zone within the battalion sector, or the teams are assigned zones that check the same important point from different directions. Also, scout vehicles can be assigned the same zone with different departure times. All of them keep in mind the need for maximum reconnaissance forward with minimum concentration.

Reconnaissance zones allow the individual teams the freedom of action they need to accomplish their reconnaissance mission. Each zone generally follows the intended routes or axes of advance for the task force or brigade but avoid the obvious.

When preparing to move along their zones, the scouts keep in mind the following:

- The commander's intent and what he wants to know about that zone.
- The best locations from which to observe enemy activities and positions.
- The centers of valleys, open areas, traveled roads, and known or suspected enemy concentrations that must be avoided.
- Actions at restrictive terrain, obstacles, urban areas, and rivers.
- The planned dismount points.
- Actions upon reaching final observation and listening posts.

The scouts report to the S-2 each time they locate an enemy element or an obstacle. An experienced scout knows that each bit of such information goes hand in hand with others to

assist the S-2 during the execution of a mission.

Scout teams are nighttime infiltration experts, proficient in the use of all night sights, weather effects on sound, use of illumination, night land navigation, and enemy obstacles. At night, along the length of travel within each zone, a scout makes listening halts and dismount checks. A scout team leaves its vehicle in a hide position and moves far enough from it, achieving complete silence. (In addition to the dismounted scout team, the track commander is also dismounted as often as he is mounted.)

The team avoids combat unless it is surprised and has to fight its way out of an ambush. The scouts remember that their vehicle is a vulnerable carrier and not a rolling fortified observation post. Scouts that reconnoiter by fire are like a lone policeman seeking an armed gang, shooting at every suspected hideout; they only give themselves away to an already secure enemy. The task force can reconnoiter by fire those enemy locations that the scouts have detected earlier.

The only types of combat for scouts that can be considered beneficial to the mission of the task force are raids upon lucrative targets such as command and control facilities. (Scouts do not hit these facilities, however, until after they have completed their assigned reconnaissance mission.) The radio and indirect fire remain the best weapons in the scout inventory.

At the end of each zone is a point for an observation and listening post (OP/LP). There, a scout vehicle goes into a hide position upon completion of its mission and reports its final destination to the S-2 and the scout leader. The OP/LP is placed so that the scouts can observe enemy movements, especially when the task force attack begins, and assist in adjusting artillery fire on enemy positions. As the task force closes upon the scout

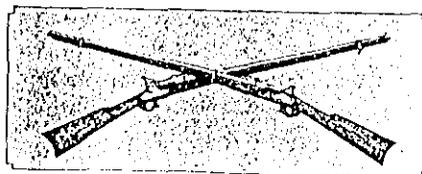
hiding place, the scout requests permission from the task force commander to assume its place forward as an out-rider if it does not need to be resupplied.

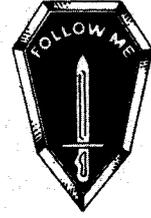
Any heavy task force scout platoon can accomplish this procedure if it has been properly trained and has not been treated as a general purpose detail platoon. Scout leaders must continually stress their independence and must not be afraid to allow their subordinates to act independently during field operations. Reconnaissance training should not be limited to the platoon but should include the task force staff as well.

Leaders should include scouts in their training exercises whenever possible, giving them lanes and letting them accomplish infiltrations to an objective against a free play opposing force. When training areas are not available, small team patrols led by enlisted personnel can be sent to reconnoiter crossroads or other units in training. Reverse cycle training should not be just talked about—it should be practiced.

During task force defensive exercises, scouts should be allowed to attempt an infiltration of the battle position. This type of training builds the platoon's ability to operate as separate elements. Leaders should be willing to accept having the platoon together only during administration and reconstitution periods. Leaders at all levels who understand the importance of the reconnaissance phase preceding the battle will allow the scout platoon to do its job as it should.

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THE INFANTRY MIND

The Infantry mind is a mind that thinks men are the essence of fighting power—that the tougher and harder and keener and abler the soldier, the better the Army. It thinks that it is men who win wars, and that those who think armies can get along mainly on brains and mechanical ability are already defeated. It thinks that the iron fighting will of men in the mass is the heart of an army, whether they do their fighting in planes or in tanks, or gain their ground by the yard by the use of the ground. It thinks that “men in the mass” means every fighting man and every man who helps him fight.

The Infantry mind is a mind that wants every weapon and gadget sought for and adopted that will add strength and power and speed and sureness to the whole fighting force. It is a mind that thinks an army must have such weapons in the numbers it appears to require and a few more still. For it wants to be sure there are enough. And it wants no time to be wasted on argument about what shall be done with new weapons. It wants them to get into the hands of any partner in the fighting team in the shortest possible time so that new power can add to the strength of the team.

The Infantry mind is a mind that thinks only in terms of a strong, ready, all-out support. If it's Infantry doing the supporting, then the Infantry mind is constantly ready to add to the fight every ounce it has of drive, speed, and technical ability expressed in firepower and maneuver, to help the troops it is supporting. If it's Infantry that is getting the support, then the Infantry mind looks for this same kind of help—for cooperation without thought of collar ornaments—from every supporting man and his weapon of ground or air.

The Infantry mind doesn't care how it gets to the battle so long as it gets there in time. In time to surprise and in strength to match and outfight the enemy. It is eager to use the plane, the truck, and the jeep to cover the ground and get its men and their weapons wherever their attack can hit hardest and go farthest. It thinks that the fighter in the tank and the plane must have this same unalterable thought of striking where their powerful blows will do the most good.

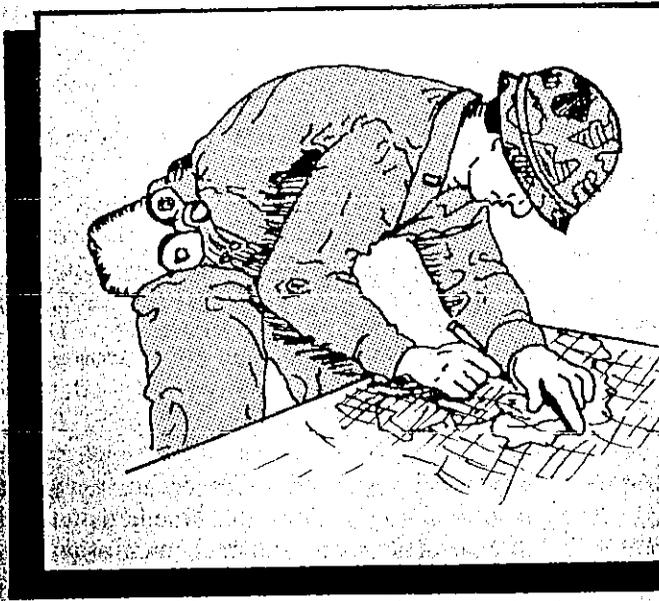
The Infantry mind is a crafty mind, not merely a charging, fighting, assaulting mind. For it knows that a stroke that strikes weakness is a stroke that tells heavily, and that every particle of driving power must then be applied. But if it knows that the enemy's weaknesses must be sought, it likewise knows that the enemy's strength must often be overcome first to create a weakness. And it knows that when there is a job like this, it takes more than ever the fighting heart of the soldier himself, of the single man and of men in the mass—of men on the ground, in planes, and in tanks.

For the Infantry mind is a mind that thinks men are the essence of fighting, that the heart and the guts and the blood of soldiers win wars, and that bombers and tanks and jeeps; howitzers, guns and mortars; grenades and pursuit planes and rifles—are tools in the hands of men, of fighting men, and can never win wars by themselves.

The Infantry mind, so the Infantryman thinks, must be the same mind as the Air Force mind, the Armored Force mind, the Quartermaster mind, the Field Artillery mind, the Ordnance mind, the Coast Artillery mind, the Finance mind, the Cavalry mind, the Chemical Warfare mind, the Signal Corps mind, the Engineer mind, the Medical Corps mind, the Morale Branch mind, and the minds of Chaplains and Inspectors and Adjutants General. One mind there must be—one single mind, with one single hard-driving aim—the defeat, the crushing defeat, of the enemy.

A PLAN FOR

COMMAND



CAPTAIN DANNY W. DAVIS

Command of soldiers at any level is a privilege and a responsibility that must be approached as a sacred trust. Command of a company, however, is particularly influential because a company commander can personally influence soldiers, noncommissioned officers, and lieutenants on a daily basis. As a result, the administrative procedures, training methods, and leadership techniques he exposes them to will shape not only his company but also innumerable individuals, squads, platoons, and companies in the future.

When this long-term aspect of command is added to a company commander's basic responsibility of maintaining a combat ready unit, the real weight of command begins to bear down on the man who is lucky enough to be given the load.

All new company commanders have been to an officer basic course, most to an advanced course, and all have spent time in a battalion as lieutenants; but these experiences in themselves do not prepare a man sufficiently for command. It is essential for an officer selected to

command a company to formulate his ideas of command and the mechanics of running a company; and to come up with a plan for command.

This article is intended to provide a command "reconnaissance" framework for an officer who is either now in command of a rifle company or soon will be. The techniques described have worked for me in two different organizations in two different kinds of companies.

A company commander's starting point in his personal preparation for command must be an honest self-analysis. This should be followed by a systematic look at the following areas: the chain of command, counseling, training, operations, maintenance, and administration. The only sure formula for effectively managing these areas is arrived at through dedicated thought and evaluation.

Self-analysis is important for several reasons. Through a good hard look at his personal qualities, values, likes, dislikes, beliefs, and prejudices, he can gain a better understanding of his behavior and the complexities of influenc-

ing the behavior of others. An objective study of his professional capabilities and limitations allows him to determine weak areas in his personal leadership techniques. Then he can emphasize the areas that need improvement. With a firm grasp on his strengths and weaknesses, he can achieve better control of his emotions--and control of self and others go hand in hand. Subordinates who have a stable, self-confident commander benefit from working with him.

Above all else, a successful leader continually evaluates his own performance, examining his successes and failures and adjusting his methods to different circumstances and experiences.

"Lead by example," an often-violated leadership principle, is one aspect of performance the commander must continually review. Pride in appearance is a part of this. Young soldiers don't always take an in-depth look at their leaders initially, but their first impressions can be and often are lasting ones. Personal appearance and bearing tell them a lot about their commander, and it takes little time and money for him to present a proper appearance. Through his general conduct and actions, too, a commander establishes a standard that soldiers will follow. And a soldier's pride in himself and in his unit are closely related.

A leader must be able to exceed the standard in physical activity, from physical training sessions to road marching. Anything short of the standard is inexcusable. The company commander has to *pull* his company in this area; pushing from the rear will not do.

Sharing hardship is also a part of leading by example. The company commander who requires his men to pull security on a wet night while he sits in his jeep with the top up and the heater going deserves and gets little respect from his subordinates. Any time he takes advantage of his position to make his own situation better than that of his men, he is wrong. When the company walks, he walks. When the soldiers are cold and hungry, he is cold and hungry. His subordinates quickly sense any breach of this pact.

An infantry leader who is weak in the technical and tactical skills of his job will not be able to hide that weakness from his subordinates for long. Once they realize that "the old man" doesn't know which end is up, his credibility is gone. This does not mean the commander must be an expert in everything. But he does have to have an extensive knowledge of the individual soldier skills, tactics from fire team through battalion, use of troop leading procedures and the chain of command, and company administration, to mention only a few areas. The only way he can achieve the proper kind of proficiency is through study and application.

Another important aspect of leading is handling subordinate leaders. Good infantrymen are confident in their ways. To be successful in their work, they have to be. To reach the balance required to control this class of man, some forethought is advisable. Thus, it is important for a commander to understand that each individual

believes that his method of leadership is the "right way." Accordingly, if a junior leader's methods are sound and in line with unit policy and procedures, he should be given freedom of action. Counseling should be used to correct leaders whose methods are ineffective. The essential element of success in combat is developing self-confident leaders who are capable of executing mission orders.

The final area for personal preparation for command is individual integrity. This means that in any situation the commander must consistently do what he knows or believes to be right. Once his subordinates observe that he will deal with each situation in an honest and straightforward manner, they will gain confidence in him. Even when they do not agree with a decision, they will know that the decision-making process the commander has used is sound.

Development of the Chain of Command

The foundation of all company functions and operations is the chain of command, and the leaders and soldiers must understand their duties and responsibilities in relation to that chain. Formal, written job descriptions are the only way to accomplish this effectively. They should be the basis for all the counseling conducted in the company. (AR 600-20, which spells out duty position responsibilities, is a good starting point for preparing job descriptions.)

Job descriptions for leaders are best formatted in terms of tasks, conditions, and standards under the following general headings: Maintain unit mission proficiency; plan and conduct unit training; supervise subordinate unit training; maintain individual technical and tactical proficiency; conduct opportunity or "hip pocket" training; conduct unit physical training; supervise unit maintenance; and supervise unit administration. (Obviously, "unit" should be replaced with "platoon," "squad," or "section," as appropriate.) Once the specific duties and responsibilities have been identified, the power to accomplish them must be delegated to the individual concerned, and every soldier in the unit must be held accountable for his assigned duties.

The commander must give some thought to the roles key leaders play in the company. The relationship between the company commander and his first sergeant is critical to the overall effectiveness of the unit. A new commander must sit down with his first sergeant and discuss, in an organized manner, how the company will do business. If they are not "on the same sheet of music," it is certain no one else in the unit will be. After the initial understanding is reached, open, daily communication between these two must be SOP.

The executive officer, first sergeant, and commodity area chiefs who work in a well organized and well coordinated company headquarters will put their unit far ahead of those who do not in terms of organization and opera-



tions. Periodic sessions for headquarters leaders can establish or confirm procedures for handling administration, training support, and logistics. This will ensure a unity of effort and the efficient utilization of personnel.

Platoon leaders and platoon sergeants must understand where they fit into the scheme of things. The platoon leaders are responsible for the training and tactical employment of their respective platoons. At the same time, the lieutenants must understand that they themselves are in training and that the platoon sergeants, while subordinate to them, are also responsible for a part of their education. It is important to discuss this relationship openly. If a new company commander fails to establish the rules early in his tenure, personalities and immaturity can cause considerable tension as these associations develop.

Information must flow freely both up and down the chain of command, and the attitude of the commander sets the stage for this flow of information. A young soldier must feel that he can approach his fire team leader with any problem he cannot handle. At the same time, the fire team leader must feel free to pass the problem up the chain if he cannot solve it. Each time a soldier sees a buddy taken care of, it will reinforce his belief in the company chain of command and will improve morale and esprit de corps.

A commander must develop a counseling program. While some classify counseling as an "administrative duty," it is also a fundamental part of training. It is

through counseling that every soldier in the company is informed of all aspects of his duty performance. Any counseling program should outline its objective; the responsibilities of the leaders implementing it; its format and frequency; and the procedures for maintaining records.

The objective of counseling is to keep a soldier informed of his strengths and weaknesses, with the emphasis on improving his performance, preparing him for promotion, and enforcing standards. The company commander is the driving force behind an aggressive counseling program, setting the example for all counselors by counseling the platoon leaders, the executive officer, and the first sergeant according to SOP. In turn, the XO counsels the commodity chiefs monthly and the junior officers informally as required. The first sergeant helps the commander monitor the quality of counseling in the unit and establishes leader classes on counseling techniques and standards. Since he is normally the most experienced soldier in the company, the first sergeant should counsel anyone who needs guidance.

In the platoons, the platoon leaders and sergeants establish counseling programs in accordance with the commander's guidance. A standardized counseling form used in conjunction with the DA Form 4856-R can go a long way toward developing an effective program. The form might include entries on the following items: uniformity, discipline, courtesy, schooling, promotion, use of chain of command, working with peers, uniform appearance, and living area.

This supplemental form accomplishes two things: It helps leaders cover pertinent areas, and it guarantees standardization of counseling throughout the company. The counseling form must be completed in writing and then presented in a face-to-face session. Once a month, or after a major deployment or exercise, every soldier in the company should be counseled by his immediate superior. Time must be set aside on the training schedule for these counseling sessions, possibly in conjunction with recovery.

Leaders must learn to use four categories of counseling—initial, formal (monthly), informal, and special:

- Initial counseling when a soldier joins the unit includes a general briefing by the company commander and the first sergeant, a briefing on platoon standards by his platoon leader and platoon sergeant, and a briefing on job specifics and individual duties by his squad leader and fire team leader.

- A formal, monthly counseling session tells the soldier where he stands. Its purpose is to correct recurring deficiencies, to praise continued outstanding performance, and to discuss anything in between. This counseling is in written form, and the platoon sergeant maintains a record of it on file.

- Informal counseling includes on-the-spot corrections and other verbal praise or correction.

- Special counseling is intended to supplement the monthly counseling. It is used when formal counseling is advised so that a particular event or incident can be documented.

Leaders must be given training in counseling techniques and the company's counseling standards. Leaders who follow the directive "Be specific and cite examples" will not miss the mark in counseling their soldiers. In spite of normal leader attrition, a commander can establish and maintain a sound program through consistent monitoring of platoon counseling files and periodic counseling classes.

A good counseling program offers several benefits. First, it improves the professional development of the individual soldiers by letting them know where they stand, for better or worse. Counseling helps develop the leaders, too. It is not an easy thing for a young leader to look a soldier in the eye and itemize his shortcomings, but with practice it becomes second nature. The counseling process also reinforces the company chain of command. And finally, it enables leaders to develop an accurate picture of each soldier's strengths and weaknesses and helps identify the training needed by the squads and platoons and the professional development subjects that need attention.

Training

Training is the subject dearest to all company commanders' hearts, but effective training does not just happen. It takes forethought, planning, coordination, preparation, and imagination. A company's parent bat-

talion, brigade, and division will provide the guidance within which the company must train. Efficient operation within this system is greatly improved when the commander provides a framework that can be adapted to the system already in place.

In order to conduct all the training his unit needs, the commander must have a good training management system. Field Manual 25-2, Unit Training Management, should be his starting point in developing his techniques for training management.

An example of a company system that worked for me follows. It is based on these principles:

- Establish unit training plans (quarterly) and training schedules based on battalion-directed objectives, a company Mission Essential Task List (METL), training requirements, and available resources.

- Use input from squad leaders, platoon sergeants, and platoon leaders when developing the company training plan.

- Conduct weekly company meetings that cover in detail the training to be executed the coming week.

- Keep the training schedule sacred and observe the five-week or six-week lock-in of events.

With luck, the commander will receive both long-range guidance and quarterly guidance from his battalion headquarters in a timely manner. He gives the platoons notice of a preliminary training meeting so they can conduct platoon sessions beforehand. During those meetings squad leaders provide data on individual and squad training needs. The preliminary company training meeting gives the commander an opportunity to receive the platoons' training input before completing the company plan. The company commander then formulates the quarter's training plan. The plan at this stage is in the form of calendars with dates for company ranges, situational training exercises, field training exercises, and similar events.

It is a good idea to go over the calendars with the first sergeant and the XO to make sure the plan can be supported. The company commander should schedule a time to brief the battalion commander on the tentative quarterly training plan. This approach allows the battalion commander to provide specific advice or guidance.

After confirming or changing the details of the plan, the commander holds the company training meeting, in which platoons are tasked to conduct various training events. The platoons plan the conduct of and the support required for each tasked event. Two or three days later, the platoons individually brief the commander on their plans for each event. The commander makes any adjustments he deems necessary, and the company XO and training NCO then assume responsibility for coordinating all the required support. This handoff of responsibilities frees the platoons to concentrate on training.

The commander then writes a company training guidance letter and distributes it to all of his unit leaders. This document details the company METL, training goals, and objectives of the quarterly training plan. In effect, by laying out the training for the quar-

ter, it enables the subordinate leaders to plan their portions of the training more effectively.

When the battalion commander has approved the quarterly training plan, the company commander writes the training schedules. If a unit has the necessary copier capability, each squad leader, platoon leader, platoon sergeant, and commodity chief, and the XO and first sergeant should receive a copy. This is in addition to the training schedules posted in the platoon areas for use by the individual soldiers. If all leaders have copies, they can better meet their responsibilities.

A training schedule describes the week's activities, and the commander is responsible for ensuring that his schedule is detailed enough to preclude confusion when it is time to execute the training. The schedule should contain, for example, range opening times, movement times, tasks to be trained on an PTX—everything the unit must know to conduct the week's training. Also listed are "opportunity training" tasks to be trained when the scheduled training objectives have been met.

The training schedule is the "bible" for all company leaders. The training should be conducted to standard, not to time, but executing tasks at other-than-scheduled times and places should be a conscious decision by the commander or, in his absence, the leader in charge.

It is a good idea to conduct a periodic "filter test" to see whether subordinates understand the schedule. A squad leader might be asked, for example, to relate what his squad will be doing for two or three days based on the new schedule. If he cannot respond clearly, chances are the schedule is not doing its job. Squad leaders should prepare instruction on a week's tasks before that week begins. Ideally, they should also require the young soldiers of the squad to give some of the scheduled training.

TRAINING MEETINGS

Weekly unit training meetings are held with these people in attendance—the commander, XO, first sergeant, platoon leaders, platoon sergeants, company training NCO, commodity chiefs, and company fire support officer. With all of these leaders present, most questions relating to training can be resolved. Most important, the chain of command can be fully informed of the plan for the coming week. This allows the subordinate leaders to make informed decisions when adjustments in the schedule are required and the commander is not available.

To reduce the length of the weekly meeting and ensure that all essential items are covered, the meeting must have a format. (I devoted about one hour to a meeting that covered three weeks of planned training.) The first part of the meeting should cover the training scheduled for the third week ahead and then for the second week. The training events for those two weeks should be covered in a general way to inform leaders and to make sure necessary coordination is either complete or is being conducted by the assigned leaders and the company headquarters.

Then the coming week's training is talked about in detail, including its support. The responsible platoon leader or sergeant briefs on the training that has been scheduled for the coming week. This might include a range briefing by one platoon sergeant covering a one-day company range and a briefing on platoon and squad training for the remaining four days by the platoon leaders. The commander then makes any changes he deems necessary without disrupting coordination with outside agencies. When the meeting is over, the platoons should be prepared to execute the training and the company headquarters should be ready to support and control it.

Platoon training meetings are also essential, and the format can mirror that of the company meeting. This ensures that squad leaders are truly informed and prepared to train, not merely to carry out the instructions issued on the day of the training.

If the company commander sits in on these platoon training meetings now and then, he can gain a lot of knowledge about the strengths and weaknesses of his lieutenants and squad leaders. This kind of observation will serve him well when he begins planning leader training for the next quarter.

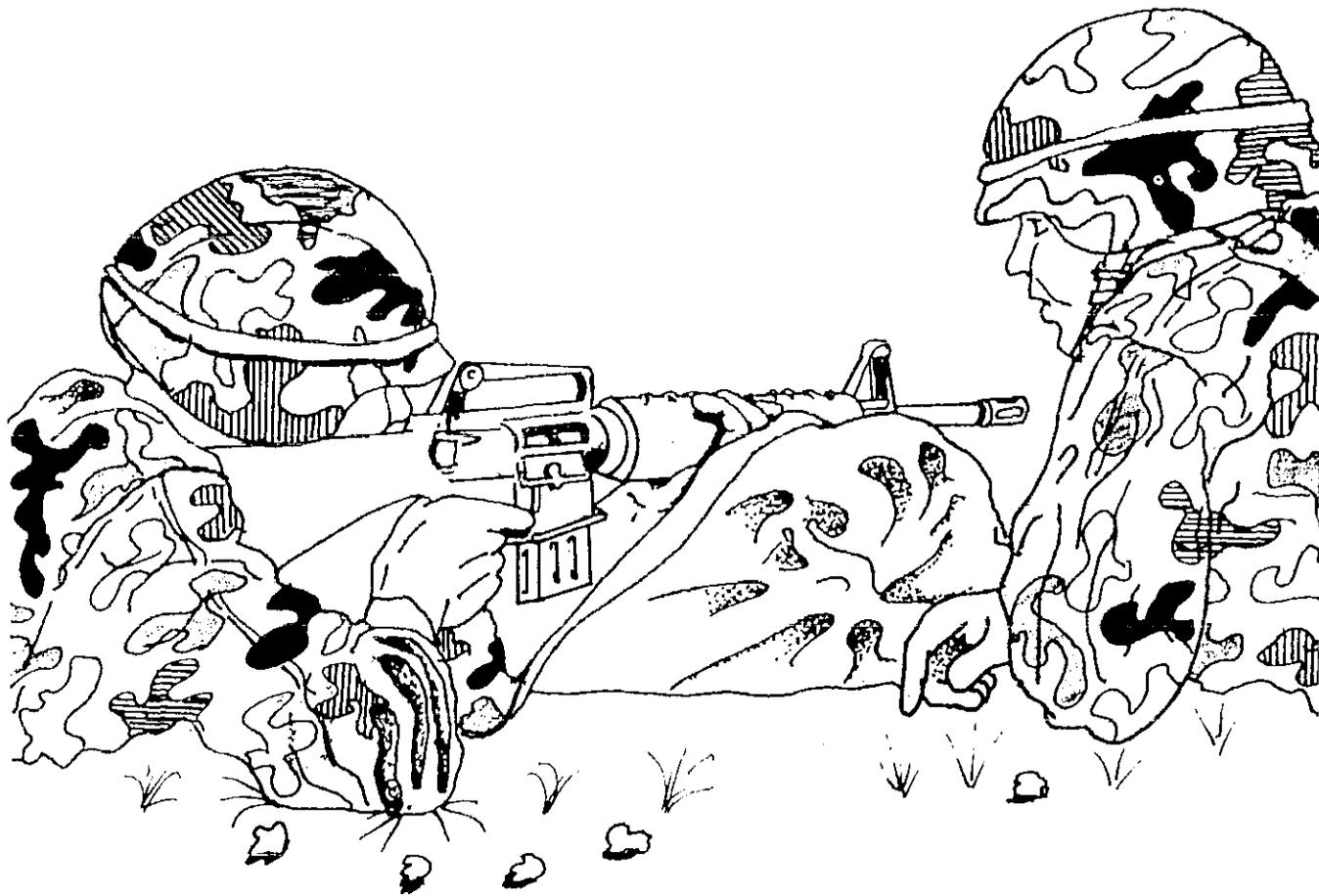
TRAINING PROGRAM

An important part of any company training plan is its leader training program, which can include professional development, technical, or tactical training. The first sergeant can be tasked to organize professional development classes twice a month, or as the schedule permits. Possible subjects are an NCO's legal status under Army Regulations, drill and ceremonies, counseling techniques, hands-on demolition training, or how to review a Leave and Earnings Statement.

The battalion motor officer or sergeant can give maintenance classes with practical exercises. The company fire support officer (FSO) can conduct training in adjusting indirect fire, possibly using the Training Set Fire Observer facility. Ideally, following this training, the leaders should be given an opportunity to adjust either the company's or the battalion's mortars, or supporting artillery.

All of the leaders should have a thorough working knowledge of squad and platoon doctrinal manuals and the technical manuals for the unit's organic weapons and equipment. They should review the pertinent parts of the manuals before conducting field training. One way to encourage them to study is to give them periodic written tests. The test questions can cover tactical, technical, administrative, or maintenance areas—whatever needs improvement in the company—and should point leaders toward preparing themselves for the coming training. The tests can be given either with or without prior notice. Approached in a positive manner, a series of such leader tests given over a period of time will yield excellent results.

The commander may decide to task different platoons



to conduct classes for the company on specific kinds of tactical operations such as techniques for military operations on urban terrain (MOUT), refresher classes on battle drills, or classes on the employment of the M60 machinegun. These provide good opportunities for young NCOs and lieutenants to organize and run training, which furthers their professional development.

A cadre training exercise is the most effective way of bringing all company leaders up to date on troop leading procedures, unit tactical SOPs, and battle drills. The commander should carefully pick a time to conduct the cadre exercise when putting together the company's quarterly training plan. Ideally, the exercise should mirror a squad or platoon operation that will take place shortly afterward.

In conducting this training, the company commander first tasks all of his leaders to study the appropriate chapters of doctrinal manuals, the battle drills, and the tactical SOPs before the exercise. Then, the proper troop leading procedures are conducted with the company commander and first sergeant acting as squad leaders of two large squads, or with the commander acting as the platoon leader of a small platoon. The emphasis is placed on carrying out the entire operation "by the numbers."

Critiques can be handled in one of two ways. There can be critiques after each phase, or just one critique after

the exercise has been completed. In either case, all company leaders take part.

For any organization to train effectively, the chain of command must operate under a single training philosophy. The following commonsense principles are taken from the platoon leaders' handbook prepared by the 3d Battalion, 75th Ranger Regiment. If these principles are taught to leaders, applied to all categories of training, and strictly enforced by the chain of command, they will ensure a well-trained unit that is ready to execute its combat mission:

- **Training is everything, everything is training.** Everything a soldier does should prepare him to perform in combat.
- **Concentrate on the basics.** The individual, fire team, squad, platoon, and company must effectively shoot, move, and communicate. If the basics are mastered, it will be easier to accomplish the more difficult tasks.
- **Strive for realism; do not simulate anything.** Putting realism into training results in faster learning and longer retention of skills. It will also avoid any surprises in combat that were not practiced in training.
- **Train to standards.** Training is conducted to ensure a level of proficiency rather than to conduct an established number of hours of required training.
- **Conduct multi-echelon sustainment training.** The

training of individual soldiers, leaders, and units at each level must be concurrent in order to capitalize on the available training time and other resources.

- **Expect the unexpected.** Nothing is more uncertain than the battlefield. Soldiers must therefore be taught to adapt to any situation they may find themselves in.

- **Take the time to execute high-quality training.** Ensure that all tasks for training are the result of an analysis keyed to mission requirements and known deficiencies. Money, material, and soldiers' time should be expended only after detailed planning and through vigorous execution.

- **Make training performance-oriented.** This type of training has precise objectives, makes efficient use of resources, and focuses on the soldier. Such training creates an environment in which a task can be performed, lays out the conditions under which it will be performed, and prescribes the standards of performance.

- **Make safety integral.** Safety considerations must not be compromised for the sake of realism. Leaders at all levels are responsible for ensuring that all training is done in accordance with post and Army safety regulations.

- **Apply stress.** Soldiers will learn faster and retain what they have learned longer if the training is conducted under conditions of stress. Stress in training can be achieved through the use of live fire exercises, night and adverse weather operations, difficult terrain, sleep deprivation, and physically and mentally demanding operations. Units must train to react quickly and decisively while its members are under stress.

Operations

In preparing for and executing tactical operations, the standardization of company troop leading procedures is essential to effective command and control. The first procedure the commander should formalize is the makeup of a company orders group. This group consists of the members of the chain of command who always assist in planning and who attend company operations orders. Obvious members are the company commander, XO, first sergeant, communications NCO, NBC NCO, supply sergeant, training NCO, company I'SO, and platoon leaders with their radio telephone operators. Including the platoon sergeants and platoon forward observers as well will ensure a continuity of understanding of the mission and of the commander's intent in case a platoon leader becomes a casualty.

Needless to say, some conditions in the field will not permit all of these people to be present at orders, but whenever possible it is a good idea.

Fixing responsibility for taking care of recurring tasks in preparing for an operation is the next priority. When the tasks have been mastered, they can then be rotated among the lieutenants in the interest of professional development.

When they are used by all sub-elements of the company,

prefabricated formats for warning orders, operations orders, and recurring annexes will ensure several things: First, if the formats are cut to fit inside a BDU trousers pocket and acetated, they are weatherproof, easy to carry, and handy to use. Second, the leader and the individual soldier get used to receiving information the same way in every operation. This makes understanding and issuing orders easier. When time is short, leaders can write information in the appropriate blanks, which allows more time for thought. Another advantage is that the leaders are conditioned to receive orders one way; if the commander or a platoon leader misses something, a subordinate is more likely to catch it. Finally, by placing constant emphasis on issuing orders in a standardized manner when there is time to do so will make issuing orders easier when time is short or in other stressful situations.

Time schedules, rehearsals, and pre-combat inspections are often the most ignored part of the troop leading process. Once a company commander receives his mission from his battalion commander, he allocates the use of the available time and issues a warning order. Since the warning order includes a time schedule, the company commander ensures that his unit can begin its preparations and can even begin moving (if required) while he continues his estimate process and completes his plan.

Rehearsals and pre-combat inspections go hand in hand in preparing a company for any assigned mission. Rehearsals at squad, platoon, and company level are desirable, with "talk, walk, run" being the operative approach. The leader first talks through the operation. The unit then walks through the operation, using all signals. Finally, the unit executes the operation at full speed on terrain that mirrors that of the area of operation with light conditions that approximate those expected. The uniform for the rehearsals should be that of the mission. If time is not available for a full set of rehearsals, priorities are set for the ones that time will permit.

Another effective technique is the backbrief. After the company order is issued and before the platoon leaders give their orders, they backbrief the commander on their plans. This allows the platoon schemes of maneuver to be amended, if required, before the squad leaders are briefed and ensures that the platoon leaders have fully understood the mission. Backbriefs at platoon and squad levels are also useful.

Leaders must be familiar with all of the individual and organizational equipment items that are required for the mission. The only way to ensure that the needed equipment is serviceable and present for the mission is by conducting a thorough inspection. This requires constant emphasis by the chain of command.

The weight of the load carried by the soldier must also be on the company commander's mind during his planning and should be checked during all inspections. Tailoring the load to meet mission requirements is essential to ensuring that each soldier is ready to fight when the time comes. Commanders must be willing to

take calculated risks when specifying the loads they ask their soldiers to carry.

Troop leading procedures should be trained in garrison. Before moving to the field for training, the commander should exercise the alert roster and issue an order for the movement and the subsequent operation. As a matter of course, the initial deployment to the field and the follow-on mission should be a company operation. Then the company can break down to squad or platoon level for training. By doing this, the unit exercises accountability, outload, troop leading procedures, and company operations.

Again, requiring the unit to go through a process by the numbers when time is abundant enables it to execute to standard when time is short.

Physical Training

Physical training in an infantry rifle company must occupy a preeminent position on the training schedule, whether the unit rides or walks to war. The positive attitude, team spirit, and physical readiness achieved through a good PT program are the foundation of any fighting force. The standards for physical training must be established and enforced equally throughout the company.

Physical training should be planned along with the quarterly training plan to ensure that it supports the unit's training objectives and goals. The focus of company PT sessions should be at the squad level; this is, after all, the unit that will carry the fight, and its cohesion is most important. The commander should designate three days a week for squad PT, two days for platoon PT, and one day for company PT. If the battalion has one day of PT weekly, this can be the company's day.

Focusing on squad and platoon PT accomplishes several things: The chain of command is forced to function; small groups can conduct more efficient physical training sessions; and the platoon leaders, platoon sergeants, first sergeant, and company commander have an opportunity to observe their junior leaders in action and schedule any needed remedial training or counseling. In addition, this approach allows the assignment of the responsibility for conducting PT to team leaders and individual soldiers, including five minutes of drill and ceremonies as a cool-down after a run or road march. This provides leadership training, prepares young soldiers for the primary and basic NCO courses, and promotes the professionalism of the company as a whole.

Maintenance and Refitting

The maintenance of weapons, individual and organizational equipment, and vehicles during and after an operation is fundamental to combat readiness and a direct reflection on a company's discipline. The commander must therefore see that field maintenance becomes a habit

for his company. The chain of command should always have this in mind and plan for it. Planning includes putting cleaning supplies, particularly for weapons, on the packing list for every operation.

A company SOP for recovery, designating actions to be taken by the individual soldiers and leaders on their return from the field or during stand-down in a rear area, goes a long way toward ensuring efficient maintenance of weapons and equipment.

Such an SOP should include the following requirements:

- A standard platoon layout diagram is followed.
- An individual soldier's equipment layout diagram is followed.
- All weapons are cleared while the soldiers are still in formation.
- All personnel and equipment are inspected for brass, ammunition, and pyrotechnics. (Squad leaders perform a visual and hands-on inspection of rucksacks, load-bearing equipment, magazines, and the uniforms of all soldiers. The platoon sergeant inspects the squad leaders.)
- A 100 percent inventory is conducted of all items taken on the operation, including TA-50, packing list items, and sensitive items for accountability and serviceability. (The platoon sergeants prepare a consolidated direct-exchange list for turn-in to the company XO.)
- Rucksacks are repacked, minus direct exchange items and wet or soiled clothing. (Also, a not-later-than time is established for the complete packing of rucksacks allowing for cleaning dirty items. This is especially important if the company is on an alert status.)
- Foot checks are conducted by the company medics on all personnel, including the leaders.
- All SOIs (signal operation instructions) and extracts are turned in to the company communications shop by the RTOs.
- Weapons are cleaned by an individual or the crew. (The squad leader fills out a single DA Form 2404 for all his weapons. This is done in conjunction with his inspection of the weapons for cleanliness and serviceability. No weapon is turned in until it has been checked by a squad leader.)
- Radios and communication gear are cleaned by the RTOs, and deficiencies are recorded on DA Forms 2404 and turned in to the communications shop.
- Other sensitive items are cleaned by the users; again, DA Forms 2404 are used to record defects before turn-in.
- NBC equipment is cleaned by the user or operator, and DA Forms 2404 are used to record deficiencies before turn-in to the NBC room.
- Platoon sergeants and leaders spot check weapons and equipment as the items are turned in to the commodity areas.
- The platoons turn in a consolidated report to the company XO detailing the status of their weapons and equipment.
- The company submits a comprehensive closing report to battalion after recovery is complete and before the company is released.



A detailed recovery SOP of the kind suggested here reinforces the chain-of-command's responsibility for the company's equipment and for seeing that tasks are performed to the stated standards. This is not only essential to the combat readiness of a company but it also provides another tool for training leaders in their duties.

Administration

Although preparing his company for its combat mission is his first priority, a commander must strike a balance between training, maintenance, and administration. The following list is not comprehensive, but it highlights several administrative areas to which he must give his attention.

The first and the most distracting to training is the huge volume of administrative paperwork that flows into a company—DFs, reports, work orders, maintenance requests, and similar actions. (How much of this paper is necessary is a topic for others to consider.) The company commander and his leaders have to process everything that comes in, and it is vital that he develop and maintain a systematic and efficient method to meet the requirement. The first sergeant and the XO must work closely with each other and with their company commander to get this paperwork completed correctly and on time.

Maintaining the required reenlistment records, for example, is a big job. The commander must first review the reenlistment regulations. Then he must select a good staff sergeant to act as the company reenlistment NCO and give him an opportunity to train on the Army's various Re-Up programs.

An individual soldier's Reenlistment Data Card, DA Form 1315, lists the interviews the commander must conduct during a soldier's time in the unit. It takes a lot of work by the reenlistment NCO and the commander to keep

up with these interviews. If they are done properly, though, these interviews will not only meet the requirement but deliver added benefits as well.

The reenlistment NCO can feed the individual cards in to the commander by platoon as individual interviews come due. The commander can then consult a platoon sergeant on each soldier as he fills out the DA Form 1315. In this way, the strengths and weaknesses of the soldiers are identified, and the commander can reinforce the counseling the soldier has already heard from his chain of command. Interviews can be conducted in the field as well as in garrison.

Recognizing soldiers for outstanding work is an area that is often neglected. Different posts have various rules for giving awards, but a company commander can control recognition at his company formations. Recognition can take many forms—an Army Achievement Medal, for instance, or a battalion certificate of achievement, a three- or four-day pass, or a handshake and a few words in front of the assembled unit.

Consistency in the unit awards program is important and can be obtained if there is a set of criteria for awards and a chain of command that follows it. The XO, in close coordination with the first sergeant, is the man to oversee the program and ensure quality control. Formal awards ceremonies in accordance with FM 22-5, Drill and Ceremonies, should be used in recognizing the unit's soldiers. This instills pride and professionalism and reinforces discipline.

A formal payday activities program can deliver many positive results. In such a program, the leaders are tasked with preparing their soldiers for inspection of rooms and uniforms. This develops attention to detail, initiative, and dependability among NCOs and young soldiers. Supervision and inspections ensure that everyone knows the proper way to wear the Army green uniform, and barracks stan-

dards are reaffirmed in the same way.

A formal in-ranks inspection on that day exercises the leaders in conducting drill and ceremonies. The traditional half-day off on payday for conducting personal business is a service to the soldier and his family.

Payday formations are also effective for accomplishing many administrative requirements such as POV inspections, hearing tests, preparation for overseas movement, and counseling. Morale and unit cohesion are also improved by good payday activities, because the soldiers will feel good about themselves and their company as a result.

The additional duty responsibilities delegated to the lieutenants should be under the direct supervision of the XO. These duties are essential to the smooth functioning of the company and also to the professional development of the young officers. It is through the exercise of these duties that the lieutenants begin to grasp the wide range of activities involved in running a rifle company. In addition, balancing these duties with his duties as a platoon leader forces a new officer to set priorities and manage his time.

The company charge of quarters (CQ) and runner positions are important for three reasons. First, the professional development of the unit's NCOs and soldiers can be improved if attention to detail, acceptance of responsibility, and execution to standards is demanded and checked by the company chain of command. Second, the manner in which the CQ and runner conduct themselves in dealing with visiting staff duty officers, parents and other guests, and telephone callers gives an impression of the unit that is either professional or unprofessional. Finally, the CQ and his runner affect the readiness of the unit, partic-

ularly when an alert notification occurs during off-duty hours and the CQ and his runner must begin the notification process and the outload procedures in the absence of the major members of the chain of command.

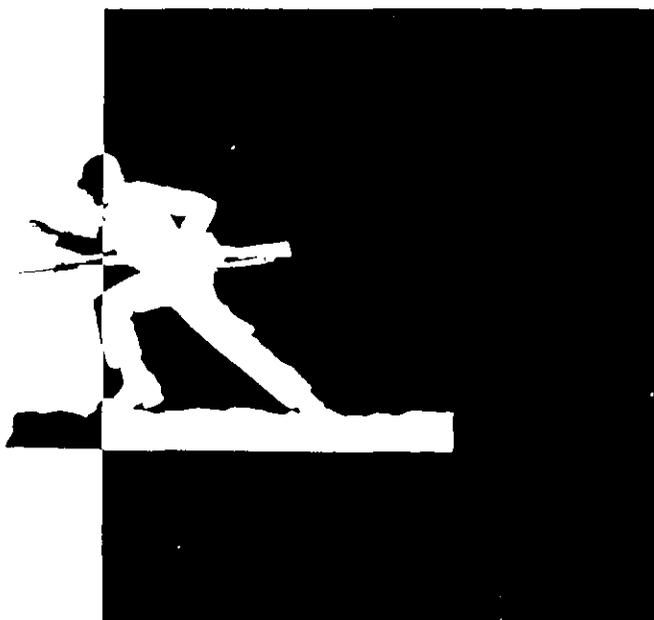
A wise commander—through his first sergeant and by way of an up-to-date, well-organized CQ book—will ensure that the company CQ and his runner are prepared to act effectively and professionally in his absence.

Needless to say, many of the techniques described in this paper are not new. They include elements of the Battalion Training Management System (BTMS), higher unit SOPs, and other commanders' techniques.

The message is not that these techniques are the only way to do business but that each commander must develop his own methods of handling all of the interconnected aspects of a company's operations. The formats and checklists I have used should be useful as a starting point, and copies of them will be sent upon request to INFANTRY, P.O. Box 2005, Fort Benning, Georgia 31905-0605.

Units with a strong, informed chain of command and set procedures for training, operations, maintenance, and administration will function effectively in garrison, in the field, and in combat. Discipline and a "combat attitude" will manifest itself in all the activities of such a unit. This type of unit is the result of a commander who knows himself, knows how to lead men, and has started out with a "Plan for Command."

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ON COMPANY COMMAND

CAPTAIN RICHARD D. HOOKER, JR.

Recently I completed a tour of duty that included command of an infantry company. My experience as a lieutenant and a staff captain had prepared me for command as well as I could have expected. Still, once in command I was confronted with an environment and a challenge that my background could not have entirely anticipated; nothing less than the experience itself would have fully equipped me to function as a unit commander.

I wasn't the best company commander in my brigade, but I think I was a good one. And even though I didn't learn all the answers or face every possible situation, some of my company command experiences may be helpful to you, a company grade officer awaiting your first opportunity to command.

There is no getting around the fact that you will be an outsider when you take the guidon. Your natural concern at first will be to take positive control of the unit and assert yourself as the man in charge. This is a necessary and proper step, but there are various ways of doing it, some of them more effective than others.

Hopefully you will have done some homework before the ceremony and will have a working knowledge of your unit's mission, general strengths and weaknesses, and current SOPs. Soon after assuming command, most commanders meet with the officers and NCOs to break the ice and get everyone introduced. This can be a time for speechmaking, but you may choose a more reserved approach and merely introduce yourself, express your

appreciation for the chance to command the company, and speak briefly about what you hope to accomplish. It is good to keep in mind, though, that the oldtimers and veterans will be more interested in what you do than in what you say.

As the formally appointed commander and the senior ranking soldier and leader in the unit, you will enjoy a certain amount of built-in authority and autonomy right from the start. If you exercise them with due regard for the prerogatives of others and with the "sweet reasonableness" of common sense, you may find it easier to encourage support for your efforts. The natural resistance to a change of leadership can be largely overcome by a "we" approach instead of an "I" approach.

The unit's leaders will not try to supersede you, but they will want to feel that their opinions count for something and that you respect the authority they have earned (and need) to do their jobs. An effective way to reinforce this feeling is to involve your subordinate leaders in your decisions. Hearing their recommendations will enable you to make better informed and more substantive decisions and will help to keep you out of trouble. It will also give you a sense of the relative abilities of your leaders and a chance to know them better. And, not least, it will show them that you really do rely on their counsel and expertise and will help to foster that sense of teamwork that is so critical to the success of your company.

This is not to say that decisions will be made by committee. Once you've heard everyone's input, it is time to issue a clear and definitive decision, as well as guidance for its execution and implementation. As you become known as a decisive commander who depends on his subordinate leaders for information and advice, your concerns about establishing yourself as "the old man" will fade away and neither theatrics nor change for the sake of change will seem necessary.

Commanders and Staff

As a unit commander you will belong to a special circle within your battalion. Your brother commanders are members with you, and the battalion commander is its chief.

Most battalion commanders are remarkably similar. They are often combat veterans with several company commands under their belts and with extensive troop experience. They are well educated, graduates of command and staff colleges, and often have advanced civilian degrees as well. Along the way to battalion command, they have impressed—not occasionally, but over and over again—the people they have worked for and with. They represent the cream of the officer corps.

All of this does not guarantee that your commander will be a superstar. It does suggest, however, that he has demonstrated real talent and ability and is well qualified to be where he is.

Company command has been described as a never-ending juggling act, with some rubber balls that will bounce

when dropped and some glass balls that will shatter. Most battalion commanders are looking for company commanders who can keep the glass balls in the air *all* of the time and the rubber balls in the air *most* of the time. Your glass balls will probably be troop welfare and safety, property accountability, maintenance, and training management. In a peacetime environment the statistical indicators of success in these areas, for better or worse, will probably determine how well you perform as a commander. For this reason it is important to devote your time and energy primarily to the important areas and only secondarily to other things that may interest you more.

It is always good advice to learn early about your battalion commander's policies, priorities, and pet peeves. Strive to conform to them, but never be afraid to let him know instantly when something has gone wrong. Remember that he, too, is responsible to a higher authority and that bad news really does get worse with age. (I tell truly hath no fury like that of a lieutenant colonel who has been blindsided by his boss with bad news that he should have heard from you.) A good rule of thumb is to accept personal responsibility and forego excuses when your unit falls short, but to praise your soldiers and leaders by name when the unit does well. Anything less looks like either buck-passing or self-congratulations, neither of which is likely to benefit you or your unit.

Your fellow company commanders can be a great source of support, information, and comradeship and can materially affect your success in command. In some units there is an air of fierce competition between commanders that is both unseemly and unprofessional. While it is true that you will be evaluated against your peers, in a larger sense the success of one company commander does not in any way devalue the success of the others. After all, your commander is not interested in having a battalion with one outstanding company and the rest lackluster. The ideal is a well-balanced, capable unit whose components work smoothly together. When unit commanders like and trust each other, everyone benefits and no one loses.

The relationship between a company commander and the battalion staff officers also has its own nuances. Chances are you have served on a staff at some level before, and you will do well to remember how harried and dependent on others a staff officer's life can be.

If there is friction between a commander and a battalion staff officer, it is usually because each feels that the other is not supportive or is too interfering. Staff actions, to be effective in meeting a commander's needs, rely on timely and accurate input from the companies. Your performance in this area therefore directly affects a staff officer's ability to do his job. Conversely, you will find it difficult if not impossible to coordinate and execute your own programs without the willing support of the staff.

Soon after you assume command, it's a good idea to meet with each primary staff officer in the battalion (and with the C/ESO, motor officer, chaplain, and medical platoon leader as well) to begin developing a good working relationship.



You should encourage the staff members to get in touch with you personally to clear up any problem with your unit before taking it to the battalion commander. This is necessary from time to time because the staff often works with your first sergeant, executive officer, or commodity area chiefs instead of directly with you. You can fix late suspenses or poorly prepared recurring reports quickly, but only if you know that a problem exists. (Incidentally, it is a good idea to personally review all documents that go above your level for accuracy and correctness.)

The staff members should understand that you respect their functions and the requirements of their jobs, and they in turn should respect your prerogatives as a unit commander. For example, the staff should not inspect your unit without notifying you in advance, checking in with you when they arrive, and out-briefing you before they leave. Except for advance notification, of course, these conditions apply even to no-notice inspections. And if your unit is asked to provide some information or is to be noted for some shortcoming at a meeting or staff conference, it is common courtesy for the appropriate staff officer to give you a "heads up" in advance so you can prepare. (This works both ways, of course.)

Finally, you should tactfully point out that when a staff officer issues a written or oral directive to you or your unit, you will operate on the assumption that it has been cleared with the battalion commander and that it carries his blessing. Nothing can poison a company commander's relationship with the staff faster than its arbitrary exercise of authority that is not based on the battalion commander's expressed policies or desires. You should always feel that you work directly for the commanding officer of your battalion and never for the staff. Within this framework,

however, it is in the best interest of everyone concerned to go the extra mile to insure smooth and harmonious relationships between commanders and staff.

A word about the battalion executive officer (XO) and command sergeant major (CSM): They may tend to be a bit more aggressive than other staff members about issuing directives that affect your unit, sometimes even in a personal manner as opposed to acting "for the commander." Since they exercise tangible and real authority (in practice, next only to the commander himself), this should not surprise you. Nevertheless, if you have reason to question such a directive, particularly when you believe it affects your unit negatively and you have not had a chance to provide input, you should feel within your rights as a commander to take action to resolve the matter instead of accepting things as they stand.

A private, friendly interview with the XO or CSM is a good first step. Often the issue can be cleared up by a good face-to-face talk. If not, you may ask the battalion commander to adjudicate the matter and rule on your objections. It is important to remember, though, that both the XO and the CSM are senior, experienced, confidential advisors who work closely with your boss every day. Whatever happens, you should strive to remain objective, professional, and conscious of their concerns as well as your own. If your relationship with them is compromised needlessly, you'll find it that much harder to do your job well.

Leading Leaders

It may surprise you to find that a large part of your com-

pany consists of leaders. Leading them well—developing, supervising, coaching, counseling, pushing, and pulling them—is your best guarantee of a successful unit and a great source of personal and professional satisfaction.

Your company's lieutenants will look to you to exemplify and define for them what being an officer is all about. They should understand clearly that they must be among the best all-round soldiers in the unit. They will probably not have the single best PT or marksmanship score, for example, but they should perform in most areas at a level well above that of your average soldier.

Lieutenants personally will direct some of the most sensitive and dangerous things your unit will do: live fire ranges, night movements, stream crossings, and helicopter exercises, for example. For this reason, it is important to spell out for them where they can afford to make mistakes and where they can't. In the field, troop safety and the security of sensitive items probably top the list. In garrison, the high-quality execution of additional duties, maintenance, and staying on top of the soldiers' problems come first. In both environments, tactical proficiency and preparing and executing good training are crucial.

Consciously or not, you will probably expect more from your officers than from anyone else, and this is as it should be if leadership by example is to have meaning. It is sometimes wise, though, to temper your desire for high standards and performance with compassion for youth and inexperience, particularly for very new officers. In this formative stage, the lessons they learn from you will greatly influence their later development. Your good example will go a long way toward shaping them into the lieutenants you'll want and need.

NONCOMMISSIONED OFFICERS

It is the noncommissioned officers, however, who in the final analysis make or break a unit. Good ones can compensate for most officer weaknesses at the company level, while poor NCO leadership is extremely tough to overcome through the efforts of the company officers alone.

For this reason, I place the first sergeant as co-equal in importance with the commander. That's a strong statement, but leaving aside purely statistical indicators (though his efforts are crucial there, too), it's fairly easy to demonstrate that first sergeants have a lot to say about things that really matter on the battlefield—things like troop morale, the level of individual training in the unit, discipline, and good administrative and logistical support. The combination of a weak commander and a weak first sergeant is usually enough to keep a unit sidetracked no matter how good its soldiers may be.

It will help matters greatly if you and your first sergeant can develop a close personal relationship, but a give-and-take *working* relationship is absolutely necessary if you are to function as a command team. Both of you will want to talk long and hard about your expectations of each other. As the most experienced soldier in the unit, the

first sergeant may expect, even demand, a large role in the decisionmaking process. And he should get it, so long as the quality of his advice and his performance warrants it.

If he is allowed to do his job, your first sergeant will relieve you of a big part of the burden of command. In your private talks, you should give him free rein to express his opinions on anything and everything. In front of the troops, both of you should present an air of mutual respect for and confidence in each other. By freely exchanging experiences and ideas, sharing responsibilities and duties, and exemplifying the professional qualities you expect of your officers and NCOs, you and the first sergeant can build a command team that will take your unit a long way.

In general, the discipline, standards, and professional development of your noncommissioned officers are the first sergeant's responsibility. But anything you can do to accentuate the status of all your noncommissioned officers will help build an understanding of just how important and responsible their jobs are. Even the most junior NCO ought to understand that he is different, in a very special way, from the soldiers he leads. Once each junior NCO learns that every dirty weapon, late soldier, missed appointment, or low SQT score in the fire team or squad is his personal responsibility, you'll have the beginnings of a good leadership climate—as long as he also gets the credit for training good marksmen and drivers, soldiers of the month, and EIB winners.

PLATOON SERGEANTS

Just as battalion and company commanders belong to an inner circle, your platoon sergeants also belong to a time-honored and select organization. It consists of the senior noncommissioned officers of your company and the battalion. Much of what goes on in the battalion is set in motion by these experienced and forceful men. When they speak it will often be through the first sergeant and the command sergeant major, and they will have a big voice in determining just how good your unit becomes.

You need to be aware that their perspective, and their agenda, can be very different from yours. They are there for the long haul, while you and the other officers will come and go. Often their view of where the company is and what it needs to do, formed by months and years of personal observation and experience, is singularly on target. Although your platoon sergeants will not be afraid to express their opinions to you, much of their work will be done purposely out of sight of the officers. For one reason, it is important for the troops to realize that much of what NCOs do doesn't require the constant supervision and validation of a commissioned officer. Everyone can learn and benefit when these key leaders are allowed to function as the crucial troop leaders they are intended to be.

As a commander, your relationship with your soldiers will be different in some important ways. For the first time, you will have the authority to reward and punish their



behavior, instead of recommending these actions to a higher authority. Your input on evaluation reports and the decisions you make on promotions, schooling, and the slotting of personnel within your unit will have a major effect on the careers of your soldiers. While you can (and should) avail yourself of the experience and knowledge of your subordinate leaders, ultimately you must make the tough decisions and then live with them.

The Troops

This fact alone tends to distance a commander from intimate, personal relationships with others in the unit. This detachment is an extension of the phenomenon all leaders experience, but its effects are, I think, more keenly felt by those serving in command positions. Within the limits defined by the command relationship, however, it is surely possible to exercise command in an approachable, personable, and empathetic manner. Genuine (as opposed to artificial) gestures (such as helping a machinegunner clean his weapon, pulling a radio watch in the field late at night, or spelling your radio telephone operator with the radio on a tough road march) will cement your soldier-to-soldier relationship with your men and contribute to the richness of your common experience with them. Although it is often hard in today's environment to be with your soldiers all (or even most) of the time, your efforts to do so won't go unnoticed.

If the respect of your troops is important to you, there are some fatal errors you should strive to avoid. Your

men won't appreciate being misled or kept in the dark. They will want to know exactly what's going on, even when it's not pleasant, and they will expect you to stand up for them when simple justice demands it. They will have ways of knowing when you do stand up for them, but they won't expect you to boast about it in order to win their approval.

They will expect you to live up to every standard you insist upon for them. They will know how to take it when you find it necessary to speak sharply to them, but in this Army they will not stand for a commander who is abusive or insulting to them. They won't mind an occasional mistake from you if you learn from it, but if you try to appear all-knowing in the face of mistakes, your credibility cannot help suffering.

Your soldiers will expect you to be fair with them and will tend to equate your brand of justice with your consistency in rewarding and punishing their behavior. Whether you are tough or lenient, your men can adapt so long as your ground rules are clear and meet a reasonable test of common sense and equity. Finally, they will never forgive you for not being there when it really counts. On a punishing road march, a tough field problem in miserable weather, or an all-night final once-over before a major inspection, they expect and deserve to see you there. More than your words, your actions in meeting these kinds of expectations in both the duty and family dimensions will convince your men that you not only know their needs but that you care.

I know you will be amazed, as I was, at the talent and

diversity that can be found in a company of soldiers. You will meet artists, carpenters, mechanics, musicians, and computer experts as well as linguists, cooks, athletes, and photographers. They will be proud of their skills and most will love having their talents used and recognized. By combining your imagination with theirs, you will be able to make your company a little better than it was before.

By and large, your soldiers are there because they want to be. They won't mind being tired and dirty as long as you are too, and as long as they think they're doing something realistic and useful. They will know deep down what they are there for, and they will be ready to answer the bell if it comes to that. And commanding them should make you feel prouder, and more humble, than anything in your life ever has.

Command Techniques

As a new commander you will have great hopes for your unit and many ideas you'll want to implement. You should understand from the start, though, that the unit will be, at best, an imperfect instrument of your will; that is, it will reflect your general approach and personality in appearance and performance, but it won't respond perfectly to your expectations at all times or in all situations. Other factors will also influence the unit--factors such as the overall command climate in the battalion, the personalities and abilities of your senior NCOs, the rate of personnel turnover, and so on. For this reason, it is worthwhile to reflect on how you can have the most positive influence on your unit, given inescapable constraints on resources and time. Your best friends in solving this problem will be good time management and a sharp, realistic priority of roles, goals, and objectives.

Time management is nothing more than spending the least possible time on the less important matters and the most time on what really counts. Anything you can do to save time will help; anything that wastes time is your enemy. There are numerous techniques available, but here are a few that worked for me:

Your operations section can prepare for you a personal notebook for use both in garrison and in the field. The enclosures might include a personal data sheet on each soldier and some laminated 5x8 cards, each with a detailed monthly training calendar so that the next 90 days of detailed training plans are at your fingertips.

In a notebook flap, carry a copy of the current day's personnel status report; on the back have your first sergeant list known inbound soldiers, projected losses, personnel on temporary duty, pending disciplinary cases, and so on, all by name. You may not be able to match the first sergeant's instant recall, but with this information you'll always know your unit's status.

A copy of the current week's training schedule and a list of important phone numbers will complete the notebook. Add a large, waterproofed map of the reservation

with firing ranges and firing points, impact areas, landing zones, and so forth, and you should be well equipped to answer most questions or refresh your memory at a moment's notice.

The standard technique of working up a "things to do" list, with the critical items starred, will help you remember important meetings and requirements and will enable you to knock out many minor tasks in the spare five minutes you find here and there throughout the day.

Casual and informal meetings with the first sergeant and the lieutenants--say just before PFI, over coffee in the mess hall, and just before closing out the day--will keep everyone up to speed and on top of things. Normally, only one scheduled meeting a week with your key leaders is really necessary (usually to disseminate information from the battalion and review upcoming training or commitments), with others called only when absolutely needed. By avoiding useless conferences and keeping strictly to an agenda when you do meet, you'll save large blocks of your time and you won't waste the time of others.

It will help if you schedule military justice and open-door interviews after the unit has been released for the day. This will eliminate the common practice of keeping all the troops standing around while you are busy with matters that don't directly affect them.

MILITARY JUSTICE

On the subject of military justice, you may well find that the liberal use of counseling statements, local letters of reprimand, and summarized Article 15 actions will not only save time in the long run but will actually reduce the incidence of serious breaches of discipline. Some commanders shun these measures on the grounds that they lack any real punitive punch. But I found that by addressing a problem soldier at the first indication of trouble, making it a matter of record, and confronting him in a formal disciplinary setting, I was able to turn many of them around without permanently affecting their future careers. When we overlook problem behavior up to the point where it becomes serious and then hammer a soldier, we fail not only in our responsibility to the soldier and the unit but to the Army as well.

There are some things that will require your personal and detailed attention. These include property accountability, training management, important training events, soldier problems that have not been solved at lower levels, and activities dictated by higher authority (such as officer professional development, staff calls, and the like). You will be greatly tempted to expand your personal participation into ever-increasing areas and activities. It is advisable to push your other leaders to do their jobs, spot checking and scheduling courtesy inspections periodically, instead of immersing yourself in the detail of execution. It is the commander's job to issue general policy guidance, provide the time and resources to get the job done, and follow up on mission execution. By implementing effective

tive and comprehensive SOPs and encouraging your chain of command to lead and to solve problems at each echelon, you'll find more time to concentrate on those missions that can't be delegated.

This leads directly to the subject of setting priorities for your company. Even a casual glance at mandatory training shows that it is difficult if not impossible to cover everything well. SQT, CTT, EIB, and ARTIEP tasks from squad through company level; AR 350-1 tasks; local training requirements; and support and mission cycle commitments add up to literally hundreds of separate, distinct subject areas. You must do your best to satisfy these obligations. Some, however, are more important than others. The trick is to settle on a handful of truly key skill areas and focus on having your unit master these.

PRIORITY LIST

Obviously, your priority list of training goals must not conflict markedly with the training guidance you receive from above. Within this framework there is usually some maneuver room in which to exercise discretion. A good place to start is to ask the question: If I had to deploy with my unit tomorrow, what would we have to be able to do, as a bare minimum, to execute our combat mission? Your answer to that question should lead you to a more precise view of what your current state of training is and where you need to be.

After reviewing training records and meeting with battalion and company leaders and training personnel, for example, you may decide that you want to be sure that your company can at least meet baseline standards of proficiency—to move, shoot, and communicate—under any conditions. There are hundreds of skills associated with these fundamental areas.

One successful commander I know of challenged his company to master only the following handful of combat tasks: land navigation, forced marches, and immediate action drills (move); employment of crew-served weapons and snipers, individual marksmanship, and use of mines (shoot); and radio-telephone procedure, radio maintenance in the field, and field expedient antennas (communicate).

This unit did not ignore its many other required training subjects. But whatever it did, it stressed repeatedly its few combat priorities. In time it could execute them well at night, in adverse weather, when fatigued, and even

after personnel changes. These became the yardsticks by which the soldiers measured themselves. The unit could not outperform its peers in every field of endeavor, but it was unmatched in these most basic areas, in the things its commander felt counted most. And it was without question the most combat-ready outfit in the brigade.

You may decide that your unit should concentrate on training in other areas. So long as there is no serious conflict with your commander's views on the subject, that is your prerogative as a company commander. But you should at least consider the fact that if you try to cover everything evenly and comprehensively, your training may lack focus and definition—your unit will gain an acquaintance with a lot of things but a mastery of only a few.

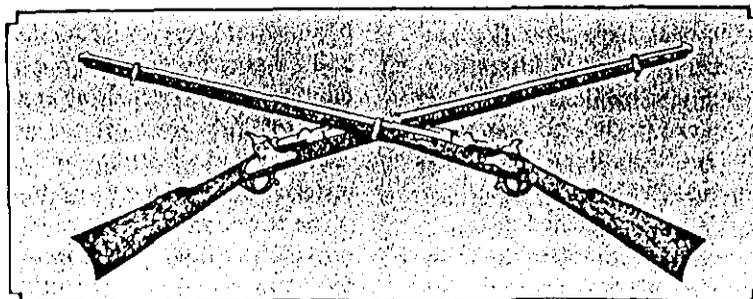
Final Thoughts

These, then, are the thoughts that remain with me while my days as a company commander are still fresh in my mind. I know that I have left out much of the essence of the command experience and that my own experiences are incomplete. But I hope the lessons that came my way as a company commander will be useful to others who look forward as I did to the thrill of command.

It is sometimes said that company command is the first test of future military greatness, that a successful general officer is nothing more than a successful company commander writ large. Perhaps this overstates the case, but successful command is certainly the standard by which we are measured for larger responsibilities and opportunities.

There are those who view command as a necessary ordeal to be endured and survived as a means of remaining and progressing in the Army. Most, however, approach it with that mixture of apprehension and exhilaration that is reserved only for the toughest challenges and achievements in life. Believe me when I say that for all the relief and satisfaction that comes with the end of a successful command, when it is time to move on, you will deeply miss the fellowship, the sense of mission, and the feeling of belonging that define the command experience.

Captain Richard D. Hooker, Jr., served as a rifleman in the 82d Airborne Division before entering the United States Military Academy. He was commissioned in 1981 and has served in airborne units as a rifle and antitank platoon leader, company executive officer, and company commander. He is now attending graduate school at the University of Virginia.



TRAINING NOTES



The M249 Machinegun

KENNETH D. MARTZ

The latest addition to the infantryman's fighting arsenal is a weapon soldiers have needed since the retirement of the Browning automatic rifle. While the M16A1 serves well in the automatic rifle role, it does not have the firepower required to support squad maneuver on today's battlefield. The story of the development of the M249 machinegun—the squad automatic weapon (SAW) for the 1990s—is an interesting one.

The hunt for such a weapon began in earnest in 1966 with a weapons study that determined the requirements for the SAW. It had to be capable of neutralizing the enemy at ranges equal to the depth of a rifle company, and it had to be a one-man system with a density of two per squad to support fire team movement.

This prompted further studies to find a smaller caliber weapon with enough firepower in terms of range, penetration, and lethality while offering a weight advantage over the 7.62mm round, which was the standard round at the time. At seven pounds per 100 rounds, a SAW in 7.62mm caliber with 500 to 600 rounds would exceed 50 pounds, not desirable for sustained infantry tactics. The studies determined that 6mm would be the best size, with 5.56mm as second

best. In 1974, for various reasons, 5.56mm was finally chosen.

Two years later, in 1976, the Army formulated a requirements document that called for a weapon with operational characteristics similar to those of the M60 machinegun. Testing began early in 1979 to choose a non-developmental item (an acquisition process to buy "off-the-shelf" equipment). From the candidate weapons tested, in late 1979 the *Fabrique Nationale* (Belgium) Minimi was selected as the best.

AMMUNITION

Earlier that same year, NATO had selected the Belgian SS109/SS110 5.56mm round as a standard NATO caliber. This action also prompted a U.S. Army decision to make its future weapons compatible with the NATO round. Thus the M249 evolved. The new 5.56mm ammunition is now standard Army issue and is used in the M16A2 rifle as well.

Why did the United States adopt a new 5.56mm round when it already had one? The answer is simple. There is a considerable difference between the U.S. M193/M196 (used in the M16A1 rifle) and the

SS109/SS110, which is now made in the U.S. and designated by the U.S. Army as M855 ball and M856 tracer rounds. In terms of interoperability, either type of ammunition can be fired safely in all U.S. Army 5.56mm weapons. But there are performance drawbacks related to the difference in barrel twist between the M16A1 (1:12 twist) and the M249 and M16A2 (1:7). The correct barrel twist is necessary to ensure the best accuracy and lethality of the bullet.

When M193/M196 ammunition is fired from the M249 or the M16A2, the bullet is overstabilized but about as accurate as when it is fired from an M16A1 rifle. But the weapon's terminal performance is degraded. When M855/M856 ammunition is fired from the M16A1, there is not enough spin to stabilize the bullet and its accuracy is reduced, making it difficult to repeatedly hit a man-size target beyond 100 meters. (Table 1 lists the basic characteristics of the two types of 5.56mm rounds, along with those of the 7.62mm M80/M62 ammunition for comparison.)

Downrange performance is much better with M855/M856 ammunition because the bullets are longer, heavier, and aerodynamically more efficient; too, the M855 round contains a steel

penetrator for better performance against hard targets. The result is a higher retained velocity at ranges beyond 400 meters. This higher velocity plus the M855's steel penetrator produces range and penetration roughly equivalent to that of the 7.62mm M80 ball round and at half the weight.

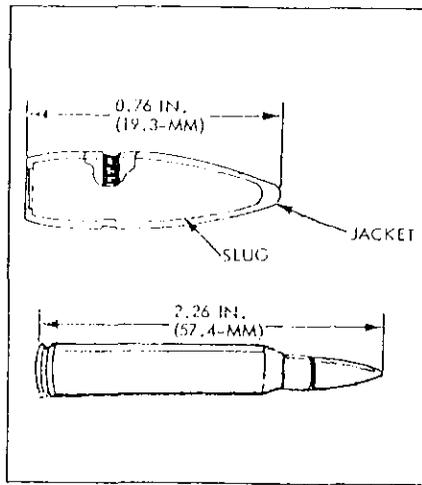
The M249 machinegun is an air-cooled, gas-operated weapon. It is normally belt-fed from 200-round plastic containers or, in an emergency, can be fed from M16 rifle magazines and fires from the open-bolt position (Table 2 lists its characteristics). Open-bolt operation allows a light-weight weapon to sustain a nominal firing rate without cooking off. Open-bolt firing begins and ends with the bolt open, locked to the rear. At no time does a live round remain in the chamber unless there is a malfunction.

The M249 has a quick-change barrel capability with a fixed headspace. For safety reasons, the headspace must be verified by direct support personnel before a quick-change barrel is used on a particular receiver, just as is required with the M60.

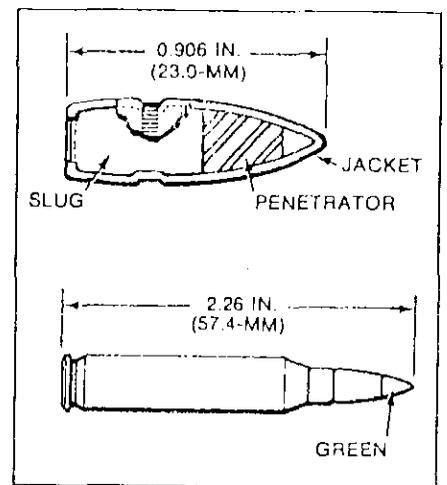
The basis of issue narrative for TOE application designates the M249 as a one-for-one replacement for the M16A1 automatic rifle. In the infantry, this means two per squad. Other TOEs designate automatic rifles according to the units' needs.

In an infantry squad, the M249 forms the basis of maneuver for each fire team. Depending on the factors of METT-T, a platoon leader may designate control of the SAWs to the squad leaders or retain control himself and use them as a weapons section.

About 8,000 M249s are now in troop and training units. The 82d Airborne Division is completely filled as well as the Rangers and the active Special Forces units. All remaining active infantry battalions (except for the 5th Infantry Division and elements of the 4th Infantry Division) and the Reserve Component roundout battalions have M249s in the automatic rifle role. The 5th Division and the remainder of the 4th will not receive



M193 5.56mm Ball Cartridge



M855 5.56mm Ball Cartridge

PERFORMANCE COMPARISON OF AMMUNITION

	M193/196	M855/856	M80/M62
Muzzle velocity (FPS)	3250	3025	2750
Maximum range (meters)	2650	3600	3750
Tracer burn (meters)	400	900	860
Grazing trajectory (meters)	*	600	600
Weight (lbs/100 rounds)	3.45	3.45	7.0
Penetration			
10-gauge steel (range in meters)	390	630	620
U.S. M1 Helmet w/liner (range in meters)	515	1150	1025
Pine boards (at 800 meters)	*	6.0 in	7.5 in
Aluminum plate (at 800 meters)	*	0.188 in	0.188 in
Plexiglas (aircraft)(range in meters)	*	925	925

* Data not available

Table 1

any M249s until Fiscal Year 1991.

The M249 system is fielded as a total package made up of the items shown in Table 3.

The fielding of the M249 began in April 1984. By early 1985 several deficiencies were noted. Some of these were a carrying handle that bent or broke during airborne operations, a front sight block that loosened, a hot barrel that burned a soldier's hands, and bipod legs that extended when they weren't supposed to. In addition, there was initially no ammunition to shoot, no storage racks, and no training materials or spare parts.

A joint task force formed in September 1985 sorted out the hardware problems and gained approval in October

to proceed with modifications to be retrofitted to all existing M249s and to be incorporated into future production. To date, all of the modifications have been field tested and accepted by the soldiers. (Table 4 lists 18 fixes that have been or will be applied.)

Aside from these modifications, there have been some new problems and complaints:

First, the 200-round ammunition container is noisy and falls off the weapon during training. Efforts at solving this problem are directed at redesigning the container to strengthen the attaching point, employing sound-absorbent plastics, and investigating a smaller container. It is reported that

M249 MACHINEGUN CHARACTERISTICS	
Overall length (in)	40.87
Barrel length (in)	20.2
Weight (lbs)	15.16
Spare barrel weight (lbs)	3.65
Sustained rate of fire (RPM)	85
Maximum effective range (m)	
Paint target	600
Area target	800
Suppression	1000

Table 2

some units are repacking the containers with cardboard liners, but this is not recommended. Engineers are working on an interim solution to the noise problem in the form of an insert that will not be affected by environmental conditions such as moisture. A payoff from this improvement effort is expected in late Fiscal Year 1989.

Second, there is no way for a user to know when a barrel is worn out. (If accuracy suffers and bullets start hitting the wrong hill, it's probably the barrel.) Before sending a weapon to direct support maintenance for an unsolved accuracy problem, however, a user should make sure it is zeroed according to Change 2 of the

operator's manual, and that both the front and rear sights are in proper working order. The DS people will determine the barrel's condition. It will then be swapped out or returned to service. Unfortunately, many bad barrels are being returned to service because the present erosion gauge does not accurately indicate the correct state of the barrel. A new gauge should be available in Fiscal Year 1989.

The barrel on the M249 must have a minimum life of 10,000 rounds, but tests repeatedly show that barrel life exceeds 20,000 rounds, some more than 32,000. Of course, these numbers are obtained during tests conducted by firing the weapon at the rates prescribed in the operator's manual. If the schedules in the manual are exceeded, the life expectancy of a barrel as well as the rest of the weapon will be reduced.

Nevertheless, some users believe that the barrels have a short life. Although no cumulative round count is required for each weapon, the number of barrels being replaced indicates that more rounds are being fired (including blanks) than leaders realize. The current M249 has a dual rate of fire—750 rounds per minute (RPM) normal and 1,000 RPM adverse. Continual operation at the adverse rate

THE M249 SYSTEM
M249 machinegun
M113 storage rack
AN/PVS-4 sight adaptor and sight
MILES training device
M855/M856 ball and tracer ammunition linked 4:1
M855 linked for special-purpose application
M200 blank linked for training
M15A2 blank firing adaptor
SAW/utility ammunition pouch, two per automatic rifleman
TM 9-1005-201-10 dated September 1983 with Change 2 dated 2 June 1986
TM 9-1005-201-23&P dated April 1984 with Change 1 dated 2 June 1986
FM 23-14 dated December 1985

Table 3

reduces the life of the weapon, and interviews with soldiers reveal that they normally fire the M249 at 1,000 RPM.

This leads to a training question: Why fire blanks in the adverse mode and 4:1 linked rounds in the normal mode during the day and both at night in the adverse mode? Although this is not an ideal training regimen, it offers the best operation of the current weapon, which functions more reliably in the adverse mode when firing blanks. Firing in the adverse mode at night also reduces the flash signature. The M200 blank does not produce enough power to operate the bolt group reliably using the normal rate of fire. (The new gas system eliminates this problem.)

At the present time, much of the problem with the weapon when blanks are being used is caused by the blank adaptor. The correct adaptor is the M15A2, the same one used with the M16A2 rifle. (It is readily identifiable by a ring attached to the screw as opposed to the "T" handle found on the older adaptor.) Installation is described in the operator's manual. The secret is to retighten the screw after an initial barrel warm-up of 50 rounds or so. It should be finger tight only; over-torquing tends to stretch the frame of the adaptor.

Procedures for zeroing the AN/PVS-4 with the M249 have been formulated and should have reached the field by now. These procedures are identical to those for the M60

M249 PROBLEMS AND FIXES	
PROBLEM	FIX
Cut hands on link ejector cover	*Remove cover
Firing pin spring is easily lost	*Crimp spring
Front sight loosens	*Install larger lock key
Windage and elevation knobs freeze	*Increase clearance
Detent pins on sight knobs wear	*Replace with ball bearings
Bipod legs extend inadvertently	*Install stronger spring
Excessive stoppages with M16 magazines	*Resize magazine well
Hot barrel burns hands	Install heat shield
Fixed carrying handle unacceptable	Folding carrying handle
Takedown pin pulls from receiver	New pin design
Buttstock breaks	New synthetic stock
Excessive flash	Fix gas system
Excessive signature	M16A2 suppressor
Left hand threads on barrel	Change to right hand
Rate of fire increases	Hydraulic buffer
Firing pin tip deforms	*New change criteria
Operator can't adjust front sight	*Put special tool in unit
Rear peep falls off	*New zero procedures
*Already applied.	

TABLE 4

except that the M16 reticle is used and the shot center of impact is nine centimeters down from and two centimeters left of the aiming point. In any event, the iron sights are fully functional with the AN/PVS-4 mounted. With a properly zeroed weapon, the scope can be referred to the iron sights.

Numerous comments are received about the inability of the M249 to record enough kills when using the MILES training device. Assuming that the device is aligned properly and the weapon is zeroed, the following is offered for thought: The M16A1 MILES transmitter is used on the M249, and the range of the transmitter is 460 meters. Therefore, the employment of the M249 beyond this range, which it is certainly capable of, will not produce any kills. In fact, few will be recorded beyond 300 meters. If a unit has the tunable transmitter, it should be set to the range capability of the weapon, which

is listed in the operator's manual.

The future is bright for the M249. A contract will be let by the end of this fiscal year to procure retrofit kits to upgrade the 8,000 M249s in the field, and the kits will be available in Fiscal Year 1989. A five-year contract is being negotiated to procure more than 20,000 weapons. If this goes through, the fielding of the production M249s should begin in Fiscal Year 1991.

Efforts are continuing to procure a traverse and elevation (T&E) adaptor to permit mounting the M249 on the M122 tripod. A new bore erosion gauge should appear in Fiscal Year 1989 and the 200-round container fixes should follow soon. The normal equipment improvement cycle will continue with efforts directed toward increasing the weapon's accuracy, refining its sights, and improving its reliability.

In its class, the M249 in its present configuration has no equal in terms of

firepower and reliability, and soon it will be even better. This is not a parochial opinion but one that is shared by the U.S. Marine Corps, the Canadians, and the Australians. Hopefully, any bad impressions and false rumors caused by its rocky beginning will pass.

While the future looks bright, the present does not. Since there will be no more M249s until Fiscal Year 1991, those on hand must be maintained so they can bridge the gap. If commanders and noncommissioned officers will emphasize the need for proper training, discipline, and maintenance, these weapons will perform when they must and will last until more are available.

Kenneth D. Martz, the TRADOC project officer on the SAW, has been assigned to the Directorate of Combat Developments at the Infantry School since 1984. He is a retired Army major.

EPLRS

Where Are You? I Am Here.

MAJOR DAVID A. PRIOR

In the fog of battle, on the fluid, lethal, modern battlefield, how does a maneuver commander keep his finger on the tempo of friendly and enemy actions? How does he synchronize the variety of lethal weapon systems at his disposal to meet the enemy and destroy him at the most convenient time and place? How does he—in the middle of the night, in the rain and the snow—bring together the speed and lethality of M1 tanks, M2 IFVs, multiple-launch rocket systems, and Apache helicopters in an orchestrated

and synchronized attack?

A requirement for moving this kind of information around the battlefield from "him who has it" to "him who needs it" has existed throughout the modern era. No current command and control system meets this requirement for the commander, but such a system is coming whose advantages are now being field tested by the U.S. Marine Corps. The system is the Position Location Reporting System (PLRS) or, for the Army, Enhanced PLRS (or EPLRS).

Of all the command and control systems that are being developed for or fielded in the Army today, EPLRS will make the most significant contribution to the successful employment of the tenets of AirLand Battle doctrine—more than SINCGARS, more than mobile subscriber equipment. EPLRS is scheduled to reach field units during Fiscal Year 1993.

EPLRS will tell a maneuver commander, or any user equipped with it—automatically, by an eight-digit grid coordinate—where everyone who

has an EPLRS unit is actually located. By programming a system net control station employed at brigade level, EPLRS will direct the user to pre-determined points on the ground within 15 meters. (The Marines' experience has been at one to two meters.) It will guide a unit through a pre-programmed lane so as to avoid minefields, impact areas, contaminated areas, or other units and arrive at the right objective at the right time and from the right direction. It will guide two elements to a link-up point, and it will guide aircraft through a corridor to avoid concurrent indirect fire and friendly anti-aircraft operations.

An EPLRS network contains one NCS-E (net control station, EPLRS) with about 200 user units. Each division will have four such networks—one supporting each brigade and one situated in the division rear. Eight networks will be dispersed throughout a corps area.

EPLRS operates under varying conditions of visibility, weather, and terrain. Its configuration ensures continuity of operation while the tactical headquarters is in transition and allows for survivability even if an NCS-E becomes inoperative. (An adjacent NCS-E picks up the users from the inoperative one and they automatically share each other's databases.)

Under normal conditions, an EPLRS network can cover a primary operating area 47 kilometers square. Because tactical units are frequently employed beyond the line-of-sight capability of the NCS-E, any user unit can serve as an automatic relay. When many units are deployed over a broad area, up to four relay levels are available to establish paths between remote users and the net control station. The NCS-E automatically selects the most favorably located user unit to perform as a relay. Those in direct contact with the NCS-E serve as A-level "nodes"; those connected to the NCS-E by an A-level relay are at the B level and so on (see accompanying figure).

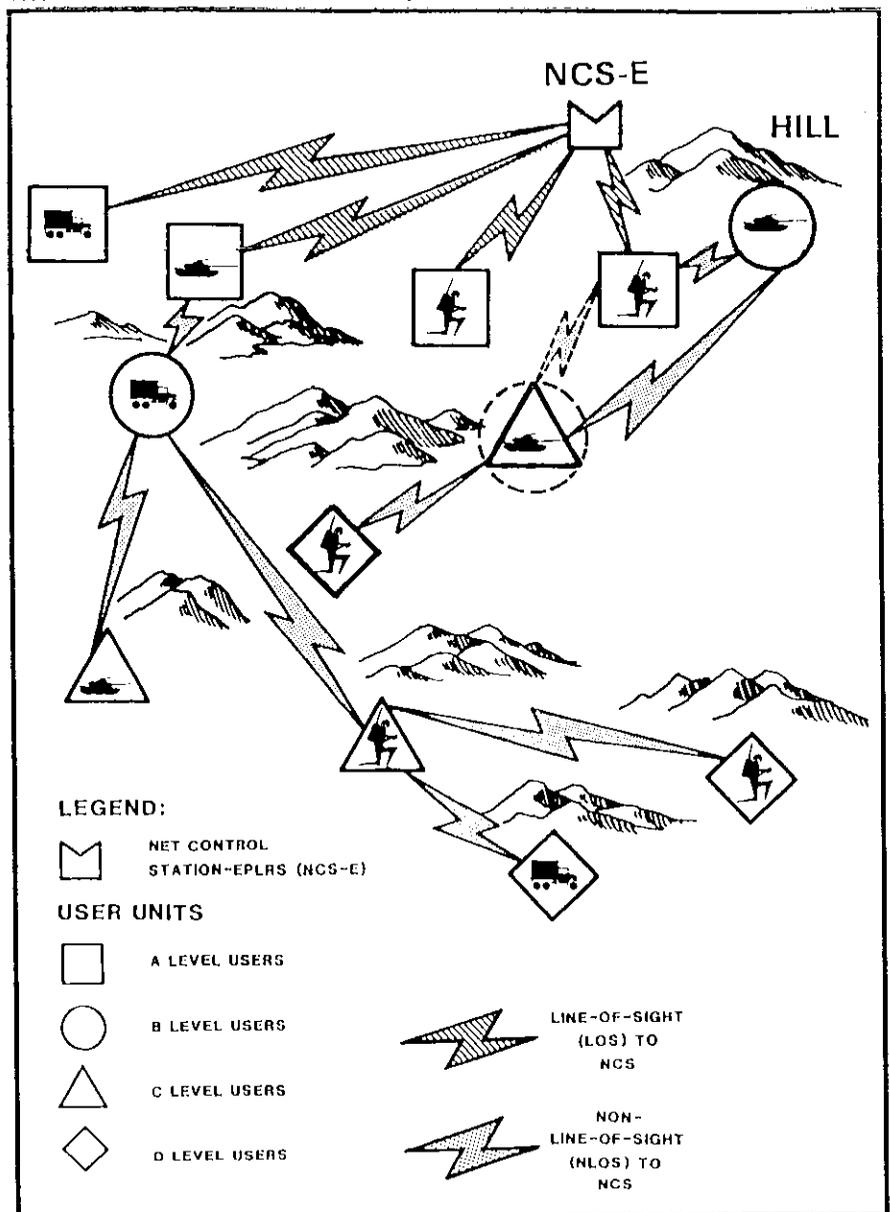
The EPLRS interface with the Maneuver Control System (MCS) will

be critically important to the maneuver commander for two reasons: An MCS computer located at a command post will query the NCS-E for control measures and for the position location and identification of subordinate and adjacent units. The computer will then display a map of this information on a high-resolution screen. EPLRS will enable the MCS to distribute information quickly and efficiently.

All user units have the same type of transceiver, which is about the size of an AN/PRC-77. The major difference between the two is that the PRC-77 uses a handset while the user unit uses a data readout device. The exact device will depend on the user. The normal device for infantry

units will be the user readout device (URO), which is about the size of a pocket calculator and provides the user with an LED readout. A user unit can be manpacked or mounted on vehicles or aircraft.

The NCS-E, currently mounted in an S-280 shelter on a 5-ton truck, performs automated net management and control of the system. At the NCS-E, the system's operation can be monitored and modified or reconfigured as needed. This facility is an assemblage of general-purpose digital computers, a display control station, peripheral components, and integral transceiver systems to handle EPLRS communications. All NCS-Es are identical, and each can assume the functions of



another during periods of outage through a controlled or automatic functional transfer.

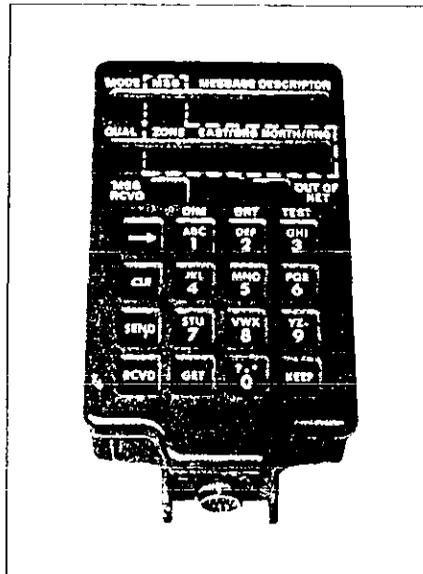
EPLRS provides four types of control measures -- pre-determined points (or items), lanes, zones, and corridors.

A pre-determined point or item can be a coordination point, an objective, a link-up point, or a landing zone, while a series of points can represent phase lines or boundaries. An EPLRS-equipped element can find the location, range, and bearing to a point that is entered into the user unit as a two-character code consisting of an odd number and a letter.

A lane is a two-dimensional, one-way path with up to four legs, or changes of direction; it is used to ensure the safe passage of ground forces over hazardous or unfamiliar terrain. The user unit automatically indicates entry into the lane, warns the user if he deviates from the centerline, and gives him a bearing and a distance back to the "correct path." The user is automatically given the bearing changes required to maintain centerline while moving through the legs of the lane. The NCS-E can store up to 10 lanes.

A zone is a three-to-five-sided area with lower and upper altitude limits used to identify restricted areas. Ground forces are warned when approaching entry into a zone, while airborne users are warned when they approach it going below the upper altitude limit of a ground zone. When used as an aerial zone, the minimum altitude limits prevent ground units from being warned out of the area under the airspace. Similarly, a ground zone has a maximum altitude limit of 50 to 100 meters to warn helicopters if they try to land in the zone or fly below the zone's upper altitude limits. Zones are labeled with any two letters from ZA through ZZ, and an NCS-E can store up to 10 zones.

A corridor is a three-dimensional path with up to five legs or direction changes used to guide airborne users safely to their destination. Guidance readouts come automatically, indicating altitude and bearing changes to



EPLRS User Readout (URO)

maintain flight along the corridor's centerline. Just as with ground forces in a lane, if an aircraft strays beyond the centerline tolerance, the pilot is warned and given corrective bearings to get back on the centerline. Corridors, like lanes, are one-way. The NCS-E can store 10 corridors.

Military identification can be handled by EPLRS, because the NCS-E stores the military ID of each user unit. One user, therefore, can query the NCS-E for the identity of another.

A maneuver commander will be able to tap the capabilities of EPLRS in numerous ways. One or some combination of these capabilities can improve synchronization, control, and direction of forces by giving the commander instantaneous knowledge of the location and identity of highly mobile units. It can expedite critical rendezvous missions between maneuver forces and their supporting elements by providing the precise location of tanks and other fighting vehicles. It can improve the survivability and mobility of the maneuver forces by providing accurately defined control measures. And it can increase the lethality of indirect fire weapons by plotting on a common map grid both the soldier who is calling for fire and the artillery or mortar piece.

EPLRS resources and capacities will be allocated at brigade level. Once

the system is employed, brigade tactical SOPs will need to be updated with an EPLRS annex, which should allocate the system's capabilities to supporting and subordinate units. For instance, the NCS-E can store 104 items and can identify the users who are authorized to enter, delete, or change them. (These could be allocated by SOP to subordinate units, the DS artillery battalion, and others, with a sufficient number reserved for brigade use.)

Likewise, zones and lanes can be allocated according to MTTT or standard procedures, with all corridors reserved for brigade use. Because zones and lanes are scarce, the authority to change them should be centralized at brigade headquarters on the basis of subordinate unit requirements. The brigade's MCS computer interface with the NCS-E can help develop and deliver new zone or land dimensions.

In short, EPLRS will provide the means for true synchronization of maneuver, artillery, and aviation units during an attack. In a synchronized attack on an enemy position, for instance, it will enable a battalion commander to develop a plan with EPLRS control measures to ensure the destruction of the enemy force. His plan could include a lane to guide a company safely through a minefield, a zone to protect aircraft from mortar fire, and a corridor to lead attack helicopters to the objective.

With EPLRS, the fluid, lethal battlefield will be automatically synchronized in a jam-resistant system. This will free the limited number of radio nets for their true purpose and will orchestrate a deadly defeat upon an enemy—day or night, rain or snow, wind or fog, desert or mountain, jungle or plain.

Major David A. Prior was formerly assigned to the Combined Arms and Tactics Department of the Infantry School. A graduate of the Electronic Warfare Staff Officer Course who has served as a signal officer at battalion and brigade levels, he is presently assigned to the 5th Signal Command in Germany.

SICPS

Standardized Integrated CP System

MAJOR KENNETH D. BOYD

The single purpose of a command post (CP) at any organizational level is to provide a structural framework that supports the decision maker in his task. The current command and control facilities in the Army's inventory do not provide the flexibility, commonality, and operational compatibility a commander needs to direct and control his forces in a fast-paced highly active combat situation. They definitely lack mobility, and therefore survivability.

For example, there is no CP vehicle at all for the light infantry or motorized divisions. Although the heavy units do have M577 tracked vehicles and combinations of truck-mounted systems, these lack NBC protection, display unique visual signatures, and do not easily accept the new electronic systems.

The Army's answer to this long-recognized problem is the Standardized Integrated Command Post System (SICPS). The system consists of three major components that will be fielded over the next four years—a tent CP with accessories, a rigid wall shelter CP to be mounted on light vehicles, and a track CP for M577 and M113 vehicles.

SICPS configurations throughout the battlefield will make it harder for the enemy to identify the organizational level of a CP or its specialized function. They will support CP functions by providing standard environments that incorporate all the facilities necessary to ensure the command post imperatives of survivability, mobility, dispersion, and redundancy.

As automation and communications systems evolve, tactical CPs must be able to support them. The SICPS is intended to be flexible enough to accommodate plug-in/plug-out equipment, which will allow commanders and staffs to reconfigure individual vehicles and shelters quickly and easily.

The SICPS will support battlefield command and control functions throughout Active Army and Reserve Components in standard and airborne corps; heavy, airborne, air assault, motorized, and light divisions; and brigades, regiments, battalions, and squadrons. The system will be used throughout a theater of operation by combat, combat support, and combat service support units.

CHARACTERISTICS

The development of the system includes a consideration of the following characteristics:

- An ability to use electrical power from multiple sources (for example, on-board power, generator, commercial power).

- Common auxiliary equipment (extension tent, light set, mapboards, tables, heater, and surface wire grounding system).

- A cable management feature that allows data transfer and communication for both intra-system and inter-system equipment, including local area net (LAN).

- Ability to operate on the move within the capabilities and tolerances of the internally mounted systems.

- The reduction of unique CP electronic and visual signatures.

- Electromagnetic, biological, and chemical protection.

- Seating and work space for two or three personnel.

The tent CP consists of a lightweight tent with an easily erected lightweight frame. It is modular with different panels that can be placed on any side. Some of these panels have entrances or windows, while others have a boot for connecting a vehicle shelter.

Auxiliary equipment includes lightweight tables, mapboards, a heater, an overhead light set, and a surface wire system to ground the interconnected automation components and supporting communications equipment.

Additionally, the tent CP can be assembled and disassembled quickly under field conditions by a unit's currently assigned CP personnel. It also has black-out protection and an air-drop capability. (Figure 1 depicts the tent CP and the way several can be put together.) The tent CP is the basic workspace building block that allows vehicles and other tents to be connected in support of operations, from a single facility to a corps arrangement.

Since the light infantry divisions are now using old, heavy tentage and are most in need of tents that will help with their deployment and employment, they will receive the tent CP and its accessories first under a limited production contract. The four light divisions (the 6th, 7th, 10th, and 25th), the 2d Infantry Division, the 9th Infantry Division (Motorized), the 82d Air-

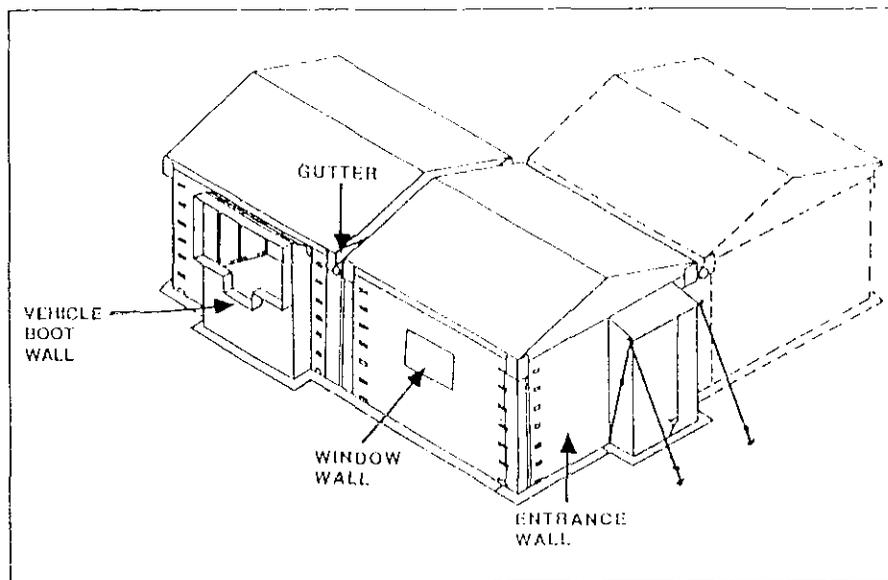


Figure 1. Tent CP

borne Division, the 101st Airborne Division (Air Assault), and the 193d Infantry Brigade (Separate) have begun receiving their tent CPs. Other Army units will be able to order them (either the entire tent CP or the separate components) through Common Table of Allowance (CTA) catalogs in Fiscal Year 1991.

The second element of the SICPS, the rigid wall shelter CP, will be mounted on a HMMWV (high mobility multipurpose wheeled vehicle) or CUCV (commercial utility cargo vehicle) chassis in appropriate units. A configuration similar to the present

M577 CP can be created with the attachment of the tent CP to this shelter. The shelter will provide for power generation, power and communication distribution, heating and cooling, and arranging and mounting automation and communications equipment. No additional personnel will be required to operate it.

The interior of the shelter will be arranged with the power source, heater, and air conditioner enclosed and placed against the forward bulkhead to reduce the noise level. Access panels on each side of the shelter will allow those items to be serv-

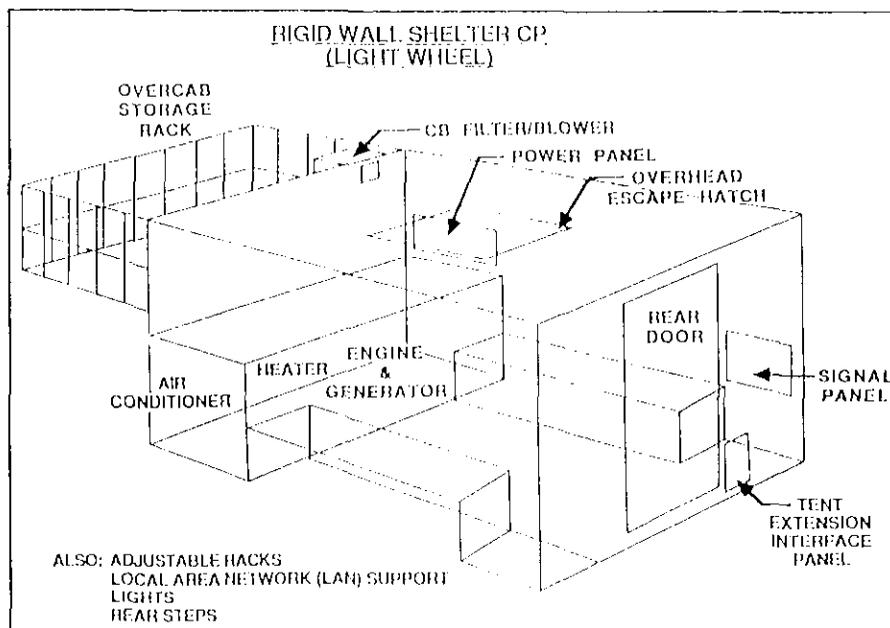


Figure 2. Shelter CP (Cutaway View)

iced. Power distribution panels will be built so the shelter can either receive power (from another SICPS shelter or commercial power) or export power. A signal distribution panel will allow for the easy connection of mobile subscriber equipment, local area networking, and SINCGARS FM radios.

Operations can be conducted both inside the shelter and in the attached tent CP through the power and signal interface panels. A chemical filtration unit and an overpressure system will allow continuous operations in the shelter during periods of biological or chemical activity. (Figure 2 shows a cut-away view of the shelter's interior components.)

The rigid wall shelter CP is scheduled to be fielded in late Fiscal Year 1991. Its initial distribution will follow that of the tent CP with the light, airborne, air assault, and motorized forces. Combat support and combat service support elements in heavy units will also be authorized this CP.

The third part of SICPS, the track CP, is an effort to improve on the effectiveness of the current track CP. This sub-program of the system focuses on improving the internal configuration of a CP while providing the capability to connect and operate current and emerging automation and communications systems.

The current CP tent extension will be replaced by the SICPS tent CP, and improvements will be made to the power generation and distribution systems and to communication distribution capabilities. The CP's ability to support the mounted or remote operation of communication and automation systems will also be upgraded. A unit's existing M577 and M113 vehicles will be refurbished to incorporate these capabilities. Heavy units can expect this modification to occur in early Fiscal Year 1992.

The development of the Standardized Integrated Command Post System will improve the efficiency and survivability of command posts, making them more mobile, rapidly deployable, and applicable to a broad range of command post functions at levels

from battalion through corps. The combination of standard vehicles, both tracked and wheeled, with associated tents will make it more difficult for the enemy to distinguish between types of units and echelons of command. With the standardization provided by the SICPS, new electronic systems can

be incorporated more easily and inter-connected more readily regardless of the CP configuration selected by a particular unit. Command posts will be set up or moved faster, operations conducted more efficiently, and unit loads lightened.

Above all else, SICPS will support

a commander's decision-making process on a fast-paced modern battlefield.

Major Kenneth D. Boyd, when he prepared this article, was assigned to the Combined Arms Combat Developments Activity at Fort Leavenworth. He is a 1975 ROTC graduate of the University of Delaware and holds a master's degree from the Naval Postgraduate School.

Electronic Signature Eraser

LIEUTENANT COLONEL JAMES E. CATES

The tactical operations center (TOC) of armored and mechanized infantry brigades and battalions is a mobile command center that suffers from a significant disadvantage—its electronic signature. A TOC has at its disposal some of the most sophisticated radio communication equipment that can be assembled in one place—FM radio nets, a single sideband voice net, AM radio teletype nets, and a multichannel radio system. This equipment gives a commander and his staff instant communication with higher, lower, and adjacent units and with Air Force, artillery, engineer, and intelligence sources.

At the same time, however, it also gives the opposing force a lucrative target either to exploit or to destroy. If steps are not taken to prevent it, the radio direction finding (RDF) equipment of an opposing force should have little difficulty in locating and disposing of this target. (See also "Improving CP Survivability," by Lieutenant Colonel Jack Silva, INFANTRY, November-December 1987, pages 23-27.)

Our current thinking suggests several ways of reducing the likelihood of detection, but each of these has its drawbacks:

Change frequencies at least every 24 hours. A TOC has several nets at its location and the nets change frequencies at a predesignated time. For example, the "A" net will change from its frequency while the adjoining "B" net may be changing to a frequency close to the one the "A" net just vacated. Under this policy, it won't take an opposing force long to pinpoint the TOC's location and determine its size.

Operate radios with low power as much as possible. A TOC will normally give up the best communication conditions in order to achieve the best cover and concealment. Unfortunately, this requires the use of higher power when transmitting, which also increases the possibility of detection.

Use directional antennas. This is a good way to eliminate a large portion of an electronic signature, but not many people in a TOC can "cut" an accurate antenna, much less position it. If an antenna is not fabricated correctly, it decreases the equipment's operating range and may even damage it. And if an antenna is not positioned correctly, communication is lost or, worse yet, it gives the opposing force prime reception.

Use location and relocation. The

best means of deceiving an opposing force is to choose a location that places mass between the TOC and the opposing force's RDF unit and then to move on a regular basis to keep it off guard. Again, however, trying to conceal a TOC often means sacrificing good communication. If mass is placed between the TOC and the opposing force, then mass is also placed between the TOC and the troops it is supporting. A relocation itself involves a tremendous expenditure of man-hours. Reconnaissance has to be conducted to find new locations, tentage has to be torn down, equipment stowed, movements made, and tentage erected again. Also, each time the TOC is moved the opposing force has an additional opportunity to detect it by observing the move, slips in communication, increases in radio traffic, and the addition of frequencies to control convoy movements.

Remoting and retransmitting. These are certainly helpful ways of getting the electronic signature away from the TOC, but the necessary equipment is not always available. There are only four AN/GRA-39 remote sets in a battalion communications platoon, slightly more at brigade (depending on MTOE), and only one retransmission

unit. The present trend is to remote communications away from the M577 command tracks. In other words, the TOC moves away from the equipment, but the electronic target is still there.

Train the operators. Operator training is effective if there is time to train *all* of the TOC operators to be efficient. There are numerous instances, though, in which only the "inexperienced" are on duty and long transmissions of clear text are made, personal transmissions are made, improper radio telephone procedures are used, and traffic is not authenticated, all of which are lucrative targets for the opposing force.

There are still other little tricks that can hinder an opposing force, but by themselves they don't help much. There is an effective way, however, to incorporate all of the recommended deterrence measures into a single effective tool--a remote retransmission trailer. This trailer would be a self-contained three-quarter-ton to one-and-one-half-ton trailer with radios, mounts, antennas, generators, and all the necessary electrical connections.

In the late 1970s, a trial trailer of such design was tested by the 3d Battalion, 144th Infantry, 49th Armored Division, Texas Army National Guard, at Fort Hood, Texas. A one-and-one-half-ton cargo trailer with only minor modifications was used for the test--the trailer bows and tarpaulin were extended to facilitate easy access into the trailer, and a support leg was installed under the rear of the trailer to steady it during operations.

A table the width of the bed was placed in the front of the trailer, and four FM radios (RT-524s) were mounted on it. Shelves were built under the table and the receiving sets of the remote unit (AN/GRA-39) were installed. These remotes were then connected to the radios and permanently wired into a junction box attached outside the front of the trailer. The radios were wired into a terminal box that had a three-way switch. The trailer's electrical power was supplied by two DC generators that were transported inside the trailer

and removed for operation. With the three-way switch, a generator could be serviced without loss of power to the radios. A retransmission cable kit MK-456/GRC was wired in between two of the radios for retransmission capabilities. This enabled the trailer either to remote four radios, to

were installed on each of the four corners of the trailer on brackets that permitted the RC-292 pole to be used with the whip or the omni-directional RC-292 antenna--by using the 292 pole and co-axial cable, the antenna could be raised or lowered as the situation dictated.

The trailer was operated and deployed by the communication platoon in the following manner:

The TOC provided its own communication during a displacement. The communication trailer traveled with the jump TOC, being pulled by whatever equipment was available--normally an M577 in the communications platoon. When the TOC location was reached, the battalion wiremen reeled off the specially prepared WD-1 wire (which had been tied together and tagged for identification) from the TOC (located in good cover and concealment, normally a low wooded area) to a good communication location, normally one mile to one-and-one-half miles away. They then connected the wire to the junction box. All the radios were made operational, and frequencies were monitored while the TOC was still moving to the new location. As the TOC moved into position, the wiremen tied the wire to the sending portion of the remotes already installed in the M577 tracks. As soon as the trailer was operational, the TOC ceased transmitting and remoted to the trailer, thus moving the electronic signature away from the TOC.

The trailer could be moved at random with little down time, and this would create havoc with any opposing force RDF unit trying to pinpoint the TOC's location. The trailer was also used for various other requirements such as range operations, retransmission sites, and relay stations.

If each battalion or brigade TOC had three of these trailers pulled by the TOC's vehicles, each mounting at least four radios, it could operate more efficiently. When set up, the radio-equipped trailers could provide the TOC's communications and leave it free from signal detection. Instead of tearing down and moving the TOC



retransmit, or to use a combination of remoting and retransmitting.

The trailer's lighting was supplied by a light set that allowed blackout conditions during night operations. The trailer also carried a wire reeling machine (RI-31) and five reels (RI-159-U) of specially prepared WD-1 wire.

The antennas, with matching units,

every few hours, the transmissions would simply change from one trailer to another and then the trailer would be moved.

With the addition of the trailers, the established solutions to electronic signature detection could be reconsidered:

Changing frequencies. If frequencies were changed at the same time transmissions were switched from one trailer to another, the operator of an opposing force RDF station would be very confused. Not only would he lose the frequency, he would also lose the location and have to find both the new operating frequency and the new location. This might mean he would have to relocate to get his triangulation; by the time he could set up, though, the signal could be moved again.

Using low power. With the trailer

situated in the most advantageous location for communications, the radio could be operated on low power, and with mass between it and the opposing force's RDF, the signal would be blocked. Only the antenna that needed to be exposed to the front lines would be raised to a height that could be detected.

Directional antennas. The trailer would be manned by personnel of the communications platoon who would have the training and experience to fabricate and install these antennas, thereby assuring a continuous operation.

Operator training. Having members of the communications platoon on shift in the trailer would add another "watch dog" to monitor the traffic being sent. With the built-in telephone hook-up in the AN/GRA-39,

there would be instant communication between the trailer and the TOC.

The use of these communication trailers would more than offset the cost of placing them in the inventory. The saving in man-hours now required to move a battalion or brigade TOC would pay for the trailer and its equipment. In addition, the unit would save the cost of replacing the men and equipment that could be destroyed because of the electronic signature emitted by today's TOC.

Lieutenant Colonel James E. Gates is a Signal officer with a mobilization assignment in the office of the Assistant Chief of Staff, Army Automation and Communication in the Pentagon. He is attached for training to the 75th Maneuver Area Command in Houston. He previously served as a brigade communication electronics officer in the 49th Armored Division, Texas Army National Guard.

SWAP SHOP



Perimeter security is vital to all units. We understand that. In a chemical environment, however, with the soldiers in MOPP (mission oriented protective posture) gear, perimeter security is often nonexistent in many units. Therefore, an enemy force using captured MOPP gear can virtually walk in and destroy friendly personnel, equipment, and morale.

The solution is for a unit to take its existing challenge and password system and modify it for the MOPP-gear equipment.

The Soldier's Manual of Common Tasks uses these procedures, with modifications, that are meant to be a guide in developing a unit SOP for this purpose:

- Because of the reduction in the ability to communicate while wearing the protective mask, all personnel must be halted on sight, and the initial challenge should take the form of a hand signal, which can be changed periodically.

- When the order "Advance to be recognized" is

given, one member of a two-man security team advances with his weapon pointed at the challenged individual while the other remains concealed with his weapon also aimed at that individual. Only after a face-to-face confirmation of the person's identity or mission should he be allowed to pass. Because a hand signal is visible and can be compromised, and because communication is limited, the face-to-face confrontation must take place.

- The exact placement of M9 detector paper on MOPP gear can in itself become an identifiable marking and should be used as such. This method, too, should be used carefully, because it can also be compromised.

The use of hand signals and the exact placement of the M9 chemical detection paper can be changed at the commander's discretion.

The goal of developing an effective perimeter security system in a chemical environment is to protect a unit's soldiers, equipment, and morale.

(Submitted by Lieutenant Ritchie W. Marty, Texas Army National Guard, San Antonio, Texas.)

ENLISTED CAREER NOTES



INFANTRY DRILL SERGEANTS

Most infantry soldiers who are selected for drill sergeant duty expect to perform their drill sergeant tours at Fort Benning and are sometimes surprised to find they will be serving at another initial entry training (IET) post.

Since infantry drill sergeants are authorized at 21 of the 27 drill sergeant installations, it stands to reason that not all infantry drill sergeants can be assigned to Fort Benning.

Half of the drill sergeants in all basic combat training (BCT) companies are supposed to be infantry, and infantry drill sergeants are also authorized in most advanced individual training (AIT) companies. Assigning infantry drill sergeants to these units allows non-infantry IET soldiers an opportunity to benefit from the experience and knowledge of the infantry NCO who, by the very nature of his background, is especially skilled in the common task areas.

An infantry soldier will find drill sergeant duty challenging and rewarding no matter where he is assigned.

More information concerning the drill sergeant program is available from local personnel staff NCOs or MILPOs.

AIRBORNE NCOs NEEDED

The 82d Airborne Division is looking for NCOs who hold Primary MOSs of 11B, 11C, and 11H at Skill Levels 3 and 4. NCOs who are interested in training for and assignment to an airborne position at Fort Bragg should contact their battalion personnel action centers (PACs) or company reenlistment NCOs.

These soldiers should keep in mind

current permanent change of station policies when applying for training and assignment. Those who are stationed overseas need only to apply about six to eight months from their date of return from overseas. Soldiers stationed in CONUS have to reenlist for training and assignment to an airborne position.

BIFV INFANTRYMAN

The transition from MOS 11B to 11M continues, but the Enlisted Master File (EMF) is not being updated quickly and thoroughly enough to keep soldiers with MOS 11M going to the right places. As a result, the Army cannot effectively use the unique skills the Bradley Fighting Vehicle infantryman has; units that need BIFV infantrymen remain short of soldiers with the needed skills; and individual soldiers suffer from not being assigned to positions where their skills can be kept current.

If your PMOS is 11M and you have been notified that you are on assignment instructions to move to another location, you should double check during your levy briefing to make sure the MOS required for the assignment is 11M. If you are being assigned to any other MOS (with the exception of drill sergeant or detailed recruiter duty), you need to bring this to the immediate attention of the personnel at the briefing. A phone call to your career advisor or assignment manager at TAPA is usually all it takes to verify the assignment instructions.

Soldiers are promoted and selected for higher levels of schooling on the basis of their potential, and one of the best indicators of potential is solid performance in TOE units within their primary MOSs.

PROMOTION CRITERIA

When promotion lists are published, Infantry Branch receives many calls from enlisted personnel (or their supervisors) wanting to learn why they were not selected for promotion.

The zones of consideration for promotion to sergeant first class, master sergeant, and sergeant major are released by message from TAPA four to six months before a board convenes. These same boards select soldiers to attend the Advanced Noncommissioned Officer Course (ANCOC) and the Sergeants Major Academy and also screen the records for the Qualitative Management Program (QMP).

The people at Infantry Branch cannot tell a soldier specifically why he was not selected, but the following overview of what the boards seem to take into consideration may help:

The qualitative criteria for selection are very stringent, and the board compares each soldier to others in his career management field (CMF) using the same criteria for all. Only "fully qualified" soldiers are selected for promotion to the next grade. Promotions will occur when requirements exist and when budgetary constraints allow them.

The promotion boards convene at the U.S. Army Enlisted Records and Evaluation Center at Fort Benjamin Harrison, Indiana. They review each soldier's Official Military Personnel File (OMPF) and Personnel Qualification Record (2A and 2-1). The soldier himself is responsible for about 90 percent of what the board members see.

The following areas, although not considered mandatory, do receive careful consideration, along with manner of performance: First sergeant, drill sergeant, recruiter, Reserve Component, Unit Manning System

(COHORT), ROTC, DA organizational effectiveness NCO, Army Community Service (ACS), and equal opportunity duty.

In addition, variety of assignments, duty positions, overall performance, the degree and level of responsibility, trends in efficiency, military education, moral standards, integrity, and personal characteristics are all weighted in the selection process.

Weight control and physical conditioning are also key factors for selection. All photographs are now reviewed in "hard copy," since the photographs on the microfiche do not show up very well.

Promotion reconsideration may be granted to soldiers in the primary zone whose records contained major material errors that may have been factors in their non-selection. Requests for reconsideration must be submitted and evaluated through command channels in accordance with paragraph 7-44, AR 600-200. Soldiers in the secondary zone will not be reconsidered.

The guidelines prescribed in AR 600-200, along with one of the previous promotion lists, should be used to evaluate a soldier. If after self-evaluation a soldier still has questions regarding his promotion potential, he should contact the appropriate office at TAPA. Since the screening of the records is a time-consuming project, please contact Infantry Branch in writing.

MOST-ASKED QUESTIONS

Infantry Branch is responsible for the assignment and professional development of about 67,000 soldiers. Personnel there answer at least 100 telephone inquiries each day, and when new policies are announced that number usually doubles.

In an effort to keep soldiers informed, the "most asked" questions, with answers, are the following:

Q. Am I on orders?

A. The levy section of a soldier's local military personnel office (MILPO) will notify him through the chain of command on receipt of

assignment instructions for him. The company first sergeant can help any soldier in making contact with his local MILPO.

Q. I am overseas and my DEROS (date eligible to return from overseas) is 14 months from now, and I would like to know where I will be assigned?

A. Infantry Branch usually begins working on assignment instructions for soldiers returning from overseas about 180 days before their DEROS and issues those instructions about 150 days before that date. Assignment instructions are issued to the soldier from his local MILPO levy section through his chain of command at least 120 days before DEROS. This schedule is dependent upon the soldier's situation and the data put into the Enlisted Master File (EMF) by the local MILPO.

Q. I am currently on orders. Can this assignment be changed?

A. Assignment instructions cannot be changed by a telephone request from a soldier or his chain of command. The soldier should report to his company first sergeant for assistance in obtaining information from the battalion PAC on early arrival, deletion, deferment, or change of assignment.

Q. I am currently eligible for reenlistment. Can Infantry Branch put me in a particular assignment so I can reenlist for it?

A. A soldier should report to his company reenlistment NCO for information on which assignments he is eligible to reenlist for. The reenlistment NCO can obtain the same requisitions through the RETAIN Hotline that Infantry Branch uses to assign soldiers worldwide, and can usually obtain them faster.

Q. Can I put myself on levy for overseas?

A. Soldiers will not be placed on overseas levy as the result of a telephone request from the soldier or his chain of command. The soldier should report to his company first sergeant for assistance in obtaining information on how to volunteer for overseas assignment.

Infantry Branch welcomes calls

from soldiers who are having problems in obtaining information. But we urge them to try to use the chain of command in obtaining information. The company first sergeant is the best starting point for any personnel action.

CSS MOSSs NEEDED IN RANGER UNITS

Ranger units need soldiers in combat service support (CSS) MOSSs 29E, 29S, 31V, 54E, 63B, 63W, 76C, 76Y, 76Z, and 94B. The need is particularly great for unit supply specialists, MOS 76Y.

Soldiers who are interested in volunteering for Ranger training and assignment should contact their personnel noncommissioned officers or write to Ranger Career Advisor, U.S. Total Army Personnel Agency, ATTN: DAPC-EPK-1, 2461 Eisenhower Avenue, Alexandria, VA 22331, or call AUTOVON 221-5494 or commercial (202) 325-5494.

SOLDIER SUPPORT CENTER HOTLINE

To serve the Army better, the Soldier Support Center needs the input of soldiers and civilian employees.

The 24-hour-a-day hotline allows people to voice concerns and make recommendations on equipment, doctrine, training, organizational development, and other topics for which the Center has proponent responsibilities.

The hotline number is 699-4962. Callers should speak slowly and give name, rank, organization, and AUTOVON number so the Soldier Support Center can get in touch with them. The goal is to answer questions within five working days, or provide an interim response until a final reply is available.

For any problems with the hotline, contact Captain Csontos or Mrs. Gordon at AUTOVON 699-3837/4858.

OFFICERS CAREER NOTES



CAPTAINS' ASSIGNMENTS AWAY FROM TROOPS

Infantry captains are considered "branch qualified" upon completion of 12 months TOE time, graduation from an advanced course, and successful completion of 12 months as a company commander. The branch qualification process is normally completed during an officer's second assignment.

Following a successful company command tour, Infantry officers should expect an assignment "away from troops." This is due mainly to the large number of Army requirements that exist outside the infantry; further, it provides for professional development by providing infantry officers a wider perspective of the Army. Additionally, officers need to get away from troops at this point in order to enhance their prospects of being assigned to troops as majors.

"Away from troops" includes various types of assignment. Recruiting, ROTC, and Readiness Group advisor assignments are critical to future Army Readiness, and only top quality officers are selected for these positions. Other assignments considered "away from troops" include functional area assignments, observer controller positions at the National Training Center (NTC) and the Joint Readiness Training Center (JRTC), service school and U.S. Military Academy instructor positions, and participation in the advanced civil schooling program.

In general, officers who hold a "hard skill" functional area that requires extensive training, will be assigned to that functional area. "Hard skill" functional areas include FA 48 (Foreign Area Officer), FA 49 (Operation Research/Systems Analysis), FA 51 (Research and Development), FA 52 (Nuclear Weapons), FA

53 (Systems Automation), and FA 97 (Procurement).

Officers should understand that the remaining "away from troops" assignments are extremely competitive. Normally, each assignment requires an officer to have specific qualifications and experiences. For example, an officer must have commanded a mechanized infantry company before serving as an observer controller at the NTC or a light infantry company before serving at the JRTC.

For more information, including specific requirements for various assignments, branch qualified Infantry captains should contact Captain Tom Schoenbeck, Captain Vince Brooks, or Captain Steve Barclay at AUTOVON 221-5520 or commercial (202) 325-5520.

ROTC PMS DUTY

Lieutenant colonels with masters' degrees or doctorates who are

interested in becoming ROTC professors of military science (PMSs) should contact Infantry Branch.

Files will be reviewed by an ROTC selection board in November 1988; selected officers will be slated for PMS duty during the period July-September 1989. Files must contain photos, ORBs, performance microfiche, and transcripts.

Interested officers should call Major Rob Johnson, AUTOVON 221-7823 or commercial (202) 325-7823.

DEGREE COMPLETION PROGRAM (DCP)

The degree completion program exists to enable officers to pursue baccalaureate degrees on a full-time basis, thus freeing them to concentrate on their responsibilities while assigned to troop duty. The regulation governing this program and the application procedures is AR 621-1, Chapter 5, Training of Military Personnel at

INFANTRY BRANCH POINTS OF CONTACT

ASSIGNMENT AREAS	NAMES	TELEPHONE (AUTOVON)*
Branch Chief	LTC Hook	221-7823/5510/0207
LTCs, SSC/Functional Areas	MAJ Axson	221-7823/5510
LTCs, Command/11	MAJ Smith	221-7823/5510
LTCs, ROTC/54/Joint Duty	MAJ Johnson	221-7823/5510
MAJs, 11	CPT North	221-5511/5517
MAJs, Functional Areas	CPT Cornwell	221-5511/5517
CPTs, Advanced Course/ Command/Ranger	CPT Oates	221-0207
CPTs, Branch Qualified	CPT Schoenbeck	221-5520
	CPT Barclay	221-5520
	CPT Brooks	221-5520
	CPT Kirsch	221-5520
LTs, Accessions/Basic Course/ Ranger	CPT Rush	221-0207
Infantry Branch Representative, USAIS, Fort Benning, Georgia	CPT Bunting	835-3611/3714

*For commercial calls, use area code 202 and prefix 325 (instead of 221) for Infantry Branch; area code 404 and the prefix 545 for Fort Benning.

Mailing address for Infantry Branch: HQ, TAPA, ATTN: DAPC-OPE-1, 200 Stovall Street, Alexandria, VA 22332-0414.

Civilian Institutions.

The Army budget has affected permanent change of station (PCS) funds and stabilization policies. Consequently, Infantry Branch looks closely at all DCP requests in order to allow as many deserving officers as possible to benefit from the program. There is still a degree of flexibility in using the program. Officers must be smart about their requests, however, and the following comments should be useful:

- Infantry Branch encourages officers to attend DCP before an advanced course, if possible.

- The civilian university must be within 50 miles of an Army installation to preclude an additional PCS move for the next assignment.

- An officer's program may be scheduled in four possible ways:

- He completes his troop tour (at least 36 months) and attends DCP at a university near his present installation, then makes a PCS move to attend the advanced course.

- He moves to an advanced course location (Fort Benning, Georgia; Fort Knox, Kentucky; Fort Bliss, Texas; Fort Rucker, Alabama; or Fort Sill, Oklahoma). There he attends a university in the immediate area and upon completion of DCP attends the advanced course.

- He moves to an advanced course location, attends the course, and then attends a local university for DCP.

- He makes a PCS move to the advanced course. Upon completion,

he makes another PCS to his next duty station and attends DCP in the vicinity of the new duty station.

- An officer may not "pay his own way" to a university that is not near an installation.

- An officer must complete his degree within 18 months or receive an adverse Academic Efficiency Report.

Questions concerning this program should be addressed to TAPA, ATTN: DAPC-OPE-P (Mrs. Whalen), or telephoned to Captain Michael Oates, AUTOVON 221-0207.

PSYOPS/CIVIL AFFAIRS

The Army is still looking for active-duty officers to fill its newest functional area-- Psychological Operations and Civil Affairs. These fields were previously part of the Special Operations Functional Area 18. FA 18 became the designation for Special Forces branch when it was activated last year.

Now FA 39, the new functional area will provide officers in these two areas of concentration with formal career programs that will improve their professional development and command position management.

Psychological operations are designed to affect the attitudes and influence the behavior of specific groups of people. These officers study social sciences, psychological operations planning and techniques, and target research and analysis.

Civil affairs operations are designed

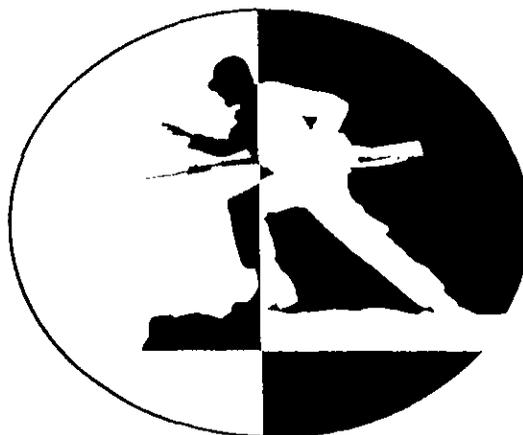
to improve relationships between military and civil authorities and the local population of an area in which military forces are operating.

Both groups of officers are trained in the customs, culture, and language of the regions to which they are assigned. The training and professional development program for FA 39 includes language training, in-depth regional studies, and a six-week functional course. Some officers may also have a chance to pursue graduate degrees.

The new field has command opportunities in both areas for captains, majors, lieutenant colonels, and colonels. There are positions on division and corps staffs and also joint assignments at the field grade level.

A large portion of the Army's psychological operations and civil affairs units and experience are in the Reserve Components. (While Reserve Component civil affairs officers have their own branch, Reserve Component psychological operations officers will become part of FA 39.)

For more information, anyone who is interested may call Major Robert B. Adolph, U.S. Army JFK Special Warfare Center Special Operations Proponency Office--AUTOVON 239-9002/5559, commercial (919) 432-9002/5559; or Captain Gary R. Harter, Psychological Operations and Civil Affairs assignments manager at TAPA--AUTOVON 221-3119, commercial (202) 325-3119.



BOOK REVIEWS



The Osprey Publishing Company of London continues to send us copies of its various uniform books. Among the latest ones we have received are these:

- **THE BRITISH ARMY IN THE 1980s.** Text and color plates by Mike Chappell. Elite Series 14. 1988. 64 Pages, Softbound.

- **NATO ARMIES TODAY.** Text by Nigel Thomas, color plates by Ron Volstad. Elite Series 16. 1988. 64 Pages, Softbound.

- **ARAB ARMIES OF THE MIDDLE EAST WARS (2).** Text by Samuel M. Katz, color plates by Ron Volstad. Men-at-Arms Series 194. 1988. 48 Pages, Softbound.

- **HUNGARY AND THE FALL OF EASTERN EUROPE, 1000-1568.** Text by David Nicolle, color plates by Angus McBride. Men-at-Arms Series 195. 1988. 48 Pages, Softbound.

- **THE ROYAL CANADIAN MOUNTED POLICE, 1873-1987.** Text by David Ross and Robin May, color plates by Richard Hook. Men-at-Arms Series 197. 1988. 48 Pages, Softbound.

- **THE BRITISH ARMY ON CAMPAIGN, 1816-1902 (3).** Text by Michael Barthorp, color plates by Pierre Turner. Men-at-Arms Series 198. 1988. 48 Pages, Softbound.

Here are a number of other books we want you to know about:

- **THE PARAMETERS OF WAR: MILITARY HISTORY FROM THE JOURNAL OF THE U.S. ARMY WAR COLLEGE.** Edited by Lloyd J. Matthews and Dale E. Brown. Pergamon-Brassey's, 1987. 301 Pages. Softbound. This is a fine collection of military history essays culled from the pages of *Parameters*, the Army War College's professional bulletin. The 22 essays are divided into five broad categories—military history (the nature and practice of the

craft), great battles, aspects of the great captains, civil-military relations, and history as a prelude to doctrine.

- **1988 WEAPON SYSTEMS, UNITED STATES ARMY.** USGPO S/N 008-020-01131-2. 149 Pages. \$9.00, Softbound. This is the latest version of an annual publication that highlights the weapon systems and other equipment that are products of the Army's research, development, and acquisition program. It is an excellent reference publication.

- **GUIDE TO MODERN DEFENSE AND STRATEGY.** By David Robertson. Gale, 1987. 324 Pages. \$65.00. First published in England as *A Dictionary of Modern Defence and Strategy*, this book is just that—a dictionary of terms. But the author has fleshed out each term with an essay of average length of 350 words—including one on "Infantry"—and provides in each essay considerable cross-referencing and the inclusion of related concepts.

- **NORTH VIETNAMESE ARMY/VIET CONG UNIFORMS AND FIELD EQUIPMENT, 1965-1975.** By Dennis C. Katallo and Allen J. Bending. MILTEC Enterprises (900 Rohlwing Road, Addison, IL 60101), 1988. 60 Pages. \$12.00, Softbound. This is the first in a planned series designed for collectors and researchers. Items are listed, with photographs of each, under such general headings as headgear, small arms, footwear, and field equipment. The authors have included a NVA/VC regimental order of battle, a bibliography, and the names and addresses of militaria dealers.

- **THE WORLD SINCE 1945.** By T. E. Vadney. Facts on File, 1987. 576 Pages. \$29.95. This is a survey of recent global history in which the author selects particular happenings as examples of more general trends and

then explores those cases in some detail. He highlights political events and occasionally goes back past 1945 to provide necessary background for the events he discusses.

- **HANDBOOKS TO THE MODERN WORLD: THE MIDDLE EAST.** Edited by Michael Adams. Revised and Updated version of the 1971 Edition. Facts on File, 1987. 865 Pages. \$45.00. This volume examines the general background of the Middle East and then covers each country in the region twice—in a factual, statistical overview and in a detailed, analytical article. Separate sections concentrate on political affairs, economic issues, and social problems.

- **TANK VERSUS TANK: THE ILLUSTRATED STORY OF ARMORED BATTLEFIELD CONFLICT IN THE 20TH CENTURY.** By Kenneth Macksey. Salem House, 1988. 192 Pages. \$24.95. The author is a retired British Army armor officer who has published a number of other books on armored warfare. In this book, he again traces the development of the tank and its weaponry and the part it has played in the various wars of this century. In a concluding chapter, he suggests a possible tank versus tank engagement in the 1990s. He believes that the tank has "an assured future" and that "no equally satisfactory means has been found to dominate combat by terror and by immense striking power high mobility and a reasonable level of protection in one, albeit very expensive, vehicle."

- **FIREPOWER: A HISTORY OF THE AMERICAN HEAVY TANK** By R. P. Hunnicutt. Presidio Press 1988. 224 Pages. \$40.00. In this book, the author traces the development of the U.S. heavy tank from the Mark VIII through the M103A

Only one Army battalion stationed overseas (originally the 899th Tank Battalion, later the 2d Heavy Tank Battalion, 33d Armor) ever received the heavy tank—in early 1958 it was issued the 120mm gun tank M103. Interestingly enough, the U.S. Marine Corps was the principal user of the M103 tank series, which was the only heavy tank ever standardized by the U.S. for troop service. The author also includes the many proposals and experimental vehicles that were never accepted for further development and production, and gives the details of the most important vehicles and their weapons.

Now here are some of our longer reviews:

THE U.S. ARMY WAR COLLEGE GUIDE TO THE BATTLE OF GETTYSBURG. Edited by Doctor Jay Luvaas and Colonel Harold W. Nelson (South Mountain Press, 1986. 240 Pages. \$18.95).

THE U.S. ARMY WAR COLLEGE GUIDE TO THE BATTLE OF ANTIETAM: THE MARYLAND CAMPAIGN OF 1862. Edited by Doctor Jay Luvaas and Colonel Harold W. Nelson (South Mountain Press, 1987. 310 Pages. \$21.95). Both books reviewed by Major Don Rightmyer, United States Air Force.

There are a variety of ways to read, enjoy, and benefit from our Civil War military history. One of the best ways is to grab some walking shoes and head for the actual battlefields where soldiers from the North and the South struggled, fought, bled, and died. Today, many of our national battlefields, all manned by knowledgeable staff members, are geared to assist a visitor in his battlefield wanderings.

If you do decide to visit any of the Civil War battlefields, you should take with you an authoritative battlefield guide, similar to one of the guides mentioned in this review. These guides, the first two in a planned Army War College series, are excellent tools for understanding these two hard-fought Civil War battles.

The editors use first-hand accounts of the men who fought in the battles as well as battle reports from the offi-

cial series of Civil War records. The battle descriptions are clearly arranged and organized along with specific instructions on how and where to walk or drive to get the most from a particular area. Several excellent maps and period photographs are also included.

But even if a reader of these books never sets foot on one or the other of the battlefields, he will benefit from simply reading them.

AUSTRALIA'S WAR IN VIETNAM. By Frank Frost (Allen and Unwin, 1987. 211 Pages. \$34.95). Reviewed by Doctor Joe P. Dunn, Converse College.

Australia sent forces to Vietnam to extend diplomatic and political support to the United States and the Republic of Vietnam and to demonstrate that Australia considered the conflict an important one. Based at Nui Dat in Phuoc Tuy Province, some 47,000 Australians served between 1966 and 1971, with a peak commitment of 8,300. The Australians and New Zealanders, who served together in joint units, were the only U.S. allies who were not financially supported by the Americans.

Although the Australian task force conducted many proficient military operations, it experienced great difficulties in working with local RVN forces, and in combatting the NLF infrastructure in the province. It was a trying and difficult experience for the men of the task force.

Some previous work has been done on the Australian effort, but this is the most detailed, systematic study available. The author used Australian and U.S. records as well as extensive interviews in this well-researched volume, which was originally his doctoral thesis completed in 1976. Although the writing is a bit dry and reads like government-sponsored official history, it is a most useful addition to the literature on the Vietnam war and our larger understanding of the trials of allied cooperation.

THE ARMY AND VIETNAM. By Andrew F. Krepinevich, Jr. (The Johns Hopkins University Press, 1986. 318 Pages.) Reviewed by Captain Michael E. Long, United States Army.

When he wrote this book, the author was a serving U.S. Army officer teaching national security affairs at the Military Academy. The book itself raised quite a few eyebrows, for it was, and is, a controversial work.

The author argues, for example, that the Army and the entire U.S. military structure were trapped in a peculiar sort of mindset—"more bombs, guns, and troops could eventually lead to victory." Unfortunately, the Army, oriented as it was at the time to mid-intensity warfare, could not readily adjust to the demands of counterinsurgency, jungle warfare, and firepower restraints.

The arguments the author has marshalled are presented in ten well-reasoned and well-documented chapters. Overall, it was the pervasive thought of fighting a conventional war on the part of the higher level commanders that led to many of the difficulties the U.S. military forces encountered in Vietnam. Perhaps the most convincing support of the author's theses can be found in General Omar Bradley's statement: "Vietnam was the wrong war—at the wrong place, at the wrong time, with the wrong Army."

Hopefully, we will not repeat the mistakes we made in Vietnam. With that in mind, this book is highly recommended for all Army officers and military historians.

FROM OSS TO GREEN BERET: THE BIRTH OF SPECIAL FORCES. By Aaron Bank (Presidio Press, 1986. 236 Pages. \$16.95). Reviewed by Captain F. R. Hayse, United States Army.

On 19 June 1952, the 10th Special Forces Group was activated at Fort Bragg, North Carolina. This was the first SF group to be activated and, appropriately, its first commander was

also the man who was largely responsible for its inception—Colonel Aaron Bank.

An OSS operative both in southern France and in Indochina during World War II, Colonel Bank's experiences with guerrilla forces were to prove pivotal in convincing the U.S. Joint Chiefs of Staff that a Special Forces unit was both feasible and necessary, and that it should be an Army unit.

The book is easy to read and fills a general gap in our knowledge concerning how the U.S. Army tried to learn from its World War II and Korean War experiences with "elite" units—their organization, missions, and command and control—and to use those lessons to meet future Army needs.

With the current emphasis on special operations and the expansion of Special Forces, books like this one are needed to ensure that we understand how we got where we are today so that we can plan where we want to go tomorrow. It makes particularly excellent reading for the Special Forces community.

ON THE MEANING OF VICTORY: ESSAYS ON STRATEGY. By Edward N. Luttwak (Simon and Schuster, 1986. 315 Pages. \$18.95). Reviewed by Lieutenant Colonel John C. Spence III, United States Army Reserve.

Edward Luttwak, in this book, has made another thoughtful contribution to the current debate over reform of the U.S. military establishment. In reality, it is a collection of his essays previously published in such journals of opinion as *Commentary* and *The New Republic*.

Luttwak constantly stresses the need to recognize the Soviet Union for what it is: a world power that is not hesitant to use military force to further its geopolitical goals. Consequently, he argues that the United States cannot disregard the role of military force in the contemporary world.

Although the various essays were written over a period of time, many of the conclusions Luttwak reaches seem

as valid today as when they were first written. Not all of his criticisms of the U.S. military services are necessarily valid, however. For example, he argues for curriculum reform at West Point and at the U.S. Air Force Academy without offering any supporting evidence.

But taken as a whole, this is a worthwhile collection of essays that should be read by professional soldiers as well as private citizens who are concerned about the future of our country.

GALLIPOLI, 1915: PENS, PENCILS, AND CAMERAS AT WAR. By Peter H. Liddle (Pergamon-Brassey's, 1985. \$16.95). Reviewed by Captain Harold E. Raugh, Jr., United States Army.

The year 1985 marked the 70th anniversary of the ill-fated Gallipoli campaign of World War I, an event that has been indelibly etched into British and Commonwealth history and memory, and one that refuses to fade from the national conscience. To be sure, as the author puts it, about Gallipoli "there will always hang an aura of very special human endeavour in most extraordinary, pitiful and tragic circumstances."

This lavishly illustrated, enthralling book is a collection of photographs, diary and letter excerpts, and sketches from participants in this ignominious venture of the Mediterranean Expeditionary Force. Many of the items in this book have never before been published, and they portray and relate the human facets of war that should be studied by all aspiring leaders.

This story of a mighty military undertaking, told in the words and pictures of those who were there, is highly recommended to all, especially enthusiasts of World War I.

RECENT AND RECOMMENDED WAR MEMORIALS AS POLITICAL LANDSCAPE: THE AMERICAN EXPERIENCE AND BEYOND. By James M. Mayo. Praeger, 1988. 320 Pages. \$42.95.

MESSERSCHMITTS OVER SICILY. By Johannes Steinhoff. The Nautical and Aviation Publishing Company of America,

1987. Originally published in German in 1969. 270 Pages. \$19.95.

LET THE DRUMS BEAT: A HISTORY OF THE DETROIT LIGHT GUARD. By Stanley D. Solvick. Wayne State University Press, 1988. 174 Pages. \$25.00.

A NEW EXCALIBUR: THE DEVELOPMENT OF THE TANK, 1909-1939. By A.J. Smithers. Hippocrene Books, 1987. 262 Pages. \$29.95.

TACTICS: A SOVIET VIEW. Editor: V.G. Reznichenko. Moscow, 1984. Translated and published under the auspices of the U.S. Air Force. *Soviet Military Thought Series Number 21.* USGPO, 1987. S/N 008-070-00589-1. 250 Pages. \$7.00, Paperbound.

ARCHAEOLOGICAL INSIGHTS INTO THE CUSTER BATTLE: AN ASSESSMENT OF THE 1984 FIELD SEASON. By Douglas D. Scott and Richard A. Fox, Jr., with a contribution by Dick Harmon. University of Oklahoma Press, 1987. 146 Pages. \$9.95, Softbound.

THE INITIAL PERIOD OF WAR—A SOVIET VIEW. By S.P. Ivanov. Translated and published under the auspices of the U.S. Air Force. U.S. Government Printing Office, 1986. Reprint of the 1974 Edition. S/N 008-070-00573-S. 320 Pages. \$9.50, Softbound.

DOCTRINE, THE ALLIANCE, AND ARMS CONTROL. Edited by Robert O'Neill. Shoe String Press, 1987. 232 Pages. \$29.50.

THE MILITARY IN AFRICAN POLITICS. Edited by John W. Harbeson. Praeger, 1987. 208 Pages. \$35.95.

THE LATIN AMERICAN MILITARY INSTITUTION. Edited by Robert Wesson. Praeger, 1986. 237 Pages. \$37.95.

VOICES OF COMBAT: A CENTURY OF LIBERTY AND WAR SONGS, 1765-1865. By Kent A. Bowman. Greenwood, 1987. 172 Pages. \$39.95.

UNITED STATES AIRBORNE FORCES, 1940-1986. By Leroy Thompson. Blandford War Photo-Files. Sterling, 1986. 219 Pages. \$9.95, Softbound.

BRITISH BATTLE INSIGNIA (2), 1939-1945. By Mike Chappell. *Men-at-Arms Series Number 187.* Osprey, 1987. 48 Pages. \$7.95, Softbound.

THE RUSSIAN ARMY OF THE NAPOLEONIC WARS (1): INFANTRY, 1799-1814. By Philip Haythornthwaite. *Color Plates by Paul Hannon.* *Men-at-Arms Series Number 185.* Osprey, 1987. 48 Pages. \$7.95, Softbound.

THE APACHES. By Jason Hook. *Color Plates by Richard Hook.* *Men-at-Arms Series Number 186.* Osprey, 1987. 48 Pages. \$7.95, Softbound.

POLISH ARMIES, 1569-1696 (1). By Richard Brzezinski. *Plates by Angus McBride.* *Men-at-Arms Series Number 184.* Osprey, 1987. 48 Pages. \$7.95, Softbound.

SELLING THE ROPE TO HANG CAPITALISM: THE DEBATE ON WEST-EAST TRADE AND TECHNOLOGY TRANSFER. Edited by Charles M. Perry and Robert L. Pfaltzgraff, Jr. Pergamon-Brassey's, 1987. 246 Pages. \$30.00.

From The Editor

WRITING FOR PUBLICATION

In our March-April 1988 bulletin we offered some tips on writing for INFANTRY. Here are a few more:

- We prefer clear, correct, concise, and consistent wording expressed in the active voice to flowery prose or military jargon. Most of the manuscripts we receive can be improved and shortened by cutting out meaningless and repetitious words and phrases. Be your own copy editor and improve your chances of having your article accepted.

- We edit all manuscripts as needed to conform to our style and standards of expression, and we often change titles. If you do not want us to edit your manuscript, do not send it to us, because we will not be able to accept it for publication.

- Our fully developed main articles are usually between 2,000 and 3,500 words long, but these are not rigid guidelines. Most of our articles are much shorter, and we use those in the Professional Forum and Training Notes sections. If you have only a short comment, suggestion, or training idea, it may fit best in the Letters to the Editor section or as a Swap Shop item.

- Above all else, do not "shotgun" a manuscript—that is, do not send it to more than one publication at a time. For many reasons, this is not an acceptable practice in the writing business. Some authors, unfortunately, feel that if they change a few words in a manuscript they are then justified in sending that "revised" version to other publications. This borders on the unethical.

- Finally, INFANTRY is not copyrighted. Individual authors may protect their works only by special arrangement.

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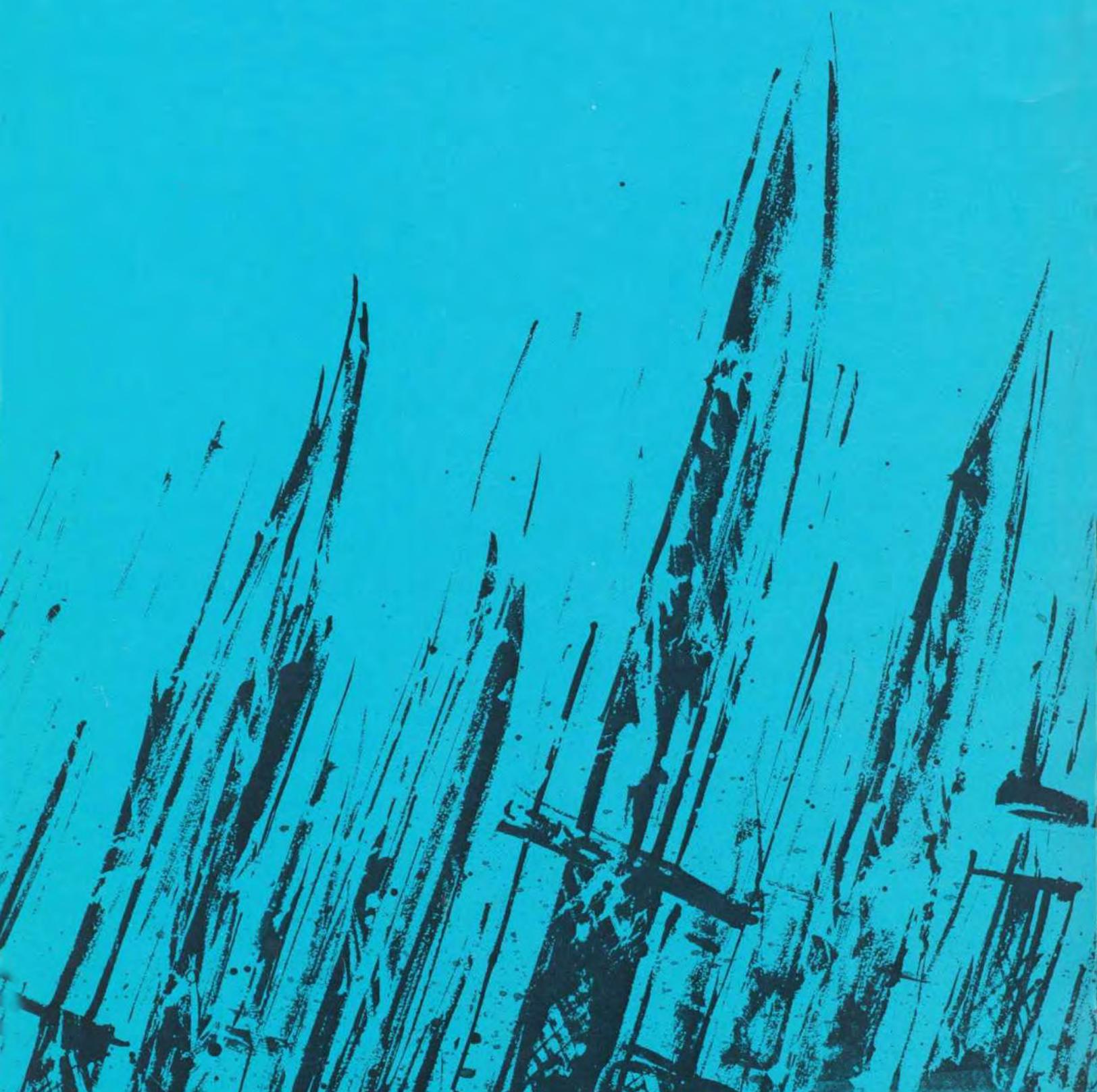
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